

Transport for London



CYCLE SAFETY ACTION PLAN

MAYOR OF LONDON

Transport for London



Contents

Foreword by Kulveer Ranger	3
Executive Summary	4
Chapter 1: Cycle safety – the ambition	8
Chapter 2: Evidence review	11
2.1: Trends	11
2.2: Who, where and when	12
2.3: Types of conflict - focus for the Action Plan	16
Chapter 3: Actions	21
3.1: Safer infrastructure	21
3.2: Training and information	23
3.3: Communication	26
3.4: Enforcement	30
3.5: Regulation	31
3.6: Technology	32
3.7: Commercial driving and working practices	33
3.8: Research and monitoring	36
3.9: Partnership working	37
Chapter 4: Next steps	40
Chapter 5: Appendices	41
Appendix 1: Supporting organisations and Cycle Safety Working Group	
Appendix 2: Types of conflict	
Appendix 3: Casualty and cycling rates	
Appendix 4: How the conflict types are being addressed.	



Foreword by Kulveer Ranger

The Mayor has called for a revolution to occur in the way we travel around London and for it to be of the cleanest and greenest kind. That is why his team in City Hall, TfL and a myriad of organisations are working so hard to deliver plans that will enable London to become the biggest and best cycling city in the world.

This is no mean challenge but, as well as an unprecedented investment in the delivery of innovative cycling schemes like cycle hire and cycle superhighways, we must make sure that every person who gets on a bicycle feels and most importantly is as safe as possible.

Safety is right at the forefront of our revolution and the Mayor's Cycle Safety Action Plan sits at the heart of everything we are doing. It has a clear aim of identifying the challenges to improving cycle safety, analysing how best they can be addressed and describing the actions that will be carried out to improve cyclists' safety.

At the same time we should make it clear that cycling in the capital is

getting safer; and that this is being accompanied by ever increasing numbers of people taking to two wheels. We want those trends to continue because that is what a cycling revolution should be about and it is what this Action Plan aims to deliver.

2010 is London's year of cycling and the wheels are now well and truly in motion. What the Mayor, I and every cyclist or potential cyclist wants to make sure of is that cycling in our great city is fun, accessible and safe for everyone.



Kulveer Ranger

**Mayor of London's Transport
Advisor**

Executive Summary

Cycling levels in London have increased sharply in recent years while the rate of casualties has declined. This Action Plan will build on this positive trend to ensure that London's cycle revolution is backed by real action to make cycling in the capital safer.

A draft Cycle Safety Action Plan was published last October and received over 400 responses from the public and stakeholders. These comments were valuable in helping to strengthen the final Action Plan. In addition, a Cycle Safety Working Group was established (see Appendix I), which played a crucial role in steering the Plan to finalisation and will help oversee its implementation.

Additional analysis was undertaken by the Cycle Safety Working Group. This identified the key types of collision that are most likely to result in cyclists being killed or seriously injured. The Plan has also been strengthened by information as to whom, and where and when these collisions take place.

The evidence review highlighted in particular, the need to take action to reduce the number of cyclists killed and injured in collisions with goods vehicles. It also drew attention to the serious problem of collisions between cyclists and other vehicles in what are termed 'close proximity' collisions. These are characterised by cyclists and other road users failing to give each other adequate road space. Altogether, eight key types of collision were identified and these have shaped the actions prioritised in this Plan.

The Plan will be taken forward by Transport for London (TfL) and our partners to reduce cycling casualties on London's roads. There are nine different areas for action summarised below, which cut across the eight collision types.

- 1) To deliver **safer infrastructure** for cyclists in future:
 - TfL is committed to working to ensure that *all* new road infrastructure contributes to improved cyclist safety;
 - Twelve Cycle Superhighways are planned which aim to deliver improved infrastructure for cycling and which will include trialling new safety features, such as Trixi mirrors.
- 2) **Training and information** will play a central role and will include:

- Continuing to help London boroughs fund cycle training and to work with them to continually improve the effectiveness and quality of training;
- Boosting training provision through additional funding in advance of the launch of the Cycle Hire Scheme and Cycle Superhighways;
- Delivering a series of ‘led rides’ across London to build confidence for novice cyclists;
- Training events, such as Exchanging Places, where cyclists can learn more about safer cycling with goods vehicles.

3) **Communication** of cycling safety messages to all road users is a crucial strand of future activity and includes:

- A high profile cycle safety marketing campaign in cinemas and on prime-time TV to raise awareness of the need for motorists to look out for cyclists is being launched to accompany the Plan;
- A future major awareness-raising campaign targeted at improving safety for cyclists and goods vehicles;
- Research into the potential for a ‘cycling safety code of conduct’ to deliver key safety messages simply and effectively.

4) **Enforcement** against irresponsible road user behaviour will include:

- The Metropolitan Police Service, with Traffic Operational Command Unit (OCU) taking the lead, undertaking targeted enforcement against careless and dangerous road user behaviour;
- Working with the London Criminal Justice Board to review ‘Killed and Seriously Injured’ (KSI) collisions with a view to strengthening criminal justice arrangements for dealing with such cases;
- Discussing with the Metropolitan Police Service (MPS) and cyclist organisations the most effective way of ensuring cyclists observe junction controls.

5) **Improved regulation** can contribute to improving safety. Action will include:

- Exploring different approaches to governance, roles, responsibilities and principles affecting the management of cycling related risk, that are employed across Europe;

- Desk top research to inform a decision on whether to pilot allowing cyclists to turn left at red traffic lights (which would require primary legislation).
- 6) Improved **vehicle technology** can also play a role and we will:
- Work with the freight industry as a matter of urgency to identify the most appropriate and cost effective safety devices for goods vehicles;
 - Distribute Fresnel mirrors to fleet operators through TfL's Freight Operator Recognition Scheme as a means of improving visibility of cyclists for goods vehicle drivers.
- 7) Action to address **commercial driving and working practices** includes:
- Working with the freight industry to avoid deliveries at peak times, especially on roads with high cycle flows (e.g. Cycle Superhighways);
 - Increasing the uptake of cyclist awareness training by fleet drivers;
 - Using procurement processes to help achieve the highest standards of safety for freight vehicles and driver training.
- 8) Action to improve **research and monitoring** will include:
- Researching the attitudes and behaviours of cyclists and HGV drivers when it comes to road safety;
 - Continuing to survey and address the perceived risks associated with cycling.
- 9) Further improvements to cycling safety in London will be delivered through continued **partnership working**. Action includes:
- Working with the groups involved in the Cycle Safety Working Group, many of which can directly engage their members to inform them on cycle safety.
 - Developing new alliances with cycle manufacturers and retailers to capture opportunities for these groups to disseminate safety messages to cyclists and to direct new cyclists towards training at the very outset of purchasing a bike.

By directly targeting actions at the causes of collisions, this Plan should address the majority of situations in which collisions occur. We believe that it will make a positive and lasting contribution to reducing the number of cyclists killed and injured on London's roads in future. We are committed to driving forward the actions identified in the Plan, and working with partner organisations and key stakeholder groups across London to ensure we deliver effectively in all areas.

Chapter 1: Cycle safety – the ambition

The safety of cycling is a major cause of public concern and is the reason most often given by non-cyclists to explain why they do not intend to take up cycling (27%)¹. Less than a half of Londoners (46%) agree with the statement that ‘Cycling is a safe way of getting about’ and 86% of all Londoners believe that traffic makes people afraid of cycling. Safety is an issue even amongst those who already cycle, with 10% of current cyclists stating that they did not ride more in 2009 than 2008 because of their concerns about safety. One of the most effective strategies to increase the safety of cycling may be to encourage more cycling and more cyclists.

Ensuring that cycling is seen as a safe and attractive travel option will be crucial to achieving the Mayor’s vision for London to be a ‘cyclised’ city. Actions to improve the public perception of the safety of cycling, in line with the sharp fall in the actual risk of getting injured when cycling in London are therefore included in this Plan.

Cycle casualty rates have fluctuated over the last two decades but the general trend has been downward. The substantial increase in the number of cycle trips that has occurred has been accompanied by a comparatively small increase in cycling casualties. As such, the relative risk of cycling per trip is actually falling and cycling is getting safer.

The aim of this Action Plan is to drive forward this positive trend.

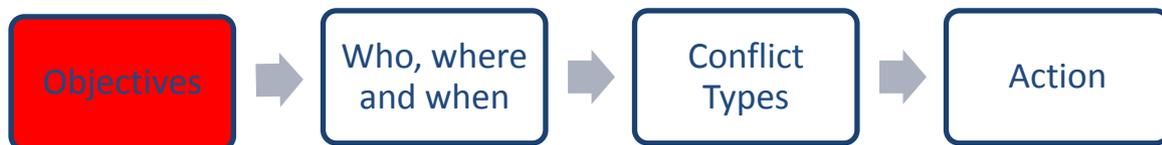
The current target in London is to reduce the number of cyclists killed or seriously injured (KSI) in London by 50% by the end of 2010 compared to the 1994-98 average. New targets for reducing the number of cyclists killed or seriously injured beyond 2010 will be set later this year in the context of the revised Mayor’s Transport Strategy and emerging national Government targets on road safety.

¹ Cycling Attitudes Report 2009

The objectives in this Plan are:

- To ensure the future growth in cycling in London is accompanied by a reduced rate of cycling casualties;
- To increase the perception that cycling is a safe and attractive transport option;
- To make progress towards achieving the existing and future targets for reducing cyclists killed or seriously injured;
- To ensure London continues to be a world leader in developing effective cycling safety improvements underpinned by analysis and a sound understanding of the cause of collisions.

To achieve these objectives demands a good understanding of how and why cyclists are injured and killed in collisions. The Action Plan is therefore based on an evidence review which identified who is most at risk, and where and when the conflicts are most likely to occur. These insights informed the development of nine areas of action to be implemented by TfL and our partners.



This Action Plan has been developed in consultation with the public and in partnership with a range of stakeholders² who have helpfully identified ways in which cyclists' safety can be improved in London. Moving forward, success will depend upon action by many: the Metropolitan Police Service (MPS); London Boroughs; TfL; the freight industry; London drivers and road user groups and the cycling community.

² See Appendix 1 for full list of members of CSWG

Skyride – Cycle day in London



Chapter 2: Evidence review

2.1: Trends

Casualty rates are falling while the number of people cycling is rising. However, collisions involving cyclists and injuries to cyclists are still one of the most serious challenges to road safety in the Capital. In 2008, 15 cyclists were killed, 430 were seriously injured and a further 2,757 cyclists sustained slight injuries while cycling on London's roads. In 2009 there were 13 fatalities, there were also 398 serious injuries and 2,998 slight injuries in the period from January to November 2009³.

Cycling trends

About half a million cycle journeys are made in London every day and around a million Londoners consider themselves 'cyclists'. Research suggests that much of the sharp growth in cycling since 2000 is due to infrequent cyclists becoming regular cyclists.

While cycling on London's major roads increased by over 100% between 2000 and 2008, achieving the Mayor's aspiration for a 400% growth in cycling journeys by 2026 will require a significant increase in both the number of cyclists in London, and the number of journeys taking place. The popularity of cycling will need to extend to new parts of the Capital, and to a new audience.

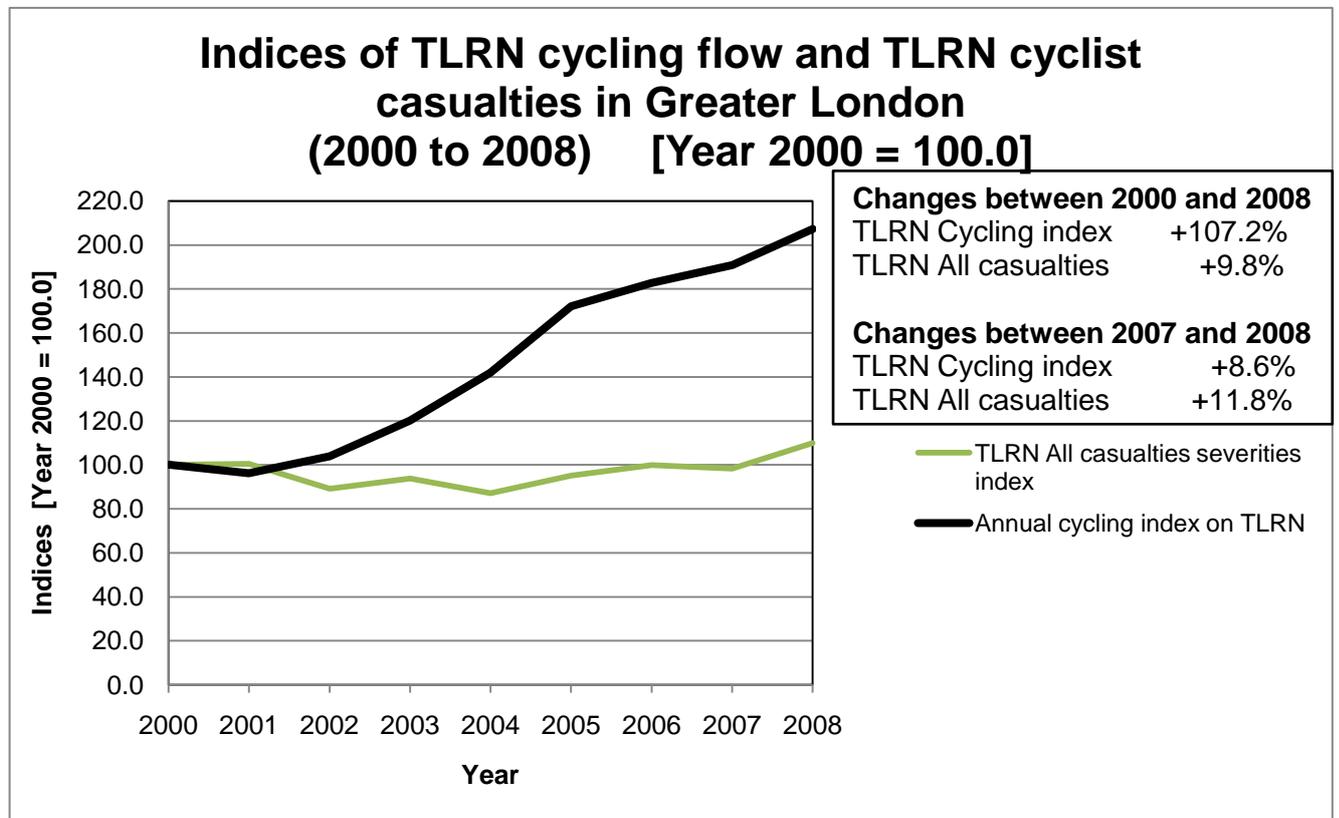
Casualty trends

Between 1986 and 2007 there was an overall decrease of 27% for all types of cycling casualties, with fatalities falling by 17%, serious injuries by 29%, and slight injuries by 27%. The level of cycling was relatively static for much of this time period, but significant growth occurred from 2003 onwards. This increase in the number of cycle journeys was accompanied by only a small increase in cycling casualties (see Table 1 of TLRN data for 2000-2008). As such, the

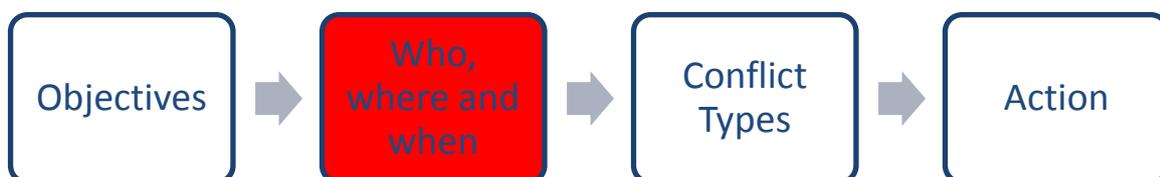
³ Injury data for December 2009 was not available when this Plan was published

relative risk of cycling per individual journey is falling.

Table 1



2.2: Who, where and when



The review conducted for this Plan drew on the personal injury road traffic collisions data (2007), supplemented by 2008 data where available. This is the most comprehensive recent source of data and is considered broadly representative of cycling casualties over the last 4-5 years.

A close examination of the data enabled six collision factors to be identified and their relationship to cycling casualty risk assessed. These were gender, age,

speed, location, time of day and time of year. Data relating to each factor was examined to understand its relationship with general cycling trends.

Gender

Table 2a and 2b refers to pedal cycle casualties in London by severity and gender in 2008. Over three quarters (78%) of the casualties were male and 22% female. This ratio is similar for serious and slight casualties. The gender split of fatalities was 27% female and 73% male. While these proportions largely reflect the gender make-up of current cyclists in London (35% female, 65% male), it can be seen that men are over-represented in terms of casualties, including serious injuries and fatalities.

Table 2a Pedal cyclist casualties in London by severity and gender (2008)

Casualty Severity	No. of Casualties		
	Male	Female	Total
Fatal	11	4	15
Serious	338	92	430
Slight	2,128	629	2757
All	2,477	725	3202
<i>Killed or seriously injured</i>	<i>349</i>	<i>96</i>	<i>445</i>

Further, when considering female fatalities, it is found that women are disproportionately represented in collisions with HGVs.

Age

Pedal cycle casualties occur most often amongst people aged between 20 and 50 years old, with 30-34 being the most common age for men, and 25-29 for women (see Appendix 4). This reflects the age distribution of cyclists in London, with the majority of cyclists, especially commuter cyclists being men and women aged 25-44. However, it should be noted that there is a sharp drop off in casualty rates for men over 35 and for women over 29 which is not in line with the general cycling trends. Children and young people are under-

represented in the casualty data, although many of them are cyclists (defined as cycling at least once a month).

While journey type, environment and experience are the most likely explanations for the differences in casualty rates amongst people of different ages, it may be possible to target safety messages at those demographic groups most at risk.

Location

Two thirds (66%) of cyclist injuries are on inner London roads, reflecting the large increase in cycling that has taken place over recent years in central and inner London. Data shows that there is not a significant difference in the 'severity ratio' (the proportion of injuries that result in death or serious injury) between inner and outer London areas.

Nearly a third of cycle injuries occurred on the TLRN although these roads make up only 5% of the total road network, and the severity ratio for injuries was higher on the TLRN (17%) than on borough roads (15%). This reflects the greater use of TLRN than borough roads by cyclists, especially for commuter journeys (see section on time of day).

Data shows that 79% of casualties were injured at, or within 20 metres of a junction, highlighting the vulnerability of cyclists in these locations.

Speed

The vast majority (98.7%) of cyclist casualties occurred on roads with a 30mph speed limit. There is little information available about the actual speeds of either the cyclist or the other vehicle involved in collisions leading to cycle casualties unless the vehicles are travelling above the speed limit.

Time of day

Research shows that more than three quarters of cyclist casualties occur during the 12 hour period between 7am and 7pm. There are two clear peaks coinciding with the traditional morning and evening peak traffic periods, with

the highest numbers of casualties occurring between 8am-9am. This indicates that cyclists making commuter journeys make up the majority of cycle casualties.

Time of year

Rates of cycle casualties reflect the seasonal nature of cycling, with twice as many injuries occurring in July than in December. However, the seasonal decrease in cycling journeys (as measured by flows on the TLRN), is not quite as marked as the larger decrease in casualties. This relative decrease in risk of injury is contrary to the general perception that cycling is more dangerous in winter, but may be explained by the observation that more experienced cyclists (assumed to be at lower risk of injury) are more likely to continue cycling in winter.

Summary of collision factors

Analysis of the collision factors helps to inform when, where and who is affected by cycling fatalities and serious injuries. The findings indicate that the casualty trends are largely in line with general cycling trends. There are, however, some notable exceptions:

- women are over-represented in terms of fatalities involving heavy goods vehicles
- men experience a disproportionately high number of collisions resulting in serious injury
- casualties most often occur amongst people aged between 20 and 50
- higher number of casualties occur in the summer period
- the majority of casualties occur close to or at junctions

These insights will inform the development of the Action Plan and contribute to the delivery of targeted safety campaigns. However, to fully understand the causes, a detailed examination of the types of conflict is needed. This is the subject of the next section.

2.3: Types of conflict - focus for the Action Plan



Based on the analysis drawing on the Pedal Cyclist Killed and Seriously Injured (KSI) in Greater London report (2007), it was found that there were eight main types of conflict (i.e. types of collisions) which contributed to 80% of all cyclist killed or seriously injured. Table 3 provides a further breakdown.

Table 3 Types of conflict and KSI (2007) ⁴

Types of conflict between cycle and other vehicle		Fatality		Seriously injured		Fatal and serious injury combined	
		Vehicle type		Vehicle type		Total KSI	% KSI
		Goods	Other	Goods	Other		
1	Fatal collision between bicycle and goods vehicle	8 ⁵					
2	Close proximity collision between cyclist and vehicle	7	0	30	102	139	30%
3	Other vehicle disobeys junction control	0	0	12	66	78	17%
4	Other vehicle turns right across path of cycle	0	0	5	48	53	12%
5	Cyclist hits or swerves to avoid an open door of other vehicle	0	0	3	32	35	8%
6	Other vehicle runs into the rear of cycle	1	2	4	22	29	6%
7	Cyclist disobeys junction control	0	1	3	19	23	5%
8	Cyclist rides off the footway into the path of vehicle on the carriageway	0	1	2	15	18	4%
	Other	0	3 ⁶	6	84	93	18%
		8	7	65	380	460	
Total		15		445			

⁴ ACCSTATS data. The 'goods' category includes collisions involving three classes of goods vehicles: under 3.5t (vans), 3.5-7.5t and over 7.5t (heavy goods vehicles).

⁵ Figure in item 1 is the sum of fatalities in items 2 and 6 below

⁶ These fatalities included a head on collision between two bicycles, a head on collision between bicycle and car and a cyclist riding across a pedestrian crossing into the path of a car

Conflict type 1: Fatal collision between bicycle and goods vehicle

Of the 15 cyclist fatalities that were recorded, eight of these involved a goods vehicle; a heavy goods vehicle (HGV) in six cases, and a medium goods vehicle (3.5–7.5t) in the remaining two cases. Of these eight fatal collisions, not giving each other enough space on the roads led to seven of the fatalities. Six of these involved the goods vehicle changing lane to the left or turning left and the seventh involved a goods vehicle running into the bicycle from behind. Approximately half of the cyclists killed in collisions with goods vehicles were female. This is not consistent with the proportion of female cyclists and therefore there may be a gender-specific factor involved in these collisions.

Seven other fatalities were recorded for the year studied. These are related to a wider range of conflict types which are described in later sections in this chapter.

Conflict type 2: Close proximity collision between cyclist and vehicle

Collisions arising from a close proximity collision between cyclist and vehicle caused 37% (121) of serious injuries and 47% (7) of deaths of cyclists. As noted above, all seven of the fatalities involved a goods vehicle.

This category includes the following manoeuvres (listed by frequency of cyclist killed or seriously injured):

- Cycle and other vehicle travelling alongside each other (12%)
- Other vehicle turns left across the path of cycle (9%)
- Other vehicle changes lane to the left across the path of cycle (3%)
- Cycle and other vehicle collide when both turning left (2%)
- Other vehicle starts off or pulls out into path of bicycle (2%)
- Other vehicle changes lane to right across path of cycle (1%)

- Cycle performs overtaking manoeuvre into path of right turning vehicle (1%)
- Cycle changes lane to right/left across path of other vehicle (<1% each)

Conflict type 3: Other vehicle disobeys junction control

18% (78) of all serious injuries to cyclists occurred when another vehicle disobeyed junction controls. These included vehicles which failed to give way.

Of the 78 recorded collisions, 62 involved cars, nine involved vans and three involved large goods vehicles. No cyclist fatalities were attributed to this conflict type in 2007.

Conflict type 4: Other vehicle turns right across path of bicycle

12% (53) of all collisions resulting in serious injuries to cyclists were caused by a vehicle turning right across the path of a cyclist. No fatalities were attributed to this manoeuvre in 2007. Of the 53 recorded collisions, 40 involved cars, four vans and three taxis.

Conflict type 5: Cyclist hits or swerves to avoid an open door of other vehicle

8% (35) of all collisions resulting in serious injuries to cyclists were caused by the cyclist hitting or swerving to avoid an open door on the other vehicle.

There were no fatalities recorded as a result of this conflict type in 2007 but a cyclist fatality was attributed to hitting a car door in February 2010. Of the 35 serious injuries attributed to vehicle door collisions in 2007, 27 involved cars, three taxis and two vans.

Conflict type 6: Other vehicle runs into rear of bicycle

Three cyclist fatalities were recorded in 2007 which resulted from another vehicle running into the rear of a bicycle. In one case the other vehicle was a large goods vehicle (see cause of casualty 1) and the other two cases involved cars.

6% (26) of collisions resulting in serious injuries to cyclists were caused by the other vehicle running into the rear of a cyclist. Of these 26 serious injuries, the other vehicle was a car in 17 cases, a van in four cases, and a power two-wheeler (motorcycle or scooter) in three cases (2007).

Conflict type 7: Cyclist disobeys junction control⁷

5% (23) of collisions where cyclists were seriously injured occurred after the cyclist disobeyed a junction control (2007). One fatality was recorded.

When disobeying the junction control, cyclists involved in collisions made the following manoeuvres:

- cyclist goes straight into the path of other vehicle – generally a car
- cyclist turns right
- cyclist turns left

Although cyclists who disobey traffic signals are breaking the law, this type of conflict is a relatively minor contributor to cyclist fatalities and serious injuries. Public consultation on the draft version of this plan, however, revealed a widely held view that increased cyclist adherence to junction controls would significantly improve cycling safety. It will therefore be necessary to understand and address public perceptions as well as encourage cyclists to comply with junction controls.

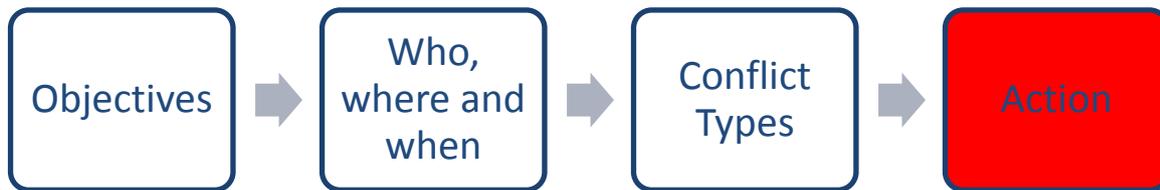
It should also be noted that the level of collisions involving cyclists and pedestrians resulting in fatal or serious injury is very low in London.

⁷ Junction Controls are either Give Way, Stop signs or traffic signals

Conflict type 8: Cyclist rides off the footway into the path of vehicle on the carriageway

4% (17) of serious injuries to cyclists occurred when the cyclist rode off the footway into the path of a vehicle on the carriageway (2007). In most cases (15) the vehicle was a car. The other two cases involved a van and a heavy goods vehicle respectively. One cyclist fatality occurred as a result of riding off the footway into the path of a car.

Chapter 3: Actions



The eight conflict types (i.e. types of collisions) described above lead to the greatest number of casualties and have therefore been prioritised for action. The causes of casualties will be addressed by nine action areas. These action areas have been informed by the collision factors of age, gender and location. The action areas include interventions that will address more than one of the conflicts which commonly occur.

3.1: Safer infrastructure

Significant investment has already been made in London's infrastructure to deliver a continuous, safe network of cycle routes, safe crossing facilities, and improvements at junctions with poor safety records for cyclists.

Interventions to reduce vehicle speeds more generally have also been implemented and off-road facilities have been provided for those wishing to avoid trafficked streets, e.g. Greenways, canal tow-paths etc.

Artist impression of new Cycle Superhighway



In addition to this existing work, the following interventions have been identified to improve cycling safety in new infrastructure for the future:

Interventions	Lead agency & key partners
<p>PRIORITY 3.1.1: Work to ensure that all new road infrastructure contributes to improved safety of cyclists, including speed reduction measures, junction improvements, and awareness of cyclists’ needs.</p>	<p>TfL, Boroughs</p>
<p>PRIORITY 3.1.2: Identify ‘high risk’ locations on the road network for cyclists and advise on and implement site specific preventative measures.</p>	<p>TfL, Boroughs</p>
<p>PRIORITY 3.1.3: Promote good practice guidance for infrastructure design and operation, ensuring that LCDS⁸ are followed. Continue to develop and disseminate cycle design good practice.</p>	<p>TfL, Boroughs</p>
<p>3.1.4: Support those Boroughs that wish to implement speed reduction measures such as 20mph zones in line with the Mayor’s Transport Strategy (MTS).</p>	<p>Boroughs, TfL, Developers</p>
<p>3.1.5: Work with TfL and Borough maintenance teams to ensure that road conditions are adequate to ensure road safety for cyclists.</p>	<p>TfL, Boroughs</p>

⁸ London Cycle Design Standards

<p>3.1.6: Work with the Department for Transport (DfT) and Boroughs to develop and trial good practice, changes in regulation, guidance and procedures covering highway infrastructure and public realm, to improve cyclist safety.</p>	<p>TfL, DfT, Boroughs</p>
<p>3.1.7 Work with London’s engineering community to provide practical experience of cycling in London for engineers.</p>	<p>TfL, Boroughs, engineering bodies</p>
<p>3.1.8 Continue to improve safety for cyclists where street works are taking place.</p>	<p>TfL, Boroughs</p>

3.2: Training and information

Cycle training and route information is an excellent way of building skills and confidence for cyclists. Responsibility for delivering adult and child cycle training largely lies with the London Boroughs and is funded by TfL as part of the Local Implementation Plan programme. In most Boroughs, training is provided free or is heavily subsidised. The quantity and standards used for cycle training varies between Boroughs, depending on local priorities.

In 2008/09, over 38,000 children and 4,000 adults received cycle training across the 33 London Boroughs. Since 2002 TfL has worked with the London Boroughs and other stakeholders to introduce National Standards cycle training to London (also known as Bikability) and to deliver high quality cycle training that meets London’s needs. Every Borough now offers a range of cycle training courses and 1-2-1 sessions for children, families, teenagers and adults.

Comprehensive cycle information is provided by TfL through cycle guides and online via the TfL website www.tfl.gov.uk/cycling.

Cycle training session



The following interventions have been identified to improve cycle training and information for the future:

Interventions	Lead agency & key partners
PRIORITY 3.2.1: Increase awareness of cycle training in London through marketing and promotion.	TfL, Boroughs
PRIORITY 3.2.2: Work with Boroughs, Department for Transport (DfT) and service providers to agree a common set of processes to develop cycle training standards and quality. The content of this training will address the main eight causes of casualties.	TfL, Boroughs, DfT, Cycle Training Service Providers

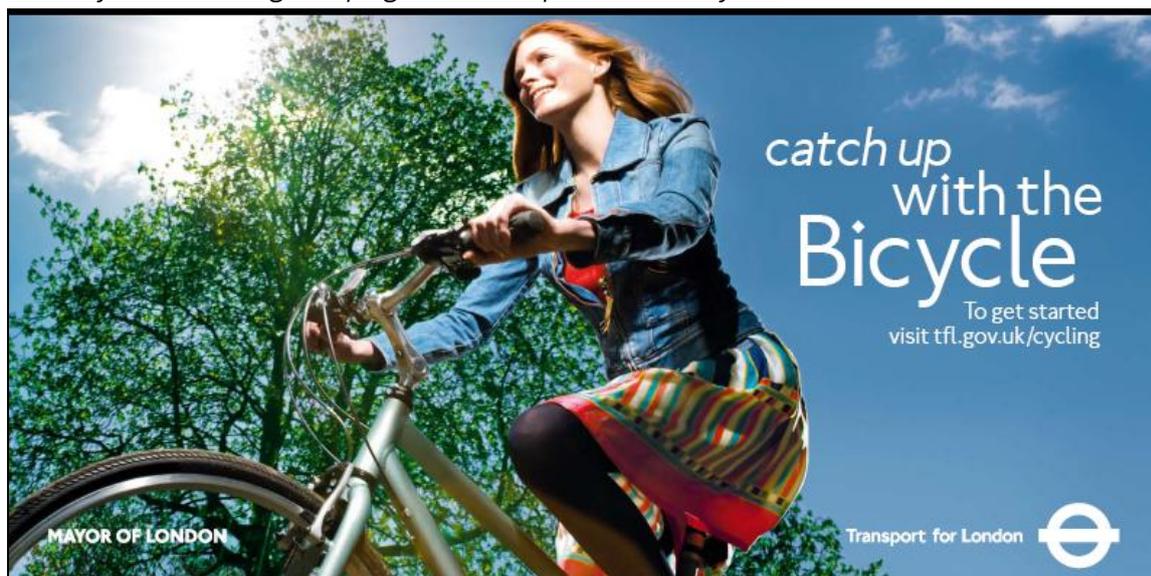
<p>3.2.3: Continue to provide funding via Local Implementation Plans (LIPs) for the Boroughs to use at their discretion to deliver child and adult cycle training. Deliver additional adult cycle training and improved monitoring through the Cycle Hire and Cycle Superhighways programmes.</p>	<p>Boroughs, TfL</p>
<p>3.2.4: Where training is procured directly by TfL (e.g. Cycle Superhighways), ensure that the service and content is of high quality and is properly monitored.</p>	<p>TfL</p>
<p>3.2.5 Deliver an expanded programme of led rides for commuters in 2010, following on from ‘Cycle Fridays’.</p>	<p>TfL, Retailers</p>
<p>3.2.6: Continue to develop and disseminate cycle route and safety information.</p>	<p>TfL</p>
<p>3.2.7: Continue to provide route information through the London Cycle Guides and through TfL Journey Planner.</p>	<p>TfL</p>

<p>Case Study</p>	<p>New Cycle Superhighways will be developed in London and will provide confidence for cyclists and improve driver awareness by clearly identifying an area they need to be aware of. The first two pilot routes along the A24 and A13 (in south west and east London) will be ready by summer 2010, and will seek to improve cycling safety through an “end to end” treatment of the selected routes.</p> <p>Cycle Superhighways will provide a series of direct, continuous cycle routes to central London. Through signage and coloured surfacing they aim to highlight awareness of cyclists among other road users and generate a critical mass of cyclists that will contribute to changing driving behaviour along the routes.</p>
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3.3: Communication

Social marketing techniques can influence behaviour change amongst all road users. In 2008/09 the ‘moon walking bear’ advertisement was shown on TV and cinema and received over eight million hits on ‘YouTube’ (to date). Follow-up research demonstrated that the campaign achieved high levels of recall among car drivers, that there were improvements in attitudes amongst both drivers and cyclists, and also significant behavioural change. In addition, TfL’s 2009 ‘Catch up with the Bicycle’ campaign aimed to reduce the barriers that deter people from cycling including lack of confidence and safety concerns, and specifically promoted cycle training.

TfL’s Cycle Marketing campaigns ‘Catch up with the Bicycle’



Case Study	A cycle and HGV safety film was produced by TfL and emailed to over 100,000 cyclists. The film highlighted how different the same journey looks, from the point of view of a cyclist compared to that of an HGV driver.
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The following interventions have been identified to improve communications for the future:

Interventions	Lead agency & key partners
<p>PRIORITY 3.3.1: Deliver a marketing campaign to warn motorists and passengers to look out for cyclists. Key messages to promote are:</p> <ul style="list-style-type: none"> • all road users to pay particular attention in their blind spot for cyclists • cyclists to ride confidently and avoid undertaking on the nearside of vehicles. • cyclists to consider visibility, road position and understand their vulnerability as a road user • be aware that from summer 2010 (when the Cycle Hire scheme opens), there will be a greater number of experienced and inexperienced adult cyclists in Central London, resulting in a need to exercise additional caution. 	<p>TfL</p>
<p>PRIORITY 3.3.2: Develop a marketing campaign directly targeted at improving safety between HGVs and cyclists. The key messages to be developed will:</p> <ul style="list-style-type: none"> • reflect outcomes of research (Action 3.8.1) and reach the socio-demographic groups identified as particularly vulnerable. • resonate with cyclists and HGV drivers alike. • work with the Freight/HGV target group to continue to re-inforce messages around safety and looking out for cyclists. • reduce the number of cyclists and HGV collisions occurring. 	<p>TfL</p>

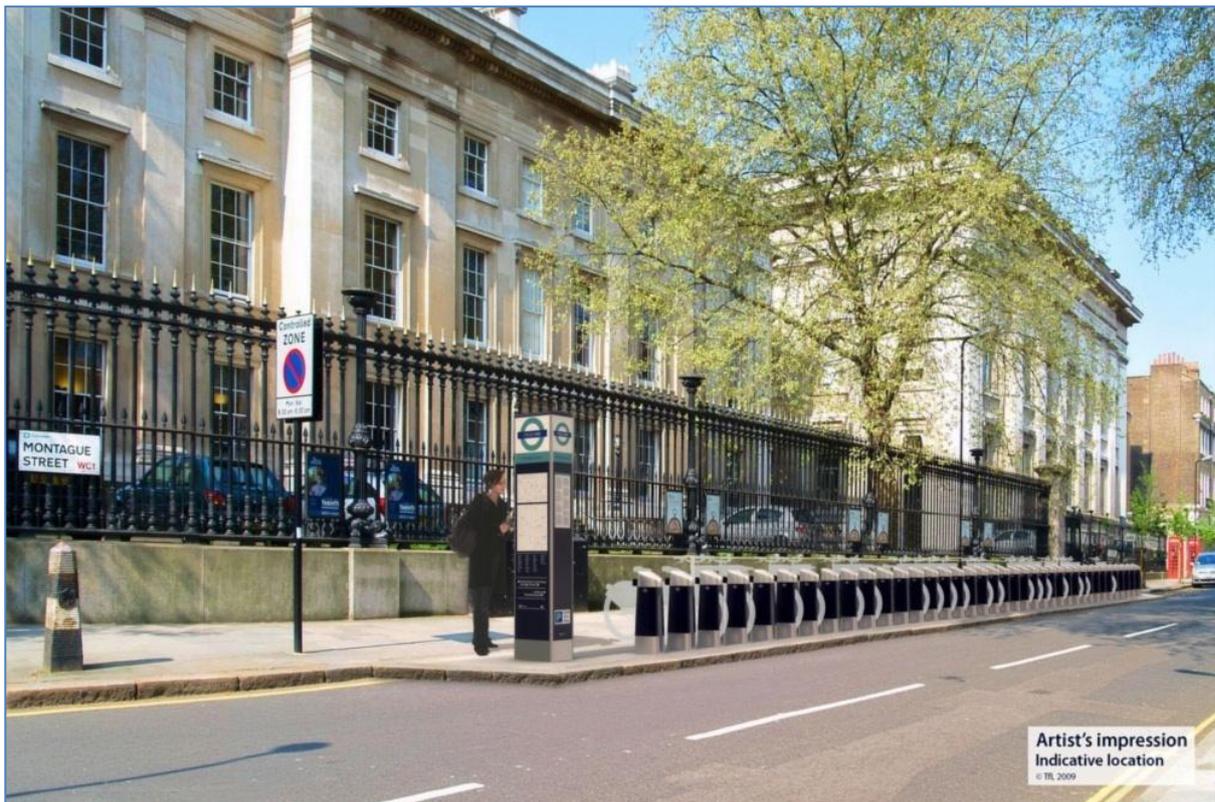
<p>3.3.3: Include safety messages and promote cycle training as part of the cycling marketing campaign during summer 2010.</p>	<p>TfL</p>
<p>3.3.4: Communicate with the freight industry to improve cyclists' safety and to give more recognition to its role in meeting London's targets to reduce fatalities and injury among vulnerable road users.</p> <p>Work with operators to alter their delivery times to avoid the peaks, to fit appropriate safety devices and to disseminate appropriate cyclist awareness information to their drivers. The Freight Operator Recognition Scheme (FORS) and training will also be promoted to this audience.</p>	<p>TfL, Freight Transport Association (FTA)</p>
<p>3.3.5: Research the potential benefits of a 'cycle safety code of conduct' which would be a succinct form of conveying key safety messages to cyclists.</p>	<p>TfL, Retailers</p>
<p>3.3.6: Consider the benefits of a business and schools safety package delivered through the Workplace and School Travel Plans.</p>	<p>TfL</p>
<p>3.3.7: Support and promote a 'Give a Metre' campaign which is aimed at all road users. This will convey the need for all road users to give adequate space to each other.</p>	<p>TfL, Share the Road</p>
<p>3.3.8 Work with the DfT and Cycling England to clarify the advice that should be given on legal issues, cycle lanes, cycle tracks and priority at junctions.</p>	<p>TfL, DfT</p>

Case study

The Cycle Hire scheme will provide 6,000 bikes for hire in the Central London area. The safety aspect of the programme will include:

- The launch of a 'safety and how to use video' on the internet and for use at Cycle Hire road shows;
- Promotion of a Cycle Hire Code of Conduct to encourage responsible use;
- Information on a range of recommended routes and how to navigate complex junctions/gyratory systems in the central area;
- Increased provision of cycle training in the Central London zone and the ability for both residents and employees in the area to access this facility.

Cycle Hire scheme – artist impression



3.4: Enforcement

A number of enforcement activities are already in place that contribute to improving safety for cyclists on London's roads. The 09/10 **Community Safety Plan** (CSP) outlines how to further improve safety and security on London's transport network. It is published by TfL in partnership with the British Transport Police, City of London Police (CoLP) and Metropolitan Police Service (MPS).

There is much that can be learnt from the partnership approach that has been taken to date in order to continue to improve safety through enforcement activity in the future:

Interventions	Lead agency & key partners
<p>PRIORITY</p> <p>3.4.1: The MPS and other partners will put a renewed emphasis on reducing KSIs on London's roads. The MPS, with Traffic Operational Command Unit (OCU) taking the lead, will undertake targeted enforcement against careless and dangerous road user behaviour.</p>	<p>TfL, MPS</p>
<p>PRIORITY</p> <p>3.4.2: Work with London Criminal Justice Board to review KSI collisions with a view to strengthening criminal justice arrangements for dealing with such cases.</p>	<p>TfL, MPS, CoLP, London Criminal Justice Board</p>
<p>3.4.3: The Commercial Vehicle Unit (CVU) will undertake roadside stops and company visits to ensure goods vehicles are compliant with safety legislation and to raise safety standards. The CVU will refer operators to join FORS where appropriate and use powers delegated from Health & Safety Executive to improve the management of occupational road risk when driving at work. They will also continue to undertake enforcement activity and work with partners on initiatives such as the 'Exchanging Places' events to improve safety on London's roads.</p>	<p>TfL, MPS, Boroughs</p>

3.5: Regulation

The regulatory context for cycling in the UK is complex. There are also a number of voluntary codes and standards. Often it is difficult to ascertain whether, and to what extent, cycling is permitted. These ‘grey’ areas can aggravate misunderstandings between groups of pedestrians, cyclists and drivers with different perspectives. Moving forward, it will be important to better understand and use regulatory levers to improve cycling safety. The following interventions have been identified within this Plan in order to achieve this:

Interventions	Lead agency & key partners
3.5.1: Explore different approaches to governance, roles, responsibilities and principles, including signing and marking, affecting the management of cycling related risk that are employed across Europe .	TfL, Cycle Safety Working Group (CSWG)
3.5.2: TfL is committed to undertake desk top research to inform a decision on whether to pilot allowing cyclists to turn left at red traffic lights.	TfL, DfT

3.6: Technology

Improving visibility for drivers by standardising vehicle technology for new goods vehicles and retrofitting old vehicles has been identified as a way in which cyclists' safety could be improved. Since drafting this Action Plan 300 fleet operators, exempt from current regulations of fitting side guards were written to and asked to consider fitting side guards or other practical safety measures, such as motion sensors. In addition to this, 20,000 'Fresnel' lenses have been distributed to HGVs to improve visibility of cyclists to drivers.

The following interventions have been identified to further improve technology for cyclists' safety:

Interventions	Lead agency & key partners
<p>PRIORITY</p> <p>3.6.1: Work with the freight industry as a matter of urgency to identify the most appropriate and cost effective safety device (standard specification as well as retro fitting) for large goods vehicles. Side guards and motion sensors to be considered.</p>	<p>TfL DfT, FTA</p>
<p>3.6.2: Trial roadside safety mirrors (Trixi mirrors) on the Cycle Superhighways pilot routes.</p>	<p>TfL, DfT</p>
<p>3.6.3: Continue to distribute Fresnel lenses to all fleet operators through FORS on request and more generally.</p>	<p>TfL</p>

Trixi mirror at Cycle show, 2009



3.7: Commercial driving and working practices

The majority of drivers of goods vehicles in London are highly trained professionals who take their safety responsibilities very seriously.

Existing work streams at TfL to improve commercial driving practices include, a Bus drivers' enhanced training programme that leads to a nationally recognised BTEC qualification and includes a specific focus on cycle awareness. In addition, the TfL Freight Operator Recognition Scheme (FORS) enables continued support and education of the freight industry and is a key communication channel for safety messages. FORS members have access to safety workshops and online training. Since the draft of this Action Plan, 7000 fleet operators in London have been invited to join FORS.

Developers of major construction sites are required to demonstrate exemplary HGV safety performance, by becoming FORS Associate members, and by actively encouraging contractors and sub-contractors to do likewise. High profile projects, such as Crossrail, are already taking the lead by requiring the highest standards of HGV safety performance as part of their procurement practice and by providing specific training for goods vehicle and van drivers working on the project.

In addition to the above, the following interventions have been identified to further improve driving and working practices:

Interventions	Lead agency & key partners
<p>PRIORITY 3.7.1: Encourage responsible procurement practices throughout the GLA family and the public sector by ensuring fleet operators are FORS registered and receive driver training on cycle safety. Ensure contracts include vehicle specifications, such as the use of improved safety features.</p>	<p>TfL, GLA</p>
<p>PRIORITY 3.7.2: Promote and encourage wider membership of FORS to deliver training and messages on cycle safety for all fleet operators in London.</p>	<p>TfL, FTA</p>
<p>3.7.3: Work with town centre managers and freight delivery companies to reduce the number of deliveries and influence timings on main cycle routes in London.</p>	<p>TfL Boroughs</p>
<p>3.7.4: Support the FTA’s proposed concordat to avoid delivering during peak hours on the Cycle Superhighways and to reduce deliveries overall.</p>	<p>TfL, FTA</p>

<p>3.7.5: Develop and pilot a ‘considerate of cycling’ package to be delivered to other road users through workplaces.</p>	<p>TfL</p>
<p>3.7.6: Continue to provide cycle awareness training for bus drivers, particularly targeted on routes with an increase in cyclists, such as Cycle Superhighways.</p>	<p>TfL</p>
<p>3.7.7: Ensure forward facing cameras on buses are working properly and checked regularly to capture any incidents that may occur.</p>	<p>TfL</p>
<p>3.7.8: Provide taxi drivers in London with cycle awareness information relating to safety when driving, stopping and opening doors near cyclists.</p>	<p>TfL</p>
<p>3.7.9: Continue to work with DfT to encourage the inclusion of cycling safety training as part of Driver CPC training⁹.</p>	<p>TfL, DfT</p>

HGV Drivers receiving cycle training in Lambeth



⁹ The Driver CPC is for LGV and PCV drivers who drive professionally throughout the UK. It has been developed as a requirement of the EU Directive, which is designed to improve the knowledge and skills of professional LGV and PCV drivers throughout their working life.

Case study	Crossrail will train 3,500 professional drivers on cycle safety through the duration of its seven year construction programme. This will include raising drivers' awareness of the safest way to navigate junctions and roundabouts. Drivers also watch a cycle safety training film produced by TfL which is designed to help both cyclists and lorry drivers navigate London's roads, and each other, safely. The driver training is based on that offered through TfL's FORS programme.
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3.8: Research and monitoring

A key aspect of improving cycle safety is to understand how and why collisions involving cyclists occur. The primary source of information is data on personal injury road traffic collisions which occur on the public highway, and are reported to the police, in accordance with the *Stats 19* national reporting system.

During the preparation of this Action Plan, some deficiencies in the reporting of collisions were noted, and it will be important for future analysis to ensure that reporting is as accurate and detailed as possible.

The following interventions have been identified to enhance future research and monitoring to improve cyclist safety:

Intervention	Lead agency & key partners
<p>PRIORITY</p> <p>3.8.1: Research and explore the attitudes and behaviours of cyclists and HGV drivers when it comes to road safety to:</p> <ul style="list-style-type: none"> • highlight any differences in attitudes and behaviours between males and females • identify the types of communications / messages / initiatives that would be appropriate for both cyclists and HGV drivers • develop a blueprint and recommendations for future communications 	<p>TfL</p>

3.8.2: Work with MPS and CoLP to improve consistency and precision of data and records including self- reporting relating to individual casualty incidents.	TfL MPS, CoLP
3.8.3: Continue to survey and address the perceived risks associated with cycling e.g. through annual attitudes to cycling.	TfL
3.8.4: Research whether different genders behave differently around HGV vehicles.	MPS

3.9: Partnership working

Further improvements to cycling safety in London will only be delivered through the continued success of partnership working across London. Key to its success will be the groups involved in the Cycle Safety Working Group (CSWG), established in October 2009 (see Appendix I), many of which can directly engage their members to inform them on cycle safety.

The following interventions have been identified to improve cyclist safety through partnership working:

Interventions	Lead agency & key partners
PRIORITY 3.9.1: Continue to work together identify ways in which cyclist casualties can be further reduced.	CSWG
3.9.2: Work with the FTA and others in identifying and piloting technical solutions to develop improved vehicle design and the concept of an urban lorry.	CSWG, FTA
3.9.3: Support the MPS Traffic Operational Command Unit (OCU) (in partnership with City of London Police) in delivering	CSWG

one 'Exchanging places' event each month in 2010.	
3.9.4: Continue dialogue and discussions with Department for Transport to improve cycle safety and HGV safety, through work on the development of appropriate standards, regulation, joint campaigns and messaging on areas such as safe positioning.	CSWG
3.9.5: Work with the motoring and freight industry to improve cyclist safety to explore new ways to engage and understand the industry perspective and communicate messages (such as through training and promotion) and to develop technical solutions that could improve cyclist safety.	CSWG, FTA, Institute of Advanced Motorists (IAM)
3.9.6: Further investigate the role of vehicle design to improve driver visibility (e.g. height of driver, sight lines) in reducing collisions.	CSWG
3.9.7: Improve the coordination, promotion and procurement of high quality cycle training services for both adults and children in line with DfT approved quality standards.	TfL , Boroughs, retailers and cycle training suppliers
3.9.8: Develop new alliances with cycle manufacturers and retailers to capture opportunities for these groups to disseminate safety messages to cyclists and to direct new cyclists towards training when they purchase a bike.	TfL, cycle manufacturers and retailers

Case study

Cyclist and HGV Driver Awareness

The Metropolitan Police Service 'Exchanging Places' events and Lambeth Council's 'Flipside' and 'See the view from the cab' interventions, offer drivers and cyclists the chance to better understand the safety issues that cyclists and HGV drivers face.

Lambeth's 'Flipside' programme gets lorry drivers to experience what conditions are like for cyclists by receiving practical training on a bike. So far 52 HGV and bus drivers have completed cycle awareness training.

'Exchanging Places' and 'See the view from the cab' events offer cyclists the opportunity to sit in a stationary HGV cab while a police officer cycles up the nearside, graphically illustrating the limited visibility of the HGV driver. Hundreds of cyclists have already participated in HGV awareness events, and many more events are planned for 2010.

HGV event in the City of London



Chapter 4: Next steps

There is a pressing need to improve safety for cyclists in London. The Action areas set out in this Plan will go a considerable way to achieving this, but will require effective and co-ordinated action by a range of partners and stakeholders.

Cycle safety is a key priority for the Mayor, TfL and the GLA family and this is reflected in the draft revised Mayor's Transport Strategy. In addition, London Boroughs will be encouraged to prioritise action to improve cycle safety as part of their Local Improvement Plans for transport. Through the Community Safety Plan, TfL and its policing partners are committed to developing enforcement activities to better integrate cycling into the enforcement regime and promote cycle safety.

The Cycle Safety Working Group will play a key role in overseeing the action areas within this Plan, as well as continuing to identify ways in which cyclist safety can be further improved in London.

Appendices

Appendix I: Supporting organisations and Cycle Safety Working Group

The CSWG consists of the following organisations which will meet to ensure the delivery of Action Plan over the next 12 months and review progress and long term goals in December 2010:

Transport for London (TfL)
Greater London Authority (GLA)
Metropolitan Police Service (MPS)
A Representative from the Borough Cycling Officers Group (BCOG)
London Cycling Campaign (LCC)
Freight Transport Association (FTA)
Institute of Advanced Motorists (IAM)
London Councils
Sustrans
Cycling Touring Club (CTC)
RoadPeace
HGV Working Group
Community Safety Enforcement and Policing Directorate, TfL (CSEP)

The draft Plan was sent to over 140,000 cyclists in London for comment and to all the London Boroughs.

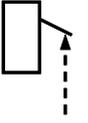
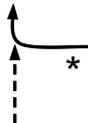
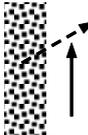
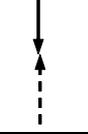
The following groups also work to improve road safety in London:

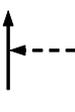
- ‘Share the Road’: The Share the Road campaign was created to reduce conflict between all users of the road. It is an education and enforcement campaign encouraging mutual respect between motorists, motorcycles, cyclists and pedestrians in London with the aim of achieving better standards of driving and riding and a greater level of courtesy shown by road users to one another. The group consists of: TfL, GLA, Metropolitan Police Service, London Cycle Campaign, Sustrans, CTC, Roadpeace, Borough Officers Cycling Group, Institute of

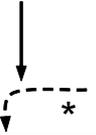
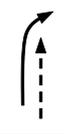
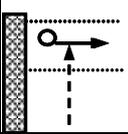
Advanced Motorists, the Freight Transport Association and Living Streets;

- The City Road Safety Forum, involving the Corporation of London and City Police;
- The Borough Cycling Officers Group – drawing together local authorities’ experience across London on cycling and safety;
- HGV working group - involving LCC, CTC, Living Streets, Freight Transport Association, Road Peace and others to encourage operators to join the Freight Operators Recognition Scheme (FORS);
- Cyclesafelondon.com – a community of cyclists in London spreading the word on how to stay safe on London’s streets;
- Metropolitan Police HGV and Cycling Fatalities working group – involving Met and City Police, TfL (cycling and road safety), VOSA, Freight Transport Association, Road Peace, London Cycling Campaign – supports ‘changing places’ events and other ‘educational’ activities and acts as a useful informal reference group for safety studies, research and evaluation.

Appendix 2 – Types of conflict

Conflict	Description P/C = Pedal Cyclist	Conflict between pedal cycle and:											Total	%
		Pedal cycle	Powered 2 wheeler	Car	Taxi	Goods under 3.5t	Goods 3.5 to 7.5t	Goods over 7.5t	Bus or coach	Other vehicle	No other vehicle	Multiple vehicle *		
	P/C and other vehicle travelling alongside each other.	2	2	31	2	2	1	6	6	3	0	0	55	12%
	Other vehicle turns right across path of P/C	1	1	40	3	4	0	1	1	2	0	2	53	12%
	Other vehicle turns left across the path of P/C	1	0	22	1	4	4	7	3	1	0	0	43	9%
	P/C hits open door / swerves to avoid open door of other vehicle.	0	0	27	3	2	0	1	1	1	0	0	35	8%
	Other vehicle disobeys junction control & turns right into path of P/C	0	0	28	0	3	0	2	0	0	0	0	33	7%
	Other vehicle fails to give way or disobeys junction control & collides with P/C	0	1	21	0	3	0	0	1	2	0	0	28	6%
	Other vehicle runs into rear of P/C	0	3	17	1	4	1	0	0	1	0	0	27	6%
	P/C rides off footway into path of other vehicle.	0	0	16	0	1	0	1	0	0	0	2	18	4%
	Other vehicle disobeys junction control & turns left into path of P/C	0	0	13	0	3	0	1	0	0	0	0	17	4%
	Head on collision between P/C and other vehicle	1	1	12	1	1	0	0	0	0	0	2	16	3%
	P/C runs into rear of other vehicle.	0	0	7	1	3	0	0	4	1	0	1	16	3%

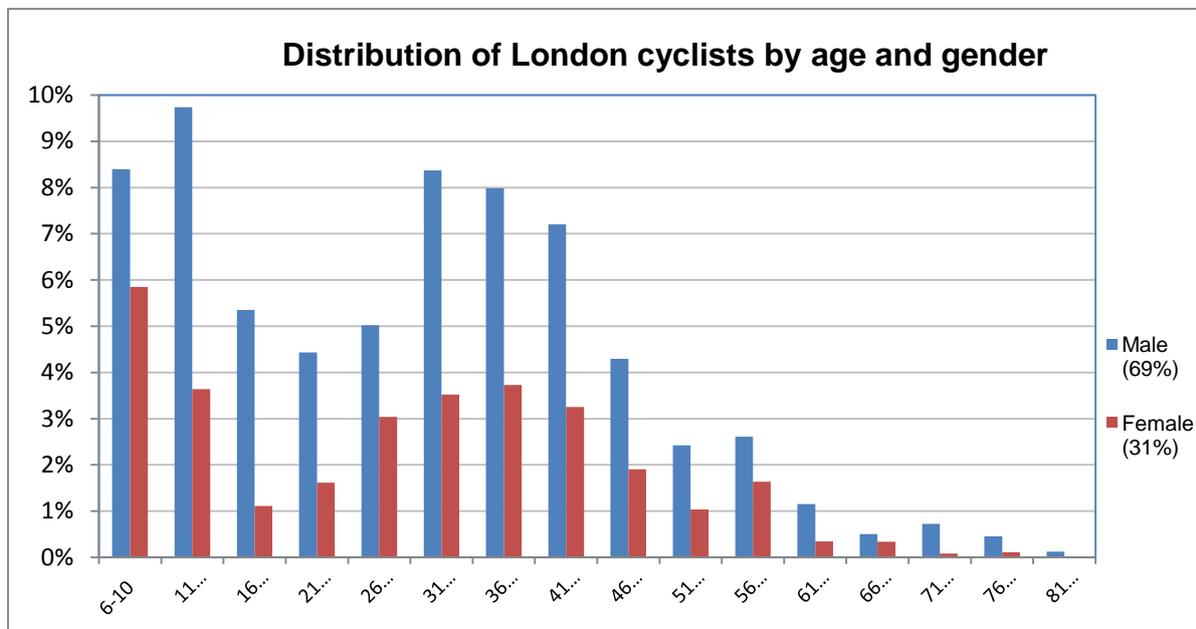
Conflict	Description	Conflict between pedal cycle and:											Total	%
		Pedal cycle	Powered 2 wheeler	Car	Taxi	Goods under 3.5t	Goods 3.5 to 7.5t	Goods over 7.5t	Bus or coach	Other vehicle	No other vehicle	Multiple vehicle *		
	No other vehicle hit by P/C (although may be involved). Various manoeuvres or loss of control.	0	0	3	0	0	0	0	0	0	11	0	14	3%
	P/C fails to give way or disobeys junction control & collides with other vehicle	0	0	13	0	1	0	0	0	0	0	2	14	3%
	Other vehicle changes lane to left across the path of P/C	0	0	7	0	3	0	2	1	0	0	1	13	3%
	P/C and other vehicle collide when both turning left	0	0	2	0	1	1	3	0	2	0	0	9	2%
	P/C hits parked vehicle	0	0	9	0	0	0	0	0	0	0	1	9	2%
	Not known how collision occurred	0	1	5	0	1	0	0	0	1	1	3	9	2%
	Other vehicle starts off or pulls out into path of P/C	0	0	5	1	0	0	0	1	0	0	0	7	2%
	P/C disobeys junction control & turns right into path of other vehicle	0	0	3	1	1	0	0	0	0	0	0	5	1%
	P/C rides across road at pedestrian crossing into path of other vehicle.	0	0	3	0	0	0	0	1	1	0	0	5	1%
	P/C turns right across path of other vehicle	0	1	2	1	0	0	0	0	0	0	0	4	1%
	P/C loses control & hits other vehicle - various manoeuvres	0	0	1	0	1	0	0	2	0	0	0	4	1%

Conflict	Description	Conflict between pedal cycle and:											Total	%
		Pedal cycle	Powered 2 wheeler	Car	Taxi	Goods under 3.5t	Goods 3.5 to 7.5t	Goods over 7.5t	Bus or coach	Other vehicle	No other vehicle	Multiple vehicle *		
	P/C disobeys junction control & turns left into path of other vehicle	0	0	2	0	1	0	0	1	0	0	0	4	1%
	Other vehicle changes lane to right across the path of P/C	0	1	1	0	2	0	0	0	0	0	0	4	1%
	P/C strikes ped crossing road not at or within 50m of a formal ped crossing	0	0	0	0	0	0	0	0	0	4	0	4	1%
	P/C performs overtaking manoeuvre into path of right turning vehicle	0	0	3	0	1	0	0	0	0	0	0	4	1%
	Other vehicle U-turns into path of P/C	0	0	2	1	0	0	0	0	0	0	0	3	1%
	P/C changes lane to right across path of other vehicle.	0	1	1	0	0	0	0	0	0	0	0	2	0%
	P/C in collision with pedestrian on crossing	0	0	1	0	0	0	0	0	0	1	0	2	0%
	Other vehicle reverses into P/C	0	0	1	0	0	0	0	0	0	0	0	1	0%
	P/C changes lane to left across the path of other vehicle	0	0	1	0	0	0	0	0	0	0	0	1	0%
	P/C and other vehicle collide when both turning right	0	0	1	0	0	0	0	0	0	0	0	1	0%
	TOTAL	5	12	300	16	42	7	24	22	15	17	14	460	100%

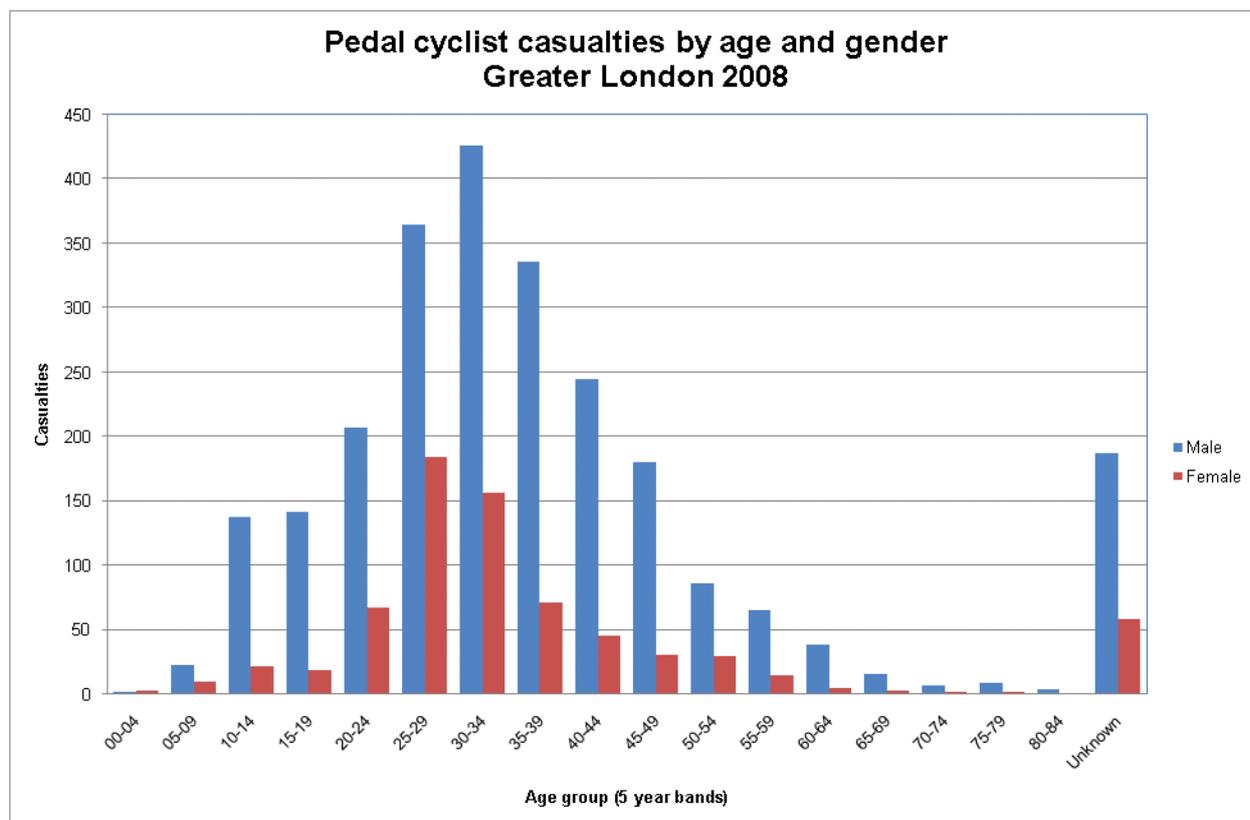
* collisions involving three or more vehicles - the main vehicle in such collisions is recorded in the relevant column

Appendix 3: Casualty and cycling rates

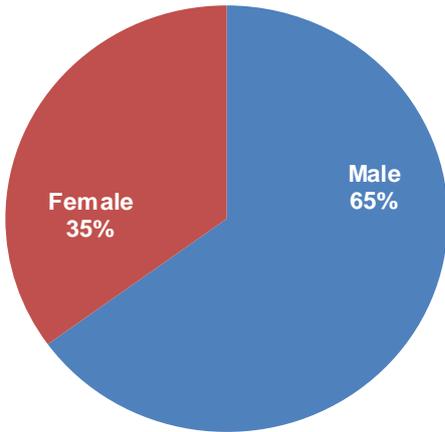
Age and gender



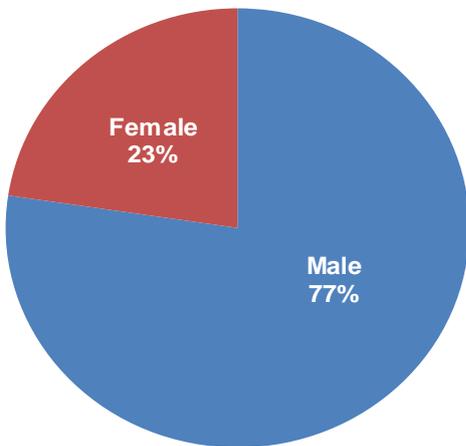
(Source: LTDS 2007-08). Note: Each five year age band is expressed as a percentage of all London cyclists



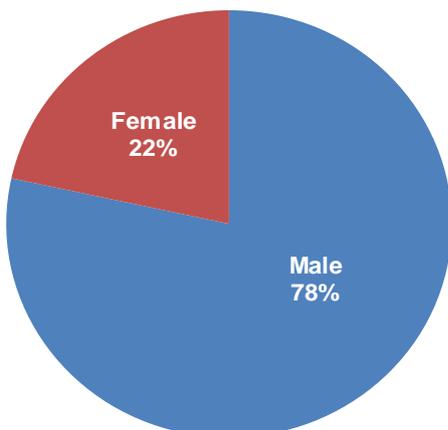
Pedal cyclist trips by gender



All pedal cyclist casualties by gender

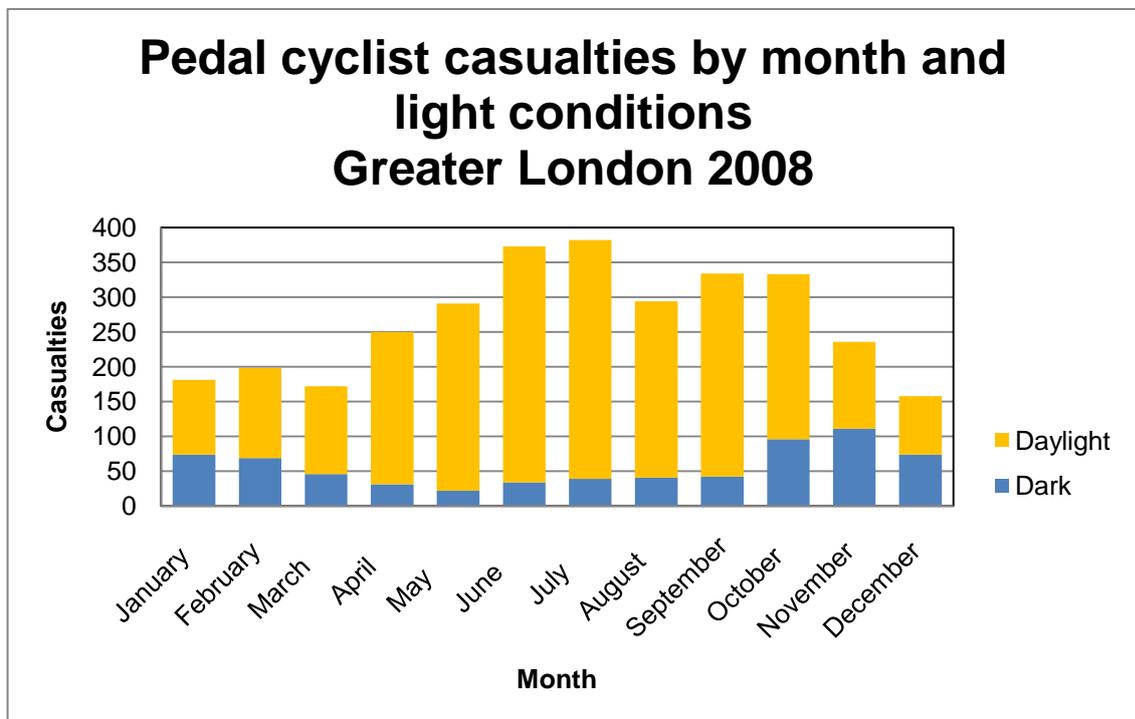
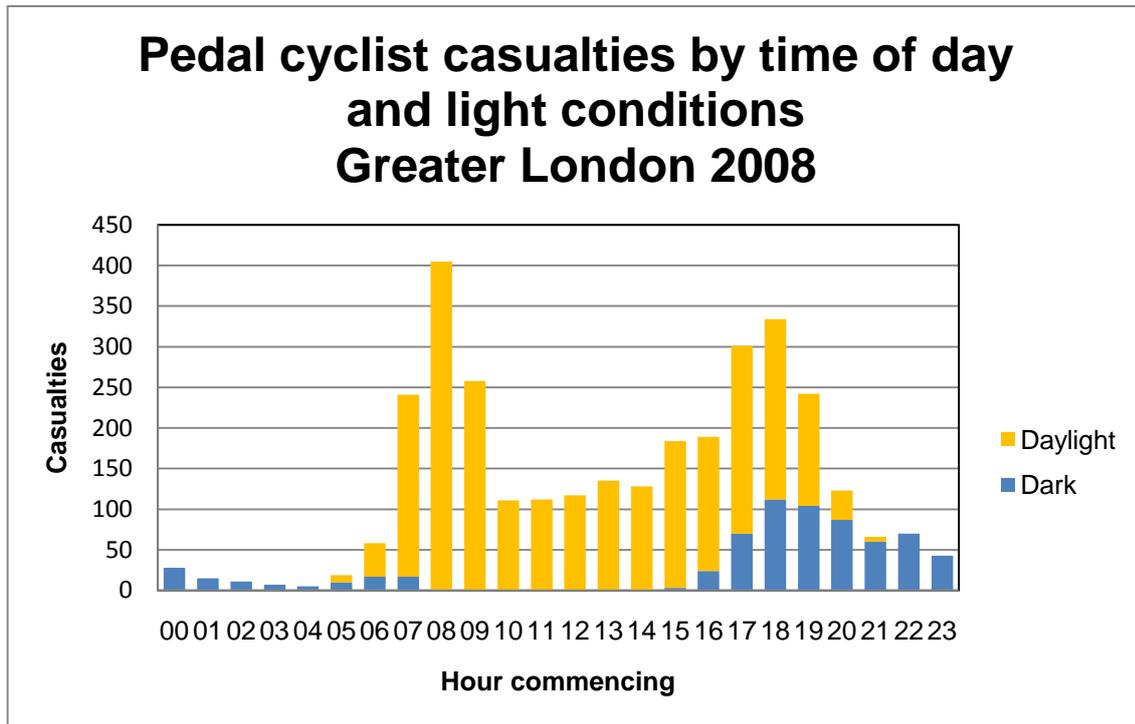


KSI pedal cyclist casualties by gender



Note: the gender balance of cycling is slightly different when measured by cyclist trips (35% female, 65% male) compared to the number of regular cyclists (31% female, 69% male), where this is defined as cycling at least once a month.

Time of day, month, and light conditions



Appendix 4: How the conflict types are being addressed

Interventions		Conflict types							
		1	2	3	4	5	6	7	8
		Fatal collision between bicycle and goods vehicle	Close proximity collision between cycle and other vehicle	Other vehicle disobeys junction control	Other vehicle turns right across path of cycle	Cyclist hits or swerves to avoid an open door of other vehicle	Other vehicle runs into the rear of cycle	Cyclist disobeys junction control	Cyclist rides off the footway into the path of vehicle on the carriageway
Total number of interventions addressing each cause of casualty		47	45	33	33	37	34	18	17
Action area 1 – Safer infrastructure									
3.1.1	Work to ensure that all new road infrastructure contributes to improved safety of cyclists, including speed reduction measures, junction improvements, and awareness of cyclists' needs.	X	X			X	X		
3.1.2	Identify 'high risk' locations on the road network for cyclists and advise on and implement site specific preventative measures.	X	X	X	X	X	X		
3.1.3	Promote good practice guidance for infrastructure design and operation, ensuring that LCDS are followed. Continue to develop and disseminate cycle design good practice.	X	X	X	X	X	X		
3.1.4	Support those Boroughs that wish to implement speed reduction measures such as 20mph zones in line with MTS.	X	X				X		
3.1.5	Work with TfL and Borough maintenance teams to ensure that road conditions are adequate to ensure road safety for cyclists.		X			X			
3.1.6	Work with the DfT and Boroughs to develop and trial good practice, changes in regulation, guidance and procedures covering highway infrastructure and public realm, to improve cyclist safety.	X	X			X			
3.1.7	Work with London's engineering community to provide practical experience of cycling in London for engineers.	X	X	X	X	X	X		
3.1.8	Continue to improve safety for cyclists where street works are taking place.	X	X				X		

Action area 2 – Training and information									
3.2.1	Increase awareness of cycle training in London through marketing and promotion.	X	X	X	X	X	X	X	X
3.2.2	Work with Boroughs, DfT and service providers to develop a common set of processes to develop cycle training standards and quality. The content of this training will address the main eight causes of casualties.	X	X	X	X	X	X	X	X
3.2.3	Continue to provide funding via LIPs for the Boroughs to use at their discretion to deliver child and adult cycle training. Deliver additional adult cycle training and improved monitoring through the Cycle Hire and Cycle Superhighways programmes.	X	X	X	X	X	X	X	X
3.2.4	Where training is procured directly by TfL (e.g. Cycle Superhighways), ensure that the service and content is of high quality and is properly monitored.	X	X	X	X	X	X	X	X
3.2.5	Deliver an expanded programme of led rides for commuters in 2010, following on from 'Cycle Fridays'.	X	X	X	X	X	X	X	X
3.2.6	Continue to develop and disseminate cycle route and safety information.	X	X	X	X	X	X	X	X
3.2.7	Continue to provide route information through the London Cycle Guides and through TfL Journey Planner.	X	X						
Action area 3 – Communication									
3.3.1	Deliver a marketing campaign to warn motorists and passengers to look out for cyclists.	X	X	X	X	X	X	X	X
3.3.2	Develop a marketing campaign directly targeted at improving safety between HGV's and Cyclists.	X							
3.3.3	Include safety messages and promote cycle training as part of the cycling campaign during summer 2010	X	X	X	X	X	X	X	X

3.3.4	Communicate with the freight industry to improve cyclists' safety and to give more recognition to its role in meeting London's targets to reduce fatalities and injury among vulnerable road users.	X	X	X	X	X	X		
3.3.5	Research the potential benefits of a 'cycle safety code of conduct' which would be a succinct form of conveying key safety messages to cyclists	X	X	X	X	X	X	X	X
3.3.6	Consider the benefits of a business and schools safety package delivered through the Workplace and School Travel Plans.	X	X	X	X	X	X	X	X
3.3.7	Support and promote a 'Give a metre' campaign which is aimed at all road users.	X	X	X	X	X	X		
3.3.8	Work with the DfT and Cycling England to clarify the advice that should be given on legal issues, cycle lanes, cycle tracks and priority at junctions.	X	X	X	X	X	X	X	X
Action area 4 – Enforcement									
3.4.1	The MPS and other partners will put a renewed emphasis on reducing KSIs on London's roads. The MPS, with Traffic OCU taking the lead, will undertake targeted enforcement against careless and dangerous road user behaviour	X	X	X	X	X	X		
3.4.2	Work in partnership with the London Criminal Justice Board to review KSI collisions with a view to strengthening criminal justice arrangements for dealing with such cases.	X	X	X	X	X	X		
3.4.3	Commercial Vehicle Unit (CVU) will undertake roadside stops and company visits to ensure goods vehicles are compliant with safety standards. The CVU will refer operators to join FORS where appropriate and use powers delegated from Health & Safety Executive to improve the management of occupational road risk when driving at work. They will also continue to undertake enforcement activity and work with partners on initiatives such as the 'Exchanging Places' events to improve safety on London's roads.	X	X	X	X				
Action area 5 - Regulation									
3.5.1	Explore different approaches to governance, roles, responsibilities and principles, including signing and marking, affecting the management of cycling related risk that are employed across	X	X	X	X	X	X	X	X

	Europe.								
3.5.2	TfL is committed to undertake desk top research to inform a decision on whether to pilot allowing cyclists to turn left at red traffic lights.		X	X	X			X	
Action area 6 - Technology									
3.6.1	Work with the freight industry as a matter of urgency to identify the most appropriate and cost effective safety device (standard specifications as well as retro fitting) for large goods vehicles. Side guards and motion sensors to be considered	X	X						
3.6.2	Trial roadside safety mirrors (Trixi mirrors) on the Cycle Superhighways pilot routes	X	X						
3.6.3	Continue to distribute Fresnel mirrors to all fleet operators through FORS on request and more generally	X	X						
Action area 7 – Commercial driving and working practices									
3.7.1	Encourage responsible procurement practices throughout the GLA family and the public sector by ensuring fleet operators are registered as FORS members and receive driver training on cycle safety. Ensure contracts include vehicle specifications such as the use of improved safety features.	X	X	X	X	X	X		
3.7.2	Promote and encourage wider membership of FORS to deliver training and messages on cycle safety for all fleet operators in London.	X	X	X	X	X	X		
3.7.3	Work with town centre managers and freight quality partnerships to reduce the number of deliveries and influence timings on main cycle routes in London.	X	X			X			
3.7.4	Support the FTA's proposed concordat to avoid delivering during peak hours on the Cycle Superhighways and to reduce deliveries overall.	X	X			X			
3.7.5	To develop and pilot a 'considerate of cycling' package to be delivered to other road users through workplaces.	X	X	X	X	X	X		

3.7.6	Continue to provide cycle awareness training for bus drivers, particularly targeted on routes with an increase in cyclists, such as on the Cycle Superhighways		X	X	X	X	X		
3.7.7	Ensure forward facing cameras on buses are working properly and checked regularly to capture any incidents that may occur		X	X	X	X	X		
3.7.8	Provide taxi drivers in London with cycle awareness information relating to safety when driving, stopping and opening doors near cyclists.		X	X	X	X	X		
3.7.9	Continue to work with DfT to encourage the inclusion of cycling safety training as part of Driver CPC training	X	X	X	X	X	X		
Action area 8: Research and monitoring									
3.8.1	Research and explore the attitudes and behaviours of cyclists and HGV drivers.	X							
3.8.2	Work with MPS and City Police to improve consistency and precision of data and records including self reporting relating to individual casualty incidents.	X	X	X	X	X	X	X	X
3.8.3	Continue to survey and address the perceived risks associated with cycling e.g. through annual attitudes to cycling.	X	X	X	X	X	X	X	X
3.8.4	Research whether different genders behave differently around HGV vehicles.	X							
Action area 9: Partnership working									
3.9.1	Continue to work together to consolidate, analyse and identify trends and contributory factors relating to cyclists killed or seriously injured and to oversee implementation of this Action Plan.	X	X	X	X	X	X	X	X
3.9.2	Work with the FTA and others in identifying and piloting technical solutions to develop improved vehicle design and the concept of an urban lorry.	X							
3.9.3	Support the MPS Traffic Operational Command Unit (OCU) is committed (in partnership with City of London Police) to deliver one 'Exchanging places' event each month in 2010.	X							

3.9.4	Continue dialogue and discussions with Department for Transport to improve cycle safety and HGV safety, through work on the development of appropriate standards, regulation, joint campaigns and messaging on areas such as safe positioning.	X							
3.9.5	Work with the motoring and freight industry to improve cyclist safety to explore new ways to engage and understand the industry perspective and communicate messages (such as through training and promotion) and to develop technical solutions that could improve cyclist safety.	X							
3.9.6	Further investigate the role of vehicle design to improve driver visibility (e.g. height of driver, sight lines) in reducing collisions.	X							
3.9.7	Improve the coordination, promotion and procurement of high quality cycle training services for both adults and children in line with DfT approved quality standards.	X	X	X	X	X	X	X	X
3.9.8	Develop new alliances with cycle manufacturers and retailers to capture opportunities for these groups to disseminate safety messages to cyclists and to direct new cyclists towards training at the very outset of purchasing a bike.	X	X	X	X	X	X	X	X