ROAD SAFETY STRATEGY

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1. PURPOSE OF THE STRATEGY

The Road Safety Strategy sets out the county council’s aspirations for casualty reduction and prevention. The intention is to encourage a change in attitude and behaviour and deliver a safer and greener highway environment. This strategy recommends action to:

- Make roads safer for all highway users
- Improve driving standards
- Reduce the number of people who exhibit inappropriate and reckless behaviour
- Improve road infrastructure
- Promote and achieve appropriate driving speeds
- Improve safety for vulnerable users
- Raise awareness of road safety issues
- Reduce the economic and social disbenefits of road collisions

1.1 The Road Safety Strategy as a delivery mechanism for Hertfordshire’s LTP Policies, Goals and Challenges

This strategy incorporates a significant component of the overall Hertfordshire Vision contained within the Local Transport Plan 3 (LTP3):

“To provide a safe, efficient and resilient transport system that serves the needs of business and residents across Hertfordshire and minimises its impact on the environment.”

This Strategy sets out how the County Council intends to achieve policy 3.3 in the LTP3:

<table>
<thead>
<tr>
<th>The County Council will:</th>
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<tbody>
<tr>
<td>Minimise the number of people killed or seriously injured on the county’s roads through:</td>
</tr>
<tr>
<td>A  Targeted activity using latest data analysis techniques and measures</td>
</tr>
<tr>
<td>B  Promoting a mix of engineering, education and enforcement activity focused on casualty reduction and prevention</td>
</tr>
<tr>
<td>C  Working with partners to develop and deliver targeted and appropriate measures and messages</td>
</tr>
</tbody>
</table>

This strategy will also contribute more widely to achieving the following LTP3 policies and strategies (daughter documents):

- 3.1 Access to Services (Accessibility and Inclusion)
- 3.4 Climate Change
- 3.5 Congestion
- 3.6 Cycling
- 3.12 Intelligent Transport Systems (ITS)
- 3.13 Network Management
The LTP3 contains a number of Goals and associated Challenges which will contribute to achieving its vision and policies. Specifically, this Strategy will address the Goal which aims to “Improve the Safety and Security of Residents” and will substantially contribute towards challenge 4.1 to “Improve road safety in the county reducing the risk of death and injury due to road traffic collisions”.

It also contributes to the following LTP3 Goals and Challenges:

**Goal:** Support economic development and planned dwelling growth.
**Challenge 1.1:** Keep the county moving through efficient management of the road network to improve journey time, reliability and resilience and manage congestion to minimise its impact on the economy.

**Goal:** Improve transport opportunities for all and achieve behavioural change in mode choice.
**Challenge 2.2:** Achieve a behavioural change as regards choice of transport mode increasing awareness of the advantages of walking, cycling and public transport, and of information on facilities and services available.

**Goal:** Enhance the quality of life, health and the natural built and historic environment for all Hertfordshire residents.
**Challenge 3.1:** Improve journey experience for transport users in terms of comfort, regularity and reliability of service, safety concerns, ability to park and other aspects to improve access.
**Challenge 3.2:** Improve the health of individuals by encouraging and enabling more physically active travel and access to recreational areas and through improving areas of poor air quality which can affect health.

**Goal:** Reduce transport’s contribution to greenhouse gas emissions and improve its resilience.
**Challenge 5.1:** Reduce greenhouse gas emissions from transport in the county to meet government targets through the reduction in consumption of fossil fuels.
1.2 The National Perspective

The Road Traffic Act, 1988, amended by the Road Traffic Act 1991, places a statutory responsibility for road safety on highway authorities. The Act requires local authorities to:

“prepare and carry out a programme of measures designed to promote road safety”, and enables “contributions to be made towards the cost of measures for promoting road safety taken by other authorities or bodies”. Appropriate measures include education and training, road safety engineering, and safety audits.

The Act places a duty on local authorities to:

“carry out studies into accidents arising out of the use of vehicles on roads or parts of roads, other than trunk roads, within their area, and, in the light of those studies, take such measures as appear to the authority to be appropriate to prevent such accidents, including the dissemination of information and advice relating to the use of roads, the giving of practical training to road users or any class or description of road users, the construction, improvement, maintenance or repair of roads for which they are the highway authority (in Scotland, local roads authority) and other measures taken in the exercise of their powers for controlling, protecting or assisting the movement of traffic on roads…..”.

Road collisions impose a significant burden on the NHS and social security budgets, both in the immediate aftermath and longer term due to permanent disablement, and reduced economic output. The established average value of preventing a fatal collision is £1.9 million, and the value of preventing a collision involving injury averages £75,000 across all reported injury collisions. The total value of preventing all reported collisions in 2008 would have been around £18 billion. The argument to improve road safety is therefore not simply ethically, socially and emotionally driven but also an economically sound policy area that will deliver real cost savings.

1.3 The Focus of the Strategy

In Hertfordshire, the primary focus of this strategy is on collisions where people have been fatally or seriously injured (KSI). There is limited information on “damage only” collisions and the level of confidence in the accuracy of this data is low. In the future, consideration will be given to looking at data where, for example, street furniture, such as street lights, is repeatedly damaged.

The overall road safety strategy is summarised in the LTP. This Road Safety Strategy is a daughter document to the LTP and sets out the road safety intentions in more detail. This document also outlines the range of prevention and reduction programmes that are developed to achieve casualty reduction.

Road safety education and training, safety audit, engineering measures and enforcement are used to address both casualty reduction and prevention.
Programmes are driven, developed and funded by the use of a variety of data to identify locations, audiences and messages to address the causes of casualties.

The development of this Strategy is led by the County Council’s Environment Department. However, successful delivery relies on close intelligence led work with partner organisations, through the Strategic Road Safety Partnership, including Hertfordshire Highways, Hertfordshire Constabulary, Hertfordshire Fire and Rescue Service, the NHS and the Highways Agency.
2. PERFORMANCE INDICATORS AND TARGETS FOR ROAD SAFETY

In order to measure the success of interventions in achieving the challenges the following National Indicators are currently measured:

NI 47 Total killed and seriously injured (KSI)
NI 48 Children (0-15 years) killed and seriously injured

Hertfordshire has been successful in achieving its 2010 casualty reduction targets well ahead of time and remains the best performing authority in the East of England for overall KSI casualty reductions.

In April 2009 the Department for Transport (DfT) consultation document “A safer way: Consultation on making Britain’s roads the safest in the world” proposed a new set of targets, to be achieved by 2020, compared to a baseline of the 2004-08 average. Tables 1 and 2 below show the current position with regard to total KSI and Child KSI casualties. They also identify the aspiration to maintain the excellent casualty reductions during a period of significant reduction in funding.

**Table 1: NI47 Total KSIs for Hertfordshire**

<table>
<thead>
<tr>
<th>Indicator: NI 47 Road Casualties</th>
<th>People Killed or Seriously Injured in Road Traffic Collisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline 04-08 average</td>
<td>Actual 2008</td>
</tr>
<tr>
<td>556</td>
<td>459</td>
</tr>
</tbody>
</table>

**Table 2: NI48 Number of Child KSIs for Hertfordshire**

<table>
<thead>
<tr>
<th>Indicator: NI 48 Road Casualties</th>
<th>Children Killed or Seriously Injured in Road Traffic Collisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline 04-08 average</td>
<td>Actual 2008</td>
</tr>
<tr>
<td>44</td>
<td>37</td>
</tr>
</tbody>
</table>

The draft national strategy proposed an amendment to the child KSI target, to include young people (0-17) which HCC is likely to adopt:

**Table 3: Proposed Road Safety Targets for Children and Young People**

<table>
<thead>
<tr>
<th>Proposed new Target: Road Casualties</th>
<th>Children and Young people Killed or Seriously Injured in Road Traffic Collisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline 04-08 average</td>
<td>Actual 2008</td>
</tr>
<tr>
<td>86</td>
<td>73</td>
</tr>
</tbody>
</table>
Other indicators may include the rate of KSIs for powered two wheelers, pedestrians and cyclists.

Although Hertfordshire is continuing to reduce casualty numbers, the current national funding situation is likely to significantly affect further achievement. There is particular concern that there could be a rise in KSIs without continued funding, for example to maintain safety camera enforcement, as part of the overall casualty reduction strategy.

The Department for Transport is expected to publish a “Framework for Road Safety” shortly which should give a clearer vision of how central government intends to address casualty reduction and road safety going forward.

Collisions resulting in slight injuries are not included in the indicator set. However, collisions involving slight injury make up almost 90% of all injury collisions in the county and are fundamental to investigating and establishing trends. They will continue to be recorded, monitored and, where necessary, action will be taken to ensure the number of slight collisions are managed and ideally reduced alongside the number of people killed and seriously injured on Hertfordshire’s roads. Although the economic and social costs of slight collisions are lower than those for fatal and serious collisions, they still pose a significant impact to Hertfordshire in terms of cost and disruption.

People are understandably concerned when anyone dies in a road collision and the DfT proposed a national target to reduce fatalities in its consultation document. Fatal casualties in Hertfordshire over the period 2007 to 2009 are averaging around 40 a year, compared to nearly 64 in the 1990s, although many of these could have been avoided. The county council will continue to investigate the underlying causes of every fatality to establish the issues involved. The European Commission (EC) has also indicated that it wishes to halve road deaths occurring on roads in the European Union (EU) by 2020.
3. BACKGROUND INFORMATION

The county council receives data on all injury collisions in the county that are attended by the Police, whether on HCC maintained roads or on the motorway and trunk road network. This provides the base data for informing strategies and monitoring targets. Data is recorded using Police Stats 19 forms which provide a wide range of information on location, mode of travel, people and contributory factors involved in injury collisions.

There are times when someone is injured and taken to hospital and the Police and other emergency services are not informed. This can lead to under reporting, particularly for cycling and walking casualties and makes comparison with NHS data almost impossible. However, Stats 19 is not the only source of data and the Strategic Road Safety Partnership aims to supplement the intelligence gained from Stats 19 information through its multi agency data sharing group.

Stats19 still represents the most consistently collected data series on road traffic casualties.

Collisions which result in injury to anyone involved are classified according to DfT definitions. These are:

- Fatal – a casualty dies within 30 days of a collision;
- Serious – a casualty is detained in hospital or suffers injuries such as fractures, concussion etc. It also applies if a casualty dies after 30 days of the incident; and
- Slight – a casualty receives minor injury or requires roadside attention

Full detail of these definitions can be found in Appendix 1.

3.1 Existing Road Casualties in Hertfordshire

Although we have seen significant reductions in KSI casualties over the last decade there still remains a number of people who continue to be killed or seriously injured on the county’s roads. Currently the number of KSIs occurring in Hertfordshire equates to more than one a day. The number of people killed and seriously injured on the county’s roads has reduced to a greater extent than in the rest of the East Region and Hertfordshire’s 2009 figures are the lowest on record. Child KSIs are tending to fluctuate, due to the very low numbers involved. Slight casualties have also seen significant reductions and are again the lowest on record.
Table 4: Road Casualties in Hertfordshire

<table>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Killed and Seriously Injured</td>
<td>1084</td>
<td>No more than 600</td>
<td>499</td>
<td>550</td>
<td>459</td>
<td>413 *</td>
<td>On Track</td>
</tr>
<tr>
<td>Children Killed and Seriously Injured</td>
<td>113</td>
<td>No more than 56</td>
<td>37</td>
<td>42</td>
<td>37</td>
<td>42</td>
<td>On Track</td>
</tr>
<tr>
<td>Total Slight Casualties</td>
<td>5509</td>
<td>No more than 5509</td>
<td>4704</td>
<td>4578</td>
<td>3925</td>
<td>3543 *</td>
<td>On Track</td>
</tr>
</tbody>
</table>

*N.B The 2009 outcome of 413 KSIs and 3543 Slights is the lowest on record. Casualties have continued to fall and are well below the county council's 2010 target of 600.

The following graph shows recent three year KSI casualty information by different modes compared with the same period 10 years ago. Three year data is used to help identify trends over time, which reduces the effect of random variation and leads to more robust analysis and use of the data.

**Figure 1: Total KSIs by road user class 1997-99 and 2007-09**

3.2 Road User Analysis

Analysis of the KSI collision and casualty data (2007-09) indicates that four main user groups account for 95% of all KSI collisions. These are car users (drivers and passengers 47%), powered two wheelers (mopeds and motorbikes 21%), pedestrians (16%) and cyclists (11%).
Powered two wheelers make up less than 2% of the traffic on all roads in Hertfordshire.

Figure 2: KSI casualties for Hertfordshire 2007-2009

Where appropriate and practicable, a combination of measures will be used to provide a diverse and multi agency approach to casualty reduction in the future. It is also likely to mean that measures and interventions will be targeted at very specific groups or geographical areas to make best use of available resources.

It is proposed to focus attention on the four main themes of car users, powered two wheelers, pedestrians and cyclists and to continue to review casualty data further to assess and promote appropriate remedial treatment for casualty reduction activities. Casualty prevention initiatives will continue to follow government approved reports and studies, supplemented by local studies and advice.

3.2.1 Car users

Analysis of the car user group to establish the main themes to the causes of collisions is by investigating the contributory factors. Currently these factors tend to be failing to look at junctions or failing to give way, losing control when driving too fast on wet road surfaces, drink or drug driving, excessive speed, misjudgement of speed and aggressive or reckless driving. In addition around 11% of all car user serious or fatal collisions involve occupants who are not wearing seatbelts.

Many collisions involve young car drivers in the 17-24 age range. 33% of KSI collisions involve car drivers in this age. Young driver and passenger casualties are predominantly in rural locations with the main trend being loss of
control through travelling too fast or too fast for the conditions. Young drivers tend not to be involved in collisions in residential areas.

Children (aged 0-15 years) are rarely killed or seriously injured in cars.

**Figure 3: County KSI Car User Casualties by age, 2007-09**

<table>
<thead>
<tr>
<th>Age Band</th>
<th>Serious</th>
<th>Fatal</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-14</td>
<td></td>
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<tr>
<td>15-19</td>
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<td>20-24</td>
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<td>25-29</td>
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<td>30-34</td>
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<td>35-39</td>
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<td>40-44</td>
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<td>45-49</td>
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<td>50-54</td>
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<td>55-59</td>
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<td>60-64</td>
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<td>65-69</td>
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<td>70-74</td>
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<td>75-79</td>
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<td>80-84</td>
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<td>85-89</td>
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<td>90-94</td>
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3.2.2 Powered Two Wheelers

Powered two wheeler (PTW) data indicates an equal split between rural and urban locations, with 9% on the highways agency network. In urban areas right turns by cars colliding with PTW’s is the predominant problem. In rural collisions loss of control is the main contributory factor.

Over half of powered two wheeler KSI casualties are riding bikes over 500cc. There is a fairly even spread of KSI casualties across mopeds, 50cc-125cc and 125cc-500cc bikes although there is a spike of young riders in the 15-19 age band involved in collisions on mopeds and 50cc-125cc machines.
3.2.3 Pedestrians and Cyclists

Pedestrian casualties predominantly involve them failing to look. 58% of pedestrian casualties involve people over the age of 20. The age band with the most casualties is the 15-19 year olds. About 56% of pedestrian casualties involve children and young people (0-17) and occur outside school hours. Of these, 61% were male. 38% of child pedestrians were injured on school related journeys. There are slightly more male children injured as pedestrians on the school journey than female.

A very similar pattern is seen in cyclist KSI collisions with injury to cyclists showing a spike in the 10-14 age range, of which 11 year olds had the highest
There is also an issue for adult cyclists between the ages of 25 and 64. Most cycling casualties happen on journeys other than for school or work. Contributory factors in cycling collisions again show a high level of “failed to look”, both on the part of the rider and by the driver of vehicles involved in cycle collisions. (Fig 6)

**Figure 6: County KSI Cyclist by Age, 2007-09**

![Chart showing cyclist casualties by age group]

It is worth noting that there is known to be underreporting of both pedestrian and cyclist casualties where the Police are not called but the casualty is taken to hospital which is where Police and NHS data is unable to be matched.

### 3.2.4 Children and Young People (0-17 years)

Approximately 63% of all casualties involving children and young people in Hertfordshire occur during leisure time, mainly the early evening and not on the school journey. Consequently, children are rarely injured outside their school.
Children (0-14) are more likely to be involved as KSI casualties while walking and cycling than as vehicle/car passengers, although they are more likely to suffer a slight injury from a collision whilst travelling as a passenger in a vehicle than whilst walking or cycling.

Young people (aged 15-17 years) show a spike for pedestrian casualties at the age of 15 and are also involved as passengers in cars, particularly with male drivers. 16 and 17 year olds are also involved in KSI collisions on mopeds.

3.3 Other contributory factors in collisions and casualties

3.3.1 Speed

Speed is not just a contributory cause of collisions but it significantly increases their severity when they occur. There are a number of speed related contributory factors involved in many KSI collisions, ranging from speeding, reckless and too fast for the conditions, to misjudged speed and loss of control. Over the last few years, locations where speed related KSIs have been treated by the use of safety cameras have seen a reduction of 64.4% in the number of KSI collisions at those sites. Evidence from Oxfordshire shows speeds rise significantly when the public is aware that cameras have been switched off.

3.3.2 Drink and drugs

Alcohol still plays a role in collisions and casualties affecting both drivers and pedestrians involved in KSI collisions. The number of KSI collisions with alcohol as a contributory factor has halved over the last decade. Generally drinking and driving is seen to be morally unacceptable in theory but in practice people will still have a drink and drive. Research continues to be carried out with Hertfordshire Alcohol Problems Advisory Service (HAPAS) to investigate more fully the underlying reasons why people take such a risk.
The presence of drugs in the system also contributes to collisions and casualties although the use of illegal drugs appears to be a less widespread problem than alcohol. Local research was carried out with over 1000 young people (aged 16-25) across the county who were surveyed in schools, colleges and nightclubs to establish their attitudes and experiences. The results showed the main trends were that almost half the people surveyed had taken recreational drugs and driven. Cannabis was generally considered to be safe to drive with and taking drugs and driving was seen as more acceptable than drinking and driving. This is a widespread misconception.

3.3.3 Distraction

Distraction in the form of mobile phones and other in-car technologies, as well as distraction from passengers is a concern and has also been identified as a factor in a number of KSI collisions. Local checks in 9 Hertfordshire towns for just one hour at each location revealed 330 drivers using a mobile phone with almost one third of them sending texts. Other distractions included eating and drinking, adjusting CD/radios and Sat Navs, driving with dogs on their lap and bottle feeding a baby!

3.3.4 Seatbelts

Although the majority of people use seatbelts there remains a significant number involved in KSI collisions where no seatbelt was worn. During a three year period (07-09) 21 fatal and 59 serious casualties were not wearing their seatbelt.

Figure 8: County KSI Casualties: Seatbelt Wearing 2007-09
3.4 Where do most collisions and casualties happen?

Currently, the county council is the Highway Authority for 94% of the road network in Hertfordshire, managing principal A-roads, B-roads, C-roads and unclassified roads. The remaining 6% of road network is the responsibility of the Highways Agency which manages the motorways and trunk A-roads. Casualty figures show that 14% of KSI casualties and 19% of all casualties occur on the Highways Agency network.

**Figure 9: Casualty split by HCC and HA roads – 2006-2008**

3.5 Future Patterns

3.5.1 Road Works

Previous experience of the effect on collisions and casualties during major roadworks on the M1 in the county leads us to expect similar reductions during the life of the M25 widening schemes in Hertfordshire. Over the life of the M1 widening scheme there was a reduction of 208 collisions and 419 casualties comparing data before and after the works. Speeds were enforced by safety cameras to protect the workforce and ensure steady flows to reduce congestion.

3.5.2 Highways Agency Digital Enforcement Camera System (HADECS)

In order to manage high volumes of traffic at certain times on the motorway network the Highways Agency is introducing a system that will enforce reduced speeds at times of need through camera technology. The newly completed section of M1 will be the first section in the county to go live and will be followed by gradual introduction of the technology on the M25 as individual work phases are completed. This should also have the effect of retaining the reduced casualties and collisions seen during the widening works.
3.5.3 Improvements in Technology

Technology and vehicle design has already contributed to reductions in severity of injury to vehicle occupants and vulnerable road users such as pedestrians. It is anticipated that there will be further advancements in technology over the life of this strategy that will produce positive benefits to people involved in injury collisions.

3.5.4 Changes in the Economy and Traffic Levels

Changes in the economy and traffic levels may also have a bearing on future trends in collisions and casualties as may our ageing population, the effects of promoting sustainable but more vulnerable modes and driver distraction due to in car technology. Despite reductions we still expect to see young drivers, PTWs, pedestrians and cyclists being significantly involved in injury collisions and casualties.
4. PARTNERSHIP WORKING AND DATA ANALYSIS

4.1 Partnerships

Individual organisations have for many years carried out activities to reduce and prevent road casualties and much success has been seen. However, as numbers reduce (and funding levels become critical) it is recognised that we will achieve more in full partnership working to an agreed strategy to avoid duplication and working on more tightly targeted initiatives. Particularly, the DfT's “Advice about local road safety strategies” issued in July 2009 identifies that “Local road safety strategies should bring together the efforts of local authorities, the emergency services, other public agencies, the private sector and the voluntary sector to enable the most to be made of the talents and resources available to improve road safety delivery.”

4.2 Data Analysis

It is critical to ensure scarce resources are targeted to best advantage. Through improved use of Stats 19 data and the consideration of wider road safety strategies as part of the analysis there is potential for education, engineering and enforcement programmes to be linked, ensuring best impact against the relevant targeted area.

Stats 19 data is collected by the Police when they are called to the scene of an injury collision. The data is then input, stored and analysed by Herts Highways, reported to the DfT and used by officers in safety engineering and education to identify issues, trends and targets for measures.

Data is shared with the Hertfordshire Strategic Road Safety Partnership (HSRSP) through a multi agency data sharing group drawn from the county council, Constabulary, Herts Fire and Rescue service, NHS and the Highways Agency. Problem profiles are being developed that will include data from other locally held sources and partners to further identify common areas of concern and opportunities to target and better understand potential audiences. Other sources of information include access to social marketing analysis tools that will assist with this developing area of work and that have already been used to success by Fire and Rescue colleagues.

4.3 Development of Interventions

The HSRSP Strategic group, consisting of senior officers from all partner organisations, directs and steers a multi agency Tactical group to develop, monitor and evaluate joint casualty reduction initiatives to tackle agreed priorities.

Evaluation of measures and programmes range from direct effects on casualties and collisions through engineering schemes, comparing before and after data, to measuring education initiatives designed to raise awareness, increase knowledge and influence changes in attitude that can lead to a change in behaviour.
National professional bodies such as Road Safety GB, Adept and ACPO are very well placed to ensure development, sharing and delivery of best practice interventions and officers from Hertfordshire continue to play their part in developing and spreading good practice at national and regional levels.

4.4 Casualty / Collision Prediction

Claims are often made that a section of road or specific location is an “accident waiting to happen”. Collisions are, by their nature, random and multi-factored and as such there is no method or system available to predict when the next collision may occur. However, if collisions have occurred and a pattern of some type is evident, the problem is likely to persist until the fundamental causation factors are addressed. One example of how such a pattern can be addressed is the introduction of new legislation to enforce seatbelt wearing to tackle the significant number of people being killed or seriously injured because they were not restrained in the vehicle. This one measure has saved many lives since its introduction.

4.5 Causes

Collisions mainly occur when a road user fails to cope with his or her environment. Factors involved in crash causation are:

**Behaviour** - Over 90% of all collisions relate to the behaviour of the person involved, whether this is an unintentional or deliberate action.

**Vehicle** - Around 1% of collisions involve purely vehicle factors, where there has been some form of mechanical defect (e.g. brakes failed).

**Environment** - The remaining approximately 9% is associated with the layout and condition of the highway or environment (e.g. bend or weather conditions).

It is essential to adopt an appropriate remedial programme to address the underlying factors. For example there may be local concerns that speeding is a problem and calls for a speed camera. However on investigation, collision data may show that injuries are drink drive related so a speed camera would not reduce the pattern of drink drive collisions. Collisions involving vehicle faults such as poor brakes or tyres cannot be treated by engineering remedial measures but may be suitable for education and enforcement activity.

4.6 Priorities for Action

Priority will be given in the early years of this strategy to tackling the over representation of young drivers and passengers in injury collisions and casualties, together with the continued involvement of riders of powered two wheelers in collisions. Further detailed analysis and investigation of the causes of pedestrian and cyclist collisions and casualties will also be carried out to inform future programmes.
5. Interventions and Initiatives

Hertfordshire’s success in reducing injury collisions and casualties to current levels has been achieved through a traditional mix of education, engineering and enforcement programmes and measures and it is intended that this will continue.

5.1 Education, Training and Publicity

The county council’s road safety team will further develop its working links with partners in the Police, Fire and Rescue Service, NHS and the Highways Agency to ensure co-ordination, monitoring and evaluation of targeted programmes through the strategic partnership.

Based on analysis of the current data the following areas of work are proposed:

5.1.1 Young Drivers

Young drivers, although a small percentage of road users, are involved in a disproportionate number of road crashes. As such, the county council has been analysing casualty data for the 17-25 age group in order to provide young driver programmes that can be more effectively targeted to address the real problems faced by young drivers in Hertfordshire.

Further qualitative research is required, but initial trends show that 'loss of control' in conjunction with 'speeding' or driving 'too fast', particularly on rural roads, is a serious contributory factor in young driver collisions. Young drivers will be sub-profiled via further research (such as MAST1 & MOSAIC1, surveys, focus groups etc.) and new initiatives will be developed in accordance with the findings of these, such as targeting young drivers at work or running defensive driving ‘experience’ days for the most at risk. Ever mindful of not reinventing the wheel we will also investigate existing programmes across the country and consider their use, if appropriate, within Hertfordshire.

The county council will continue with established young driver initiatives and will use this data, coupled with psychographic trends to further hone them. For example Megadrive, a programme which was delivered to 10 schools and over 800 students over a 2 week period in 2010, will continue to run after evaluations showed a high percentage of positive attitudinal change.

Ongoing projects will also include RATS (Road Awareness Training Session), a new programme developed with Cumbria Fire Service. Working in close partnership with Hertfordshire Fire & Rescue Service and other strategic

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1 MAST Online is a web based data analysis tool to revolutionise information use in road safety.

It provides national crash data for user-customised in-depth analysis, and offers unique insights into people involved in crashes with the help of Mosaic Public Sector, the market leading socio-demographic database from Experian.
partners, we will produce an off the shelf package suitable for young drivers and riders. The RATS programme will assist various professionals (including Road Safety Officers, Fire & Rescue and Police) to deliver accurate information to young drivers regarding subjects such as drink driving, distractions and seatbelts.

5.1.2 Safer Drivers (Including Car Passengers)

While young drivers will become a particular focus for intervention over the next few years, there is still a need to tackle the number of people over the age of 25 who are killed and injured on the county’s roads as drivers and passengers.

Our strategic aims are to influence attitudes and affect positive behaviours towards safer and greener driving. We also aim to work in partnership and/or commission training targeted at drivers shown to be at a higher risk than others, specifically:

Driving offenders:
Research by Professor Steve Stradling for the Transport Research Institute has shown that 60% of drivers with penalty points have had a collision. It is widely accepted that educational courses, such as the National Speed Awareness Course, is more constructive than the issuing of endorsements, a view shared by ACPO, Herts Police and the county council. Courses will continue to be developed to re-educate drivers and to target the lapses, errors & violations that result in collisions and casualties.

We will maintain and develop the National Driver Improvement Scheme, shortly to become the National Driver Awareness Scheme. Research by Brainbox Research Ltd, June 2010, provides evidence that these "courses have produced positive changes in attitudes, confidence to drive safely and intention to drive safely in the future. At follow-up 99% of clients reported that they had changed their driving: 22% that their driving had changed a great deal and over 40% that it had changed quite a lot". 5196 drivers have attended courses in Hertfordshire since its introduction in July 1996.

We will also maintain and develop Speed Awareness Courses for low and high end violators. Following the success of our current programme, we will work with Herts Police to explore the expansion of courses for higher end speeders. To date 28,570 drivers have attended our 5 hour theory and on-road course since its introduction in August 2006. Excellent feedback has been received from those that attend, a sample of which appears on our website at:

http://www.hertsdirect.org/envroads/roadstrans/rsu/nsacourses/nsaccomments

We will also work with Herts Police, the Association of National Driver Intervention Scheme Providers (ANDISP) and ACPO in the development of an educational programme to address driver distraction, in particular the use of a hand-held mobile phone whilst driving, as an alternative to receiving a fine and penalty points for failure to have proper control of the vehicle. Such drivers are
four times more likely to crash, injuring or killing themselves and / or other people for which they are more likely to be at fault.

Employees who drive in connection with their work: Nationally, up to 1 in 3 crashes involve a vehicle being driven for work, around 200 KSIs every week, at a cost in excess of £3 billion a year. We aim to support employers (including the county council), in meeting their legal responsibilities and duty of care in managing their driving for work policy. The county council has a flagship minibus driver permit scheme, also available to the voluntary sector, with over 4,300 current permits in circulation. The county council also has a comprehensive Minibus Purchase and Operation Manual and a Vehicle Managers Course for those who operate minibuses.

We will continue to liaise with Risk Management, Health and Safety and all county departments to advise, update, manage where appropriate, and publish corporate policy for the county council. Guidance such as the county council’s “Safer Driver Handbook” and the offer of training to at risk employees and those who transport vulnerable passengers as part of their job will be pursued. Ninety percent of Hertfordshire’s schools now have a person who has completed a Vehicle Manager’s course and has taken responsibility for the operation of their minibus. We seek to introduce this as a county requirement.

Whether employers provide vehicles or expect staff to use their own vehicles for business use, employers of 5 or more people have a legal responsibility under the Health and Safety Act to have a policy to address safe working practices, including safe travel and operation of a vehicle fleet. It is estimated that nationally between 800 and 1,000 road deaths a year are work related. We will work with the Association of Industrial Road Safety Officers (AIRSO) and our partners to work with companies and organisations to give support and training. It is recognised that working internally and with external businesses on driving for business purposes could result in cost savings for the council/businesses due to reductions in the cost of insurance premiums.

5.1.3 Safer Powered Two Wheelers

We will continue to work with partner organisations and the local biking community to try to reduce the number of motorcyclists (PTW riders) killed and seriously injured on Hertfordshire's roads. Whilst casualty numbers have reduced steadily over the last few years they still represent a significant proportion of the total casualties and remain over represented as they make up less than 2% of the traffic.

The focus of our efforts will be to persuade riders to take responsibility for their own safety by taking post-test and advanced training, ensure their visibility to other road users, wear protective clothing and equipment, and adopt safe-riding attitudes and behaviour.

The heart of this will lie in the continued publication of the Hertfordshire Biker magazine, which has established a positive and widespread readership within the county over the last four years. We will continue to increase the reach of
the magazine and develop meaningful evaluation techniques to measure its impact. The content of the publication will be increasingly tied into the results of data collision analysis and socio-economic research. We will also look at cooperating with surrounding counties to increase our reach to motorcyclists who may regularly commute though Hertfordshire.

A live event “Bikers in Paradise” will continue to be held to reinforce the messages of the magazine and provide further opportunities to communicate with motorcyclists. It is hoped to coordinate the objectives of this event with those of the Stevenage Bikefest, organised by the Fire & Rescue Service.

We will conduct research into specific issues that arise out of the data analysis programme, such as right-turn collisions in urban environments, and loss-of-control collisions on rural roads. We will work with volunteers from the biking community to study these issues in real locations. Measures that result from this may include engineering and education campaigns for either bikers or drivers of other vehicles.

We will continue to work alongside Hertfordshire Constabulary and organisations in both the public and private sectors, such as Herts and Beds Advanced Motorcyclists (HBAM), to provide Bikesafe assessments for as many bikers as possible, and will endeavour to encourage participation by a greater percentage of first-timers. Bikesafe has been very successful in encouraging riders to go on to take advanced training and we will continue to support this. Research will be conducted into the numbers of these riders taking and passing an advanced riding test, and their post-Bikesafe safety record. Since January 2009, 288 riders have attended a Bikesafe ride-out with a Herts Police motorcycle rider. Eighty nine of those (37.4%) subsequently enrolled for further training on an Institute of Advanced Motorists (IAM) “Skill for Life” package.

We have developed and trialled an educational resource for young riders of scooters and mopeds. We are now looking to integrate this with the RATS (Road Awareness Training Session) programme being developed in partnership with the Fire & Rescue Service and wider partners.

5.1.4 Safer Pedestrians

The contribution that walking can make to our daily lives and the environment is increasingly being recognised by local and central government, with sustainable transport forming a major part of the county council’s LTP strategy. The county council’s Walking Strategy sets out the intention to achieve an increase in walking in the county. The strategy should increase walking as a mode of transport to both realise the health benefits for residents and reduce reliance on the car, contributing to reductions in congestion. Safety will be an important element in the strategy.

Currently, casualty data indicates an issue with adult pedestrians across Hertfordshire. There are many more adult casualties injured as pedestrians compared with the number of child pedestrians injured.
Drunken pedestrians and pedestrians aged over 60 have previously been identified as vulnerable groups and have been targeted. Road safety seminars have been well-received by 60+ age groups across the county and high profile campaigns have raised awareness of the drunk pedestrian problem. There has been a decrease in casualties in both groups since initiatives began.

The road safety unit has been further analysing casualty data for adult pedestrians. Initial trends have shown that to reduce casualties more effectively a more localised approach is needed. For example, Watford has a high number of drink/drug related pedestrian casualties, whereas St Albans has geographical clusters of casualties where pedestrians have failed to look. Partnership links are being made with district councils and once further research has been undertaken, initiatives will be developed at a local level. These initiatives will aim to raise awareness among specific target audiences and/or at specific locations, using intelligence from casualty data, previous road safety campaigns and local partners.

Analysis has also been undertaken of pedestrians aged 0-17 years. It was found that during the school run, girls walking to school are statistically as vulnerable as boys. They make up 57% of these casualties. However, boys are significantly more likely to be injured as pedestrians after school hours, making up 61% of these casualties. The majority of child pedestrian injuries are in the 11-15 age range.

The county council has recruited volunteers to focus specifically on spreading Hertfordshire’s child pedestrian skills training programme across the county. The programme is already running in over 150 schools at Key Stage 1 and has been extended to 128 schools at Key Stage 2. However successful implementation will rely on buy in from the whole school community. We will focus on areas of high child pedestrian KSIs and take social deprivation into account when extending the scheme. Further initiatives are being developed for Key stage 3 including road safety modules on distraction and risk taking.

School Crossing Patrols:
For many parents, an important part of the decision about whether a child can walk to school often centres on whether a School Crossing Patrol will be there to help the child across busy roads. School Crossing Patrols are provided at schools that meet Hertfordshire’s criteria. Although not located because collisions and casualties have occurred, School Crossing Patrols contribute to the county’s focus on encouraging sustainable modes such as walking and cycling.

The agreed criteria for the provision of School Crossing Patrols in Hertfordshire include reducing the nationally recommended PV² of 4 million to 3 million where only primary aged children are crossing. Patrols are monitored at least once a term, and all sites risk assessed.

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2 PV² is a calculation of the number of pedestrians (P) and vehicles (V) counted during a set time period
The service is valued by parents and children, and since a change in legislation, patrols are allowed to cross adults during the periods of duty, thus providing a valuable service to the community.

Drivers who refuse to stop to allow children to cross the road safely cause one of the main problems experienced by Patrols. The Police have provided valuable support and drivers have been successfully prosecuted for not stopping when required to by a School Crossing Patrol.

5.1.5 Safer Cyclists

Cycling has an important role to play in helping to meet Hertfordshire’s transport goals and challenges. The county council’s Cycling Strategy headline objective is to achieve “More people cycling, more safely, more often, as a convenient, quick, low carbon form of transport for short journeys”. Cycling is also a worthwhile form of transport for individuals in its own right.

With regard to safety, the county council promotes cycle training through the national Bikeability cycle training scheme in support of encouraging sustainable transport in safety. There are three distinct stages to the Bikeability programme, which includes on and off road training and advanced training.

Bikeability is available to all ages although most attendees are primary school aged children. Over 5,000 people a year are trained to at least level 2 in the county. Moving forward we will focus on areas of high child cyclist KSIs and take social deprivation into account.

The Road Safety Unit has trained 281 instructors since becoming an Instructor Training Provider and is currently undergoing accreditation along with the rest of the East Region road safety teams to become a consortium training organisation.

Adults can also access the Bikeability scheme and are offered one to one tuition from our bank of instructors.

5.1.6 Speed

Speed is of concern due to its contribution to collisions and casualties. Communities also voice worries about the speed of traffic in their area and the risks they feel this poses to their safety. There are a number of tools and measures available to manage, and where necessary enforce, speeds. The following link to the current Speed Management Strategy gives more detail:


Safety cameras:
Safety camera enforcement has been successful in reducing the number of KSI collisions and casualties at locations where they have been installed and drivers have been identified for our Speed Awareness course through the camera technology.
Safety camera activity was originally funded through hypothecation but has been funded by the Road Safety Grant from central government since 2007. This funding was cut during 2010/11 and it was confirmed in the Comprehensive Spending Review that central government will not provide this grant in the future. The county council is currently seeking ways to continue with camera enforcement in order to maintain the reductions in KSI that have been achieved through this method.

Speed Indication Device (SID) signs:
A joint project with the Police is seeing the roll out of SID signs at locations that have been identified primarily through collision and casualty data but also through dialogue with local communities where they can request activity to tackle their top issues locally. Very early results appear to show reductions in collisions and speeds, and data is being gathered in order to monitor effectiveness of the scheme over time.

Community Speed Watch:
This Police led activity is linked to the above SID sign project involving Police safer neighbourhood team officers and PCSO's who will work with local Community Speed Watch groups in jointly tackling speed complaint sites.

5.1.7 Alcohol

The road safety unit has undertaken partnership research with the Hertfordshire Alcohol Problems Advisory Service (HAPAS) Education and Training team to gather quantitative demographic and attitudinal data on over 1000 drink drivers as part of an ongoing study to fill national gaps in casualty reduction intelligence.

Overall, there have been some strong trends in attitude (lack of understanding about drink driving limits, feeling in control when making the decision to drink drive, not thinking about the possibility of injuring someone at the time, loss of license closely followed by shame and stigma as worst consequences). Some slight trends have emerged indicating a difference in attitude among particular demographic groups which means that specific messages can be targeted at specific groups (e.g. there were differences in the attitudes to drink driving between men and women).

Being able to group drink drivers into different target audiences has been one of the most useful things to come from the research in terms of preventative campaigning. This now gives agencies the opportunity to take less of a ‘blanket’ approach to drink driving campaigns, meaning that campaigns can be more effectively targeted and results-driven.

Employment data was utilised during a World Cup partnership campaign (June 2010). Companies with a high proportion of manual employees were targeted and emphasis was put on perception of enforcement (ie likelihood of being caught) and asking people to consider personal consequences of losing their
license. The campaign was evaluated via telephone surveys and received 100% spontaneous recall of messages.

Job centres, community centres and parents via play centres could be used to target attitudes of the 'unemployed' group which previously has not been specifically targeted. Universities and colleges can be used to target students in a way which is relevant to their attitudes identified via the data. Unions and local business organisations could be useful partners in targeting the attitudes of different employment sectors.

If a particular group is targeted over a sustained period, future data gathered could be used to evaluate the effectiveness of campaigns. For example if managers in a particular geographical area are effectively targeted this could translate in a decrease in numbers from this group attending the Hapas courses.

Changes to the database means that the data can be further analysed and all current and future data can be shared with partners locally and nationally. Partnership links have been made with the Driving Standards Agency (DSA) who has expressed interest in rolling the research out nationally, via other drink drive rehabilitation course providers.

5.1.8 Drugs

Drug Education/Social Norms best practice has demonstrated that illegal drug driving is an issue for a minority of people and not the majority and that blowing the problem out of proportion could have an adverse effect. However, 'drink/drug' driving is a factor in a number of KSI. In addition a number of adult pedestrian casualties are listed as 'drugged'. Reaction times and judgment are also affected by prescription drugs and over the counter remedies. Therefore it is important that the road safety unit continues to work in partnership with substance misuse agencies and other stakeholders to target the correct groups and continue to disseminate relevant information.

Over 1000 Hertfordshire residents aged 17-25 were surveyed regarding their experience of drug driving and attitudes towards it. Around 20% had been involved in drug driving at least once at some point in their lives (either as a passenger or driver). When examined district-by-district, this figure ranged from 17%-40%.

People who were frequent drug drivers were also frequent passengers of drug drivers, suggesting small 'peer-pockets' of recreational drug culture where drug driving is a norm. Similarly to drink driving, most drug drivers said they 'felt fine to drive' at the time of driving and would make other transport arrangements on a night out, suggesting that the drug driving occasion was not premeditated. Those who did drug drive usually either only did it once or quickly fell into a habit of doing it, suggesting that the first experience of drug driving would determine whether they felt 'safe' (both from a collision and from the authorities).
The target audience is a slightly older one, with fewer school students being involved in drug driving but clusters among night clubbers or higher education students. The types of drugs taken followed the national patterns with cannabis being the most popular and cocaine/speed being second (and taken by a much smaller minority).

The above research by the road safety unit was published in 2007 but since then partner agency Druglink has run workshops in schools, part of which involves a survey to establish base-line knowledge, and which corroborates the findings of the earlier report. The findings were fed-back to the DfT, which incorporated them into its national drug driving campaign.

5.1.9 Distraction

Despite being against the law the use of hand-held mobile phones by drivers continues. This, and other forms of distraction, is dangerous and puts the lives of all road users at risk. We will continue to communicate this to road users (drivers, riders and pedestrians) in the county to influence their attitudes and behaviour. Beyond the human tragedy of road death and injury, the average cost of a road fatality is £1.49m (DfT HEN note 2008) and from that aspect alone it makes sense to continue our efforts to maintain the reduction and if possible further reduce road casualties over time. We will be working with the Dept. of Psychology at the University of Hertfordshire to study distraction behaviour and how widespread it is. We will also work with wider partners, including the Police, to provide a range of education, training and publicity activity to address the growing problem of distraction in collisions and casualties.

5.1.10 Seatbelts

Despite the law and the increased fines for not wearing a seatbelt, road safety officers working alongside Police colleagues carry out regular roadside checks and still find many drivers and passengers not wearing their seatbelts. Recent checks over a total of 10 hours resulted in 422 male and 113 female unrestrained vehicle occupants being stopped and spoken to. The checks also revealed 42 children who were not strapped in at all or were in the wrong seat for their age or weight. Many parents do not realise or have ignored the fact that children should remain in a booster seat/cushion until they reach the height of 5'2 (135 cm) or 12 years of age. We will continue to develop activities with partners to ensure better compliance with the law.

Company vehicle occupants are also targeted at locations across the county. Recent checks resulted in 343 unrestrained drivers and 96 passengers being stopped and spoken to. Details of their company were taken and a letter sent to their Health and Safety manager requesting that wearing a seatbelt be made part of their company policy.

September 2010 saw the national launch of the Good Egg guide which offers parents advice on choosing a child seat, fitting the seat correctly, selecting a seat which is appropriate their child’s age/weight and details of the law. As part
of the launch, four child car seat checking events were held in the county and nearly 300 child seats were checked. Over 60% of the seats checked had faults which ranged from not being fitted correctly or suitable for the car/child to parents who were advised not to use their child car seats again as they had parts missing or were in a dangerous condition.

Child car seats fitted with the ISOFix system are becoming more popular, but parents still need to be made aware that even if their car has ISOFix fixings not all child seats can be used in their cars. ISOFix is not universal to all vehicles. Providing correct and timely information on child car safety seats to ensure parents receive sound advice before buying child safety seats is a focus for training of staff at retail outlets and work with health centres and ante-natal clinics across the county. Future developments will be to encourage more people to access information on the safe fitting of child car seats from a variety of websites, through Herts Direct.
5.2 Safety Engineering

The safety engineering programme forms the backbone of the engineering initiatives to discharge the highway authority’s duties under the Road Traffic Act. The programme seeks to alter the characteristics and environment of the highway through physical measures to alter highway user behaviour.

Programme monitoring shows around 90% of projects meet their operational targets of an expected saving of 40% with overall savings of around 50 collisions per year being seen at treated locations. The programme has had an average budget of just over £2m each year but produced savings to the community of Hertfordshire in the region of £4.5m a year, using the DfT Highways Economic Note calculation (HEN Table 4a 2008).

To achieve these reductions the strategy uses a data led approach using information on personal injury collisions. At present, there is very limited information on damage only collisions, but a much more detailed database is available from the police for injury collisions (collected through the STATS 19 data forms). The majority of the safety engineering programme seeks to address known injury collision locations. The process for selecting locations to study and where appropriate promote measures, is set out below, and is based primarily on five year casualty and collision data. All schemes use a before study period and are then monitored for the same period after to assess their effectiveness. Remedial measures are reviewed on a cost benefit analysis basis to ensure they are cost effective and represent good value.

5.2.1 Identification Methods

To target locations where patterns have established themselves, four distinct methodologies are used:

Cluster Sites: Locations where collisions are clustered closely together and with specific contributory factors such as bend, dark conditions, wet conditions, or skidding.

Area Studies: Geographical areas, not necessarily ward or district areas, with high incidences of severe injury collisions.

Route Studies: Routes with high incidences of severe injury collisions.

Speed Related: Routes with high incidences of injury collisions that are speed related. Speed related can include loss of control (the most frequently identified), too fast for the conditions, inappropriate or excessive. Close links are made here with the Safety Camera Partnership, and SID sign project.

The process for determining which locations and projects are delivered each year starts with collation of collision data and ranking collision sites through the Hazardous Sites report. The worst locations are treated first, although funding opportunities via Section 106 developer contributions may enable some
locations to be promoted sooner. The ranking system places an emphasis on fatal and serious collisions and involves using the (DfT) Highways Economic Note (HEN) that calculates the costs to the community of the different severities of collisions. The calculation is directly pro-rated to provide a point scoring system for slight, serious or fatal collisions.

The worst locations are then investigated in depth by trained engineers and the reports checked by specialist officers. The reports indicate if a pattern of collisions has been established and if it is appropriate to address the problem with engineering measures. This process uses the confidential elements of the STATS19 data provided by the Police.

5.2.2 Cost Benefits

One of the aspects considered during the investigation process is the economic evaluation of any proposed remedial measures. This calculation determines how quickly the cost of implementing a project is returned in terms of collisions and casualties saved.

An example of this calculation is shown below:

Collision savings have been predicted by considering each individual collision and assessing how the proposal would address the causation factors. A pessimistic and optimistic assessment is given and an average taken. In this instance the scheme is considered to be able to save 12 collisions over a three year period.

Using costs identified by the DfT HEN Note 2008 the cost of the scheme is considered to be £200,000 with the average cost of an injury collision being calculated at £93,655. The predicted first year rate of return collision savings are shown below:

\[
\text{Predicted}\ 1^{st}\ \text{year ERR} = \frac{12 \times 93,655}{3 \times 200,000} \times 100\% = 187\%
\]

A first year Economic Rate of Return (ERR) of 100% is generally sought for most projects with a projected casualty reduction saving of 40% of those collisions targeted.

Projects are then reviewed for the number of collisions that are likely to be saved and this, along with practical considerations such as budget and network management issues, helps to determine an annual programme.

5.2.3 Consultation

Consultation is undertaken following completion of the collision assessment report and its findings are shared. Projects at this stage are divided into either contentious measures, such as the introduction of traffic signals in the middle of a town centre, or non-contentious measures, such as new signage or white lining in an area without habitation. Non-contentious measures are promoted
for prompt delivery whereas any contentious measures follow a two year cycle of preparation in one year and delivery the following year. There is a Cabinet approved process for consultation and resolution of objections to road schemes that are proposed in order to reduce injuries. Where significantly differing views cannot be resolved, schemes can be referred to the Development Control Committee.

5.2.4 Monitoring and Evaluation

Projects are monitored for at least three years after completion to assess if they meet operational objectives. The data is shared with colleagues, the Strategic Road Safety Partnership, Eastern region road safety groups (EARWG), Road Safety GB and PACTS. The information is used to help identify which initiatives have performed better than others.
6. LINKS TO OTHER PLANS AND AREAS OF WORK

Consideration will be given during the life of LTP3 to using collision and casualty data and / or risk assessment information to add value and influence other transport programmes such as Integrated Transport Projects (ITP) and maintenance works.

6.1 Development Control

Closer links will be sought with development projects to enable casualty and collision trends and knowledge to be shared with colleagues at the formative stages of a development (i.e. Transport Impact Assessment stages).

6.2 Urban Transport Plans

Urban Transport Plans (UTPs) are produced by the County Council in its role as transport authority. The Plans set out a framework to focus transport improvements within a specific geographical area for the next 15 to 20 years. The aim of the UTPs is to provide a clear definitive list of the transport issues for each area and where possible the potential solutions and improvements to address them. In terms of casualty reduction it is not possible to predict ahead twenty or so years but where relevant, current issues are fed into the UTP process.

6.3 Improved Co-ordination

Consideration will be given to promoting combined projects that link road safety to wider objectives that will be based on town wide activities and rural locations based upon current research and collision data.

It is likely that delivery programmes will focus more on routes and specific cluster treatment sites in future. There are very few locations where an area treatment would be promoted purely on collision data due to likely outcomes from cost benefit analysis.

6.4 Road Surface Grip

Hertfordshire employs a risk-based approach to the management of road surface grip. Collision clusters where grip or texture may be a contributory factor are identified and prioritised through our casualty reduction programmes and high-priority sites are treated through resurfacing or an appropriate surface treatment to restore or enhance grip.

6.5 Highway Maintenance

Highway maintenance includes a range of schemes that can contribute to casualty reduction and prevention. The following list gives examples of the type and scale of work carried out which directly affects safety:

- Routine maintenance of verges for visibility requirements
- Patching to repair potholes in carriageways and footways
- Gulley emptying for efficient surface water run-off which is particularly important in winter conditions
- Drainage repairs and improvements to deal with flooding
- Footway repairs to deal with trips
- Provision of tactile paving at crossing points and other appropriate points for people with visual impairments and dropping of kerbs for disabled access
- Street lighting inspections and repairs can contribute to the safety of road users and also may impact on peoples' perception of personal security
- Winter service - salting of essential routes and clearing of snow
- Carriageway and footway resurfacing
- Sign cleaning and maintenance
- Road marking schemes and maintenance
- Traffic and environmental schemes which amongst other objectives aim to prevent casualties
- Traffic calming schemes

To help people we have a highway fault line available via our customer service centre. Faults can also be reported online anytime at: www.hertsdirect.org where there is also a list of all the winter salting routes.

6.6 School Travel Plans and Safer Routes to School

School Travel plans encourage schools to develop and implement a package of initiatives that promote safe sustainable travel and encourage pupils and families to consider road safety, environmental and health issues associated with travel choice. Travel plans typically include road safety education initiatives such as practical pedestrian skills and cycle training. Safer Routes to Schools programmes make highway improvements that aim to address local issues and concerns that discourage walking and cycling. Whilst Safer Routes to School programmes are primarily concerned with encouraging healthy and environmentally friendly journeys, information about collisions close to schools are taken into account when schools are selected and projects specifically address the needs of vulnerable road users.

6.7 Safety Audits

Collision prevention is achieved through the systematic application of safety principles to highway schemes. This process should include the provision, improvement and maintenance of the public highway and is usually known as safety audit.

RoSPA has estimated that up to 30% of collisions could be prevented on major road schemes, by the consistent applications of safety audit techniques. Hertfordshire was at the forefront of development of the policies, principles and practice of road safety audit, and all new schemes and highway improvements are safety audited at up to four key stages in the design process.
The Hertfordshire Safety Audit procedure is being reviewed in the light of the new Highways Agency safety audit procedure, to ensure that the process remains thorough and up-to-date.
7. FUNDING

It has been estimated that 40 injury collisions are saved for every £1m spent in Hertfordshire and 10% of those collisions are KSIs. On average there are 1.4 casualties per collision, therefore approximately 5.6 KSI casualties are saved for every £1m spent.

Road safety has been directly funded by the county council in the region of £4.1m gross annually (£2.26m revenue and £1.84m capital expenditure for safety engineering and education, offset by £1.2m of income from cyclist and driver training courses). Additional funding of an average £2.6m (£2.1m revenue and £0.5m capital) annually has come from DfT, more recently through the road safety grant, which has been used for safety camera operations since 2003/04. The road safety grant was significantly cut during 2010/11, reducing from £2,631,078 to £1,582,221 and is no longer paid as a separate grant.

7.1 Risk Factors

The level of available funding in the future will significantly affect our ability to further reduce casualties or even to keep to current levels, bearing in mind the excellent reductions we have seen in recent years.

The withdrawal of much of the Road Safety Grant during 10/11 that has funded the safety camera partnership and the fact that it will not be available going forward puts the programme at risk and will affect the number casualties if some level of activity cannot be sustained.

There will be a knock on effect to our access of driving offenders for the national speed awareness course if funding is not available to provide clients for this well respected and successful scheme. Levels of income will be significantly affected if we cannot continue to provide this and other developing driver rehabilitation courses.

If LTP3 is successful in increasing the mode share of alternatives to the car, such as walking and cycling, there will need to be adequate funding to ensure road user skills for pedestrians and cyclists are at a level to prevent them becoming casualties on the network.

Key aspects of the network where drivers tend to brake too late, such as bends and on approaches to crossings and junctions, will need to be maintained to a level that helps drivers and riders to negotiate them in safety.

Major developments are likely to introduce more traffic onto the network and will need to be managed so that casualties are not increased.

- The mix of very fast and very slow traffic on the same piece of network is ideally to be avoided so that the risk of involvement of vulnerable road users in collisions is reduced by them choosing to travel in areas where speeds are more compatible.
8. PROGRAMME FOR UPDATING THE STRATEGY

We are still waiting for a national road safety strategy but at the time of writing the DfT Business Plan (2011-15) has identified that a strategic framework for road safety will be published in April 2011. The county council intends to develop 10 year targets to the end of 2020 so that we can track travel towards a target. It is proposed to update this strategy following such trigger points as a significant change in funding, our journey towards the target is either significantly under or over achieving, or the government produces a national strategy that is significantly different to the previously published consultation in 2009.

If none of the above applies we will review the strategy in 2015.

8.1 Development of this Document

Process for development has been through the casualty reduction target delivery group, strategic road safety partnership, and those on the wider LTP3 consultation list.
APPENDIX 1

Definitions (DfT)

The statistics relate to personal injury accidents (collisions) on public roads that are reported to the police. Figures for deaths refer to persons killed immediately or who died within 30 days of the collision. This is the usual international definition.

It has long been known that some non-fatal injury collisions are not known to the police. However police data on road collisions remain the most detailed, complete and reliable single source of information on road casualties (personal injury) covering the whole of Great Britain.

Killed: Human casualties who sustained injuries which caused death less than 30 days (before 1954, about two months) after the collision. Confirmed suicides are excluded.

Serious injury: An injury for which a person is detained in hospital as an "in patient", or any of the following injuries whether or not they are detained in hospital: fractures, concussion, internal injuries, crushings, burns (excluding friction burns), severe cuts, severe general shock requiring medical treatment and injuries causing death 30 or more days after the collision. An injured casualty is recorded as seriously or slightly injured by the police on the basis of information available within a short time of the collision. This generally will not reflect the results of a medical examination, but may be influenced according to whether the casualty is hospitalised or not. Hospitalisation procedures will vary regionally.

Slight injury: An injury of a minor character such as a sprain (including neck whiplash injury), bruise or cut which are not judged to be severe, or slight shock requiring roadside attention. This definition includes injuries not requiring medical treatment.
### APPENDIX 2

#### Glossary

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACPO</td>
<td>Association of Chief Police Officers</td>
</tr>
<tr>
<td>AIRSO</td>
<td>Association of Industrial Road Safety Officers</td>
</tr>
<tr>
<td>ANDISP</td>
<td>Association of National Driver Intervention Scheme Providers</td>
</tr>
<tr>
<td>DfT</td>
<td>Department for Transport</td>
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<tr>
<td>ERR</td>
<td>Economic Rate of Return</td>
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<tr>
<td>HA</td>
<td>Highways Agency</td>
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<tr>
<td>HADECS</td>
<td>Highways Agency Digital Enforcement Camera System</td>
</tr>
<tr>
<td>HAPAS</td>
<td>Hertfordshire Alcohol Problems Advisory Service</td>
</tr>
<tr>
<td>HBAM</td>
<td>Herts and Beds Advanced Motorcyclists</td>
</tr>
<tr>
<td>HCC</td>
<td>Hertfordshire County Council</td>
</tr>
<tr>
<td>HEN</td>
<td>Highways Economic Notes</td>
</tr>
<tr>
<td>HSRSP</td>
<td>Hertfordshire Strategic Road Safety Partnership</td>
</tr>
<tr>
<td>IAM</td>
<td>Institute of Advanced Motorists</td>
</tr>
<tr>
<td>KSI</td>
<td>Killed and Seriously Injured</td>
</tr>
<tr>
<td>LTP3</td>
<td>Local Transport Plan 3</td>
</tr>
<tr>
<td>NHS</td>
<td>National Health Service</td>
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<tr>
<td>PCSO</td>
<td>Police Community Support Officer</td>
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<tr>
<td>PTW</td>
<td>Powered Two Wheelers</td>
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<tr>
<td>RATS</td>
<td>Road Awareness Training Session</td>
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<tr>
<td>RoSPA</td>
<td>Royal Society for the Prevention of Accidents</td>
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<tr>
<td>SID</td>
<td>Speed Indication Device</td>
</tr>
<tr>
<td>TAMP</td>
<td>Transport Asset Management Plan</td>
</tr>
</tbody>
</table>
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Care for older people
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Support for carers
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Fostering and adoption
Support for people with disabilities
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