1. PAST SUCCESSES

Road safety is a big problem in London, like many other major cities. In 2005 there were 214 people killed, 3,536 seriously injured and 28,180 slightly injured in road collisions. The cost to society of all these casualties for London alone is more than £1.2B a year. This is a huge toll of life and suffering, and it is preventable. We know how to prevent these collisions; all we need is the will and resources to change things.

Casualties in London

<table>
<thead>
<tr>
<th>2005 Casualty Figures</th>
<th>Casualty Numbers</th>
<th>% change in 12 months ending Dec 2005 compared with 1994-1998 average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Killed &amp; Seriously</td>
<td>Pedestrians</td>
<td>2,137</td>
</tr>
<tr>
<td>Injured (KSI)</td>
<td>Pedal cyclists</td>
<td>567</td>
</tr>
<tr>
<td></td>
<td>Powered two-wheeler</td>
<td>933</td>
</tr>
<tr>
<td>All KSI</td>
<td></td>
<td>6,684</td>
</tr>
<tr>
<td>Children (under 16yrs)</td>
<td>935</td>
<td>487</td>
</tr>
</tbody>
</table>

The importance of a Strategy

In November 2001, Ken Livingston, the Mayor of London, published a road safety strategy document that gave casualty reduction targets to be achieved by 2010. These target reductions in Killed and Seriously Injured (KSI) were from a baseline of the annual average of KSI between 1994 and 1998.

The strategy also identified partnership working as vital to achieving these reductions and brought together road safety stakeholders in the Pan London Road Safety Forum. This Forum has been proven an excellent channel for communications between all the road safety stakeholders in London, holding 3 large meetings a year. The Forum identified lack of skilled people as a major challenge to reducing casualties. Free training course are now run for engineers which adds to the skills and knowledge of London’s road safety professionals.
• 40% reduction in all KSI; Pedestrian KSI; Cyclist KSI, and Powered two Wheeler KSI, by 2010.

• 50% reduction in child KSI (16 years and younger).

• 10% reduction in all slight casualties.

• Set up Road Safety Forum

Casualties have fallen significantly following the publication of the strategy and since 2000 casualties have fallen every year in London. In 2005 KSI fell by 27% to 3,650 – 45% below the 1994-98 baseline figure, with an 8% fall in pedestrian KSI and a 6% fall in KSI involving P2Ws. Unfortunately serious collisions involving cyclists rose in 2005 compared to 2004, by 9% from 332 to 351. This trend is linked to increases in the numbers of people cycling in London, but nevertheless the trend is worrying.

These casualty reductions have largely been achieved by the application of tried and tested methods of the three road safety E’s - Engineering; Education and Enforcement.

Focusing engineering works at sites with a history of high casualties compared to similar sites has continued to give excellent improvements. Road safety engineering schemes give 100% first year rates of return – i.e. the casualty reduction benefits achieved in year 1 pay for the scheme. Engineering measures such as road humps and cushions have been the main measure used in the 120+ 20mph zones in London. A research project has measured the casualty changes in these zones and found that on average, KSI fell by 57%.
The enforcement activities have included installing over 600 cameras in London, which have helped to treat some of the sites where speeding has been the main cause of collisions. Research shows fatal and serious casualties at camera sites fall by over 40%. Cameras are also installed at sites where collisions have happened in the past caused by vehicles jumping the red lights and again have reduced casualties by over 40%.

The Mayor’s transport strategy has focused on increasing cycling and walking in London, which have both risen in volume since 2000. Casualties in these vulnerable modes, however, have been falling recently, which means walking and cycling are getting safer as the network is adapted for the vulnerable modes. This is due to investment in facilities for cyclists, such as advanced stop lines at many signal junctions and cycle lanes on busy roads. This downward trend for cyclists stopped this year, mainly due to a big increase in the amount of cycling, possibly also linked with an increase in the numbers of new inexperienced cyclists.

The numbers of Powered Two Wheelers (P2Ws) has been rising in London for many years, and P2W casualties have been rising along with this increase, until recently. Major advertising campaigns, aimed at both car drivers and motorcycle riders have raised the awareness of the dangers and consequences of hitting bikes.
Child casualties have been a particular concern to the Mayor. TfL funds the Children’s Traffic Club, which provides free information to all 3 year olds in London. This has proven to be very successful when used in other countries, and is an excellent long-term road safety investment. We have also recently introduced The A – Z of Traffic Tales for 7 year olds in schools. This introduces road safety into a ‘citizenship’ education pack. The Junior Road Safety Officer initiative has been going for 1 year now and this has proven very popular with schools. TfL supplies information packs and resources to children who volunteer to be the Junior Road Safety Officer for their classmates.

We are very pleased that child casualties have fallen faster than any other category, reducing from 728 KSI in 200, down to 355 KSI in 2005. We have already met the new lower targets some 4 years early.

Teenagers and young drivers are particularly vulnerable and TfL has several campaigns that bring home strong direct messages about the potential to loose your life on the roads. The ‘don’t die before you’ve lived’ campaign has used cinema, TV, radio and posters to get the message across.
All the above have contributed to large reductions in casualties in London, with killed and seriously injured (KSI) casualties falling 40% from 6117 in 2000 to 3650 in 2005. This success means that most of the original targets set by the Mayor have been met already, some 5 years early. The Mayor has therefore recently announced lower targets, with 50% reductions replacing the previous 40%, and 60% replacing 50% for children. The exception is for powered two wheelers, where the original 40% target is kept. The new target reduction for slight casualties is 25%. London is now leading the UK in terms of making the roads safer.

2. FUTURE INITIATIVES

While we intend to continue with the tried and tested methods, we are also keen to use new technology.

Time-distance cameras

‘Gatso’ type wet-film speed cameras have proven to be very effective in reducing casualties and we hope to increase the numbers of new sites each year into the future. New technology digital cameras allow sites to be treated that were not possible in the past, due to the fact that they do not need to be visited to remove film. This allows camera enforcement in tunnels and other difficult environments.
While road humps and cushions do reduce speeds and make roads safer, they are not always popular with car drivers and do disadvantage the emergency services. TfL is working with others to develop time-distance speed cameras to replace humps and cushions in 20mph zones. The boundaries to the treatment zone are fitted with number plate reading cameras and the time of passing is recorded at the entry and exit from the zone. The elapsed travel time can be compared with distance travelled and an average speed calculated. If this exceeds the threshold, then the vehicle can be considered to be speeding and the appropriate action taken.

It will be important to link the new cameras with publicity and signing, stressing the benefits of cameras as opposed to road engineering. We generally find residents are supportive of lower speeds on their roads and if we can remove the disadvantages of humps, we believe the new 20mph zones will get strong local support.

There is an aspiration to make the majority of London’s residential areas 20mph zones, and this becomes feasible if we could use the fine income from the cameras to fund the schemes – self funding road safety! In this way we could achieve the objective of making all London’s residential areas 20mph zones in the next 10 years.

**Speed limiters (ISA)**

Long-term we are looking at speed limiters and Intelligent Speed Adaptation (ISA) in vehicles. Keeping to the speed limit could reduce casualties in London by over one-third, so the potential is very large. It would also mean road engineering measures and cameras would not be needed any more, greatly enhancing our streetscape. ISA requires a ‘speed limit map’ of London and GPS positioning in the vehicle. This allows the vehicle to know the current speed limit, which can be displayed to the driver, or used to limit the vehicle speed. We have commissioned Leeds University who have produced an Intelligent Speed Adaptation scoping report: [link](http://www.tfl.gov.uk/streets/downloads/pdf/LRSR/Research_Reports/Intelligent-Speed-Adaptation-Literature-Review-and-Scoping-Study-Jan-2006.pdf) which includes estimates of casualty benefits for different levels of intervention. The report concludes that an advisory system that displays the current speed limit on vehicle dashboards could reduce casualties by around 10%.

We are working towards getting a digital map showing the locations of all the speed limit signs in London and hope to have a first version of this available early in 2007. We are also developing a method of keeping the map updated to include changes in signs and temporary limits (covering road works etc).

Once we have the map we plan to equip a number of vehicles as part of a pilot trial of ISA in London. This will allow us to demonstrate the technology and gain experience of driving around London in vehicles that keep to the speed limit. The pilot will need to include buses, taxis and motorcycles, to prove that the technology embraces these modes. Given the large numbers of...
buses, taxis and private hire vehicles in London, it is possible that encouraging these vehicles to fit ISA systems could reduce speeds bring large road safety benefits to the Capital.

3. SUMMARY

- London has been very successful in reducing casualties over the past 3 to 4 years, with a 40% reduction in Killed and Seriously Injured casualties between 2000 and 2005.
- Having a good clear London Road Safety Plan, supported by the Mayor, has been instrumental in achieving the reductions.
- Casualty reductions have been achieved largely using tried and tested methods – the 3 E’s of Engineering, Education and Enforcement.
- We still kill over 200 people every year. These deaths and injuries are preventable and lots more needs to be done to make London a safe and environmentally friendly place to live, work and visit.
- New technologies have huge potential to continue these trends in the future.
- Time-distance cameras will be able to enforce 20mph zones in residential areas and the fine income used to fund the running costs and new schemes. If these schemes are successful the majority of our residential areas could be 20mph zones in 10 years.
- In the longer term, Intelligent Speed Adaptation (ISA) could be installed in vehicles to keep them to the speed limit. This would reduce casualties by over 30% and replace road engineering and cameras, greatly enhancing our streets.

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