



**ENVIRONMENT AND TRANSPORT OVERVIEW AND SCRUTINY
COMMITTEE**

12 SEPTEMBER 2016

**ROAD CASUALTY REDUCTION IN LEICESTERSHIRE AND
FUTURE APPROACH TO CASUALTY REDUCTION**

REPORT OF THE DIRECTOR OF ENVIRONMENT AND TRANSPORT

Purpose of the Report

1. The purpose of this report is to:
 - (i) provide an update on road casualties in Leicestershire;
 - (ii) present the outcomes of a review on casualty reduction;
and
 - (iii) set out the proposed future approach to casualty reduction in Leicestershire.

Policy Framework and Previous Decisions

2. On 23 March 2011 the County Council approved the third Leicestershire Local Transport Plan (LTP3). This contains six strategic transport goals, of which Goal 5 is to have a transport system that improves the safety, health and security of residents. This will be achieved in a number of ways, including by:
 - (i) improving road safety and reducing road casualties;
 - (ii) encouraging active and sustainable travel and increasing the number of people that walk, cycle and use public transport.
3. On 16 March 2015 the Cabinet approved the 2015/16 LTP3 Implementation Plan. This contained actions to improve road safety, one of which was to review our future approach to casualty reduction in the light of the available funding by October 2015.
4. On 3 September 2015 the Environment and Transport Overview and Scrutiny Committee considered a report on road casualties in Leicestershire, following identification that the key performance indicators contained within the Council's Strategic Plan were not being met in 2014. This report provides an update on the September report.
5. On 19 April 2016 the Cabinet approved the Environment and Transport Interim Commissioning Strategy. This includes what will be done to address road safety issues and improve the safety of the highway network, reduce road casualties and build on the customer focused approach.
6. The interim Commission Strategy's Action Plan contains a range of road safety actions, including delivering essential safety schemes, delivering further road

safety improvements (generally as part of other projects) and reviewing the future approach to casualty reduction, in the light of the available funding.

Background

7. Britain has some of the lowest road casualty rates in the world. Despite significant increases in traffic over the last few decades the number of road deaths fell by 45% between 2006 and 2015, with 2015 representing the second lowest annual total on record after 2013 since records began in 1927.
8. Road deaths in Britain have been reducing over the past thirty years. This is due to a variety of reasons, including safer infrastructure, new vehicle technologies, hazard perception testing, tougher enforcement, shifting social attitudes and better trauma care.
9. The majority of accidents occur on local roads under the direct control of Local Highway Authorities (LHAs), who are key partners in the delivery of the Government's Road Safety Strategy and casualty reduction objectives. The Department for Transport (DfT) monitors each LHA's casualty reduction progress through the national STATS19 road accident database.
10. The Government has set out, in the DfT publication 'Working Together to Build a Safer Road System British Road Safety Statement' (December 2015), how it wants to support its delivery partners, who are working to ensure a safe road system. The Government's key priorities include the following key points:
 - (i) Protecting vulnerable road users, including pedestrians, cyclists, motor cyclists and horse riders, through infrastructure and vehicle improvements, promotion of safer behaviour and equipment and ensuring other road users are aware of the risks posed to these groups and adapt accordingly;
 - (ii) Taking tough action against those who speed, exceed the drink-drive limit, take drugs or use their mobile phone while on the road;
 - (iii) Continuing the "THINK!" campaign to provide road user education and influence behaviour in a targeted and engaging way;
 - (iv) Supporting Highways England and local authorities in improving the safety standards of roads;
 - (v) Supporting further devolution of road safety policy, in a way that meets the needs of the nation as a whole;
 - (vi) Underpinning policy decisions with robust evidence, research and evaluation.
11. The Authority's proposed approach to casualty reduction, which is outlined in this report, is consistent with the above priorities.

Casualty trends and targets

12. The nature of road accidents can lead to quite large fluctuations in accidents from year to year. Consideration of the long-term trends for casualty data is therefore vital, ensuring that national and local fluctuations in casualties are taken into consideration. When evaluating casualty patterns longer-term casualty

trends are therefore generally considered, rather than reacting to short term fluctuations in data.

13. When assessing casualty data the long-term trends are considered alongside shorter-term targets and milestones (which provide an ongoing reference point against long-term trends). This enables evidence based decisions to be made on casualty reduction schemes.
14. LTP3 contains casualty reduction targets. These include a reduction in the total number of Killed and Seriously Injured (KSI) and Slight casualty numbers by 40% by 2020 (compared with the 2005 to 2009 average). To help monitor progress towards this 2020 target the annual milestones for the number of casualties are set (known as 'year milestones'). Definitions of casualty reduction terms are provided in Appendix A.

Leicestershire Casualty Data

15. Following national trends accidents in Leicestershire are generally showing a reducing trend (most categories). Other trends include more accidents in rural areas and more accidents on roads with speed limits over 30mph. The following sections provide detailed information on accidents and casualties in Leicestershire.

Finalised 2015 Data

16. Tables 1 and 2 below show the final 2015 accident and casualty statistics. Table 1 shows comparable statistics of casualties over a five-year period, whilst Table 2 shows short-term change (2014-2015) for severity and road type.

Severity	Year				
	2011	2012	2013	2014	2015
Killed	39	27	24	26	31
Serious	198	169	162	224	211
Slight	1727	1682	1703	1665	1523
Total	1964	1878	1889	1915	1765
KSI	237	196	186	250	242

Table 1 – Number of Casualties per Year by Severity (including Motorways & Trunk Roads)

Severity	Local Roads (LCC)		Trunk Roads & Motorways (Highways England)		All Roads	
	2015	Change from 2014	2015	Change from 2014	2015	Change from 2014
Accidents						
Total	1133	-108	178	-30	1311	-138
Casualties						
Killed	23	+5	8	0	31	+5
Serious	181	-17	30	+4	211	-13
Slight	1294	-88	229	-54	1523	-142
Total	1498	-100	317	-50	1765	-150
KSI	204	-12	38	+4	242	-8

Table 2 – Previous Year Comparison by Severity and Road Type

17. There were 31 fatal road traffic accidents in 2015, which is an increase in comparison to 26 in 2014. However, there was a decrease in Serious injuries

(particularly on local roads), contributing towards an overall decrease in the KSI category. There was also a significant decrease in the number of Slight casualties which was lower by 142, along with the total accidents and casualties recorded which dropped by 150 since 2014.

Travel Mode Analysis

18. Statistics on the 2014 to 2015 change for each travel mode by severity can be found in Appendix B, with long-term trends represented visually in Appendix C. In some cases, the numbers involved in individual travel modes are too small within the Leicestershire geographical area for statistical analysis. 2015 saw:
 - (i) An increase in all severities of casualties for pedestrian and motorcyclists;
 - (ii) A considerable decrease in casualties for cyclists and car occupants;
 - (iii) Total and Slight casualties show a clear long-term trend of reduction over all travel modes.
19. It is more difficult to establish long-term trends for KSI casualties when assessing by travel mode. The numbers involved are so small that the year-on-year variance may only be in single digits, leaving such analysis subject to the natural variation in fatalities over time.
20. In 2015 non-built up roads (with a speed limit of 50mph or greater) accounted for 61% of the total KSI casualties, but only 51% of total casualties. When KSI casualties are analysed by travel mode in 2015, built-up roads (with a speed limit of 40mph or less) make up the majority of pedestrian (80%) and cyclist (63%) casualties. Non-built up roads account for the majority of motorcyclists (55%), car occupants (79%) and goods vehicle occupants (83%) who were recorded as KSI casualties.
21. The 'Other' category referred to in Appendix B includes vehicles carrying 17 or more seated passengers, fire engines, ambulances, motor caravans, refuse vehicles, mobility scooters etc.

National and Statistical Neighbour Comparison

22. The Government produces annual national accident statistics, which provide a picture of accident and casualty trends across the whole country. These are derived from the combined accident statistics from each local authority.
23. Local authorities use these national statistics to compare with their own local accident statistics, highlighting any deviation from the national trend. However, it is recognised that different local factors, including the geographical area, road environment and driver attitude, may also vary in different parts of the country (for example, more affluent areas may have a much greater proportion of new vehicles with advanced safety features). The accident statistics for each local authority area may therefore differ from the national picture to a greater or lesser extent.
24. Both national and local decisions can have an impact on accident statistics. National decisions influence the priorities and resources of Local Authorities, which affect decisions taken on a wide range of services, including road safety. This may impact on local accident statistics which, in turn, will be used by Government to calculate national accident statistics.

25. Traffic volumes on all road types increased throughout Great Britain in 2015. This was also reflected in Leicestershire, as illustrated in Appendix D.
26. In 2000 total casualties in Leicestershire began to fall. Prior to 2013 we had seen 12 years of continual reductions and much of the following analysis is based on our long-term performance since 2000 and how this might be an indicator of future casualty numbers.
27. Casualty statistics are supplied by the police to Local Authorities through the STATS19 reporting system. Local Authorities then report these figures to the Department for Transport (DfT) on an annual basis. The DfT's Main Report of Reported Road Casualties is then released in approximately June each year. This information is generally regarded as provisional, but is used throughout for consistency in the analysis below.

Analysis of Total Casualties

28. Total casualties consist of the sum of KSI and Slight casualties.
29. Figure 1 below shows the long term comparison (2000 to 2015) between Leicestershire and its statistical neighbours, whilst Figure 2 below shows the same comparison between Leicestershire and Great Britain.

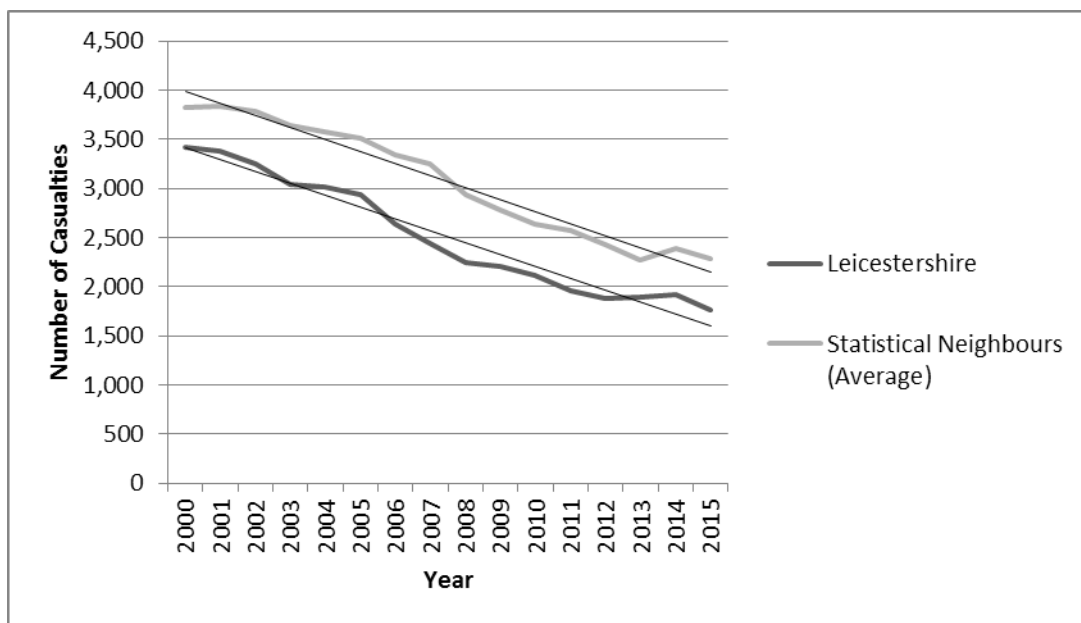


Figure 1 – Total Casualties and Trend by Year for Leicestershire & Statistical Neighbours

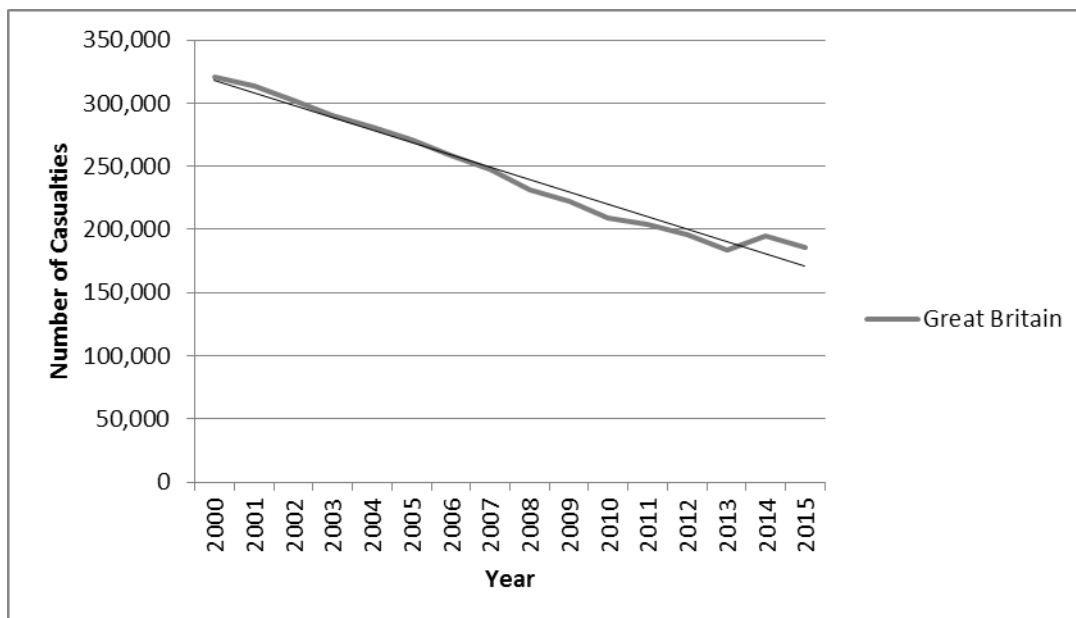


Figure 2 - Total Casualties and Trend by Year for Great Britain

30. Following a national increase in the casualty trend in 2014, total casualties decreased considerably in 2015, with Great Britain recording its second lowest level of casualties. Overall the total casualties in Great Britain have reduced by 11% since 2010.
31. This national trend was reflected in Leicestershire where, after two years of increased total casualties, there was a considerable decrease in 2015. This resulted in Leicestershire's total casualties being at their lowest level since records began. Overall the total casualties in Leicestershire have reduced by 17% since 2010.
32. Table 3 below shows the short-term change (2014 to 2015) between Leicestershire, its statistical neighbours and nationally.

Statistical Neighbours, England and Great Britain	Total Casualties	
	Change 2015 with 2014	% Change 2015 with 2014
Cambridgeshire	-202	-10%
Cumbria	-199	-10%
Somerset	-168	-10%
Staffordshire	-273	-9%
Leicestershire	-150	-8%
Warwickshire	-170	-8%
Nottinghamshire	-164	-6%
England	-7452	-4%
Great Britain	-8268	-4%
Hampshire	-132	-4%
Derbyshire	-75	-3%
Lincolnshire	-109	-3%
Gloucestershire	-25	-2%
Oxfordshire	-55	-2%
Lancashire	-56	-1%
Northamptonshire	23	1%
North Yorkshire	57	3%
Worcestershire	116	8%

Table 3 – Total Casualties 2014/2015 Change Comparison

- 33. Leicestershire saw an 8% drop of total casualties in 2015 (a reduction of 150), continuing the general downward trend that was interrupted in 2013 and 2014. This compares well against statistical neighbours, with only four similar authorities achieving a better reduction.
- 34. Leicestershire appears to be a relatively high-performing authority for total casualties. With a significant reduction in reported Slight casualties being a major factor in this, the confidence level of this drop is explored in further detail within the analysis of Slight accidents.

Analysis of Killed or Seriously Injured (KSI) Casualties

- 35. One of the government’s key local indicators is the combined total of those casualties who were Killed or Seriously injured (KSI) in a road traffic accident. Figure 3 below shows the long term comparison (2000 to 2015) for KSI casualties between Leicestershire and it’s statistical neighbours. Figure 4 below shows the long term comparison for KSI casualties between Leicestershire and Great Britain.

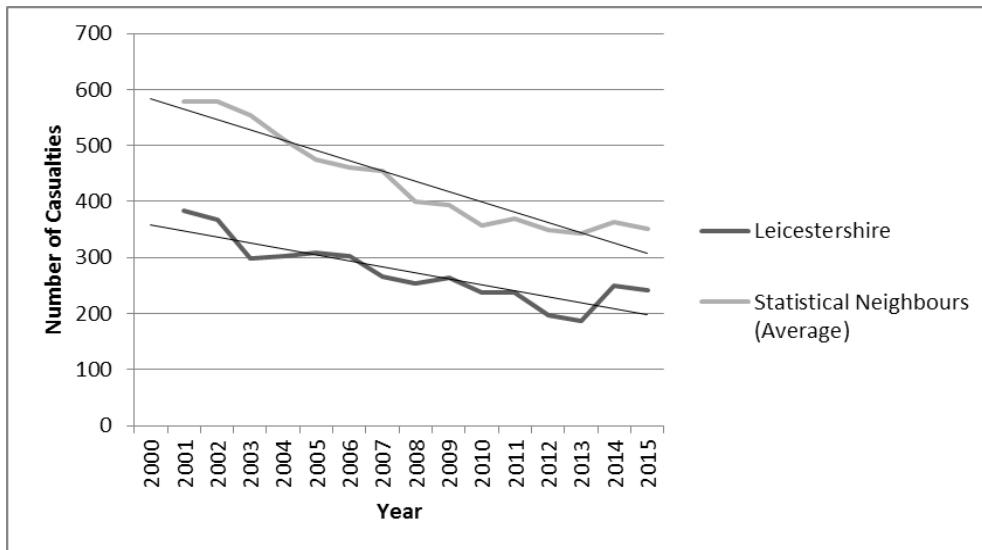


Figure 3 - KSI Casualties and Trend by Year for Leicestershire & Statistical Neighbours

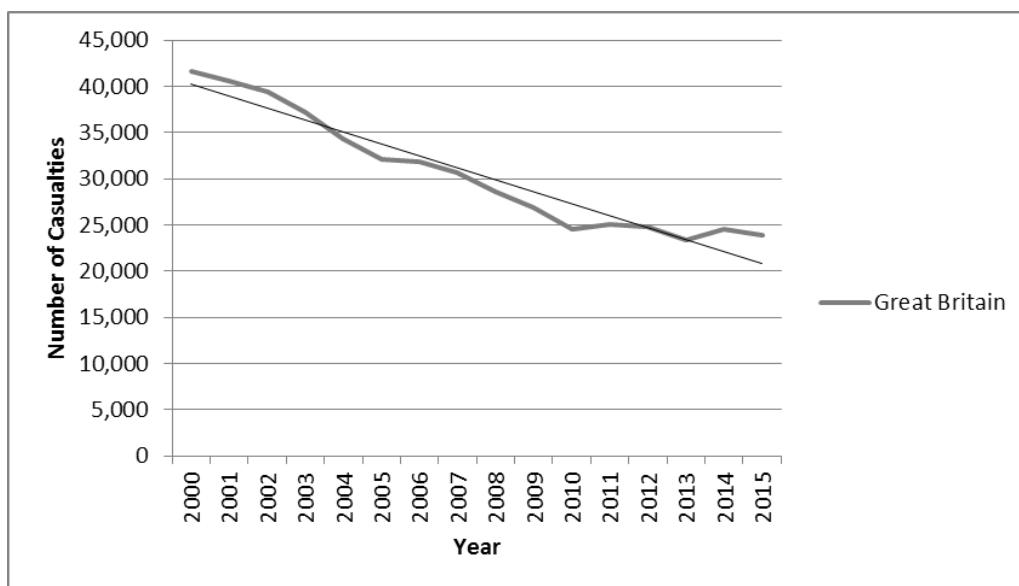


Figure 4 - KSI Casualties and Trend by Year for Great Britain

36. Although KSI casualties in Leicestershire decreased slightly in 2015, the numbers still remain high (242). Whilst there is a decreasing trend, Leicestershire's KSI accidents are decreasing at a slower rate to both Great Britain and its statistical neighbours.
37. KSI casualties in Great Britain have reduced by 3% since 2010. However, in Leicestershire KSI casualties have now returned to around the same level as 2010, after the decreases shown in 2012 and 2013 were not maintained.
38. Leicestershire deviated from the trend of statistical neighbours between 2012 and 2014 due to a particularly volatile period in KSI casualty numbers. Leicestershire's 22% decrease in 2012/13 compared to a 7% decrease for statistical neighbours. However, this was reversed in 2014 with a 34% increase in Leicestershire.
39. Table 4 below shows the short-term KSI change (2014 to 2015) between Leicestershire, its statistical neighbours and national trends.

Statistical Neighbours, England and Great Britain	KSI Casualties	
	Change 2015 with 2014	% Change 2015 with 2014
Derbyshire	-92	-22%
Lincolnshire	-79	-20%
Cambridgeshire	-34	-11%
Nottinghamshire	-23	-7%
Hampshire	-50	-6%
Lancashire	-42	-6%
Oxfordshire	-17	-4%
Somerset	-8	-4%
Leicestershire	-8	-3%
Great Britain	-713	-3%
England	-501	-2%
Cumbria	0	0%
North Yorkshire	-2	0%
Warwickshire	5	2%
Northamptonshire	18	6%
Gloucestershire	29	13%
Worcestershire	46	28%
Staffordshire	83	46%

Table 4 – KSI Casualties 2014/2015 Change Comparison

40. More recently Leicestershire's KSI casualty decrease (3%) is comparable with statistical neighbours and Great Britain. However, due to the relatively small numbers involved, KSIs are always likely to be susceptible to high variations on an annual basis.
41. As an example the high number of KSI casualties in 2014 and 2015 may signify a long-term issue or, alternatively, the low numbers in 2012 and 2013 may have been an anomaly. Longer term monitoring will establish the long-term trend for these KSIs.

Analysis of Slight Casualties

42. Slight casualties represent the vast majority of recorded road traffic accidents. Although it is recognised that Slight casualties are the most prone to inaccurate recording in the STATS19 system larger geographical areas, such as Leicestershire, provide numbers of sufficient quantities to provide meaningful

analysis. Many issues are consistent across local authorities, so it is appropriate to use the same measures of comparison as used in the sections above, when analysing Slight accidents.

43. Figure 5 below shows the long term comparison for Slight casualties (2000 to 2015) between Leicestershire and its statistical neighbours and Figure 6 below shows the long term comparison for Slight casualties between Leicestershire and Great Britain

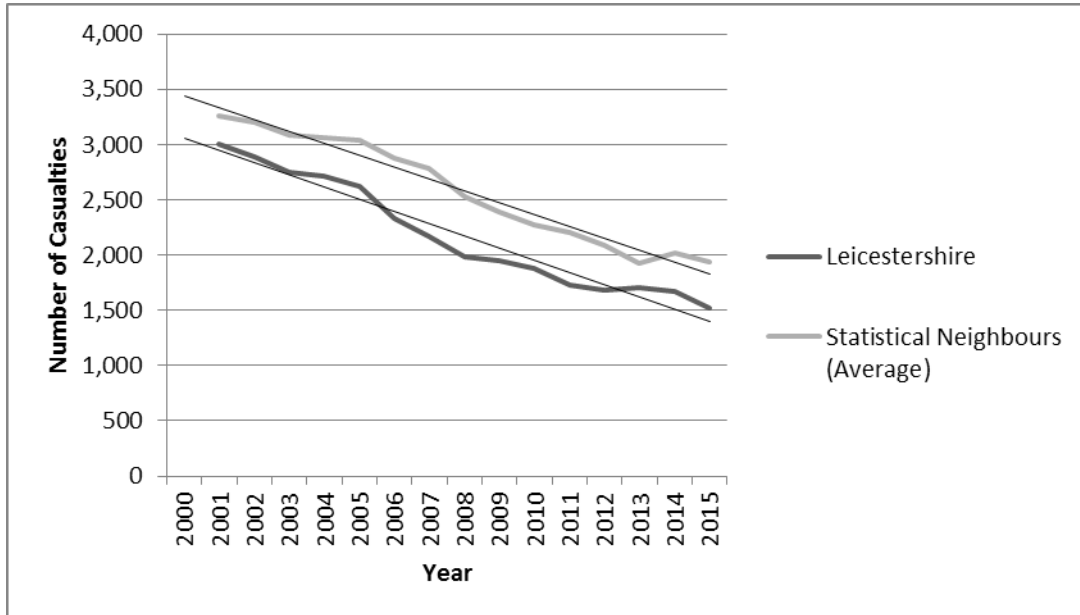


Figure 5 - Slight Casualties and Trend by Year for Leicestershire & Statistical Neighbours

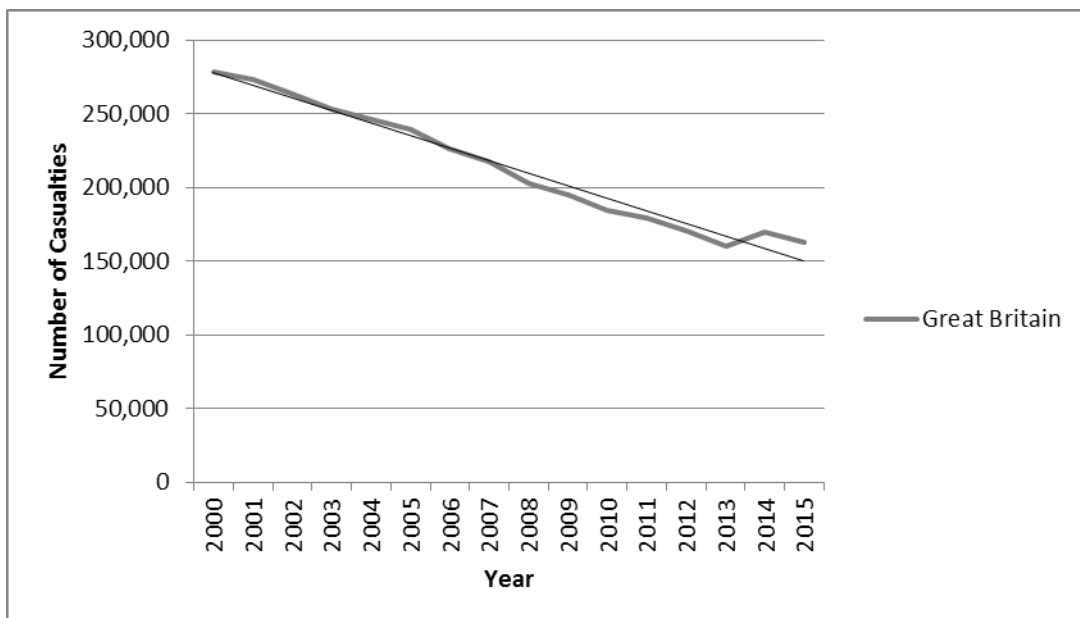


Figure 6 - Slight Casualties and Trend by Year for Great Britain

44. As Slight casualties make up over 85% of the total casualties, it is unsurprising that the long-term trends shown are largely similar. A consistently decreasing number slowed in rate over recent years, while seeing a further drop in 2015.
45. This resulted in Leicestershire recording its lowest level of Slight casualties since records began. However, this is not reflected with statistical neighbours or Great

Britain who were able to show decreases in 2015, albeit not at the same rate as Leicestershire.

46. Slight casualties in Great Britain have reduced by 12% since 2010, while in Leicestershire the equivalent time period has seen a 19% decrease.
47. Table 5 below shows the short-term Slight casualty change (2014 to 2015) between Leicestershire, its statistical neighbours and nationally.

Statistical Neighbours, England and Great Britain	Slight Casualties	
	Change 2015 with 2014	% Change 2015 with 2014
Cumbria	-199	-12%
Staffordshire	-356	-12%
Somerset	-160	-11%
Cambridgeshire	-168	-10%
Leicestershire	-142	-9%
Warwickshire	-175	-9%
Gloucestershire	-54	-6%
Nottinghamshire	-141	-6%
England	-6951	-5%
Great Britain	-7555	-4%
Hampshire	-82	-3%
Oxfordshire	-38	-2%
Lincolnshire	-30	-1%
Lancashire	-14	0%
Northamptonshire	5	0%
Derbyshire	17	1%
North Yorkshire	59	3%
Worcestershire	70	6%

Table 5 – Slight Casualties 2014/2015 Change Comparison

48. 2015 was acknowledged to be an unusual year for Leicestershire. Only four statistically comparable authorities demonstrated greater percentage decreases in Slight and total casualty numbers. However, it is estimated that around 60 accidents in Leicestershire remained unrecorded at the time of submission to the DfT, due to unresolved STATS19 data issues, which could potentially provide a misleading picture of casualty numbers.
49. It should be noted that issues surrounding STATS19 data occur to some degree across the country every year, so the statistics remain meaningful for comparability purposes. Nevertheless, the 2015 data issues (60 unrecorded accidents) are significant, particularly as some of the accidents may have involved multiple casualties.
50. If these 60 accidents had been recorded Leicestershire's LTP milestones for 2015 may not have been met. However, it is unlikely that having these accidents/casualties recorded would have affected the long-term downward trend in any significant way.

National Casualty Reduction Targets, Indicators and Forecasts

51. In 2000 the Government's road safety strategy 'Tomorrows Roads – Safer for Everyone' included 2010 casualty reduction targets for KSI, child and slight casualties. Road safety campaigners regarded these targets as a critical component of the drive to reduce casualty numbers.

52. In 2011 the DfT published its 'Strategic Framework for Road Safety'. It did not set national casualty reduction targets but instead identified six key indicators relating to road deaths, which would be monitored at a national level. It also identified the following local indicators:

- (i) Number of Killed or Seriously Injured casualties;
- (ii) Rate of Killed or Seriously Injured casualties per million people;
- (iii) Rate of Killed or Seriously Injured casualties per billion vehicle miles/km.

Figures 7 and 8 below show Leicestershire's performance against two of these performance indicators (PIs).

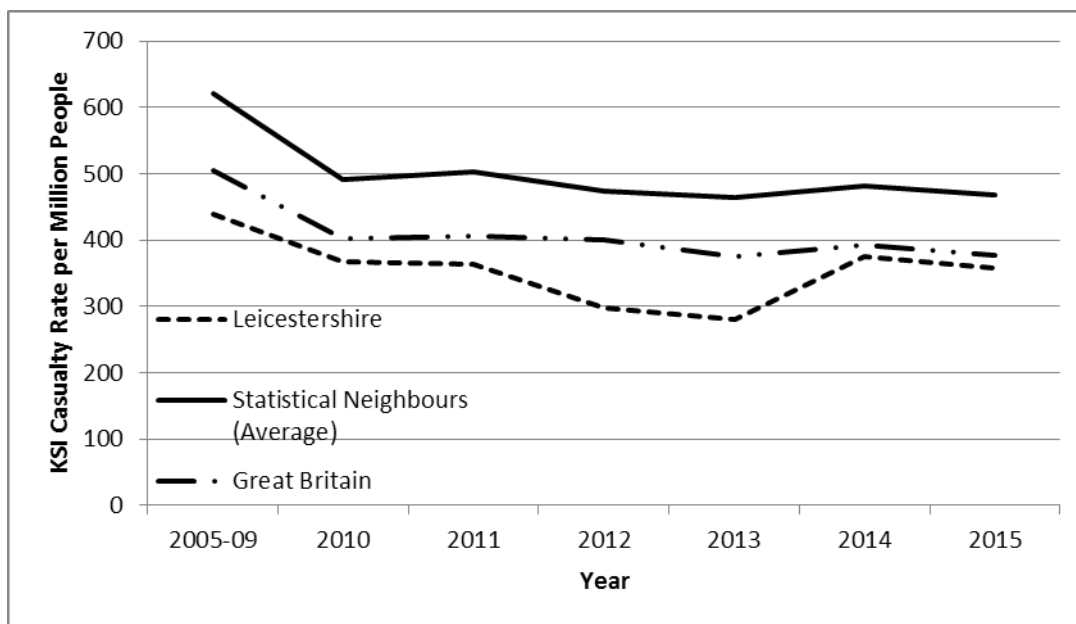


Figure 7 - Rate of KSI Casualties per Million People

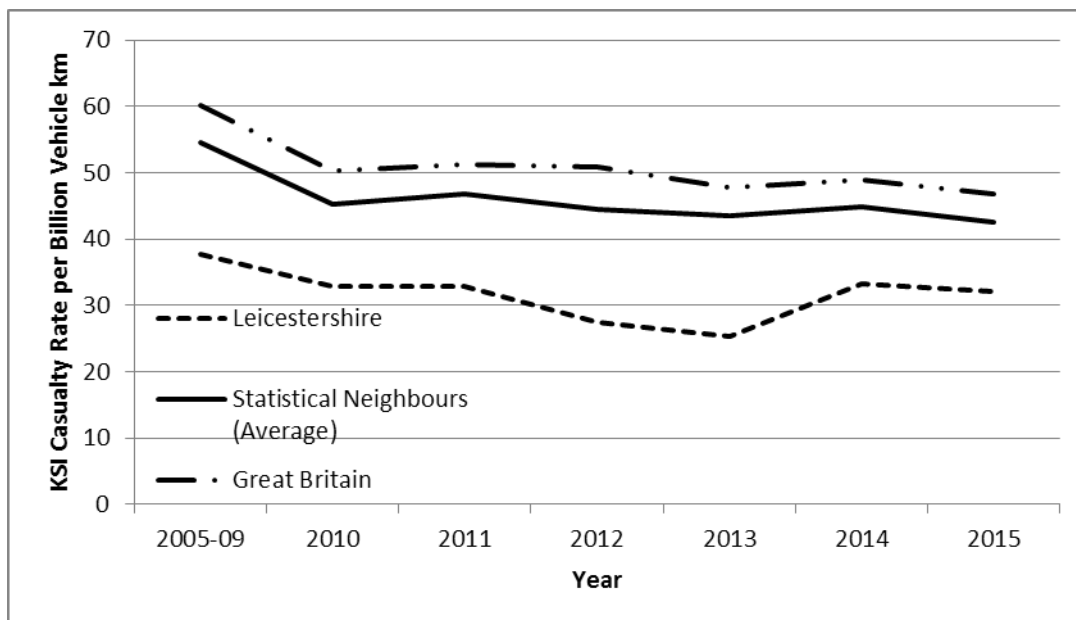


Figure 8 - Rate of KSI Casualties per Billion Vehicle km

53. The DfT's local indicator 'number of Killed or Seriously Injured casualties' was subsequently adopted by the County Council as a PI, together with PI's for total

and Slight casualties. The setting of Leicestershire's PI's is discussed in the next section.

54. The DfT's Strategic Framework contained a forecast that national KSI casualties could reduce by 40% by 2020 (relative to the 2005/09 average) and by 50% if lower performing authorities made stronger progress in reducing casualty rates.
55. The forecasts also recognised that between 1995 and 2010 the single development that has had the most significant effect on the national casualty total had been the improvement of car secondary safety. Car secondary safety features do not prevent accidents but will reduce the impact of the accident on those involved such as air bags and seat belts. However, analysis in 2011 suggested that for car secondary safety there would be no further casualty reductions on roads with speed limits up to 40 mph, but that on higher speed roads there would continue to be additional reductions. Further background to these national forecasts looking at the potential impact of casualty reduction measures can be found at Appendix E.
56. In January 2015 the Parliamentary Advisory Council for Transport Safety (PACTS) published a list of priorities for road safety that it felt could substantially reduce the level of death and injury on roads in the UK, with the expectation that it would form the basis for discussions with the Government on the direction of the national road safety strategy. This list has been reproduced at Appendix F for information.

Leicestershire LTP3 Casualty Reduction Performance Indicators

57. In 2010 Leicestershire achieved the national casualty reduction targets for KSI Child KSI and slight casualties. Within the context of the more recent DfT forecast for KSI casualties Leicestershire was not an underperforming authority and a 2020 target to reduce KSI casualties by 40% was therefore considered appropriate and achievable.
58. With regard to the above and the trends shown in Figures 1, 3 and 5, the LTP Implementation Plan 2012 – 2015 contained the following key performance indicator (KPI) and performance indicators. These reductions are for 2020, relative to the 2005/09 average.
 - (i) KPI - Total casualties to reduce by 29% from 2490 to 1772;
 - (ii) PI - KSI casualties to reduce by 40% from 278 to 167;
 - (iii) PI - Slight casualties to reduce by 27% from 2212 to 1605.

59. Table 6 below shows the annual milestones to achieve these targets:

Casualty	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Slight	1883	1852	1821	1790	1760	1729	1698	1667	1636	1605
KSI	246	237	228	219	211	202	193	184	176	167
Total	2129	2089	2049	2010	1970	1931	1891	1851	1812	1772

Table 6 - LTP3 Annual Milestones for 2020 Target

60. In preparation for the second LTP3 implementation plan in 2013, it was noted that the 2014, 2015, and 2016 annual milestones for total and Slight casualties had already been achieved. The opportunity was therefore taken to revise the performance indicators and a more challenging 40% reduction (by 2020) across all 3 casualty groups was adopted:

- (i) KPI -Total casualties to reduce by 40% from 2490 to 1494;
- (ii) PI - KSI casualties to reduce by 40% from 278 to 167;
- (iii) PI - Slight casualties to reduce by 40% from 2212 to 1327;

61. Table 7 below shows the revised targets and the corresponding milestones.

Casualty	2013	2014	2015	2016	2017	2018	2019	2020
Slight	1638	1593	1549	1505	1460	1416	1371	1327
KSI	192	189	185	182	178	174	171	167
Total	1830	1782	1734	1686	1638	1590	1542	1494

Table 7 - LTP3 Annual Milestones to 2020 Target (Revised)

62. In 2015 there were 1765 casualties, made up of 242 KSI casualties and 1523 Slight casualties. This meant that the 2015 milestone for the revised 2020 target (Table 7) was significantly missed for KSI casualties, narrowly missed for total casualties but achieved for Slight casualties. The original 2010 target (Table 6) would have seen the 2015 milestone achieved for total casualties, with the same outcome as against the revised milestones for the other two indicators.
63. Figures 9, 10 and 11 below show the total, KSI and Slight trends and revised milestone targets. All three 2020 targets still appear achievable when trends are examined over the long term. However, this will require KSI numbers to show a significant downward trend over the next five years and, with the overall decrease apparently slowing, achieving any of the 2020 targets or future milestones will be challenging. A review of each target's suitability is proposed as part of our future approach.

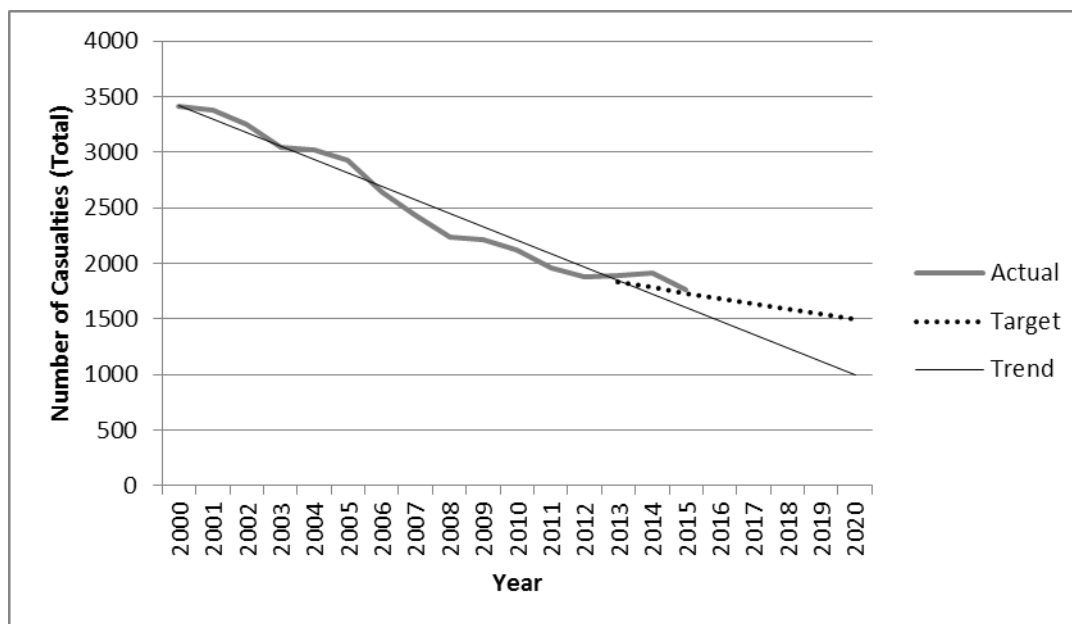


Figure 9 – Total Casualty Trend with Trend Line and Milestone Targets

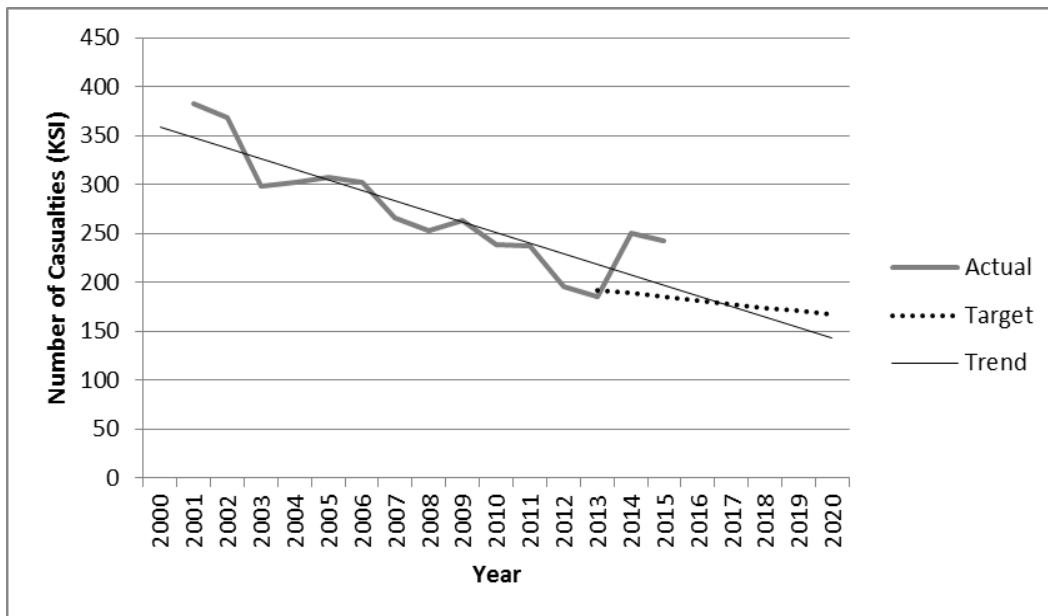


Figure 10 - KSI Casualty Trend with Trend Line and Milestone Targets

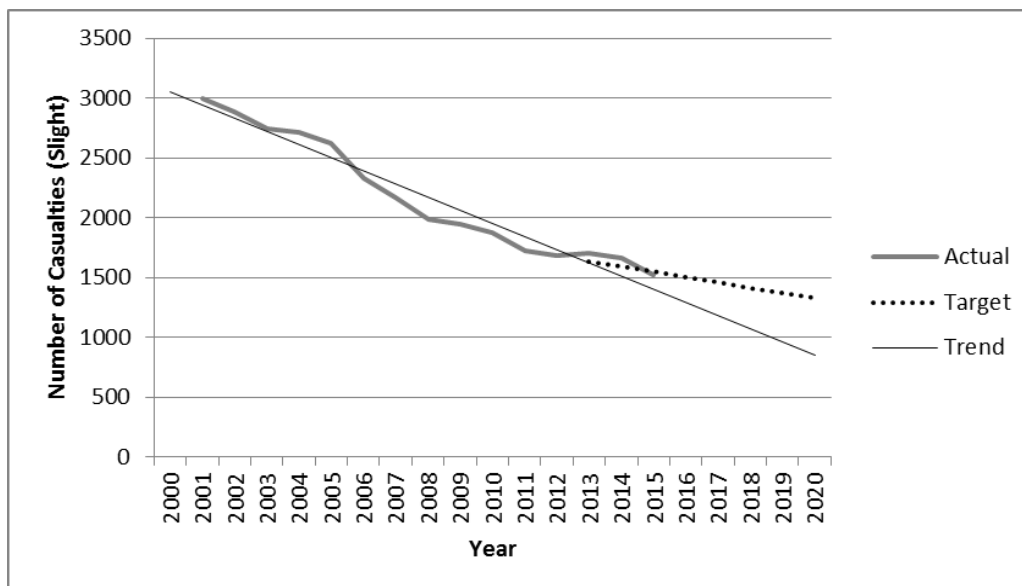


Figure 11 - Slight Casualty Trend, with Trend Line and Milestone Targets

2016 Rolling Data

64. The police process the accident details that they collect before forwarding them to the County Council. As a result the Council's records are generally two months behind those held by the police. In addition, details of older accidents (for example from 4 or 5 months ago) may occasionally be received. As the rate at which accidents occur varies from year to year it is difficult at any point in time to accurately predict the end of year casualty totals.
65. Consequently Leicestershire's casualty data is routinely reported using rolling annual figures. These are reported using data which is three months in arrears, to allow for a sufficient time period for reporting and validation. This method provides a higher degree of reliability, while still using a full year of data as the estimation basis. Early rolling figures are likely to be less accurate compared to the actual finalised total than rolling figures produced towards the end of the year.

66. Table 8 below compares the 2016 casualty reduction milestone with the rolling annual figures, covering provisional data between 1 May 2015 and 30 April 2016.

Casualties	2015 Actual	2016 Rolling	Actual / Rolling Variance	2016 Milestone	Rolling / Milestone Variance	Rolling / Milestone Variance %
Slight	1523	1512	-11	1505	+7	+<1%
KSI	242	228	-14	182	+46	+25%
Total	1765	1742	-23	1686	+56	+3%

Table 8 - Casualty Reduction Target and Estimated End of Year Total

67. These early figures should be treated with caution, as they are dependent on completed police records and conditions between now and the end of the year. However, they do give an indication that figures in 2016 are in line to decrease, but at a slower rate than required to meet any of the milestones.

The Strategic Road Network (SRN)

68. The SRN comprises of motorways and major trunk roads which are managed by Highways England (HE). Across England, they comprise just 2% of road length but 33% of vehicle miles. Conversely the Local Road Network (LRN) in England comprises 98% of road length but carries 67% of vehicle miles.
69. Figures 12, 13 and 14 below show the long term casualty trends for total, KSI and Slight casualties on local and HE roads.

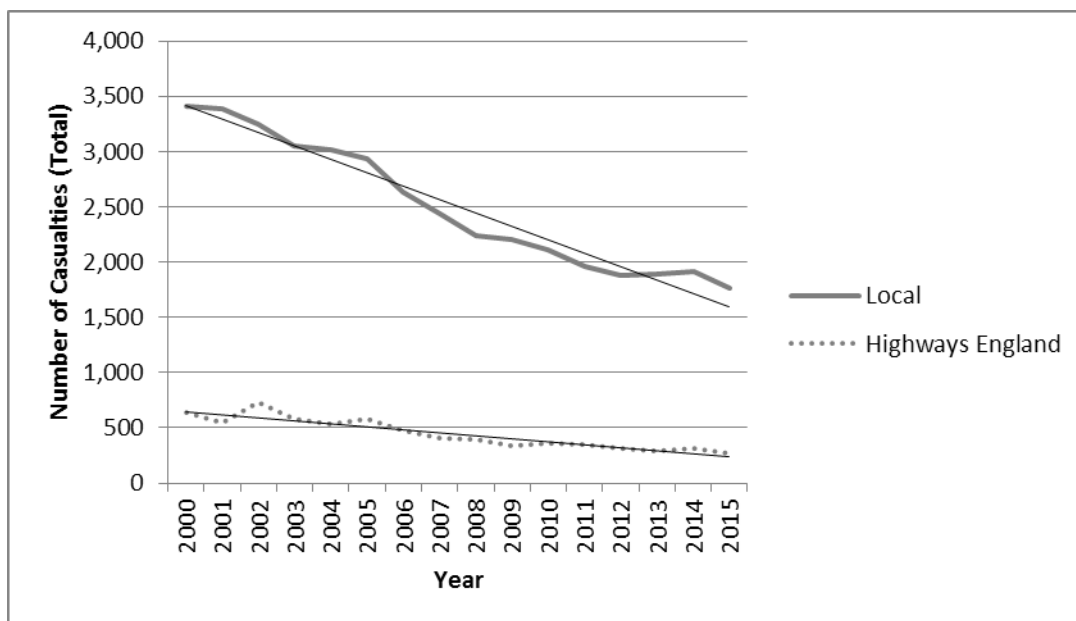


Figure 12 – Total Casualty Trend and Trend Lines for Local and HE Roads

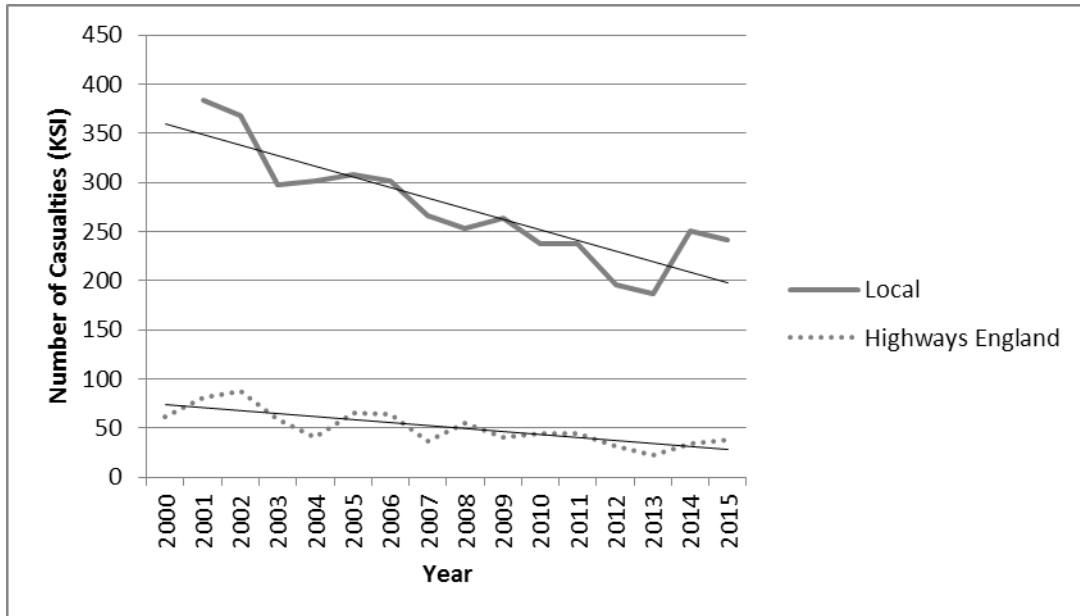


Figure 13 - KSI Casualty Trend and Trend Lines for Local and HE Roads

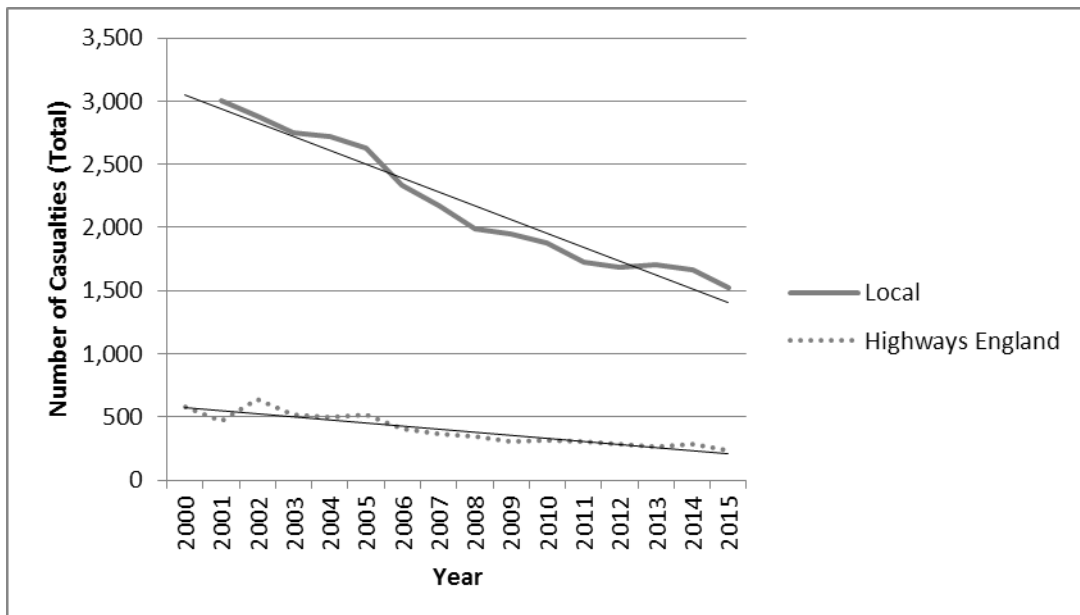


Figure 14 – Slight Casualty Trend and Trend Lines for Local and HE Roads

70. Whilst the long term casualty trends for total, KSI and Slight casualties on local/HE roads is reducing, the overall casualty numbers on HE roads are much lower. However the year-on-year variations on HE roads tend to be more extreme, particularly in relation to more serious accidents.
71. For example there was a 60% decrease in KSI recorded over 2012/13, compared to 22% on local roads). This was followed by a 66% increase over 2014/15, compared to 31% on local roads. While this shows the general trend between the two road types is similar in Leicestershire, the extreme KSI instability for HE roads is not surprising, bearing in mind the very different characteristics of the two road networks.
72. Table 9 below compares the short-term casualty change (2014 to 2015) between the local and strategic road network.

Local Roads & Strategic Roads	Change 2015 with 2014	% Change 2015 with 2014
Total Casualties		
Local Road Network (Leicestershire)	-100 (1598 to 1548)	-6%
Strategic Road Network (Highways England)	-50 (317 to 267)	-16%
KSI Casualties		
Local Road Network (Leicestershire)	-12 (216 to 204)	-6%
Strategic Road Network (Highways England)	+4 (34 to 38)	+12%
Slight Casualties		
Local Road Network (Leicestershire)	-88 (1382 to 1294)	-6%
Strategic Road Network (Highways England)	-54 (283 to 229)	-19%

Table 9 – 2014/2015 Casualty Comparison between Local and HE Roads

73. Between 2014 and 2015 there was a consistent 6% reduction across the three casualty severity categories on local roads. This was reflected in Slight casualties on the SRN, but not for KSI casualties, which increased. This increase on the SRN has impacted on the overall casualty figures.
74. It should be noted that Leicestershire's LRN also has a high level of KSI casualties in comparison to 2012 and 2013, and would have still missed the LTP target without the inclusion of the SRN.

Human Error in Road Traffic Accidents

75. Whilst it is not possible to say precisely what proportion of accidents are caused wholly or in part by human error, the detailed analysis of individual accident reports over many years suggests that it is over 90%. The Royal Society for the Prevention of Accidents (RoSPA) states that 'A road accident is a rare, random, multifactor event that is always preceded by a situation in which one or more road users have failed to cope with their environment, resulting in a vehicle collision'.
76. Engineering measures address this issue by providing a road environment which is more easily understood by drivers, thereby reducing the potential for driver error, whereas road safety education training and publicity targets more general driver attitudes, encouraging drivers to exercise more care and responsibility.

How Statistical Evidence is Used to Identify the Best Interventions

77. A description of road safety measures currently employed by the County Council can be found at Appendix G.
78. The best engineering interventions are generally those which save the most accidents for the least investment and a cost-benefit analysis is therefore an integral part of all accident investigations (calculating the potential cost of an improvement scheme against the benefits that it could potentially provide).
79. Table E2 in Appendix E compares the historical impact of the combined DESS (Drink Drive, Engineering and car Secondary Safety) measures and all 'other' road safety measures. Whilst it shows that the 'other' measures were more effective in reducing KSI accidents the DESS measures were equally as effective

in reducing Slight accidents. Recent national road safety strategies have assumed that all of these measures would be continued, whilst accepting that the ongoing impact of some measures will reduce, the impact of some may increase and new measures will be introduced.

80. Appendix G gives details of the many other road safety education, training and publicity (ETP) measures currently employed by the County Council. Whilst casualty trends inform interventions, there is no statistical evidence to identify the best interventions to prevent accidents. Rather, the accepted methodology for ETP is to evaluate the impact of the various interventions on the attitude of the road user. Within Leicestershire external consultants recent evaluation reports have covered the pre-driver training scheme, the involvement of school crossing patrollers in wider aspects of Road Safety Education, powered two wheeler initiatives and fleet driver training. Additionally, within Leicestershire some 20,000 drivers caught on camera or reported by the police (generally for low level speed offenders) attend road safety driver rectification courses each year. The effectiveness of these courses was endorsed in July 2011 in a published report (ACPO & Brainbox Research).
81. Whilst it is accepted that an observed change in attitude as a result of any particular intervention does not easily point to quantifiable accident reductions it is generally accepted nationally that the overall contribution of the 'other' (substantially ETP) measures is significant.

20mph Zones

82. On 15 June 2010 the Cabinet considered the key findings and recommendations of the Scrutiny Review Panel, which had been established to examine road safety measures in Leicestershire. This included consideration of 20mph speed limits. The Panel supported the Authority's approach to 20 mph zones but proposed monitoring sign-only schemes being trialled in other parts of the country which, if successful, could potentially reduce costs. The Cabinet recommended that the Panel's recommendations were acted upon in order to make further improvements to the County Council's provision of road safety measures.
83. In May 2015 the Environment and Transport Overview and Scrutiny Committee considered a report on road safety in Leicestershire, including 20mph speed limits. The Committee recommended monitoring national trials of sign-only 20 mph schemes and the results should be brought to a future Environment and Transport Overview and Scrutiny Committee for consideration.
84. In late 2015 Derbyshire County Council undertook a Scrutiny review of 20mph speed limits. As part of this work they spoke to Lancashire County Council for feedback on the impact and effectiveness of their county-wide implementation of sign-only 20 mph restrictions (implemented without traffic calming features). The conclusion from Lancashire County Council at that point was that the scheme had not yet delivered the desired reductions in the number of killed or seriously injured in Lancashire and they felt that it was too early to be able to reliably recommend to Derbyshire a county-wide roll-out of 20 mph limit.
85. The DfT is currently undertaking a study on the effectiveness of sign-only 20mph restrictions. This work will give a comprehensive assessment of the impact and effectiveness of sign-only 20 mph restrictions and will address the evidence gap which currently exists around the effectiveness of such schemes. The work will

also examine drivers and residents perceptions of 20 mph limits and assess the relative cost benefits of such measures to vulnerable groups including children, cyclist and the elderly.

86. Early findings of the DfT study were published in February 2016. Provisional results from the study (which are subject to further analysis) indicate that:
- (i) 20 mph limits are generally supported by residents and drivers;
 - (ii) The majority of residents are perceived to be aware of the 20 mph limit in their street. However, some residents remain unaware and are unlikely to perceive the benefits;
 - (iii) 20 mph limits have had limited impact on driving behaviour (in terms of speed, traffic flow and driver consideration). Most residents and drivers do not perceive an improvement but many drivers report that they are now more aware of hazards and risks;
 - (iv) 20 mph limits are perceived to be beneficial for pedestrians, cyclists and residents. The questionnaire results suggest a small number of residents are walking and cycling more in some of the case study locations.
87. Given the current lack of a reliable evidence base on the effectiveness of sign-only 20 speed limits, the County Council continues to be of the view that 20mph restrictions are only effective when supported by physical measures and in current financial climate, unless there is a proven injury accident problem at a location, we cannot justify the installation of such measures.
88. However, the DfT's study is due to be completed in 2017. It is intended to take a report to the Environment and Transport Overview and Scrutiny Committee, highlighting how the output from the DfT study will provide us with a robust and comprehensive evidence base on which to review and develop the local approach to the use of such restrictions. The final publication date for the DfT research has not yet been announced, so it is not yet possible to give a firm indication of when a report detailing the findings would be made to the Scrutiny Committee, although it is likely to be towards the end of 2017.
89. However, Figure 15 below shows the total number of casualties from 2000 to 2015, split by 30mph urban roads and non-built up rural (50/60/70 mph) roads. Figures 16 and 17 show KSI casualties from 2000 to 2015, split by speed limit. In terms of KSIs the statistical evidence indicates that fewer accidents occur on 30 mph roads and more accidents occur on rural higher speed roads.

Figure 16 shows that for 30 mph limits in Leicestershire there was a peak in 2014, of a similar magnitude to the one seen in 2005, but there was a reduction again in 2015. However, for 60 mph speed limits Figure 17 shows there was an increase in 2014, similar to that seen in 2009 and 2011 and, regrettably, KSI accidents continued to increase in 2015 on 60 mph roads. This suggests that our scarce resources should be targeted at these higher speed limit roads, rather than reducing speed limits in urban areas by having a blanket 20 mph speed limit policy at this time.

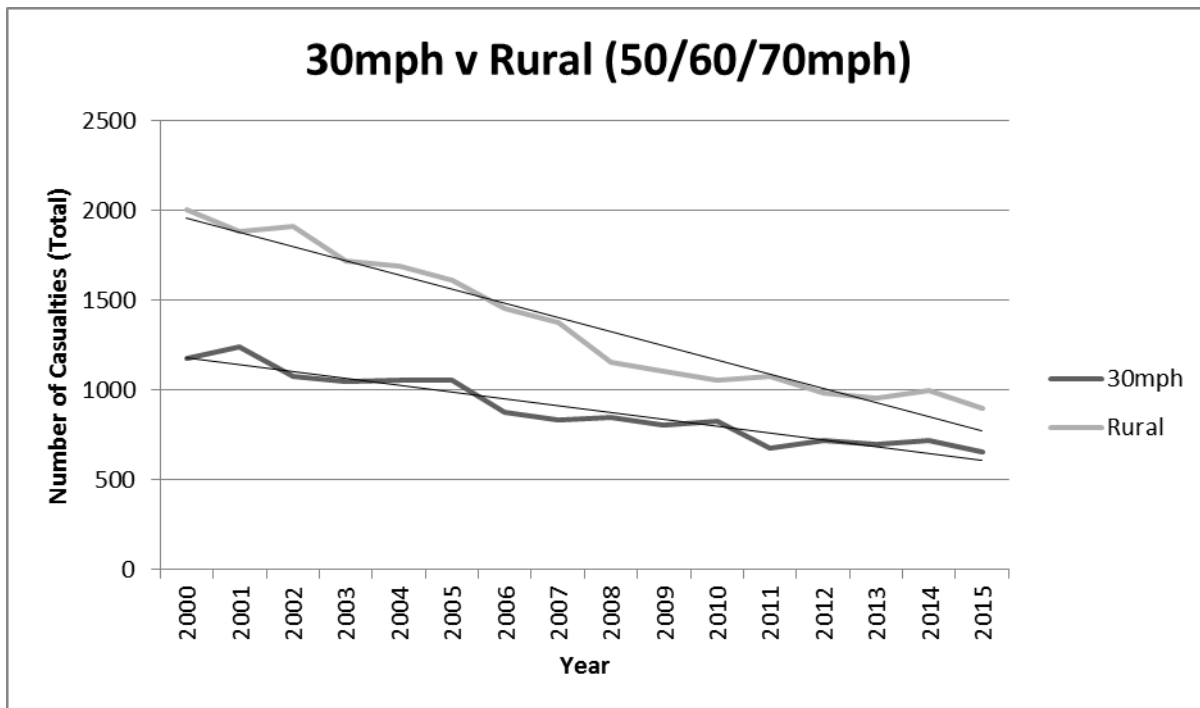


Figure 15 – Total Casualties by 30mph and Non-Built Up (Rural) Roads

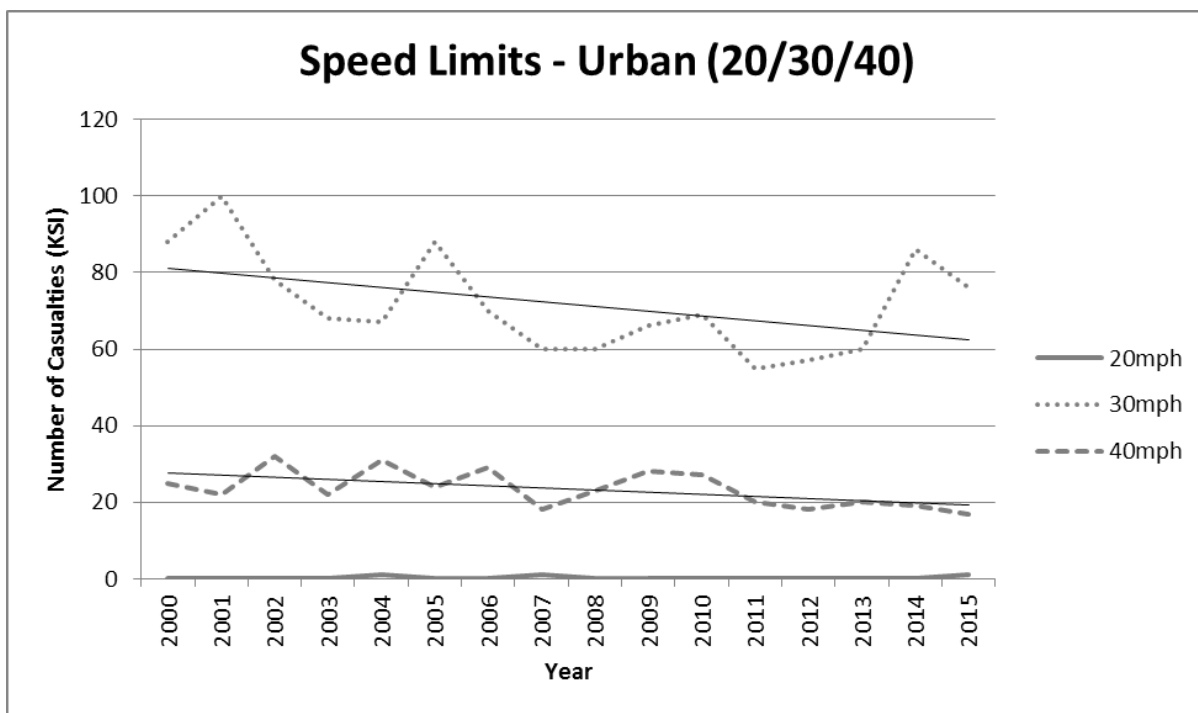


Figure 16. Built-Up Roads (20/30/40mph), KSI Casualties by Speed Limit, 2000-2015

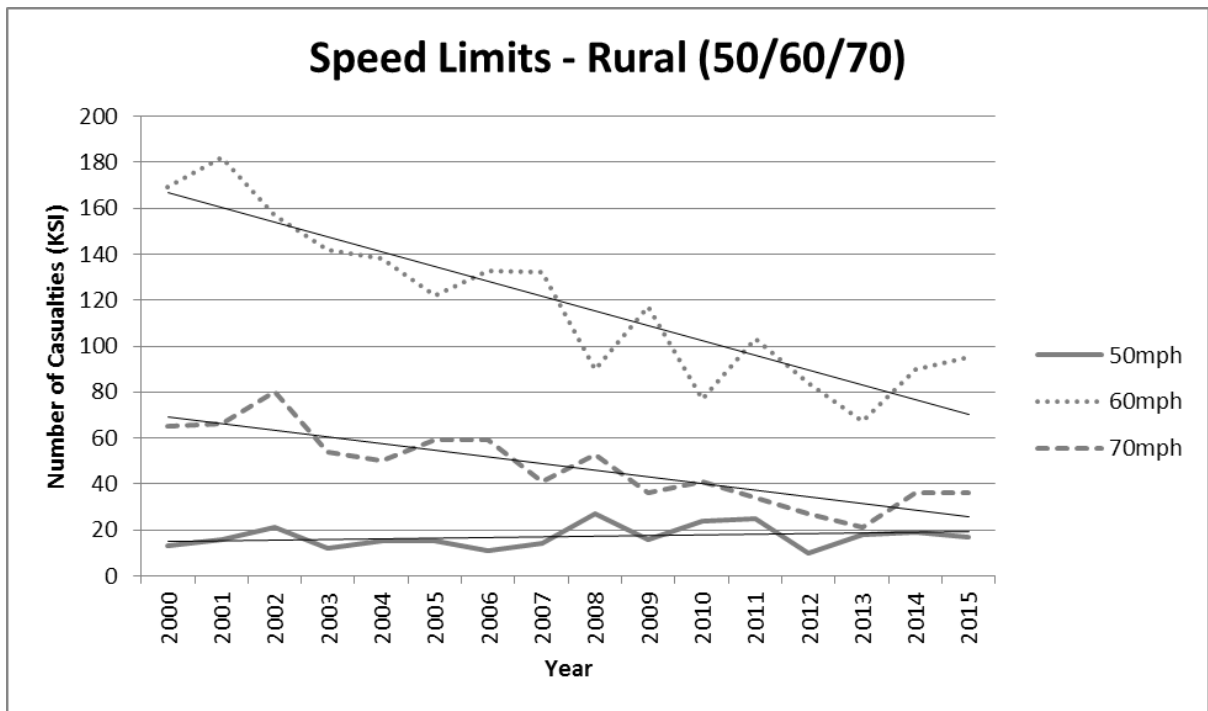


Figure 17. Non-Built Up Roads (50/60/70mph), KSI Casualties by Speed Limit, 2000-2015

90. Further breakdowns of accidents, including by casualty severity, surface conditions, lighting and national comparisons are shown in Appendix C.

Challenges

91. The latest 2016/17 to 2019/20 Medium Term Financial Strategy (MTFS) is the most challenging since the County Council was established over 40 years ago. To help meet these challenges it is vital that we review what we do and develop plans to set out how resources will be used to provide services to residents of Leicestershire in the most effective way.
92. The 'National Highway Transport – 2015 Satisfaction with Services Survey' showed declining public satisfaction with services relating to safer roads. In 2015, one of the Transformation Programmes priority projects, 'A Customer Focused Approach', identified the need to gain a greater understanding of our customers. Participants in the project felt that expectations had changed, with people being less willing to put up with poor customer experiences and customer service was felt to be a key way in which people judged organisations.
93. Within this framework the Environment and Transport Interim Commissioning Strategy sets out what will be done to address road safety issues and improve the safety of the highway network, reduce road casualties and build on the customer focused approach. Cabinet approved this Strategy on 19 April 2016.
94. The Strategy's Action Plan contained a variety of measures, including delivering essential safety schemes, delivering further road safety improvements (generally as part of other projects) and reviewing the future approach to casualty reduction, in the light of the available funding.

Future Approach

95. As required by the Environment and Transport Interim Commissioning Strategy, a review of the approach to casualty reduction is taking place. This aims to maximise benefits and ensure a continued customer focussed approach. The review includes the following:
- (i) Review approach to the identification of cluster sites for possible road safety measures;
 - (ii) Explore future ways of working with the Leicester, Leicestershire and Rutland Road Safety Partnership (LLRRSP);
 - (iii) Review casualty reduction targets for 2020, taking account of demographic changes
 - (iv) Adopt a 'digital by default' approach for publications.
96. Progress on the development of each of these elements is outlined below.

Future Process – Cluster Site List Analysis

97. To assist in the prioritisation of sites a variety of analysis techniques and tests may be used to assess the 'raw' cluster list. This helps to ensure that interventions are targeted at sites experiencing numbers of casualties above the national average and that those sites that are targeted have deliverable schemes that will reduce casualties. These may include:
- (i) COBA (Cost Benefit Analysis): This test uses evidence (road type, junction type, speed limit and traffic flows) to calculate the predicted number of annual accidents that can be expected for the site. This number is then compared with the actual number of annual accidents that are occurring at the site. If the actual number of accidents is less than predicted number no further action will generally be taken (more information on COBA can be found in the Design Manual for Roads and Bridges Volume 13);
 - (ii) Accidents Rates by Year: The DfT generates information on accident rates by year, for specified classes of roads (the total number of accidents on the specified road class is divided by the total traffic volume and total road length). This calculation can, in certain circumstances, be used at a local level. Although less applicable for cluster sites (as the road length is too short) the calculation can be generated for accidents on routes of sufficient length. If applicable this calculation can help to indicate whether the road is above or below a national average and can help to provide a wider context;
 - (iii) Preliminary desktop analysis of accidents, to assess trends and viability of possible measures.
98. Where appropriate an assessment of accidents involving specific vulnerable users or types of accidents may take place. As an example these may include accidents in wet/damp conditions, accidents involving pedestrians, cyclists or motorcyclists or accidents on rural bends. This list would be used to bid for funding that is targeted at specific types of measures including the Local

Sustainable Transport Fund (LSTF) or deliver improvements as part of other works.

99. We will also continue to promote education, training and publicity (ETP) campaigns, mainly via the LLRRSP. This work will take account of casualty trends, in conjunction with other non-casualty information (offense data / surveys).
100. Approaches that offer poor value for money, or are not based on evidence, will not generally be supported.
101. The following process will be adopted to maximise use of suitable analysis techniques when producing the cluster site list:
- (i) The site must be on the local road network;
 - (ii) A priority cluster site list is produced annually (by August, after interim national figures for the previous year become available). The accident database automatically identifies sites experiencing 7¹ or more accidents in 5 years ;
 - (iii) Any sites that have been investigated in recent years, have treatment ongoing or where treatment is proposed will not feature on this year's cluster list;
 - (iv) An assessment is undertaken to identify sites with patterns of accidents or treatable accidents;
 - (v) Sites will be assessed against national accident rates COBA, to compare the site with national rates for similar locations. If the number of accidents at a site is higher than the national figure further investigation will be carried out. If below, the site will generally not be investigated further;
 - (vi) Produce list in publication order, to enable response to annual media enquiries such as top 10 sites;
 - (vii) Investigate sites to identify appropriate measures to reduce casualties;
 - (viii) If an appropriate scheme is identified funding will be sought or measures introduced as part of other schemes.
102. If required a targeted cluster site list can also be produced, for high numbers of specific types of accidents including wet/damp, cyclists or rural bends. This list would be used to bid for funding that is targeted at specific types of measures such as the Local Sustainable Transport Fund.
103. An assessment of the threshold used by six neighbouring authorities to generate their cluster site list was undertaken. The number varied across authorities, from 3 to 15 (in a 5 year period), with the majority using 3, 4 or 5.

¹ this figure may be adjusted, to take account of changing requirements and data

104. It was noted that the authorities that used the lower figures tended to generate a 'raw' cluster site list of up to 700 sites, before they prioritised their investigations.
105. Choosing a lower number of accidents for the threshold would generate over 700 sites to assess, which is not considered a good use of overall resources. It is also unlikely to be any more effective at identifying sites that can achieve their objectives and offer value for money than using a higher threshold. Taking the above into account it is therefore proposed that seven accidents be used as the cluster site threshold in Leicestershire (subject to paragraph 101(b) above).

Future ways of working with the LLRRSP

106. Early discussions between the partnership members have been held. A working party, consisting of senior partnership members, is to be formed to agree the functions to be delivered and develop an action plan to create a new delivery model for the LLRRSP. This would be approved by each partner and, if approved, it would commence in 2017/18.

Review casualty reduction targets

107. The aim of reducing road casualties remains unchanged. However, with consideration of the decreasing rate in which accidents are reducing, and in light of the upturn in KSI casualties since the targets were revised in 2013, it is proposed to carry out a review of the LTP3 long-term targets in 2017. This will commence upon release of the Department for Transport's main results for 2016 (anticipated to be published in June 2017) and would consider peaks in national and local accidents plus changes to demographics (for example KSI casualties aged 50 or over), along with any other analysis that can support such adjustments to the targets.

Adopt a 'digital by default' approach

108. In order to reduce the cost of printed materials a 'digital by default' approach to the provision of information, as well as for promotional materials, is used. This approach applies to any materials which are designed and printed. Examples include leaflets, posters, brochures or annual reports. The communications work undertaken as part of the casualty reduction programme will be consistent in this approach. In exceptional circumstances, printing may be appropriate. This will include where there is a legal reason, an equality impact or a strong business case.

Consultations

109. No external consultation has been undertaken on the revised approach to casualty reduction. Individual road safety schemes will continue to be subject to consultations with local members and the public and reports will be made available to members, as appropriate.

Resource Implications

110. The County Council's short and medium term priority is to improve the economy. Whilst many of the measures supporting this objective will assist road safety, the changes to national funding mechanisms, as a result of the introduction of the Single Local Growth Fund, has removed the previous block allocations for casualty reduction schemes.

111. The approved Medium Term Financial Strategy for 2016/ 2020 includes emerging savings of £800,000 in 2019/20. A revised approach to the Road Safety Education Programme, and options for delivering it, are currently being developed.
112. On 17 June 2016 the Cabinet agreed that £200,000 would be allocated for road safety schemes in 2016/17 (funded from the corporate underspend in 2015/16). Additional funding may be allocated in 2017/18 from an expected 2016/17 underspend. If there is a funding allocation this will be reported as part of the first 2016/17 corporate monitoring report.
113. In addition, there is the potential for a limited number of small schemes (for example signing and lining) to be funded from the Environment and Transport Traffic and Signals Forward Programme Revenue Budget.
114. Potential schemes will need to demonstrate that they can achieve their objectives and offer value for money against agreed criteria. The challenge is significant, as most of the available capital monies have already been committed to meet Government's match-funding requirements for transport schemes. Therefore, casualty reduction schemes are likely to either be implemented as part of other projects, or funding will need to be sought for example from developer funding or bids for Government funding.
115. Any bids for Government funding would compete against other qualifying schemes and projects. There is therefore no guarantee that funding would be made available.

Timetable for Decisions

116. Where appropriate, the new approach to casualty reduction will be implemented immediately.

Conclusion

117. Overall, Leicestershire's performance, when benchmarked against statistical neighbours and national figures, is very good, with the County achieving a top quartile performance. It should also be noted that roads in Leicestershire are significantly safer than they were in 2000, despite increases in traffic.
118. Whilst targets and milestones provide an ongoing reference point, it is the long term trend in accident/casualty statistics that is of most significance.
119. Key points can be summarised as follows:
- (i) There was a statistically significant decrease in 2015 for total and Slight casualties in Leicestershire;
 - (ii) KSI casualties decreased slightly in 2015 but remained at a relatively high level;
 - (iii) The long-term trends for total and Slight casualties are shared with our statistical neighbours and Great Britain. However, while the trend for KSI casualties is downward, this is at a slower rate in comparison;
 - (iv) Overall Leicestershire's change in casualty number between 2015 and 2014 was better than most of our statistical neighbours;

- (v) The LTP3 2015 milestone for Slight casualties was met, while we narrowly missed the milestone for total casualties and were some way off with KSI casualties;
- (vi) Due to a decrease in the rate of casualty reduction, combined with two years of high KSI casualty numbers, the revised 2020 targets and interim milestone are becoming more difficult to achieve;
- (vii) Leicestershire's casualty rate, that is total casualties per billion vehicle km, is still significantly less than that of its statistical neighbours and Great Britain;
- (viii) Secondary safety within cars has been the most important single contributor to reduced casualty numbers;
- (ix) Traffic volume, which has a dominant influence on casualty numbers, is itself strongly influenced by national policy decision;
- (x) The Council is facing significant challenges relating to declining funding and customer satisfaction;
- (xi) A review of the approach to casualty reduction proposes a number of changes which aim to maximise benefits and ensure a continued customer focussed approach.

120. The Authority will continue to deliver casualty reduction measures in line with corporate objectives and the evidence based approach of the draft Joint Health and Wellbeing Strategy (2017-2022), which targets interventions at areas above the national average.

121. Casualty data will still be produced and cluster sites will still be identified and investigated. However, the approach taken to identifying sites and investigating concerns will ensure that benefits are maximised within the framework of the significant challenges that the Authority faces.

122. The County Council's Road Safety Education Programme will complement this process in targeting measures in an evidence led approach.

Background Papers

- Cabinet – 19 April 2016 - Interim Environment and Transport Commissioning Strategy <http://ow.ly/qZCm303KsMf>
- Environment and Transport Overview and Scrutiny Committee – 3 September 2015. Road Casualty Reduction in Leicestershire 2000 to 2014 <http://ow.ly/Equf303KsOn>
- Cabinet - 16 March 2015 - 2015-16 LTP Implementation Plan <http://ow.ly/N2jF303KsQz>
- Cabinet Report – 8 March 2011 - Third Local Transport Plan (LTP3) (2011-2026) <http://ow.ly/lb1W303KsTr>
- Cabinet – 15 June 2010. Scrutiny Review Panel on Road Safety Measures <http://ow.ly/qR4b303KsVb>

Circulation under Local Issues Pressures

None.

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List of Appendices

- Appendix A - Road Traffic Accident Definitions
- Appendix B - Breakdown of Casualties by Mode of Travel and Road Class
- Appendix C - Trend and Trend Lines for Principal Travel Modes
- Appendix D - Annual Traffic on Leicestershire's Roads
- Appendix E - Estimated Effectiveness of Current/Ongoing Road Safety Measures
- Appendix F - PACT's Campaign Priorities for Road Safety
- Appendix G - Description of Leicestershire's Road Safety Initiatives

Relevant Impact Assessment**Equality and Human Rights Implications**

123. Initiatives to reduce road casualties benefit all road users, but are particularly important for vulnerable groups such as pedestrians, motorcyclists, cyclists, the young / elderly and those with a disability.

Environmental Implications

124. There are no environmental implications.

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