

2010 Herefordshire Road Casualties Summary Report



1. Introduction

1.1 Summary

- 2010 has been an exceptionally successful year in the reduction of road casualties within Herefordshire. All casualty targets for 2010 were surpassed including Killed or Seriously Injured (KSI), Child KSI, and Slight casualties ensuring that the authority has successfully met the 10 year target reductions set by Central Government in 2000 and the revised “stretches” to these targets proposed from 2004.
- The reductions in KSI casualty numbers are also significant when compared to the national average reductions in 2010. To put into context the national average numbers for KSI casualties reduced by 9% compared to 2009 and 49% against the 1994-98 average. Herefordshire’s numbers reduced by 42% (105 to 61 casualties) compared to 2009 (over four times greater) and 76% (249 to 61 casualties) against the 1994 – 98 average (more than one and a half times greater).
- Looking at the overall statistics, it’s apparent that a contributing factor in the reductions of KSI casualties during 2010, compared to previous years is a notable reduction in the Trunk Road statistics. These reduced by 67 % (30 to 10 casualties) compared to the previous year whilst our County Road network reduced by 32% (75 to 51 casualties).
- Overall “young adult road users” (16 – 25 age group) remain a concern as per previous years with disproportionately high representations within the KSI casualty statistics, as could be seen in both 2008 and 2009. Whilst actual casualty numbers have reduced, this has been at a lesser rate than other age groups. They are also over represented in the Fatal casualty statistics, accounting for 57% (4 of 7) of road fatalities within the County.
- 2010 saw a marginal reduction of “drink drive” related accidents compared to 2009 (24 compared to 30) however this is still noticeably higher than the preceding years (2006 to 2008). This appears to indicate the increased trend for “drink drive” incidents noticed in 2009, continues to be a problem.
- Killed or seriously injured motorcycle casualties have continued the downward trend exhibited over recent years, with only 7 KSI casualties (11% of the overall total) now attributable to this group. 2010 was also notable in that there were no motorcycle fatalities within the County.
- Other key factors which are likely to have influenced casualty reductions include reduced vehicle flows and average speeds due to the economic slow down, high fuel prices and the severe weather conditions at the start and end of 2010.

1.2 Introduction

This is the third annual Road Casualty Summary report prepared by Herefordshire Council that provides an overview of all Road Casualties within the County over the preceding calendar year. Copies of this document are available on the Accident Investigation page of the Herefordshire Council website.

This report will aim to briefly summarise the accident and casualty numbers that have occurred on the entire road network within Herefordshire during 2010. It shows our current performance against the headline targets, which have been set to form our Road Safety Strategy, and meet the national road safety targets set by central Government in 2000. It will aim to highlight any notable areas within these figures that may be considered further for the future.

It will also provide an overview of safety improvement schemes carried out in 2010 together with completed monitoring records for all sites treated since 2002 that now have a complete 5 year “After” period. This will help to highlight the casualty reductions achieved relating to specific schemes which contribute a significant proportion to the ongoing reductions.

2. Headline Casualty Statistics

We are able to report the successful meeting of all our target casualty statistics for 2010. This successfully achieves all the target reductions set by Central Government in 2000 and the revised "stretches" to these targets proposed from 2004.

Compared to our **1994 – 98 average** casualty figures (**249 KSI, 22 CKSI, 719 Slight**) that form the baseline for our overall 2010 target we currently show: -

- **76 % reduction in Killed or Seriously Injured (KSI) casualties**
- **86 % reduction in Child KSI casualties**
- **18 % reduction in Slight casualties**

A summary can be seen in Table 1 below:

Table 1													
	Total KSI cas				Child KSI cas				Slight cas				Total casualties
	Target	Actual	% Change over previous year	% Change over 1994 - 98 Average	Target	Actual	% Change over previous year	% Change over 1994 - 98 Average	Target	Actual	% Change over previous year	% Change over 1994 - 98 Average	Actual
2006	134	119	-19%	-52%	15	10	-23%	-55%	788	663	-9%	-8%	782
2007	130	133	12%	-47%	14	11	10%	-50%	772	713	8%	-1%	846
2008	123	93	-30%	-63%	13	6	-45%	-73%	756	632	-11%	-12%	725
2009	116	105	13%	-58%	12	9	50%	-59%	740	707	12%	-2%	812
2010	108	61	-42%	-76%	11	3	-67%	-86%	724	586	-17%	-18%	647

Clearly, given the scale of the reductions 2010 exhibits, it would be expected to show a statistically significant reduction compared to the average over the last 5 years as shown in the following Table 2.

Statistical Poisson test – KSI Casualties, last 5 years.

Table 2					
No of years		5	152.6	Ave accidents per year	
Year No	Year	Accident Total	Significance		
1	2001	179	2.0%	High Confidence	of increase over the average for the 5 year period
2	2002	150	40.6%	Not Significant	of decrease below the average for the 5 year period
3	2003	146	28.6%	Not Significant	of decrease below the average for the 5 year period
4	2004	141	16.4%	Indicative (not stat significant)	of decrease below the average for the 5 year period
5	2005	147	31.4%	Not Significant	of decrease below the average for the 5 year period
No of years		4	112.5	0.0%	V high Confidence of decrease below the previous 5 year average
Year No	Year	Accident Total	Significance		
1	2006	119	0.2%	V high Confidence	of increase over the average for the 4 year period
2	2007	133	4.9%	High Confidence	of increase over the average for the 4 year period
3	2008	93	0.0%	V high Confidence	of decrease below the average for the 4 year period
4	2009	105	0.0%	V high Confidence	of decrease below the average for the 4 year period
No of years		1	61	0.0%	V high Confidence of decrease below the previous 4 year average
Year No	Year	Accident Total	Significance		
1	2010	61	0.0%		

Given the scale of the 2010 reductions, we are also exploring the possibilities that a proportion of these might relate to a combination of changes in traffic volumes and speeds. The ongoing economic downturn has marginally reduced traffic flows in recent years and additionally it is apparent that average vehicle speeds in Herefordshire have reduced by 3.6% in the past 3 years (comparing average speed in 2010 with 2008). This combination of reduced flows and speeds may be impacting on accidents. Whilst it will be difficult to confirm, there is an additional possibility that the economic downturn is having a greater impact on the higher risk group of drivers in the 16-25 age bracket. We will

need to continue this line of analysis over a number of years to clarify the nature of the relationship between flows, speeds, specific groups and accidents.

Further to this, it must also be noted that 2010 was affected by severe winter weather conditions both at the start and end of the calendar year. This is likely to have had an impact on overall vehicle flows and average speeds which in turn will have influenced (reduced) the number of accidents and subsequent casualties occurring.

3. National casualty comparison

Comparing our overall performance for KSI casualties against the recently released 2010 national statistics contained in Reported Road Casualties Great Britain (RRCGB) – Statistics Bulletin, we can see the following in **Table 3**:

Table 3							
Percentage Reductions KSI casualties totals compared to 94 - 98 Ave. Baseline.							
		94-98 Av	2006	2007	2008	2009	2010
Great Britain KSI Cas Including Herefordshire	Total KSI Cas	47656	31845	30720	28572	26906	24517
	% Reduction		-33%	-36%	-40%	-44%	-49%
Great Britain KSI Cas Excluding Herefordshire	Total KSI Cas	47407	31726	30587	28479	26801	24456
	% Reduction		-33%	-35%	-40%	-43%	-48%
Herefordshire KSI Cas	Total KSI Cas	249	119	133	93	105	61
	% Reduction		-52%	-47%	-63%	-58%	-76%

This shows we have consistently achieved a greater reduction in KSI casualties against the 1994 – 98 baseline figures than the rest of Great Britain. A more detailed breakdown of these casualty figures and comparison with national figures can be found in **Appendix 1** at the rear of this document.

4. 3 Year Rolling Average casualty figures

In order to give a broader overview of the County casualty trend a “3-year rolling average” method can be applied. This uses an average of the preceeding 3 calendar years (including latest year) figures to give average number at the current year.

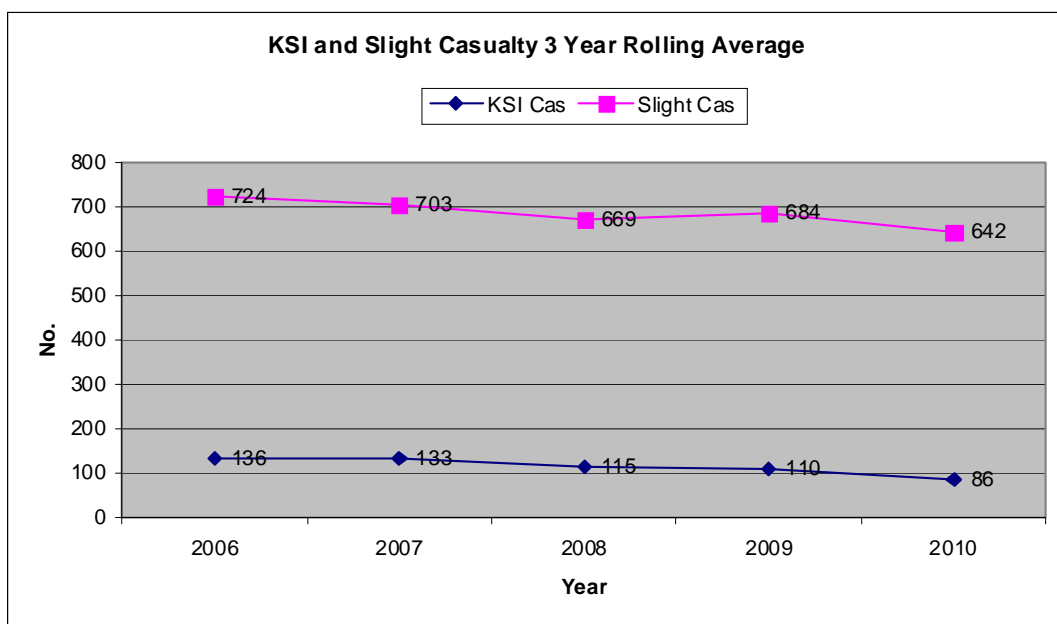


Chart 1

This method provides a more robust data set to provide an overview of the overall casualty trend, which negates the casualty “peaks” and “troughs” which individual years contain. As shown in **Chart 1**, it illustrates the steadily reducing trend for both KSI casualties and Slight casualty numbers.

5. Headline casualty and collision breakdown and comparisons.

The following tables show a breakdown of KSI Collisions (**Table 4**) and Casualties (**Table 5**) between Fatal and Serious and Slight severities and total figures for each respective year.

Comparisons between the two tables are useful in highlighting the actual numbers of Collisions (Accidents) that have happened compared to the casualty figures shown. This helps to highlight if any unusually high “multiple casualty” incidents may have occurred, which adversely influence casualty figures. On occasion further investigation of these incidents may highlight particular elements, such as age groups, or behaviours that may benefit from further targeted road safety educational campaigns, in a bid to further reduce casualty numbers. During 2010, whilst the overall ratio for KSI collision / casualties is broadly similar to previous years, one noticeable difference is there were no “multiple” fatal casualty incidents.

Table 4					
	KSI Collisions			Slight Collisions	Total Collisions
	Fatal	Serious	Total KSI		
2006	11	92	103	448	551
2007	20	94	114	467	581
2008	14	65	79	440	519
2009	10	79	89	485	574
2010	7	48	55	420	475

Table 5					
	KSI Casualties			Slight Casualties	Total Casualties
	Fatal	Serious	Total KSI		
2006	12	107	119	663	782
2007	22	111	133	713	846
2008	16	77	93	632	725
2009	13	92	105	707	812
2010	7	54	61	586	647

6. County / Trunk Road casualty split

Herefordshire’s reportable casualty figures cover all roads within the County, including the Trunk Road network, managed and maintained by the Highways Agency and its Managing Agents. Due to this arrangement, Herefordshire Council are unable to directly influence these casualties from an engineering perspective; however the figures do represent a significant proportion of our casualty returns.

Table 6 shows a breakdown of KSI casualties across the Trunk Road network within Herefordshire together with a comparison with County Road KSI and their percentage of the overall KSI’s within the County. Further analysis of the overall statistics highlights that in 2010 a significant factor in the decrease in Herefordshire’s total KSI casualties in comparison to 2009 is attributable to the Trunk Road statistics. Trunk road KSI casualties actually reduced by 67 % (30 to 10 casualties) compared to the previous year whilst our County Road network reduced by 32% (75 to 51 casualties).

Looking historically over previous years, any noticeable changes in our total KSI casualty figures usually correlates to a significant fluctuation in the Trunk road statistics. Together with the 2010 figures, this is evident in both 2006 and 2008 when larger reductions on the Trunk Road network combined with significantly reduced County Road numbers to produce noticeable overall reductions.

Table 6						
		KSI Casualties by Year				
Trunk Road	Approx Length (Miles)	2006	2007	2008	2009	2010
A49	33 mi	13	20	14	25	8
A465 (De-trunked 2009)	0 mi (12 mi pre 2009)	6	3	4	De-Trunk	De-Trunk
A449	0.5 mi	0	0	0	0	0
A40 (part De-trunked 2009)	9 mi (15 mi pre 2009)	2	8	2	4	2
M50	4.5 mi	0	0	0	1	0
Trunk Rd Total	47 mi	21	31	20	30	10
County Rd Total	2033 mi	98	102	73	75	51
Overall Total	2092 mi	119	133	93	105	61
Trunk Rd % of Overall Total	2%	18%	23%	22%	29%	16%

Looking historically over previous years, any noticeable changes in our total KSI casualty figures usually correlates to a significant fluctuation in the Trunk road statistics. Together with the 2010 figures, this is evident in both 2006 and 2008 when larger reductions on the Trunk Road network combined with significantly reduced County Road numbers to produce noticeable overall reductions.

The following **Chart 2** shows a graphical representation of the KSI casualty numbers and resultant “trend” for reductions on both the County maintained road network (light blue line) and Trunk road network (yellow line). The chart clearly indicates the improved performance in reducing KSI casualties on County maintained roads over that of the Trunk roads. The chart also illustrates the similar change in traffic volumes on both road categories (data taken from DfT website on traffic volumes). This shows that the traffic growth on County roads has been broadly similar to that on the Trunk roads indicating that the different rate of accident reduction must result from other factors.

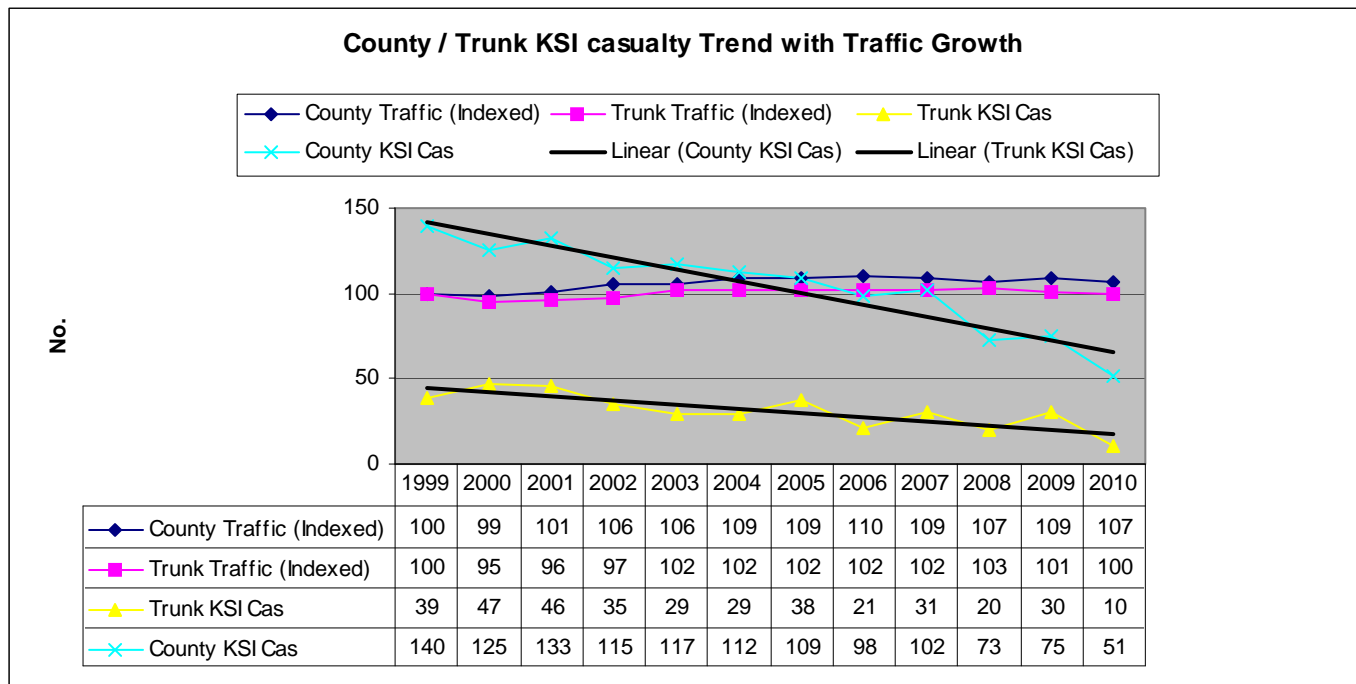


Chart 2

In 2009 the Trunk road statistics accounted for 46% of fatal casualties within the County (6 out of 13). In 2010 this figure reduced to just 1 out of 7 Fatal casualties within the County (14%) which is the lowest number ever recorded for the Trunk Road network within Herefordshire.

Whilst the reductions are a welcome improvement for the County, the reasons behind them are more difficult to specifically pinpoint. During 2010 a Safety Study was carried out on the A49 Hereford to Ross section, aimed at producing a package of measures to reduce road casualties, following many negotiations between Herefordshire Council and the Highways Agency, in an attempt to address the many local concerns on the route. The majority of the recommended measures were not actually introduced until early 2011, so clearly it would be difficult to attribute the 2010 reductions to this work.

As indicated in **Chart 2** above, the traffic levels have reduced by similar amounts on both the Trunk and County road network during 2010. In order to explain the differing levels of casualty reduction between County and Trunk road figures during 2010 one possible theory may be that the “long distance” travel that the Trunk Road network caters for has been subject to greater reductions in average speed than the County road network (contributed to by the increased fuel prices and struggling economic climate mentioned previously). It is possible that the self generated “calming” of this type of travel on the Trunk road network is providing a greater “underlying” safety influence.

7. 2010 Accident & casualty analysis – overview & areas for further consideration.

The decreases in casualty numbers in Herefordshire during 2010 are reflected throughout the majority of casualty classes, vehicle types and age groups. Other than the Trunk road performance mentioned previously, it is difficult to attribute the reductions to one specific element. One area that is likely to have influenced the low casualty totals is the adverse weather conditions during the winter period which reduced the amount of travel on the network for substantial periods. This is evident in quarter four of 2010 with KSI casualties exhibiting a 37% reduction (19 to 12 casualties) compared to the previous best fourth quarter (experienced in 2009). Notwithstanding these influences and the various successful reductions covered elsewhere in this report, it is important to maintain a focus on those areas that contribute significantly to the yearly casualty numbers in order to develop new approaches that will generate greater improvements for the future. Using this approach there are a number of collision / casualty categories that are notable in their contributions to the overall numbers, and also can be influenced by engineering treatments.

7.1 2010 Overall Contributing Influence – KSI Accidents

For the purpose of this report, in order to give a general flavour of the more significant accident patterns, a simplified breakdown of accident types shows the following:

Total county KSI Accidents – 55 (61 KSI casualties)

- 47% (26) KSI Accidents involved drivers aged 16 to 25 resulting in a total of 28 KSI casualties (All age groups)
- 47% (26) KSI Accidents involved “loss of control” type manoeuvres on bends with 58% (15) of these involving drivers aged 16 – 25.
- 36% (20) KSI Accidents involved road users aged 60+ resulting in 18 KSI casualties for the age group which accounts for 29% of the total KSI casualties (18 of 61). Of these, 17% (3) also involved drivers aged 16 – 25.
- 22% (12) KSI Accidents happened at junctions, involving “failure to give way” or turning movements with 33% (4) of these involving drivers aged 16 – 25.
- 13% (7) KSI Accidents involved pedestrians with 29% (2) involving road users aged 16 – 25.
- 9% (5) KSI Accidents involved “rear shunt” manoeuvres with 40% (2) of these involving drivers aged 16 – 25

7.2 16 to 25 (Young Adult Road User) Age group (All classes)

Our further analysis of the 2008 and 2009 data brought to light a “hybrid” age group which encompasses the official Department for Transport age groups of 16 – 19 and part of the 20 – 29 groups. When comparing 2010 against 2009, overall KSI numbers for this age group have reduced by 37% (38 to 24) with the fatal casualties that make up part of this figure reducing by 43% (7 to 4). This is encouraging for a group that can be notoriously difficult to tackle in the road safety environment; however we also need to bear in mind that they are not reducing at the same rate as KSI casualties for other age groups, meaning that they now represent larger percentages of the overall KSI casualty totals in 2010.

As shown in **Table 7**, this 16 – 25 age group now accounts for 39% (24 of 61) of the total KSI casualties within the County which is the largest percentage of all age groups, and more worrying is their continued “over representation” in the Fatal casualty figures, with this age group accounting for 57% (4 of 7) of all fatal casualties in 2010. This also shows the increased percentages against 2009 even though actual numbers are reduced.

We also carried out additional analysis of the 2010 KSI collisions and casualties with regard to the 16 – 25 age group involvement. Using manual analysis of the event descriptions and contributory factors for each individual KSI accident, it reveals that 16 – 25 year old road users are actually “at fault” (not necessarily in a “legal” sense, more that these were the “instigating” or main cause vehicle / user) in 45% (25 of 55 accidents) of the total KSI collision numbers. This includes KSI collisions that did not result in a 16 – 25 year old KSI casualty, showing that as well as injuring themselves in these events they also contribute to KSI casualties for the other age ranges.

Table 7						
	2009 KSI Cas			2010 KSI Cas		
Casualty Severity	Fatal	Serious	KSI	Fatal	Serious	KSI
County Total	13	92	105	7	54	61
16 - 25 age group	7	31	38	4	20	24
16 - 25 age group as % of County Total	54%	34%	36%	57%	37%	39%

By far the biggest contributing manoeuvre type for this group is the “loss of control” (usually at bends), accounting for 58% (15 of 26) of KSI accidents, generating 17 KSI casualties. From the analysis it is also apparent that 60% of these accidents (9 of 15) happened during the hours of darkness, 53% (8 of 15) occurred on a wet road surface (combined both dark and wet factor number of 47% (7 of 15) and 60% happened over the Friday to Sunday period of the week. The percentages for both dark and wet road surface involvement are noticeably higher than the norm, which would usually be expected to be around a third (33%) of total collision numbers for each condition. In the majority of cases these accidents also involve elements of inappropriate speed and driving behaviour, and a failure to appreciate road conditions as major influencing factors in the event.

Ultimately, it appears that targeted educational packages, training or ultimately legislation, will be the primary means of addressing this issue, with engineering offering limited assistance in a supporting role.

7.3 Road users aged 60+ (All classes)

This age group was the only group to suffer a rise in overall KSI casualty numbers compared to 2009. These increased from 12 to 18 meaning this age group represented approximately 29% of the total KSI casualty numbers in 2010 as opposed to 11% in 2009. Overall, of the 20 KSI accidents, a road user aged 60+ could be

considered “at fault” (using a similar criteria to the 16 – 25 analysis mentioned previously) in 13 (65%) of the 20 incidents. They also contributed 3 of the 7 fatalities within the County (43%) of which, 2 were pedestrian casualties and 1 was a “loss of control” event, involving an underlying medical conditions as a contributing factor to the incident. In general terms a notable 20% (4 of 20 accidents) involved “loss of control” type events involving snow or ice affected road surface between January and March. Looking at the event descriptions of these it is also possible that these “relatively” minor incidents produced an injury severity that is heavily influenced by the frailty amongst this age group. The other dominant manoeuvre that is well represented in this age group is the “fail to give way” (emergence from junctions) into the path of main road traffic, with 4 of the 13 “at fault” incidents involving this movement. We should also consider that they were injured as an “innocent party” in 7 of the 20 accidents (35%) with 3 of these involving “at fault” drivers from the 16 – 25 age group mentioned previously. With Herefordshire’s increasing ageing population, we will closely monitor this trend in order to maintain a focus on the age group for the future.

7.4 Drink Drive (Breath Test +) Accidents

There was a notable increase in “drink drive” related collisions with more than double the number (30 compared to 14) recorded in 2009 compared to 2008, which was the highest recorded since 2005. In 2010 this number marginally reduced by 6 to 24 accidents however it appears that the increased trend for “drink drive” incidents remains a problem. Analysis shows that 50% are attributed to combined Friday’s and Saturday’s. We can also see from the statistics that the increase in this issue amongst the 20 – 29 age group has remained with these accounting for 50% (12 of 24) of total incidents. Reasoning behind the increased trend is still unclear however it remains likely that this may be linked to the uncertain economic climate leading to greater alcohol misuse, resulting in a greater incidence of risk taking which may illustrate the tip of a growing social issue over the coming years.

7.5 Accidents involving surface condition - Ice

During 2010 Accidents involving an “Ice” road surface condition reduced compared to 2009 however these still exhibit a noticeable increase compared to the pre 2008 period. As mentioned in the previous summary reports, 2008 exhibited a marked increase in these accident numbers and 2009 continued this trend as can be seen in **Table 8** below. There may be many influences on this figure, including the overall severity of the winter in general (explaining the 2010 increase in “Snow” surface accidents), and the number of days that freezing conditions were prevalent. Analysis of the data and collision locations is ongoing each year to identify issues that require further investigation in combination with Amey’s Winter Service and will be subject to ongoing monitoring over future winter periods.

Table 8					
Accidents by Road Surface Condition					
	2006	2007	2008	2009	2010
Dry	330	368	304	356	297
Wet	207	197	193	182	130
Snow	2	3	0	1	19
Ice	11	9	21	35	28
Flood	1	4	1	0	1

7.6 Powered Two Wheeler (motorcycles / mopeds)

2010 revealed a decrease in both collisions and KSI casualty numbers for this group compared to previous years. Whilst numbers are relatively small compared to overall total collision and casualty numbers, they still accounted for 12% of all collisions, 11% of KSI casualties and 8% of Slight casualty numbers. This compares to the national average makeup of 21% for KSI casualties (almost double) and 7% of slight casualties for the class.

The noticeable 58% reduction (17 to 7) in KSI casualties against 2009 can in part be attributed to the fact that there were no fatalities within the Powered Two Wheeler classes during 2010. However as shown in Table 9, 2010 suffered a significant increase of 44% (34 up to 49) in slight casualties for the class, taking the total combined PTW casualties higher than the 2009 figure. The majority of both the KSI casualty reduction and the Slight casualty increase can be found in the “over 500cc” category of machine.

Table 9						
	94-98Av	2006	2007	2008	2009	2010
PTW Collisions	84	61	60	65	57	55
% of Total collisions		11%	10%	13%	10%	12%
PTW KSI Cas	37	23	20	21	17	7
PTW Slight Cas	47	40	39	47	34	49
PTW Total Cas	84	63	59	68	51	56
% of Tot KSI casualties		19%	15%	23%	16%	11%
% of Total All casualties		8%	7%	9%	6%	9%

There are a number of factors which may have impacted on the change in pattern of casualties amongst PTW's. Potential influencing factors include those described at section 2 in respect of reduced vehicle flows, speeds and weather conditions. However, it is interesting that whilst the overall number of casualties has remained relatively constant, significantly there has been a reduction in the overall severity of casualties. This may, in part, be due to greater use of protective equipment (leathers, helmets, boots and gloves etc) reducing the injury severities.

Consideration also needs to be given to the general link between prevailing weather conditions during the summer months which further influences overall usage.

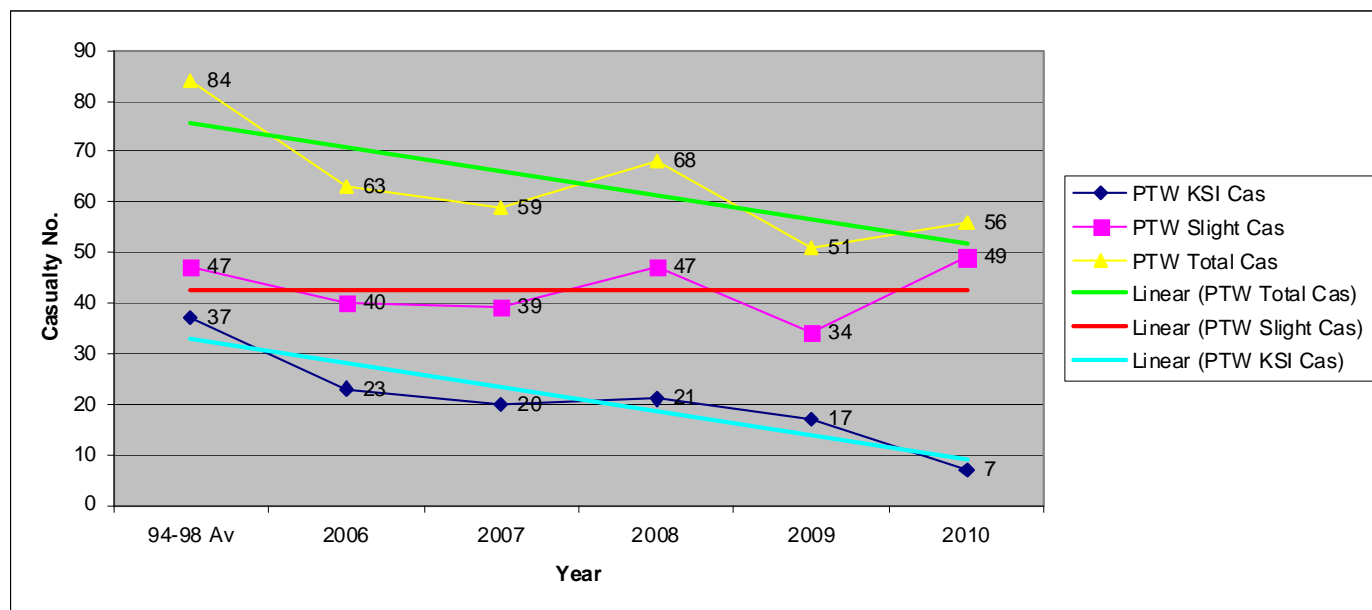


Chart 3

Whilst the KSI casualty reductions are welcomed, it is important that a focus is maintained on this group of users, in order to monitor any changing casualty patterns to ensure this can be tackled effectively in the future.

8. 2010 AIP Safety Scheme Implementation

During 2010, 13 low cost safety schemes were implemented throughout the County aimed at addressing accident and casualty problems. All sites appeared on the ranked 2010 Cluster Site Listing and were subject to detailed investigation prior to implementation.

Table 10 below gives details of the treated sites together with the 5 year “before period” casualty numbers associated with each. These sites will now be subject to ongoing detailed monitoring over future years.

Table 10								
Works Completion	Road Number	Site Location	Before Period Casualties					Total Site Casualties
			Year 1	Year 2	Year 3	Year 4	Year 5	
30-Jul-10	A4112	A4112 J/W U/C To Little Sarnesfield, Nr Weobley	0	0	1	1	0	2
10-Aug-10	A4137	A4137 J/W B4521 At St. Owens Cross	0	0	1	3	1	6
25-Aug-10	A4110	A4110 J/W B4529 at Lawton Cross	4	1	0	5	1	11
30-Aug-10	A0044	A44 Moorhall Farm Bends, Bringsty Common	0	0	1	2	0	3
13-Sep-10	B4399	B4399 Bends Nr. Dinedor Court (LOC Site)	0	2	1	0	0	3
24-Sep-10	A4112	A4112 Bends on Raddle Bank (LOC Site)	0	0	2	0	1	3
30-Oct-10	B4529	B4529 J/W B4360 Burnt House	2	0	1	3	2	8
07-Nov-10	B4362	B4362 J/W Kings Lane, Comberton	0	1	0	0	2	3
12-Nov-10	B4204	B4204 J/W B4203 High House Crossroads	2	0	0	0	3	5
17-Nov-10	B4360	B4360 J/W Ginhall Lane, Leominster	0	1	2	0	0	3
30-Nov-10	A0438	A438 Bends Nr Ent to Ledbury Lodge	2	1	1	0	3	7
09-Dec-10	B4352	B4352 Bends Nr Red House Farm Madley	1	1	0	3	1	6
14-Dec-10	A0044	A44 Bends Nr. Luce Farm, Steensbridge	1	1	1	0	1	4
Total Number of Casualties								64

9. AIP Safety Scheme Monitoring

All sites subject to treatment with accident remedial measures are subject to a detailed monitoring process. This involves comparisons between the casualty data from the actual “before” period from the date of implementation of the works (which differs marginally from the original search period that brought the site into being and takes account of any “regression to the mean” reduction prior to the work) and the following 5 years casualty data. This allows us to monitor the relative successes of the schemes, which also help to inform decisions on measures used in future works. The following **Table 11** shows a summary of implemented schemes that have completed their 5 year after monitoring period during 2010. A full list of all sites implemented since 2002 that now have a completed “5 year after period” of casualty monitoring data, can be found in **Appendix 2** at the rear of the document.

Safety Scheme Monitoring

Table 11														
Completion Date	Road	Description	Yr1	Yr2	Yr3	Yr4	Yr5	Before Total	Yr1	Yr2	Yr3	Yr4	Yr5	After Total
05-Jan-05	B4348	B4348 Kivernoll Farm Bend	0	2	0	0	2	4	3	0	0	0	0	3
05-Jan-05	A0438	A438 Perton Lane	1	1	1	4	5	12	6	0	1	0	0	7
31-Mar-05	B4348	B4348 Top Hill Farm	0	2	4	0	0	6	0	1	0	0	0	1
05-May-05	A0044	A44 Monie Corner Nr. Pembridge	0	0	0	0	9	9	0	0	0	0	0	0
13-Jun-05	A4103	A4103 Radway Road	3	0	7	1	3	14	2	1	2	0	1	6
20-Jun-05	A4137	A4137 Dry Arch Bend, Marstow	0	1	5	4	3	13	0	3	1	0	0	4
14-Jul-05	A0438	A438 J/W C1292 at Dormington	0	0	1	2	1	4	0	2	1	0	0	3
10-Aug-05	A4113	A4113 Nr Ent To Hillpike Farm	0	0	2	3	1	6	1	2	1	0	0	4
15-Aug-05	A0044	A44 Park Cottage - Bringsty Common	0	0	1	2	1	4	0	4	0	0	0	4
22-Aug-05	A4103	A4103 Callow Marsh	2	2	1	0	3	8	0	0	1	0	0	1
24-Aug-05	A0438	A438 Lugwardine Bridge	1	0	1	6	3	11	1	0	0	0	0	1
31-Aug-05	A0449	A449 Massington Railway Bridge	0	2	1	0	1	4	0	0	0	1	1	2
02-Sep-05	B4362	B4362 North End Farm	2	1	0	8	2	13	0	0	0	0	0	0
28-Sep-05	A0438	A438 Nelsons Garage	3	1	0	3	3	10	0	0	0	0	0	0
01-Oct-05	B4224	B4224 Nash Cottages	0	3	2	0	2	7	0	0	0	2	0	2
05-Oct-05	A0438	A438 Frome Park	0	4	7	1	1	13	1	0	0	0	0	1
30-Oct-05	A0044	A44 J/W C1110 to Stoke Prior	0	1	1	2	0	4	0	0	1	0	0	1
		All Casualty Totals						142						40

In summary, the sites featured a combined total of 142 Casualties over their 5-year “before” treatment period. Since treatment, over the following 5 years this number has reduced to 40 Casualties, which equates to a total reduction of 102 casualties (72 % saving) over the same 5 year “after” period. This provides a useful illustration of the success of the approach and measures used. Whilst ideally we would look to reduce casualties at all sites to zero, we must accept that the random multi factor nature of road accidents combined with the “human behaviour” element makes it difficult to guarantee influence with engineering treatments. Measures installed at treated sites can also reduce the severities of future incidents, effectively tackling the KSI casualties, by reducing any “post treatment” event casualties (if they occur) to a slight severity. With this in mind, all levels of reduction achieved are considered beneficial.

10. Activity and Focus in 2011/12

We have made excellent progress in reducing the number of the most serious road casualties on Herefordshire’s roads over the past 10 years with a significant reduction in the most recent three years; the challenge is to continue on this trend and our focus for 2011/12 is summarised below.

10.1 Targeted Engineering Treatment

Addressing the road safety problems on the highway network is a continuous process and it is essential that we maintain up to date and accurate data. It is vital that we understand this data and that our analysis enables us to derive clear information on how to target and tackle the accidents in a practical sense. We have made many changes over recent years, in order to further improve the effectiveness of data analysis and scheme design and delivery. Continual assessment of performance has enabled the introduction of more sophisticated criteria for identifying sites where treatment would be effective. This is enabling us to target sites more proactively, ensuring intervention and treatment at an earlier stage. This means that our approach is now shifting the emphasis of engineering work towards prevention of serious accidents. An overview of the Accident Investigation process used can be found in **Appendix 3** attached. Our approach has been recognised as best practice which previously resulted in award of Centre of Excellence.

10.2 Improving Scheme Design and Maintenance Practice

Over recent years we have implemented more comprehensive treatments at collision sites. Whilst this approach may have a greater initial cost of implementation, we are confident that the more complete treatment will provide increased long-term benefits. We will be able to monitor the success of this approach very closely and will be able to provide before and after data.

Integrated working with the Highways Service is also bringing road safety benefits. In particular, there is an increasing shift to data led prioritisation of maintenance programmes utilising technical data (SCRIM which provides skid resistance information) and casualty data. The prioritisation of maintenance programmes in this way has enabled greater integration with safety schemes, meaning that increased road safety benefits will be achieved. This has ultimately moved towards a more casualty focused maintenance programme, and has informed the programme for 2011/12.

10.3 Delivering with Partners

Identifying and delivering road safety improvements requires robust and coordinated partnership working to ensure the best outcomes and maximising the resources available. Herefordshire Council is a partner in the West Mercia Safer Roads Partnership (SRP) which draws together West Mercia Police, the Highways Agency, Fire and Rescue Service, the health sector, courts services and the other highway authorities in the West Mercia area.

A review of the funding arrangements for the enforcement function delivered by the SRP was undertaken in 2010 following the withdrawal of grant funding by Government. The SRP enforcement function (safety cameras) is now effectively self funding, so that revenues generated through speeding offences are re-cycled to fund ongoing enforcement activity. The SRP will maintain its broader partnership role bringing together enforcement activity and educational campaigns which are seeking to improve driver behaviour, in order to complement our ongoing engineering solutions to improve the highway network.

This Partnership provides an important basis for road safety improvements within Herefordshire, enabling coordination of the engineering and educational programmes of the Council with wider Partnership campaigns and enforcement. The Partnership has established operational forums which meet regularly throughout the year to discuss and agree tactical changes and improvements to road safety delivery within the County.

As is indicated at section 6 above, the Council has also been working specifically with the Highways Agency to identify and implement a programme of engineering improvements on the A49 (trunk) to the south of the county. A number of improvements were made in 2010/11 and these will be monitored in the coming years to assess the impacts of these schemes on accident and casualty reductions. We will continue to work in partnership with the Highways Agency to seek completion of the programme and consider opportunities for further collaboration on improvements to the trunk roads.

10.4 Promotional Campaign

Speed Indicator Devices (SIDs)

Inappropriate and excessive speed continues to be a major concern which is highlighted within Village Plans produced across the county by parish residents.

To try and address the concerns of parishes a subsidised SID programme was initiated. The aim of the programme is to educate the drivers and riders of the consequences of driving their vehicle at excessive and inappropriate speeds. Following an evaluation (summary below) which proved positive we will continue to offer and deliver the subsidised SID scheme to all parish and town councils in partnership with Amey Herefordshire. This will be the case while funding remains available and SIDs continue to reduce vehicle speeds.

It is also hoped that the Safer Roads Partnership will continue to add value to the initiative by carrying out enforcement at those sites where speeding is shown to be an issue during the deployment of the SIDs.

Speed Indicator evaluation summary

To view the full document visit the following link to our website:

http://www.herefordshire.gov.uk/community_and_living/43644.asp where the document can be found as a PDF attachment at the bottom of the page.

Parish responses to the SID programme:

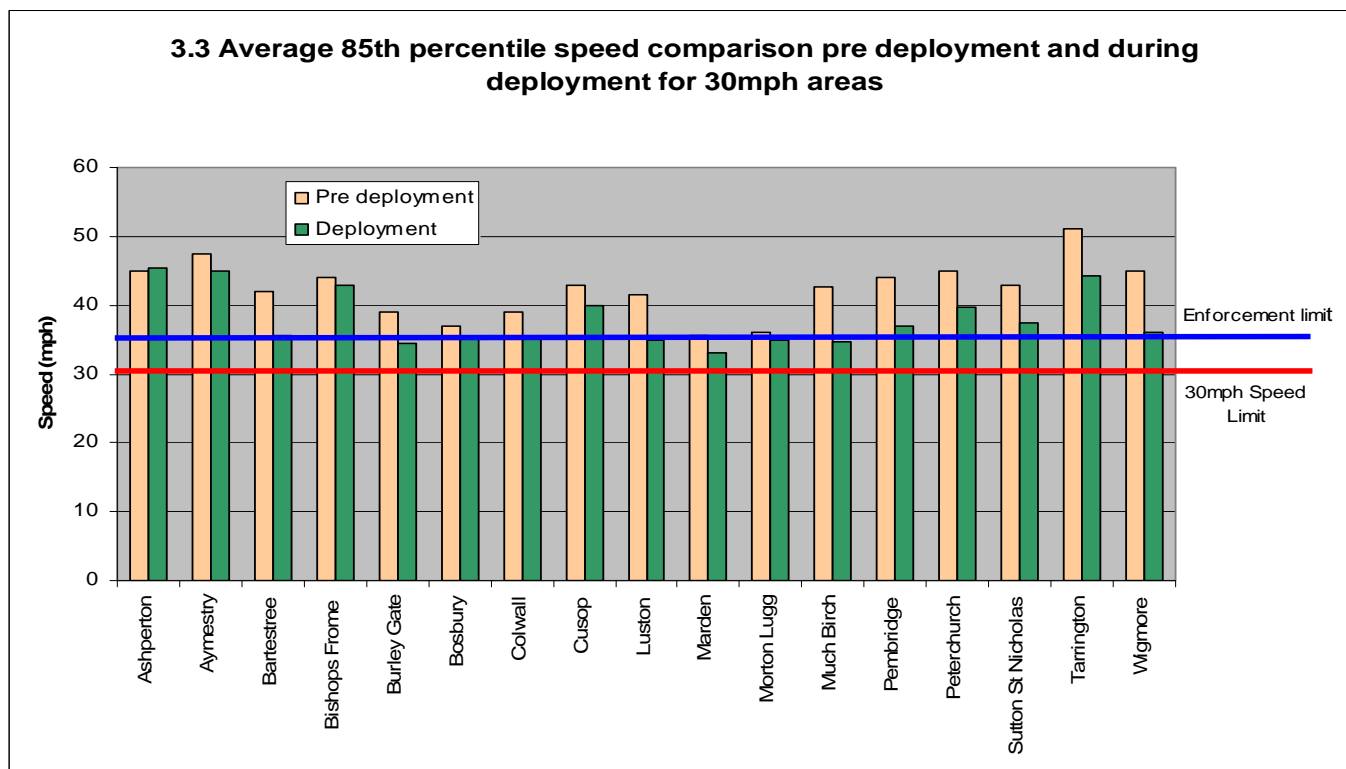
- 76% of the parishes agreed that the deployment of a SID reduced the speed of vehicles.
- 95% of the parishes agreed that the SIDs were well received by their parishioners.
- 85% of the parishes agreed that the SID programme was very accessible.
- 95% of the parishes agreed that they found the road safety team approachable and helpful.
- 95% of the parishes said they will continue with the programme.

At the time of the evaluation, April 2011, the number of parishes that had SIDs deployed was 25.

Of these 25 sites:

- 23 saw a reduction in vehicle speed during deployment.
- 5 have seen a reduction in vehicle speeds to below enforcement.
- 7 out of the 9 sites on 'A' roads saw a reduction in vehicle speed.
- 9 out of the 9 sites on 'B' roads saw a reduction in vehicle speed.
- 5 out of the 5 sites on 'C' roads have seen a reduction in vehicle speeds.

Therefore the biggest change has been on the 'B' and 'C' roads.



The casualty data and analysis summarised in this report forms a key resource for developing and delivering a coordinated campaign of road safety education, training and publicity. The data is providing us with very clear evidence to target our campaign at specific groups and activities which carry a higher risk of involvement in road traffic accidents. A focus of the campaign is coordination between key partners and in particular the West Mercia Safer Roads Partnership and the local Safer Herefordshire Partnership. Along with our partners we will target key groups including:

- Young drivers – disproportionately represented amongst most serious casualties
- Older drivers – a large and increasing group in Herefordshire and statistically at greater risk of involvement in road traffic accidents
- Impaired drivers – noting the increase in drink driving seen in 2009
- Vulnerable users (children, pedestrians and cyclists) – responding to some increase in pedestrian casualties and also in support and coordination with sustainable transport promotions

The campaign programme for 2011/12 is set out in more detail in **Appendix 4**.

10.5 Road Safety Strategy

Government published its 'Strategic Framework for Road Safety in May 2011 and this will inform the review of the Council's road safety strategy, set out in the Local Transport Plan (LTP). The Framework confirms the themes government wishes to focus on:

- Better education and training for children and inexperienced drivers;
- Remedial education for low level driving offences;
- Tougher enforcement for motorists who deliberately drive dangerously (not just focussing on speed);
- Actions linked to value for money;
- More community involvement; and
- Improving tools for road safety professionals.

The Framework also sets out an action plan which includes national indicators to help monitor progress. The review of our strategy will acknowledge the role we will be able to play within the national framework but will also identify local priorities and measures required to continue to improve road safety in the County.

In line with the programme for reviewing the LTP, we will be setting out a draft Road Safety Strategy by May 2012. This draft will be subject to consultation and further review prior to adoption in the summer of 2012.

**Accident Investigation & Prevention Team
Transportation Unit, 2011**

Appendix 1

Herefordshire Casualty comparison with National statistics (RRCGB 2010 – Statistics Bulletin)

Table 1: Reported Road Casualties: by road user type and severity: Herefordshire. comparison of 2009 with 1994 - 1998 average and 2009

Number/Percentage Change

	1994 - 1998 Average		2009		2010		%age change over 1994 - 1998 average		%age change from last year	
	Hfds	National	Hfds	National	Hfds	National	Hfds	National	Hfds	National
Pedestrians										
Killed	3	1,008	0	500	2	405	-33	-60	0	-19
Seriously Injured	27	10,662	11	5,545	5	5,200	-81	-51	-55	-6
KSI	30	11,669	11	6,045	7	5,605	-77	-52	-36	-7
Slightly Injured	61	34,874	51	20,842	47	20,240	-23	-42	-8	-3
All Casualties	91	46,543	62	26,887	54	25,845	-41	-44	-13	-4
Pedal Cyclists										
Killed	1	186	1	104	0	111	-100	-40	-100	7
Seriously Injured	18	3,546	6	2,606	4	2,660	-78	-25	-33	2
KSI	19	3,732	7	2,710	4	2,771	-79	-26	-43	2
Slightly Injured	48	20,653	45	14,354	30	14,414	-38	-30	-33	0
All Casualties	67	24,385	52	17,064	34	17,185	-49	-30	-35	1
Motorcycle Users										
Killed	3	467	1	472	0	403	-100	-14	-100	-15
Seriously Injured	35	6,008	16	5,350	7	4,780	-80	-20	-56	-11
KSI	38	6,475	17	5,822	7	5,183	-82	-20	-59	-11
Slightly Injured	47	17,547	34	14,881	47	13,503	0	-23	38	-9
All Casualties	85	24,023	51	20,703	54	18,686	-36	-22	6	-10
Car Occupants										
Killed	11	1,762	11	1,059	5	842	-55	-52	-55	-20
Seriously Injured	134	21,492	56	10,053	35	8,914	-74	-59	-38	-11
KSI	145	23,254	67	11,112	40	9,756	-72	-58	-40	-12
Slightly Injured	497	180,034	534	132,300	416	123,456	-16	-31	-22	-7
All Casualties	414	203,288	601	143,412	456	133,212	10	-34	-24	-7
Bus and Coach Occupants										
Killed	0	20	0	14	0	9	0	-55	0	-36
Seriously Injured	1	696	1	356	0	392	-100	-44	-100	10
KSI	1	716	1	370	0	401	-100	-44	-100	8
Slightly Injured	10	8,883	2	5,947	0	5,867	-100	-34	-100	-1
All Casualties	11	9,598	3	6,317	0	6,268	-100	-35	-100	-1
Goods Vehicle Occupants										
Killed	1	118	0	50	0	62	-100	-48	0	24
Seriously Injured	13	1,475	2	556	3	509	-77	-65	50	-8
KSI	14	1,593	2	606	3	571	-79	-64	50	-6
Slightly Injured	49	9,169	36	5,656	42	5,501	-14	-40	17	-3
All Casualties	63	10,763	38	6,262	45	6,072	-29	-44	18	-3
All Road Users										
Killed	18	3,578	13	2,222	7	1,857	-61	-48	-46	-16
Seriously Injured	231	44,078	92	24,690	54	22,660	-77	-49	-41	-8
KSI	249	47,656	105	26,912	61	24,517	-76	-49	-42	-9
Slightly Injured	719	272,272	907	195,234	586	184,138	-18	-32	-35	-6
All Casualties	968	319,928	812	222,146	647	208,655	-33	-35	-20	-6
Of Whom Children 0-15										
Killed	1	260	0	81	0	55	0	-79	0	-32
Seriously Injured	21	6,600	9	2,590	3	2,447	-86	-63	-67	-6
KSI	22	6,860	9	2,671	3	2,502	-86	-64	-67	-6
Slightly Injured	88	37,494	58	17,984	39	17,067	-56	-54	-33	-5
All Casualties	109	44,354	67	20,655	42	19,569	-61	-56	-37	-5

Appendix 2

Completed Scheme Monitoring – All AIP schemes since 2002

The following table shows a summary of all schemes since 2002 that now have a completed “5 year after period” of casualty monitoring data.

Completion Date	Road	Description	Yr1	Yr2	Yr3	Yr4	Yr5	Before Total	Yr1	Yr2	Yr3	Yr4	Yr5	After Total
31-Jan-02	A0449	A449 Ridgeway Lodge, British Camp	0	4	0	2	0	6	0	0	1	1	0	2
05-Feb-02	A0449	A449 Coldborough Park (Site 1 Bend near Hillington)	0	0	0	0	0	0	0	0	0	0	0	0
19-Feb-02	A0438	A438 Stoke Edith Crossroads	4	2	0	2	1	9	1	0	0	1	2	4
14-Mar-02	B4399	B4399 Bend at Dinedor Court	0	1	1	2	3	7	0	0	0	0	0	0
15-Mar-02	A0449	A449 Coldborough Park - Perrystone 's' bends	1	3	0	2	0	6	1	0	0	0	0	1
15-Mar-02	A0044	A44 Outside 'The Ovals' Penrhos nr Kington	1	2	3	0	3	9	0	0	0	3	0	3
20-Mar-02	A0044	A44 J/W Unclassified Road to Burley, Bromyard	0	0	5	0	0	5	0	0	0	0	0	0
20-Mar-02	A0044	A44 J/W B4220 Linton Turn, Bromyard	1	5	0	3	0	9	1	2	0	0	0	3
08-Jul-02	A0449	A449 Pond Farm and North Bends	0	4	2	12	0	18	1	0	0	1	0	2
02-Oct-02	A0417	A417 Bodenham	0	3	8	1	0	12	3	0	4	1	0	8
28-Oct-02	A0456	A456 Brimfield Cross	1	3	0	1	4	9	0	1	0	0	4	5
05-Nov-02	A0438	A438 Whitney-on-Wye	1	0	3	3	0	7	0	1	0	0	0	1
27-Nov-02	A0044	A44 Eaton Hill Bend	1	0	1	6	12	20	3	4	0	0	1	8
27-Nov-02	A0044	A44 Whitbourne Bend near County Boundary	3	0	0	2	0	5	0	0	2	0	0	2
27-Nov-02	A0044	A44 Bend East of Junction with B4220	0	1	0	2	1	4	0	0	0	0	0	0
01-Dec-02	A0480	A480 Sarnesfield Bend	0	3	0	0	1	4	0	0	0	0	0	0
05-Dec-02	A0044	A44 Bringsty Common - Bend near Moorhall Farm	1	1	11	0	5	18	0	0	0	0	0	0
31-Dec-02	A0044	A44 Bromyard to Linton Trading Estate	4	7	3	5	1	20	2	2	1	1	6	12
10-Jan-03	B4349	B4349 McIntyres Bend, Clehonger	0	0	2	7	13	22	1	0	0	0	0	1
14-Jan-03	A0438	A438 - Sugwas Pool Nr. Kites Nest P.H.	0	2	1	1	7	11	0	1	0	0	0	1
24-Mar-03	B4224	B4224 Oldway Chapel	2	4	2	0	0	8	0	0	0	0	0	0
25-Mar-03	B4224	B4224 Route Study, Lucksall Caravan Park	0	1	1	0	0	2	0	0	0	0	0	0
28-Mar-03	B4224	B4224 J/W A449 Old Gore Crossroads	5	10	1	2	3	21	5	2	4	1	0	12
31-Mar-03	A0044	A44 Grendon Manor	0	0	3	6	3	12	0	0	0	0	0	0
31-Mar-03	B4224	B4224 Falcon Bend	0	0	0	0	0	0	0	1	0	0	3	4
31-Mar-03	B4224	B4224 Bends East of Hampton Bishop	0	2	2	3	3	10	2	0	0	0	0	2
31-Mar-03	A0044	A44 Bringsty Garage 'S' Bends	2	1	3	3	3	12	3	0	0	0	0	3
25-Feb-04	A4112	A4112 - Gorsty Farm Bend Nr. Leysters	0	2	0	3	0	5	0	0	0	0	0	0
31-Mar-04	A0449	A449 - Knapp Lane	3	0	0	7	1	11	0	0	0	0	0	0
31-Mar-04	A0438	A438 J/W A4111 At Willersley	1	2	0	2	0	5	1	0	0	1	0	2
31-Mar-04	A0044	A44 - Bends Nr. Ent to Cotmore Farm	0	0	2	2	5	9	0	0	0	3	0	3
31-Mar-04	A0044	A44 - Moseley Farm	3	0	5	0	2	10	0	0	0	0	0	0
31-Mar-04	A4103	A4103 Cotts Lane, Lumber Lane and Radway Road.	6	6	5	9	5	31	4	2	3	5	1	15
31-Mar-04	A0044	A44 - Bend Nr. Burton Court	0	0	5	0	0	5	0	0	0	3	0	3
18-Oct-04	B4361	B4361 - Turn to Brierley at Elms Green	1	5	1	2	0	9	0	0	0	1	0	1
03-Nov-04	A4110	A4110 J/W C1109, Turn to Wellington	0	0	6	7	4	17	0	1	0	0	2	3
16-Nov-04	A0044	A44 J/W Green Lane Nr. Bromyard	0	0	1	1	2	4	0	1	0	0	2	3
01-Dec-04	A0044	A44 J/W Tickbridge Lane	0	0	2	2	0	4	0	0	0	0	1	2
01-Dec-04	A4103	A4103 J/W A417 Newtown Crossroads	1	4	2	5	4	16	0	0	0	0	0	0
20-Dec-04	A0044	A44 Drum Xrds	3	0	3	1	0	7	0	1	0	0	0	1
05-Jan-05	B4348	B4348 Kivernoll Farm Bend	0	2	0	0	2	4	3	0	0	0	0	3
05-Jan-05	A0438	A438 Perton Lane	1	1	1	4	5	12	6	0	1	0	0	7
31-Mar-05	B4348	B4348 Top Hill Farm	0	2	4	0	0	6	0	1	0	0	0	1
05-May-05	A0044	A44 Monie Corner Nr. Pembriidge	0	0	0	0	9	9	0	0	0	0	0	0
13-Jun-05	A4103	A4103 Radway Road	3	0	7	1	3	14	2	1	2	0	1	6
20-Jun-05	A4137	A4137 Dry Arch Bend, Marstow	0	1	5	4	3	13	0	3	1	0	0	4
14-Jul-05	A0438	A438 J/W C1292 at Dormington	0	0	1	2	1	4	0	2	1	0	0	3
10-Aug-05	A4113	A4113 Nr Ent To Hillpike Farm	0	0	2	3	1	6	1	2	1	0	0	4
15-Aug-05	A0044	A44 Park Cottage - Bringsty Common	0	0	1	2	1	4	0	4	0	0	0	4
22-Aug-05	A4103	A4103 Callow Marsh	2	2	1	0	3	8	0	0	1	0	0	1
24-Aug-05	A0438	A438 Lugwardine Bridge	1	0	1	6	3	11	1	0	0	0	0	1
31-Aug-05	A0449	A449 Massington Railway Bridge	0	2	1	0	1	4	0	0	0	1	1	2
02-Sep-05	B4362	B4362 North End Farm	2	1	0	8	2	13	0	0	0	0	0	0
28-Sep-05	A0438	A438 Nelsons Garage	3	1	0	3	3	10	0	0	0	0	0	0
01-Oct-05	B4224	B4224 Nash Cottages	0	3	2	0	2	7	0	0	0	2	0	2
05-Oct-05	A0438	A438 Frome Park	0	4	7	1	1	13	1	0	0	0	0	1
30-Oct-05	A0044	A44 J/W C1110 to Stoke Prior	0	1	1	2	0	4	0	0	1	0	0	1
		All Casualty Totals						541						147

In summary, the sites feature a combined total of 541 casualties over their 5 year “before” period. Since treatment, over the following 5 years casualty numbers have reduced to 147 casualties, equating to a total reduction of 394 casualties (73% saving) over the 5 year “after” period.

Appendix 3

ACCIDENT INVESTIGATION - THE PROCESS

The following summarises the process used by Herefordshire Council in defining and developing treatments to address collision and casualty problems within the County. Taken from the Road Safety Strategy found within the latest Local transport Plan (LTP2), the following highlights our procedures which resulted in our award of Centre of Excellence status for safety scheme delivery.

Overview

The identification of Road Safety schemes follows a well-developed and established process. First adopted in 1999, the process was improved in 2002 and has since been further refined to take account of improvements in data availability and supporting technology but remains focussed on its core objective: **the development and implementation of robust schemes that address the underlying causes of accidents and improve road safety.**

The process flows sequentially from the receipt of accident data from the local Police Authority at the onset to the implementation of safety schemes on the ground, and is repeated annually with ongoing refinement and adjustment.

Intelligence: receipt of monthly Personal Injury accident information from West Mercia Police. High-quality data with full details of possible contributory factors is received approximately 6 weeks from the date of an incident.

Validation & verification: Police Accident Record data is loaded on to Herefordshire Council systems. Once validated and verified, the data becomes live and generates the Council's Accident Records. This data is built up month by month to create annual records.

Site generation: accident records for the preceding five years are interrogated to generate Accident Cluster sites. Separate criteria are applied for urban and rural sites to ensure the appropriate level of focus on each site and to ensure a balanced outcome.

Urban - sites with a limit of 40mph or less, require: 6 personal injury accidents within 5 years, clustering within a radius of 25 metres

Rural - sites with a limit of 50mph or more, require: 3 personal injury accidents within 5 years, clustering within a radius of 100 metres

Ranking: cluster sites are ranked to determine scheme priorities. The ranking formula gives greater priority to accidents in most recent years. Rural accident clusters receive an increased weighting to make up for the lesser number of accidents at each site and to ensure a balanced representation against urban sites, in keeping with the rural nature of the County.

Site investigation: an experienced member of the team, with in-depth knowledge of the county and the road network, undertakes detailed site assessments to determine the most appropriate package of measures to deliver a robust scheme.

Scheme delivery: close liaison with teams delivering the programme of planned maintenance, ensures a co-ordinated and comprehensive approach.



Signing and marking scheme using a red central strip to guide drivers through the hazard.

Highlights

Quality data: excellent working relationship with West Mercia Police underpins fast turnaround of high quality data and partnership working.

Differentiation: separate criteria for determining rural and urban sites ensures a balanced outcome, reflecting the true balance of accident sites across the county.

Underlying causes: the precision of formulae used to determine sites generates accurate clusters to pinpoint the underlying cause of accidents.

Focus: scheme generation is focused to target sites where relatively low cost safety schemes can generate the highest return.



Combined bend improvement schemes, including signing, surfacing and visibility measures to provide a complete treatment.

Consistency: this is now an established process with inbuilt momentum. Consistent, rigorous application of the guiding principles delivers genuine and ongoing improvements

The Way Forward

The success of the Safety Projects Team in delivering schemes that have reduced road casualties has been widely recognised and the Team have already shared their learning with other local authorities via innovative web chats and via face-to-face meetings.

Within Herefordshire, there is now increased joint-working with Highway Maintenance colleagues which is extending the sphere of influence for road safety. The Annual Maintenance Programme includes accident priority data as a key guide. The identification of casualty rates linked to low skidding resistance plays an increasingly important role in developing the annual highway maintenance plan. This has led to the development of combined schemes, with the teams working together to deliver a complete site solution.

Results orientation

Throughout the process, the focus is on targeting resources on where they can have the maximum effect in terms of casualty reduction.

Clustering: the adoption of different selection measures for urban and rural criteria delivers workable clusters that encompass sites with a real underlying cause to the accidents. In urban cases, a tighter radius captures the precise problem areas and avoids defining entire central districts as clusters, where, in reality, many differing and unlinked causes may be in operation. At rural sites, a more generous radius ensures identification of the underlying source of the problem. Recorded accident locations at rural bend sites can vary greatly. The same 'bend' can produce a dispersion of accidents dependent upon the nature of the loss of control and the direction of vehicle travel.

Ranking: without the increased weighting that rural sites receive, urban sites could artificially skew the priorities due to their higher number of initial accidents. These could then dominate and take all available funding. This would produce a considerable reduction in overall scheme effectiveness. A large number of urban sites have

at their roots the inter-play of multiple factors, many of which may not lend themselves to engineering solutions. This is generally at odds with rural sites, where, in the main, causes are more readily identifiable and more responsive to engineering solutions.

This combination delivers an appropriate balance of schemes, where genuine priorities are highlighted and relatively low-cost safety schemes can deliver real improvements in road safety.



Appendix 4

Road Safety Education, Training & Publicity - Campaign Forward Planning 2011/12

Young Drivers and Passengers (Young Adult Road Users)

Issues

A review of the Accident and Casualty Statistics for Herefordshire show that young drivers continue to be an issue. Despite a drop in Killed or seriously injured (KSI's) this group remain disproportionately represented in the figures with 39% of our killed or seriously injured casualties and 57% of fatalities occurring among the 16-25 year olds. This is higher than national figures where the 16-29 age group account for over a third of all deaths. Research by the Institute of Advanced Motorists (IAM) has shown that the risk of being in a crash peaks immediately after passing the driving test and declines steadily over the following 12 months(1)

Interventions required

Support and improvement of skills in the period after passing the driving test
Attitude and behavioural changes with particular focus on risk taking

Proposed Campaigns/Projects

To help to address this problem we intend to:

- Continue our Subsidised Pass Plus scheme which consists of a two hour classroom session followed by the practical driving modules
- Provide information to all young people within the county to enable them to choose an appropriate driving instructor when learning to drive, information to help when buying a second hand car and strategies for what to do if you feel unsafe as a passenger
- In partnership with Hereford and Worcester Fire & Rescue, West Mercia Police, Amey, local Approved Driving Instructor's (ADI's) and Hereford Advanced Motorists (HAM) to deliver a road safety education package in colleges and 6th forms throughout the county
- Attendance at the Hereford 6th form college Fresher's Fair to raise awareness of and provide advice on the issues facing this age group
- Continuance of the Dying to Drive presentation to year 10

Older Drivers and Passengers

Issues

Herefordshire has an older age profile than both the West Midlands region and England and Wales, with a noticeably higher proportion of its population in the older age groups. People of state retirement age and over constitute a quarter (25%) of the county's population, in comparison with a fifth both regionally and nationally (20% & 19% respectively). The number of people **aged 65+** in Herefordshire is forecast to continue to increase, but more rapidly than in recent years, and is expected to be 57% higher in 2026 than in 2009. In particular, the number of people aged 85+ is expected to almost double, from 5,400 in 2009 to 10,200 in 2026.

Sources: 2006-based Herefordshire population forecasts, HCRT & 2006-based national population projections, ONS. [P.32-35]

Research shows that while older drivers have fewer accidents per year than those in other age groups they have more accidents per mile driven. Older people injure more easily, more severely and take longer to heal. Their risk of a fatal injury increases by 1.75 times at age 60 plus and 2.6 times at age 70. (2)
Injuries to both drivers and passengers in this age group increased in 2010 with the largest increase occurring in injuries to car passengers which more than doubled.

Mobility for older people is essential to enable them to access a wide range of services, and to have the ability to remain socially connected to friends and family while allowing them a good quality of life.

Maintaining independent mobility in old age, providing it is safe to do so, is of fundamental importance. If access to services and social contacts is prevented, people may find they are cut off and will inevitably lose their independence.

Interventions required

- Support and improvement of driving skills and road safety knowledge to enable the older driver to remain safer on the roads while driving.
- Raise awareness among the population as a whole of the vulnerability of the group.

Proposed Campaigns/Projects

We will continue to offer the subsidised Older Driver Refresher Training to residents of Herefordshire who are 70+ years. They will be able to review safe driving practices which in turn will enable them to stay current on today's driving procedures and laws. We will raise awareness of the vulnerability of this age group during these training sessions and also via groups such as Age concern and Retired and Living in Herefordshire magazine.

During the financial year 2010/11 87 people completed the training.

Impaired Drivers

Issues

While there has been an overall decrease in the number of drink drive related collisions compared to 2009 the figures are still considerably higher than they were in 2008; 24 in 2010 compared to 14 in 2008. 50% of these collisions involved 20-29 year olds

Interventions required

- Increase awareness of the issues around impaired driving including the strength of alcoholic drinks, the effects of alcohol on driving ability, and the consequences of drink driving.

Proposed Campaigns/Projects

Winter campaign to highlight the issues, in partnership with West Mercia Police and Fire & Rescue Service.

Young Road Users

Issues

In Great Britain the total reported child casualties (ages 0-15) fell by 5% to 19,569 in 2010. The number of children killed or seriously injured in 2010 was 2,502, down 6% on 2009.

In Herefordshire in 2010 while the number of cycling casualties in the whole population has decreased in the under 16's casualty numbers have remained static and as a percentage of the whole have increased from 19% to 29%. Pedestrian casualties in this age group are also an issue with 27% occurring in this age group.

Recent research by scientists at Royal Holloway, University of London, has found that primary age children cannot accurately see or judge the speed of vehicles travelling above 20mph. (3)

The risk of being involved in an accident increases when children start school and again when they move up to secondary school. (4)

Interventions required

Research has shown that children who receive pedestrian training show better skills in such areas as general observation, crossing at junctions and crossing near parked cars (3)

The Department for Transport (DfT) states that "education is the main way of getting road safety messages to children" and an educational package needs to be developed for use with secondary age children

Proposed Campaigns/Projects

- In order to reinforce our excellent relationship with primary schools and to reinforce road safety messages we will continue to offer a range of educational presentations to primary schools including Crucial Crew.
- In addition, following on from our successful pilot of pedestrian training last year we now offer the training to schools where it is safe to do so.
- We are introducing a road safety presentation focusing on attitudes and behaviours as pedestrians, cyclists and passengers to high school pupils in years 7 and 8.

- We will continue to offer support to the Bikeability cycle training programme for primary and high school children and highlight issues among younger children via school assembly talks.
- We will continue to deliver the Junior Road Safety Officer's Scheme.
- We shall continue to distribute Road Safety Packs for the parents of children starting school for the first time.

Pedestrians and cyclists

Issues

Local data shows that the 30-59 year age band continues to be an issue with 33% of pedestrian casualties and 26% of cyclist casualties occurring in this age range

Interventions required

As there were broadly similar numbers of drivers, pedestrians and cyclists at fault we have decided that an education campaign aimed at both groups would be appropriate.

Proposed Campaigns/projects

A campaign to highlight the issues and risky practices of all three groups via a leaflet which can be distributed at venues across the county

HGV Drivers and Passengers

Issues

Local data shows that goods vehicles were involved in over 20% of the slight road traffic accidents occurring in the county in 2010

Interventions Required

Campaign to be run in conjunction with the SRP

Child Car Seats

Issues

Analysis of local casualty data shows a significant number of children being slightly injured while travelling as passengers in cars. Further research needs to be carried out to see if children are not being properly restrained while travelling in cars

Proposed campaigns/projects

- School gate survey of children being driven to school to ascertain if age appropriate car seats are being used.
- Possible car seat check day in conjunction with local retailer
- Continue to give talks to groups of new parents

Speed Indicator Device Programme (SIDs)

Issues

Inappropriate and excessive speed continues to be a major concern which is highlighted within Village Plans produced across the county by parish residents.

Interventions required

To educate the drivers' and riders' of the consequences of driving their vehicle at excessive and inappropriate speeds.

Proposed campaigns/projects

In partnership with Amey we will continue to offer and deliver the subsidised SID programme to all parish and town councils. It is also hoped that the Safer Roads partnership will continue to add value to initiative by carrying out enforcement at those sites where speeding is shown to be an issue during the deployment of the SIDs.

Campaigns led by the Safer Roads Partnership

Publicity campaigns for the West Mercia region are led by the Safer Roads Partnership. The calendar for the next year will focus on the following areas:-

Motorcycles

Young drivers (Speed/distraction)

Cyclists (Children and older commuters)

Goods vehicles (LGV/HGV)

Drink/drug driving

We will be working with local partner agencies to promote these campaigns and at the same time highlight local issues, one example being the issue of pedestrian casualties among the 30-57 year olds in Herefordshire.

School Crossing Patrols

We will continue to manage the school crossing patrol service and if funding permits actively recruit where vacancies appear.

References

1. Young Drivers – where and when they are unsafe, I.A.M 2008
2. The Population of Herefordshire 2009, The Herefordshire Partnership
2. Older Drivers: a literature review (No.25), DFT 2001
3. Child Road Risk Study, Royal Holloway, University of London, 2010
4. Child Road Safety Strategy 2007, DFT