

Road Casualty Reduction Strategy for Kent 2014-2020

(Updated September 2017)

Kent County Council

Highways and Transportation

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Review and Update; September 2017

The Casualty Reduction Strategy was written in 2013/14 and set to a timescale that converged with future Local Transport Plan process, ending in 2020.

Whilst this Strategy demonstrated Kent County Council's ability to look ahead and set out its long term thinking, this was considered within the context of the time and there have been developments and changes which should be considered. These include a newly constituted Casualty Reduction Partnership, a new national process for recording road crashes that has changed the way Kent Police categorise some injuries and updated data sets.

The overall Strategy is still relevant in the way it sets out the County Council's longer term thinking to influence its policies and practice, so this review is to identify key developments and changes to help update the context for the reader without changing KCC's commitment to casualty reduction.

The review and update here will not change the existing text but will update on Actions and data, as well as clarifying some key points; the Data section has been updated with the most recently available information.

Steve Horton

Casualty Reduction Manager

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Foreword

Ensuring our roads are as safe as they can be is a key priority for the County Council as we work to keep the Kent economy moving and support healthy living. In 2012, 524 people were Killed or Seriously Injured (KSI) on Kent roads. Whilst the long term trend in our county is down - between 2000 and 2010, the number of KSI on Kent roads fell by 50%, the figures for 2013 (currently subject to validation) appear to be increasing.

It is vital that death and injury on Kent roads continues to be tackled as effectively as possible by all agencies involved. We all must recognise that the way we drive, ride or walk plays a huge part in avoiding us or our dependents becoming a road casualty. Along with our partners, our policies and initiatives have rightly received recognition from the Prince Michael of Kent International Awards for Road Safety. Whilst we are committed to doing all we can, we all must acknowledge our financial constraints. Since the Local Government Spending Review in 2010, KCC has delivered £269m of savings as a consequence of reduced central government funding. Over the next few years we must deliver a further £270m at a time of increasing demand for our services; last year we received over 4,000 requests for highway improvements, many relating to safety concerns.

For the future, this Strategy focuses on initiatives which will deliver most 'bang for bucks', it draws on the latest data and research available to us; we will be implementing engineering initiatives to meet the latest safety standards, including addressing wider public health objectives, as well as strengthening and focusing our education messages and training programmes. This Strategy commits us to work with you, our partners and stakeholders, more effectively to deliver a further 33% less KSI by 2020 as well as a 40% reduction in child KSI.



David Brazier Cabinet Member
Environment & Transport



Graham Gibbens Cabinet Member
Adult Social Services and Public Health

1. Summary

Keeping our roads as safe as they can be and tackling death and injury is a key priority for the County Council, both in respect of our Statutory Duty, to promote road safety and act to reduce the likelihood of road casualties from occurring (Section 39, Road Traffic Act 1988), as well as from a moral and financial imperative.

The County Councils' role in contributing to the UN Decade of Action for Road Safety, both drawing on and offering best practice, is acknowledged. International good practice highlights the value of low cost mass action measures, categorising roads according to risk and developing links with the insurance sector, both in terms of data and generating investment in road safety measures.

The Strategy supports the Governments' Framework for Road Safety, in particular extending the provision of practical courses to improve driving standards.

A data led approach is taken to target interventions where they will have most impact using a much wider range of data sources (including insurance records, asset damage, public health data and customer databases) to determine and target interventions to reduce risk.

Kent has targets to reduce the number of killed and seriously injured (KSI) by 33% and the number of child KSI by 40% by 2020. New targets are proposed based on reducing risk for all casualties as well as for vulnerable road users within the context of a wider approach to improving health.

According to research 76.6% of injury crashes occur solely as a result of behavioural factors (driving whilst impaired by drink or drugs, distractions such as a mobile phone or inappropriate speed) and 95% of all crashes include an element of human behaviour.

Education measures are proposed to influence road user attitude and behaviour and to promote individual responsibility. Presentations such as Licence to Kill and media campaigns such as Speak Up and See the Hazards are used to target emerging trends in Kent casualty data and for at risk groups such as young drivers and vulnerable road users.

Practical driver and rider training is to be expanded, both through the delivery of Driver Diversionary Scheme courses on behalf of Kent Police, as well as a new elective (HASTE) driver training course for individuals and business.

The importance of a data/ intelligence led enforcement by Kent Police to tackle offences which contribute to road crashes and the most serious injuries is supported, particularly addressing inappropriate and excess speed, in combination with education and engineering measures.

The Strategy targets enforcement through the Kent & Medway Safety Camera Partnership, including the digitisation of safety cameras, decommissioning of fixed sites in favour of more flexible mobile sites and by increasing the effectiveness of community led speed watch initiatives in line with the Police and Crime Plan for Kent.

A programme of engineering is planned, where these measures can have an impact on reducing the risk of crashes from occurring in the future. Funding is prioritised to schemes where the most serious casualties have occurred alongside work to better define risk. It is envisaged this will include more low cost mass action measures in line with the systems approach and the introduction of further 20mph zones in residential areas to encourage active travel and address public health issues.

The need for effective inspection and maintenance of safety critical signs, lines and surfacing is highlighted.

The Strategy underlines the importance of joint working, both in co-ordinating initiatives through partner organisations such as the Casualty Reduction Partnership (CaRe) for Kent and Medway and in raising awareness and channelling action by communities through self-help toolkits.

The Strategy recognises how the media can have a strong influence on road user behaviour and perceptions.

The Strategy proposes that budgets are better targeted and additional funding be sought as opportunities allow, such as through the Local Growth Fund. It commits the County Council to work towards an outcomes framework to meet targets to reduce casualties and to improve safety and public health.

Actions are set out at the end of each chapter and in a Delivery Action Plan which is to be updated each year as progress is made and in the light of emerging trends.

2. Introduction

- 2.1 Kent is one of the largest counties in the UK with a population of over 1.4m and an extensive road network of over 5640 miles. Kent is also Britain's principle gateway for goods and travel to continental Europe. Our roads accommodate 8,886 million motor vehicle miles¹ each year; the second highest out of 205 highway authority areas. Although we have a comparatively good record of lower road crash rates by distance travelled compared to the national average, the raw number of casualties and their impact must be a huge concern.
- 2.2 In Kent² in 2012, 50 people died, 474 people were seriously injured and 5231 people received a slight injury as a consequence of a road traffic crash. Whilst the long term trend in our county is down, for death and serious injury, figures for 2013 (currently subject to validation) appear to be increasing.
- 2.3 Death and injury has a huge emotional and financial impact on society, both to the people and families and witnesses directly and indirectly affected, as well as to the wider public purse, through the emergency services, NHS and social services. Placing financial figures on each of these impacts, the established average cost of dealing with a fatal crash is £1.9m³ and the average cost of dealing with a crash involving injury is £75,000.
- 2.4 It is therefore vital that death and injury on Kent roads continues to be tackled as effectively as possible by all agencies involved. We all need to recognise that the way we drive, ride or walk around Kent streets plays a huge part in avoiding becoming one of these statistics.
- 2.5 This Strategy utilises a so called *public health* approach as well as a *safe system* approach. The public health approach relates to investigating and preventing future crashes. A safe system approach recognises that people will make mistakes or errors of judgement and in terms of designing the highway to be more forgiving in the event of a crash. The Strategy recognises the importance of influencing the road user (through Education, training and Enforcement), the road environment (through Engineering) and the vehicle (through working with manufacturers) in combination with a range of practical measures to continue to deliver reductions in road casualties.
- 2.6 This Strategy represents a reaffirmation by Kent County Council of our key role, as highway and transportation authority, to work closely with our partners and

¹ Department for Transport/ Office for National Statistics (signpost report)

² Kent is defined as roads within the geographical area covered by Kent County Council (i.e. Highways Agency Roads in this area, but not Medway)

³ Road Casualties Great Britain Annual Report 2012

intelligently using the latest data and research available to us, to make a significant impact on reducing death and injuries on our roads.

- 2.7 In Kent the number of people killed or seriously injured (KSI) in road crashes fell by 50% between 2000 and 2010. Kent has exceeded national targets in the past; our challenge is to sustain this in the future. We therefore have a target to reduce the number of KSI by a further 33% by 2020.

3. Policy Framework

- 3.1 This strategy is guided by a number of international, national and local policies which set out responsibilities and objectives for road casualty reduction as well as wider aspirations to improve health and wellbeing, to deliver regeneration and to tackle disadvantage.

International Policies

- 3.2 The United Nations General Assembly has proclaimed the period 2011-2020 as the Decade of Action for Road Safety, “with a goal to stabilise and then reduce the forecast level of road traffic fatalities around the world by increasing activities conducted at the national, regional and global levels”. Ten reasons to act on road deaths are given:

1. 1.3 million people are killed on the world’s roads each year
2. Road crashes kill more people than Malaria
3. 50 million people are injured, many disabled as a result
4. 90% of these injuries occur in developing countries
5. Annual deaths are forecast to rise to 1.9 million by 2020
6. **It is the No.1 cause of death for young people worldwide**
7. By 2015 it will be the leading health burden for children over the age of five in developing countries
8. The economic cost to developing countries is at least \$100 billion each year
9. **Injuries place immense burdens on hospitals and health systems**
10. **Road crashes are preventable**

- 3.3 100 governments, including the UK, have co-sponsored the UN resolution establishing the Decade of Action, committing to work to achieve this ambitious objective through an ‘Action Plan’ with targets for raising helmet and seat belt use, promoting safer road infrastructure and protecting vulnerable road users, such as pedestrians and cyclists. Kent County Council recognises it must continue to play its part in this international effort, hosting delegations from developing countries to share best practice as well as picking up new ideas from abroad and other highway authorities.

- 3.4 Of particular note for Kent in terms of best international practice is Sweden, where the government is targeting funding to deliver low cost safety enhancements on a significant scale. In a similar vein, Holland has committed to raising the safety rating of its national highway network to a minimum 3 star safety rating within 6 years. Further afield, the state of Victoria (Australia), as well as being the Highway Authority, is also responsible for insuring vehicles by charging an insurance premium for cars purchased in the state. This makes a key link between investing in improving road safety standards in order to reduce insurance claims. Kent County Council recognises the value of these initiatives in driving road casualty reductions.

The National Strategic Framework for Road Safety

3.5 In May 2011 the Government produced its *Strategic Framework for Road Safety*⁴ and stated that;

“Road Safety is a priority for the Government. Great Britain has one of the leading road safety records in the world and we want to maintain this record and build on it.”

3.6 The framework sets out policies that Government believes will continue to contribute to reducing deaths and injuries on our roads based on:

- Empowering local citizens and local service providers
- Equipping motorists with the skills and attitudes to drive more safely and
- Targeting enforcement and sanctions for the worst offenders

3.7 Whilst the Government has not set national casualty reduction targets, the framework details national key indicators for: road deaths, serious injuries, road deaths involving motorcyclists, car occupants, pedal cyclists, pedestrians and drivers under the age of 25. These areas of particular concern accord with issues also facing Kent.

3.8 The framework committed to producing an Action Plan which was published in September 2013⁵. The plan includes a package of measures based on tightening enforcement for the worst offenders, as well as extending education and training options for motorists. Key elements include:

- Increasing penalty fines for motoring offences from £60 to £100 (August 2013)
- A new drug driving offence (January 2014)
- Portable roadside testing to aid/speed up enforcement
- Road safety messages in driver theory tests
- Increasing educational offerings (National Driver Diversionary Schemes (DDS)) to offenders as opposed to paying a fine
- Revised guidance for local Highway Authorities for setting speed limits
- A new post-test qualification
- A website providing a comparison of local Highway Authority performance

3.9 Kent County Council supports the Governments' commitment to addressing road safety as well as the introduction of these measures, particularly extending the opportunity for practical training to improve driving standards.

Local Highway Authorities and their Statutory Duty to Promote Road Safety

3.10 Government has set legislation covering the responsibilities it places on Local Highway Authorities in relation to road casualty reduction. Kent County Councils'

⁴ *Strategic framework for road safety*, Department for Transport, May 2011

⁵ *Final update to the strategic framework for road safety's action plan*, Department for Transport, Sept 2013

statutory duty to promote road safety is covered in the 1988 Road Traffic Act⁶. Section 39 states:

39 (2) Each local authority must prepare and carry out a programme of measures designed to promote road safety and may make contributions towards the cost of measures for promoting road safety taken by other authorities or bodies.

In addition local authorities must *carry out studies into crashes arising out of the use of vehicles on roads, take such measures as appear to the authority to be appropriate to prevent such accidents, and in constructing new roads, must take such measures as appear to the authority to be appropriate to reduce the possibilities of such accidents when the roads come into use.*

Action for Roads: A Network for the 21st Century

3.11 Funding for new highway infrastructure offers a real opportunity to improve safety standards in Kent. In its Action for Roads (2013)⁷ proposals, the Government has announced “*the biggest ever upgrade of our existing roads worth over 50 billion over the next generation*”. It is also proposing important changes in the governance of the strategic road network by turning the Highways Agency into a publicly owned corporation.

3.12 Whilst this new investment, if it comes about, is focused on generating economic development, it creates opportunities, nationally and for Kent, to deliver a step change in safety standards for roads. Kent County Council will continue to prioritise developing bids for funding including to the Local Growth Fund and through the Local Enterprise Partnership and will work closely with the new Strategic Roads Corporation in Kent to coordinate investment in safer roads.

Kent Transport Policies

3.13 The strategic framework for road casualty reduction in Kent is established in the context of a number of policy documents, including Bold Steps for Kent (2010)⁸, which sets the medium term political vision for the council to 2015 and Growth without Gridlock (2010)⁹, which sets out a 15 year Integrated Transport Strategy for the county. Key ambitions in these documents and their relevance to this Strategy are:

- **To help the Kent economy grow** – new road infrastructure will unlock development as well as enable safety engineering standards to be improved through its provision; prioritising work to reduce the number of crashes will reduce congestion and disruption on the road network

⁶ Road Traffic Act, Secretary of State, 1988

⁷ Action for Roads: a network for the 21st century, Department for Transport, July 2013

⁸ Bold Steps for Kent, Kent County Council, December 2010

⁹ Growth without Gridlock, Kent County Council, December 2010

- **To put the citizen in control** – placing power and influence in the hands of local people so they are able to take responsibility for their own community and service needs can achieve much in terms of raising the profile of road safety locally. The development of road safety education initiatives including toolkits and information and monitoring and enforcement initiatives such as Community Speedwatch (run through Kent Police) are good examples
- **To tackle disadvantage** – supporting aspiration rather than dependency, particularly for those who are disadvantaged or who struggle to help themselves and their family can be delivered by targeted casualty reduction engineering and initiatives to encourage and support active travel such as walking and cycling

3.14 Kent County Council is determined to maintain good quality services against rising demand, reducing central government funding and national inflationary pressures. The County Council is responding to these pressures through its' Facing the Challenge¹⁰ (2013) proposals. A focus on reducing road casualties can reduce demand for social and other support services run by the Council that support and rehabilitate people injured on our roads.

3.15 The Local Transport Plan 2011 (LTP3)¹¹ sets out Kent County Councils' Strategy and Implementation Plans for local transport investment for the period 2011-16, through five themes which drive policies and budget spending. Namely:

1. Growth Without Gridlock
2. A Safer and Healthier County
3. Supporting Independence
4. Tackling a Changing Climate
5. Enjoying Life in Kent

3.16 LTP3 states that for road safety "there will be a three year rolling programme of activities that uses the individual and combined effects of education, training and publicity in an intelligence-led manner". Consequent with this, the County Council has developed an Education, Training and Publicity (ETP) programme of £1.4m. A key ETP initiative for the County Council is to deliver national standard training including Driver Diversionary Schemes (30,000 people per year) and Bikeability (3,500 people per year) for young cyclists. The Council also implements a programme of Casualty Reduction Measures (CRM) of circa £1m pa to re-engineer the highway, where this is a contributory factor in crashes on the network. Whilst staff numbers have been reduced as a result of Government funding cuts, safety schemes have been prioritised, along with the council's commitment to follow a data led approach and co-ordinated work with partners to meet and exceed our statutory responsibilities.

¹⁰ www.kent.gov.uk/your_council/council_spending/budget_consultation/the_challenge.aspx

¹¹ *Local Transport Plan for Kent 2011-16*, Kent County Council, April 2011

Public Health

3.17 From April 2013 under the Health and Social Care Act, Kent County Council took on new responsibilities for promoting public health and reducing health inequality. KCC has 23 duties, as well as a specific duty relating to reducing accidents and preventing injury, many are pertinent to road casualty reduction and healthy living. Kent Health and Wellbeing Board have produced a Joint Health and Wellbeing Strategy (2013)¹², with objectives including ensuring:

- Every child has the best start in life
- Effective prevention of ill health by people taking greater responsibility for their health and wellbeing
- Enhancing the quality of life for people with long term conditions

3.18 There are huge opportunities within this new responsibility for joint working to reduce road casualties (road traffic casualties accounted for 1.3% of emergency admissions to hospital in Kent in 2012/13¹³) as well as reducing consequential health issues such as depression and anxiety, to deliver child casualty reduction targets, to promote active travel (cycling and walking) through provision of cycle routes, footways and traffic calming schemes and training programmes, such as *Bikeability*, as part of a healthy lifestyle to address rising obesity.

3.19 There is also expressed concern for the safety of pedestrians and cyclists if we are to encourage people to walk and cycle more and reap the associated benefits. In her latest annual report, the Chief Medical Officer makes reference to the importance of safety concerns for Active Travel:

*In order to improve uptake, we need to improve safety. The relative risk associated with journeys by active travel methods are unacceptably high and must be reduced.*¹⁴

3.20 At the same time it is acknowledged that the health benefits of regular cycling and walking outweighs the additional risks. The NHS Cycle Safety – Special Report (2014) highlights how the benefits of regular cycling equated to a 14 months increased life expectancy compared to a 1 month reduction due to road risk.¹⁵

¹² Kent Joint Health and Wellbeing Strategy, Kent County Council, 2012

¹³ Percentage of the number of emergency admissions to hospital that were road traffic crash related in the 2012/13 financial year.

¹⁴ Annual Report of the Chief Medical Officer, Surveillance Volume, 2012: On the State of the Public's Health, Page 16

¹⁵ Cycling Safety – a special Report, National Health Service, 2014

ACTIONS¹⁶:

This Strategy commits Kent County Council to:

- A3.1 Prioritise policies and commit/bid for funding for initiatives which will deliver the highest reductions in road casualties, drawing on best practice locally and internationally, within the context of Kent and UK Government Road Safety and Public Health Policy.
- A3.2 Endorse the Chief Medical Officer's integrated approach to improving safety for all our road users.

Actions; Review and Update September 2017

- A3.1 Agreed as still relevant; funding bid examples include Local Transport Plan and Access Fund.
- A3.2 Agreed as still relevant.

¹⁶ See also Appendix 1: Delivery Action Plan which contains an annual summary.

4. Intelligence and Investigation

4.1 Kent County Council follows a data and research evidence led approach in order to direct resources intelligently to achieve the highest casualty reduction outcomes. Funding for casualty reduction in Kent is currently prioritised towards locations that have recorded a history of road traffic injuries. This method is in place to identify sites with the highest number of crashes and/or crashes of a similar nature which may indicate a problem related to the road or driver behaviour. This approach looks to make changes to the road environment and influence driver behaviour to prevent collisions continuing to occur at these sites. This strategy proposes that this good practice is continued whilst investigating other data sets relevant to road safety that may help target and reduce casualties.

Kent Road Casualties

4.2 Each time a Police Officer attends a road traffic crash involving injury they will complete a STATS19 form¹⁷ which records details about the people involved, the road environment and, in the officers opinion, the reasons for the crash. The form is entered into a database which is sent from Kent Police to Kent County Council to investigate. Every year KCC produces a Kent Road Casualties report¹⁸ and a Cluster Site Analysis report which analyse trends and uses the data and other research to determine:

- Patterns at specific locations (to identify sites where there is a cluster of crashes which may be addressed through engineering or enforcement measures)
- Patterns on routes (to identify sites where there is a cluster of crashes which may be addressed through engineering or enforcement measures)
- Road user trends (to identify issues which may be addressed through enforcement or education campaigns)

4.3 Whilst the occurrence of road traffic crashes in the past can be a strong indication of a specific issue needing to be addressed, it is accepted that other research methods and data sources which are becoming available can be utilised to better determine the risk of a road casualty occurring in the future.

Methods of quantifying risk

4.4 A good example of research to quantify risk is via the European Road Assessment Programme (EuroRAP) which uses injury, crash and traffic data to establish a crash rate per km. EuroRap have used this approach to produce a Risk Map and Star Rating of motorways and national A roads across Europe. EuroRAP identifies whether the trend in crashes along the route is decreasing and consults with road authorities to identify measures which they believe have been effective in reducing casualties.

¹⁷ www.gov.uk/government/uploads/system/uploads/attachment_data/file/230590/stats19.pdf

¹⁸ *Kent Road Casualties 2012*, Kent County Council, August 2013

- 4.5 Predictive policing (PredPol) technology is a further example which predicts where crimes are likely to occur using human behaviour research and historic crime data. A PredPol system is used by Kent Police to help prioritise policing areas (however further trials and refinement would be required to tailor the system to determine future road risk). It would be beneficial to investigate whether this system could be used to focus future crash risk.
- 4.6 The County Council is increasingly able to draw on a wider range of data sources which are now becoming available to develop a risk rating system for the roads in the County. We are considering a number of data sets including:

Table 1 Available datasets for investigation

<p>The nature of the route Built up/non built up, speed limit bands</p>	<p>Casualties Using statistical tests (such as Poisson¹⁹) to identify if the recent 5 year dataset is likely to increase</p>
<p>Traffic flows Department for Transport annual average daily traffic flow for a route, also splitting out HGV, motorcycle and pedal cycle flows</p>	<p>Casualties per million vehicle kilometre This is a rate worked out by using the following equation: $\frac{\text{Number of crashes} \times 10^8}{365 \times \text{traffic flow} \times \text{length of route}}$</p>
<p>85th percentile and mean speeds (where available) The 85th percentile speed is the speed at which no more than 15% of the traffic is exceeding. The mean speed is the average speed of all the vehicles at the count point.</p>	<p>Cluster sites Further analysis of crash data on adjacent routes</p>
<p>Insurance records Access to data recorded and held by insurance companies to identify injury and damage only crashes not recorded by Kent Police.</p>	<p>Asset damage Details of KCC owned highway asset damage</p>
<p>Mosaic A postcode based social research data model used to target initiatives</p>	<p>Traffic offence data Assess the locations of detected traffic offences, such as drink drive, seat belts and speeding</p>
<p>Resident perceptions Using CSM (a database containing enquiries and requests from the public) to establish</p>	<p>Targeting Casualty data Using home/school postcode data of</p>

¹⁹ A statistical test used to calculate the probability of crash frequency in a given year, when the long-term average is known.

the number of road safety related issues recorded along the route

casualties/ offenders to target interventions

Drainage

Risk of flooding

Frontage access/junctions along route

Road direction and forward visibility

Ice, fog and frost tendencies

Camber and SCRIM data

Road condition and skid survey information

Refinements to existing casualty data

Work to improve STATS19 data and to tackle under reporting.

Cross referencing with hospital admissions

Public Health data

Cross referencing with wider public health and health inequality data

Public Health Outcome Framework Indicator Sets

Measure performance rates in physical activity, obesity, utilisation of outdoor space and road deaths and serious injuries on England's roads.

4.7 These data sets will be used to improve how we target either Education or Engineering/Enforcement measures.

ACTIONS²⁰:

This Strategy commits Kent County Council to:

A4.1 Maintain our database of road traffic injuries to monitor short and long term trends within Kent compared to other authorities, to regional data and national data, through the Annual Road Casualties in Kent²¹ report as part of Kent's statutory requirements.

A4.2 Develop a more refined system of prioritising road casualty reduction interventions across the County, using a wider range of data sources and other research, to determine road risk and to act accordingly to target initiatives.

Actions; Review and Update September 2017

A4.1 Agreed as still relevant.

A4.2 Agreed as still relevant. Data sets used include EuroRAP risk rating for roads and qualitative research into road user perceptions. Working taking place to link activity (e.g. 20mph zones) to public health priorities including air quality.

²⁰ See also Appendix 1: Delivery Action Plan which contains an annual summary.

²¹ *Kent Road Casualties 2012*, Kent County Council, August 2013

5. Road Casualty Targets (updated section)

The whole of this section has been updated to incorporate the most recently available data (2016)

From January 2016 Kent Police adopted the national CRASH (Collision Recording and SHaring) process. This will eventually enable police officers to enter the statutory information related to personal injury collisions whilst at the scene, using handheld recording devices that input to an online database. The benefits will be mainly in data accuracy including the location via GPS tracking. Data will be available much quicker than the previous paper based process.

However, national and local experience suggests some categorising of injury severity may be changed through using the CRASH system; i.e. some previously recorded Slight injuries may now default on the CRASH system as Serious injuries. This is likely to be a more accurate classification of injury as set out by Department of Transport (DfT).

The product of such change in categorisation is that previous years' casualty data will not be an accurate comparison, especially in terms of base-line data used to set casualty reduction targets.

Research is being carried out by DfT to attempt to quantify the CRASH scaling effect and this may allow a degree of translation of 'old' data so that comparisons of progress might be possible in future.

The following data for 2016 is the first year's data under the new CRASH reporting process for Kent and as such comparisons with previous years data should be made in that context.

- 5.1 In line with Governments' Strategic Framework for Road Safety, the Department for Transport encourages Local Authorities to set their own targets for reducing casualties and improving road safety. The County Council firmly believes in the need to set targets to drive and provide a focus for reducing the most serious road casualties and improving road safety.

Targets to reduce KSI Casualties

- 5.2 Kent County Council, in conjunction with Kent's Casualty Reduction (CaRe) Group of stakeholders (Kent Police, Highways Agency, Medway Council and Kent Fire & Rescue Service), has set targets for 2020 to reduce KSI casualties, compared to the 2004 to 2008 average, to reduce the number of:

all those killed or seriously injured (KSI) on Kent's roads by 33%

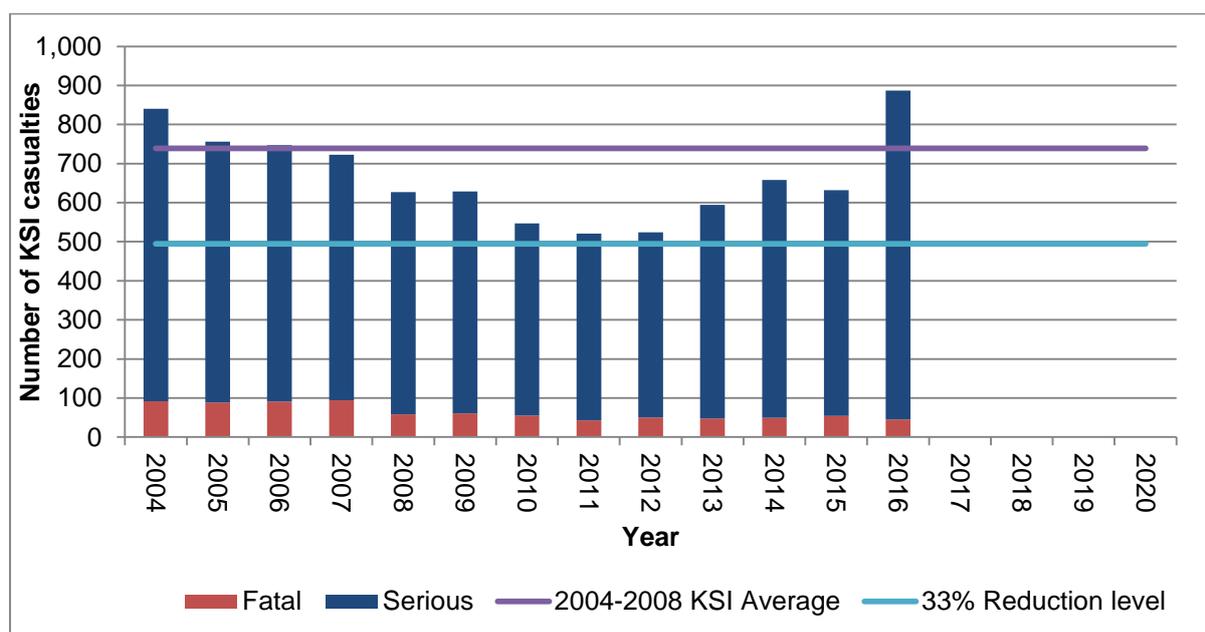
children killed or seriously injured on Kent's roads by 40%

- 5.3 These targets, shown in tabular form and graphically below, generally accord with long-term National and European road casualty reduction ambitions.

Table 2 Progress towards the 2020 targets for Kent (excluding Medway)

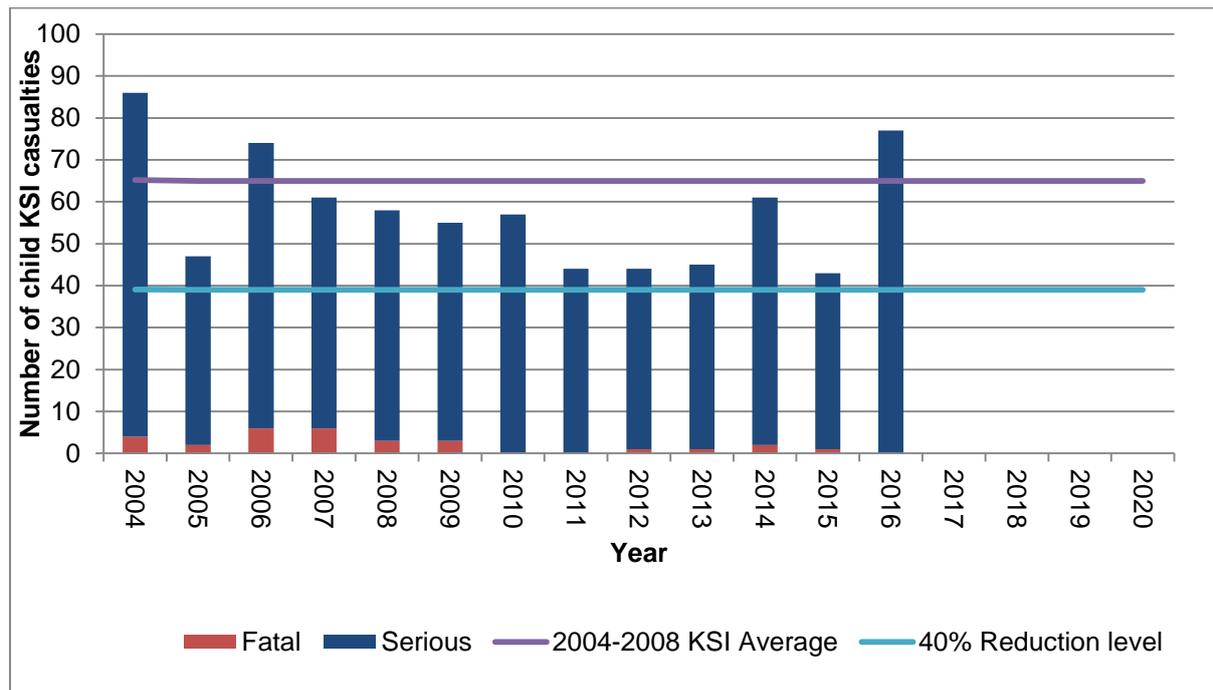
Kent Casualties	2020 Target	2004-08 Baseline	2014	2015	2016	2016 percentage change compared to baseline	2016 percentage change compared to 2015
Total KSI	495	739	658	632	887	20%	40%
Child KSI	39	65	61	43	77	18%	79%

Figure 1 KSI casualties for 2004, progression to 2020 target



5.4 The number of people killed or seriously injured on Kent’s roads rose by 40% last year, in comparison to a 6% increase nationally (half of all Police Authorities are using the CRASH reporting system).

Figure 2 KSI child casualties from 2004, progression to 2020 target

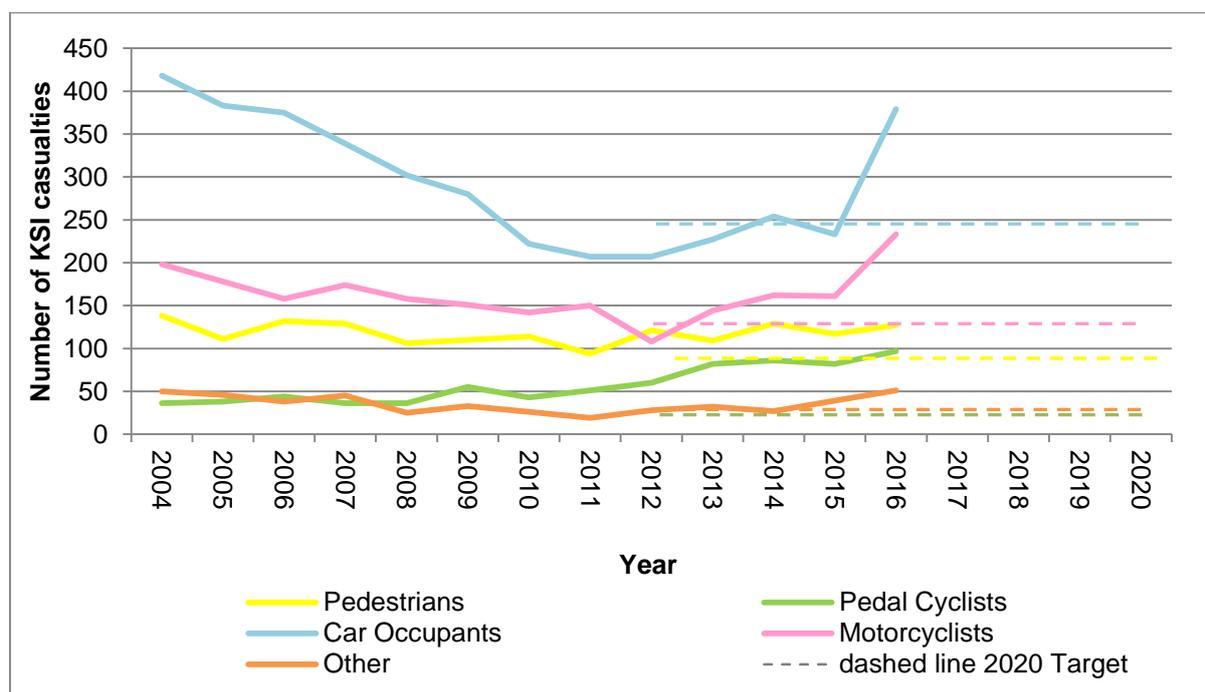


5.5 Child KSI casualties increased in 2016 by 79% and are 18% above the baseline (half of all Police Authorities are using the CRASH reporting system).

Targets to reduce KSI Casualties for Vulnerable Road Users

5.6 Given the emphasis on improving public health, more generally within the Strategy, there may be merit in setting targets specifically for reducing serious injury to pedestrians and cyclists.

Figure 3 KSI casualties in Kent by road user group from 2004, compared to 2020 target



5.7 All main road user categories show an increase in KSIs for 2016; car occupants (63%), motorcyclists (45%), pedestrians (9%) and cyclists (18%) are all above their baseline.

Targets to reduce all Casualties

5.8 Whilst it is right to focus on targets to reduce the most serious casualties, 5,235 people received a slight injury in a road crash last year. It must be recognised that many of these will still have caused substantial impact on the people involved, as well as a financial impact in terms of congestion and support services.

5.9 Kent had been making good progress towards the nominal 2020 KSI targets, so the recent upturn in casualty trends is cause for concern. Whilst in 2016 some of the increase in KSIs could be in part down to a changed reporting process, it is clear that an upward trend is present from 2011.

ACTIONS²²:

This Strategy commits Kent County Council to:

- A5.1 Endorse the targets for a 33% reduction in KSI and a 40% reduction in child KSI by 2020 and to look to set targets based on risk rating of Kent roads (subject to research) including all casualties as well as specifically for pedestrians and pedal cyclists.

Actions; Review and Update, September 2017

- A5.1 Changed emphasis. Whilst Kent County Council accepted the proposed targets discussed by partners, the structure of the Casualty Reduction Partnership changed in 2016 and discussions around numerical targets have not been finalised. Partners agree that we work collectively to achieve the lowest possible number of KSIs, aspiring to Vision Zero – the Swedish approach to road safety thinking (visionzeroinitiative.com). The measurement of success may not be based solely on numerical casualty targets but more on indicators of success towards achieving lower casualties (e.g. public awareness and understanding).

²² See also Appendix 1: Delivery Action Plan which contains an annual summary.

6. Approaches to deliver Road Casualty Reductions

- 6.1 In its Strategic Framework for Road Safety (2011) ²³ the Government categorises actions to reduce road casualties in terms of the so called 3 E's: Enforcement, Education and Engineering.
- 6.2 The Framework notes that the 3 E's approach has made significant improvements in managing road safety; however, it "did not generally look at specific groups, issues and risks" (page 17). The Framework also states that there has been an increased interest in the so called *Systems Approach* and the *Public Health Approach*.
- 6.3 The Systems Approach seeks to "*identify and rectify the major sources of error or design weakness that contribute to fatal and severe injury crashes, as well as to mitigate the severity and consequences of injury. A number of elements in a system all need to go wrong for a serious collision to occur. The aim is to recognise that people will make mistakes and to build the system around this understanding.*
- The Public Health Approach brings a systematic approach to problem solving that has traditionally been applied to problems of diseases and injury control. There are three central features: it is focused on prevention; based on science; and collaborative by nature. In addressing the problem of road traffic injuries, practitioners pay most attention to the importance of prevention. Interventions are formed upon a foundation of scientific research and empirical observation, using a four stage model: problem identification; analysing causes and risk factors; assessing options; and developing a successful implementation, which can be evaluated and scaled-up".* (page 17)
- 6.4 Kent County Council recognises that each of these approaches has a role to play in reducing road casualties.
- 6.5 The Systems Approach, which essentially means designing the highway to be more forgiving in the event of a crash, has merit although it must be recognised that taking out or protecting obstructions on the side of the road will simply not be practical on many roads, especially in towns.
- 6.6 The Public Health Approach has merit in respect of the work described previously (Section 3) in a more rigorous application of data and other research to determine risk and to prevent future crashes. Potentially this can help address the issue of reducing actual or perceived road risk for vulnerable road users and thereby contribute to encouraging active travel with consequent wider health benefits.
- 6.7 This Strategy recognises the importance of influencing the road user (through **Education**, training and **Enforcement**), the road environment (through **Engineering**)

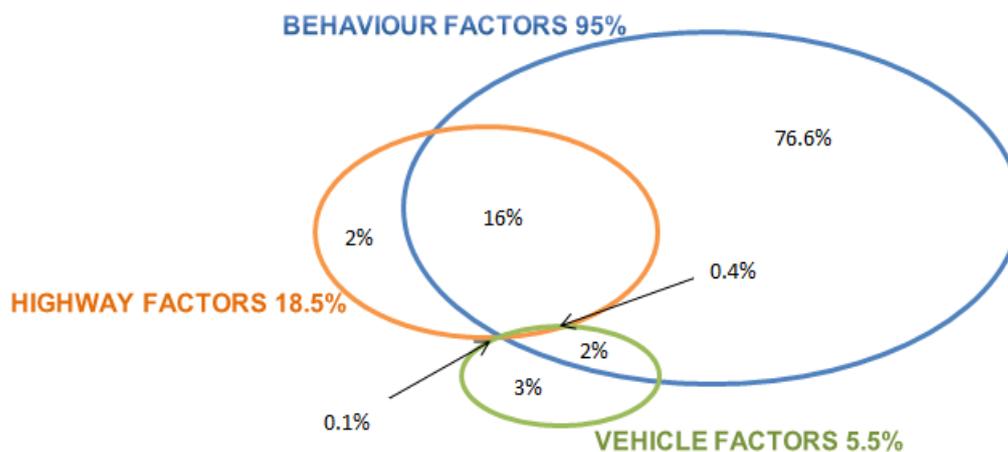
²³ *Strategic framework for road safety*, Department for Transport, May 2011

and the vehicle (through working with manufacturers) in combination with a range of practical measures to continue to deliver reductions in road casualties. The 3 E's categorisation, which can all be influenced by Kent County Council and partner organisations can therefore still provide a useful framework for actions in the Strategy.

7. Education

7.1 The Transport Research Laboratory²⁴ (TRL) has identified the headline crash causation factors for incidents that cause death and injury on the road. In any road crash the three headline constituent parts are the Environment (the road), the Machine (the vehicle) and the Road User Behaviour (the human). The research shows that 2% of crashes are caused solely due to a poor road environment; 3% are solely due to vehicle failure; whilst 76.6% are solely due to the behaviour of the road user. When adding elements where poor road user behaviour mixes with a poor environment and/or a mechanical failure, it takes the human factor to 95% causation. This data is illustrated in Figure 4 below.

Figure 4 Factors involved in a crash



7.2 Consequently, the key to casualty reduction is in affecting the way road users interact with their environment and their vehicle. It is comparatively rare for a poor environment or vehicle failure alone to lead to injury crashes.

²⁴ www.trl.co.uk/research_development/intelligent_transport/human_factors/

Education, Training and Publicity

7.3 Road safety education, typically defined as Education, Training and Publicity (ETP), is widely recognised as a key intervention to deliver a sustained benefit in reducing road casualties. Examples of ETP initiatives delivered by Kent County Council are set out in the table below.

Table 3 Examples of ETP interventions

Education	Demonstrations about correct fitting and use of car seats, school lessons on safer crossing techniques and young driver education such as licence to kill.	
Training	Driver Diversion Schemes (e.g. Speed Awareness Courses delivered as an alternative to a speeding offence, fine and licence points), Bikeability cycle training, school minibus driver training and Highway Inspector driver training.	
Publicity	Campaigns covering anti-drink drive, inappropriate speed, drivers using mobile phones, seat belt wearing and passenger safety involving those driven by young drivers.	

7.4 Through these and other ETP initiatives, available as an online resource via the Kent Road Safety website²⁵, the County Council aims to influence road user attitude and behaviour and promote individual responsibility. Within each, our approach is to:

- Raise road user awareness of the main safety issues that affect different road user groups
- Increase knowledge of the potential consequences (health and legal) and the human impact that road crashes have, and promote related *coping* strategies
- Increase levels of observed behaviour that are in line with the coping strategies promoted through casualty reduction activity

Key Target Groups

7.5 To effect the greatest change in road user behaviour that is likely to contribute to the greatest reduction in road casualties, Kent County Council targets those road user groups that feature highest in either casualty or perpetrator statistics. Priority groups in Kent are broadly in line with the Governments' national key indicators outlined in Section 2.7:

²⁵ www.kentroadsafety.org

Table 4 Target Groups (Not in priority order)

Age Group	Road User
5-16 year olds	Young pedestrians and cyclists
16-19 year olds	Young motorcyclists
17-24 year olds	Young drivers and passengers
25-50 year olds	Drivers
25-50 year olds	Motorcyclists
In car safety	
At work drivers	
Non-UK drivers	

A focus on Drivers

7.6 Of all the target groups, drivers/riders constitute the group that are targeted most through ETP, with the expectation for them to act responsibly. Drivers/riders of large, heavy machines that can travel at high speed have the greatest responsibility towards enhancing the safety for all road users. These road users have in their control the ability to dictate the likelihood and severity of a potential crash, it is their vehicle that collides with another road user.

7.7 Much of the increased risk of crashing revolves around drivers/riders willingness to take risks; things they would be unlikely to do if handling other dangerous machinery such as drinking alcohol, using mobile phones, persisting whilst tired, etc. In addition the choice of speed will dictate the level of severity of an impact. Driver/rider behaviour can be influenced to reduce risk.

7.8 A key intervention here for Kent County Council is the delivery of Driver Diversionary Scheme courses on behalf of Kent Police. These courses are offered as an alternative to a fine and license points and according to national research²⁶ can have a benefit in terms of improving awareness of road safety. The main course is the National Speed Awareness Course and some 30,000 clients attend courses in Kent each year. In line with the Governments approach, the County Council is keen to provide more courses, as well as a new elective non offender's course (HASTE), available to individuals and business from 2014 to contribute to casualty reduction. Ultimately it is hoped this will lead to reduced insurance premiums for attendees.

A focus on Vulnerable Road Users

7.9 Additionally there is benefit in promoting coping strategies to those vulnerable road users at risk of being involved in a crash; specifically for pedestrians, cyclists, horse

²⁶ *Evaluation of the National Speed Awareness Course*, ACPO, July 2011

riders and motorcyclists. These road users can do much to limit their vulnerability by choosing appropriate behaviour for themselves, such as improving their visibility to drivers/riders, wearing safety equipment like helmets, understanding how crossing facilities can be used effectively and reducing their own distractions on the road.

- 7.10 The County Council runs Bikeability Cycle training courses for schools alongside School Games Organisers. Together, around 7000 children are trained each year which represents around half of the Year 6 age group in Kent. This service will be expanded to offer adult cycle training to individuals and through businesses in 2014.
- 7.11 Ultimately, the County Council targets perpetrators and potential victims in order to reduce risk through an integrated ETP programme.

Our Road Safety Education Approach; combining Education, Training and Publicity

- 7.12 Road safety education is an on-going process to constantly remind road users of the need for appropriate behaviour and to take account of all road users. The County Council produces an annual delivery plan summarising ETP activities²⁷.
- 7.13 This approach places a priority on Publicity as the tool for raising awareness to key issues and to promote the positive reinforcement of critical messages across a large target audience, over a short space of time.
- 7.14 The tone of Publicity messages used is factual and informative and focuses on the human impact of crashes, whilst stressing the potential legal consequences of poor road user behaviour.
- 7.15 Publicity messages are used to link wider, national activity to local concern and thereby provide credibility to localised Education and Training activities. By raising awareness Publicity prepares the ground for cultivating a deeper understanding of personal responsibility through focused Education or Training.
- 7.16 Localised Education and Training activities require access to small groups of road users so that key issues can be explored in greater depth to develop understanding of personal responsibility, and to reinforce the human impact of crashes.
- 7.17 The challenge for Education and Training activity is in accessing suitable road user groups on an on-going basis. It is difficult to break into school curriculum time and, more specifically, to access adult road users without the compunction of a legal process available as a motivator to attend.
- 7.18 Overall, road safety education is targeted at the majority of road users, who can be classified as *Error Makers*, and our behaviour change model ensures the close relationship between increasing Awareness, Knowledge and Behaviour to affect Contemplation of Change, Action to Change and Maintenance of Behaviour.

²⁷ Kent County Council Road Safety Education, Training and Publicity plan 2013/14, Road Safety Team Kent County Council, April 2013

ACTIONS²⁸:

This Strategy commits Kent County Council to:

- A7.1 Continue to prioritise an integrated approach to road safety education, combining education, training and publicity activities, as a key intervention to change road user behaviour and encourage safer road use.
- A7.2 Produce an annual delivery plan for coordinated Education, Training and Publicity activities, setting out the Council's actions and encouraging partners and stakeholders to link with these.
- A7.3 Continue to deliver National road user training (DDS and Bikeability) in Kent and develop new courses including elective Speed Awareness (HASTE) and adult cycle training.

Actions; Review and Update, September 2017

- A7.1 Agreed as still relevant. Annually the Road Safety team reviews available intelligence to plan, prioritise and deliver interventions across the county to specific target audiences. These use a variety of Behaviour Change Models and Techniques to influence road user attitudes, knowledge and intended behaviour. Where possible effectiveness is measured using a year on year comparison of findings from an road user survey.
- A7.2 Agreed as still relevant. Published delivery plan (kentroadsafety.info) is linked to partner activity through the Casualty Reduction Partnership and focused on the National Police Chiefs Council road safety calendar.
- A7.3 Agreed as still relevant. Road user training is provided and new courses developed and offered (e.g. HASTE, adult cycle training and National Motorway Speed Awareness Courses).

²⁸ See also Appendix 1: Delivery Action Plan which contains an annual summary.

8. Enforcement

8.1 Kent police enforce road traffic legislation, with the exception of decriminalised offences, such as parking enforcement, which are the responsibility of local authorities. The police also work in partnership with other agencies, such as the Vehicle and Operator Services Agency (VOSA), to enforce specialised traffic legislation and the Health and Safety Executive (HSE) to investigate serious work-related road accidents.

8.2 Inappropriate and excess speed is a significant factor in road crashes. The outcome may result in death, serious injury and damage, as well as being a serious “quality of life” issue. The effective, intelligence led use of speed enforcement can assist in addressing these problems. Roads policing supports and complements road safety education and engineering and is an essential part of road safety. It.²⁹

- Deters illegal, dangerous and careless behaviour on the road
- Detects illegal, dangerous and careless behaviour on the road
- Identifies offenders
- Identifies the causation factors in crashes
- Helps to educate, and change the attitudes of road users
- Prevents other forms of crime
- Identifies and removes dangerous vehicles

Police and Crime Commissioner

8.3 From 15 November 2012, Police and Crime Commissioners are elected representatives charged with securing efficient and effective policing of a police area within England and Wales. Police and Crime Panels scrutinise the work of each Commissioner and make sure information is publicly available. The Panels include a Councillor from every Local Authority in the Police force area.

8.4 The current Kent Police and Crime Commissioner, Mrs Ann Barnes, has set out a four year Police and Crime Plan (1 April 2013 - 31 March 2017). It covers the Commissioner's priorities, commissioning intentions and performance targets for Kent Police. The key strategic priority which relates to this Strategy is ***Protecting the public from serious harm.***³⁰

Kent and Medway Safety Camera Partnership

8.5 The roots of Safety Camera Partnerships were linked to section 89 of the Road Traffic Regulation Act 1984, under which it is an offence to exceed the speed limit. The Road Traffic Law Review, set up in 1985 and which reported in 1988, recommended that greater use should be made of technological innovations to

²⁹ www.kent.police.uk/about_us/policies/p/p04.html

³⁰ www.kent.police.uk/about_us/our_plans/our_plans.html

promote compliance with road traffic law, including modern camera technology³¹. The necessary legislation supporting this recommendation was put in place through the Road Traffic Act 1991.

- 8.6 The Kent and Medway Safety Camera Partnership was formed in July 2002, in order to reduce death and serious injuries on Kent and Medway's roads. The Partnership comprises: Kent County Council, Medway Council, Highways Agency and Kent Police and is responsible for the operation of speed, red light and average speed safety cameras within Kent and Medway. Contrary to popular belief, safety cameras are not placed on roads where they will make the most money. Enforcement only takes place at sites where there is a history of fatal and seriously injured casualties and where speed has been a contributory factor in crashes.
- 8.7 For the future, the Camera Partnership is progressing a programme of upgrading and digitalising existing cameras alongside a decommissioning strategy which will be implemented at sites no longer considered suitable in terms of their original objectives. Consideration is also being given to enforcement at 'community concern sites' to back up local Community Speed Watch schemes.

Community Speed Watch³²

- 8.8 Community Speed Watch is a driver education initiative that allows concerned citizens to make a significant contribution to road safety by helping to reduce excessive vehicle speeds on the roads in their own communities. Speed Watch schemes are supported by Kent Police through partnership-based working with community groups, Parish Councils, Kent County Council and Medway Council.
- 8.9 Operating at the roadside in 20, 30 and 40 miles per hour (mph) limits, Speed Watch practitioners monitor the speed of passing vehicles using portable speed indication devices. They record the speeds and identifying details of vehicles travelling above nationally-specified speed thresholds. The registered keepers of vehicles observed repeatedly or excessively speeding anywhere in the county in a 12-month period are then sent warning letters and advice by Kent Police.
- 8.10 Speed watch has proved popular, in the two years to the end of November 2013, Community Speed Watch in Kent has increased from around 20 schemes to more than 60. In the same two years, more than 650 volunteers have received Speed Watch safety awareness training. Linking with the Police and Crime Plan it is envisaged that further community engagement schemes will be developed contributing to driver education initiatives set out in Section 6.

³¹ *The Road Traffic Law Review*, Department of Transport/Home Office, 1988 paragraph 3.21

³² www.kent.police.uk/advice/community_safety/attachments/form_3213h.pdf

ACTIONS³³:

This Strategy commits Kent County Council to:

- A8.1 Work with Kent Police to improve targeting of enforcement in line with casualty reduction objectives.
- A8.2 Work with Kent Police to co-ordinate enforcement, education and engineering measures.
- A8.3 Work with Kent Police to support initiatives with local communities.

Actions; Review and Update, September 2017

- A8.1 Agreed as still relevant; e.g. upgrade of the speed camera stock to digital technology is being delivered in partnership with Kent Police. During site review prior to upgrading, each site is considered as to its appropriateness as a camera site and whether like-for-like fixed speed cameras are the best solution.
- A8.2 Agreed as still relevant; e.g. working through the Casualty Reduction Partnership, coordinated activity is planned and focused on the National Police Chief's Council road safety calendar.
- A8.3 Agreed as still relevant; e.g. Kent County Council provides match funding opportunities for communities starting their own Speedwatch scheme

³³ See also Appendix 1: Delivery Action Plan which contains an annual summary.

9. Engineering

- 9.1 Kent County Council, as local highway authority, has a Duty of Care under the 1988 Road Traffic Act³⁴ to “carry out studies into crashes arising out of the use of vehicles on roads, take such measures as appear to the authority to be appropriate to prevent such accidents, and in constructing new roads, must take such measures as appear to the authority to be appropriate to reduce the possibilities of such accidents when the roads come into use.”
- 9.2 The County Council spends circa £1 million each year on implementing a range of engineering measures at safety critical sites to contribute towards fulfilling this duty.

Crash and casualty analysis: identifying safety critical sites

- 9.3 Traffic engineers regularly assess road safety on Kent’s highway network. This involves studying crash patterns over a period of time to identify locations where there are unexpectedly high numbers of crashes occurring. The circumstances, vehicles and casualties involved in the crashes at a particular location are investigated to identify any patterns that engineering measures could prevent reoccurring in the future. The relative size of the problems and the ability to tackle them are assessed and suitable cost-effective solutions are devised and implemented.
- 9.4 The County Council employs four separate approaches to identify and implement Crash Remedial Measures (CRMs) as set out in Table 5.

Table 5 Approaches to identify CRMs

Crash Cluster Sites	Measures targeted at a specific geographical location where a higher than expected number of crashes of a particular type have occurred in a set period of time.
Mass Action Plans	Measures targeted over a wide area such as a District or Countywide at a number of locations that have a similar pattern of crashes.
Route Studies & Treatments	Measures targeted along a whole route such as an A road where a number of different problems have been identified along the same route. This will include improvements as well as maintenance of existing safety infrastructure.
Quick Wins	Measures that can be implemented quickly in response to an emerging or emergency safety problem.

- 9.5 As part of these programmes engineers will work closely with our partners both internally and externally to ensure identified problems are tackled using the most

³⁴ Road Traffic Act, Secretary of State, 1988

appropriate solution(s) to the identified problem be that engineering, education or enforcement or a combination of the three. The County Council will continue to prioritise funding at locations with the greatest potential to reduce road casualties, and will look to incorporate other data (such as maintenance records, damage only crashes, customer complaints, etc.) into the assessment criteria for the identification of future CRM sites.

- 9.6 The intervention criteria i.e. the level of risk / number of crashes of a similar type required to trigger investigations will be reassessed annually taking in to account factors such as current progress towards casualty reduction targets and the availability of resources and funding.

Road Safety Engineering Measures

- 9.7 A wide range of road safety engineering measures can be implemented to reduce and prevent casualties on our roads. Table 6 (below) lists many of the engineering measures used in Kent as part of our CRM programme.

Table 6 Road safety engineering measures

<p>Signing & Lining</p>	<p>New or changes to existing signs and lines to highlight individual hazards, seek to slow speeds and reduce conflicts. These can include static signs, interactive vehicle activated signs, improved materials, cat eyes etc.</p>	
<p>Surfacing</p>	<p>Upgrading the standard of existing surfaces by applying such treatments as High Friction Surfacing to reduce skidding or the use of coloured surfacing or different textures to highlight hazards.</p>	
<p>Speed Limits</p>	<p>Introduction of new speed limits and the amendment of existing ones. This includes provision of further 20mph limits and zones to meet casualty reduction and wider healthy living/active travel objectives, as set out in a recently approved policy³⁵.</p>	
<p>Safety Cameras</p>	<p>The installation of new safety cameras, where current criteria is met, for enforcement of such offences as speeding, red light running, use of mobile phones or non-use of seat belts. These can be fixed, mobile and include average speed cameras.</p>	
<p>Pedestrian Crossings</p>	<p>The installation of new pedestrian crossing facilities such as dropped kerbs, tactile paving, zebras, toucans, pelicans, puffins and pegasus crossings. Can also include the modification or upgrade of existing</p>	

³⁵ <https://democracy.kent.gov.uk/ieListDocuments.aspx?CId=749&MId=4911>

	crossing facilities. Provision of new crossings can improve accessibility for pedestrians and disabled people as well as contribute to wider public health objectives.	
Traffic Calming	The implementation, modification or even removal of traffic calming features such as humps, cushions, chicanes, priority working systems, road narrowing, traffic islands, build outs, vehicle activated signs or rumble strips.	
Junction Realignments	Changes to existing junctions to reduce conflicts and manage traffic and pedestrian movements better. This is typically achieved by the use of lining, hatching and changes to priority or movement of the kerb line.	
Traffic Signals	The installation of new or modified or even removal of existing traffic signals mainly at junctions. This could be to manage or reduce conflicts between movements or vulnerable road users. Their use to reduce congestion can also improve safety by reducing frustration and the risks people take when in congestion.	
Roundabouts	The implementation, modification or removal of roundabouts at junctions to manage conflict better, reduce speeds and improve safety by reducing congestion. They can include mini and double mini roundabouts.	
Cycle and Footways	Installation of new or improvements to existing footways, cycleways and footpaths. The health benefits of these types of scheme are not limited to the reduction of road injuries but can improve the health of the public by encouraging walking and cycling leading to fewer deaths by ill health.	

- 9.8 Kent County Council will continue to innovate and experiment with implementing new engineering measures aimed at maximising casualty reduction, reducing risk and contributing to wider healthy living objectives. The impact of road safety engineering schemes will be measured in terms of contributing to these objectives.

Speed Limits

- 9.9 The County Council recognises the importance of measures to encourage drivers to drive at appropriate and safe speeds. At the beginning of 2013 the Government published updated guidance for Local Authorities to use when setting local speed limits (Department for Transport Circular 01/2013 SETTING LOCAL SPEED LIMITS). In the guidance the main points were that speed limits should be evidence-led and self-explaining and seek to reinforce peoples' assessment of what is a safe speed to

travel. They should encourage self-compliance and be seen by drivers as the maximum rather than a target speed.

- 9.10 Kent County Council uses this guidance to set local speed limits in situations where local needs and conditions suggest a lower speed limit than the national speed limit is required. This requirement is triggered when the intervention criteria for local safety schemes is met or if a County Councillor feels there is a local need for a lower speed limit and wishes to fund this through their own Member Funding.
- 9.11 The introduction of more 20 mph limits and zones is being pursued in urban areas and built-up village streets that are primarily residential, to ensure greater safety for pedestrians and cyclists. The County Council recently reviewed its policy towards the implementation of further 20mph schemes and agreed to support the introduction of 20 mph limits and zones:-
- where there was clear justification in terms of achieving casualty reduction as part of the on-going programme of Casualty Reduction Schemes
 - where they would assist with delivering targets set out in Kent's Joint Health Wellbeing Strategy by encouraging walking and cycling
 - locally important schemes which are funded via the local County Councillor Members' Fund

Designing and maintaining safety standards

- 9.12 The County Councils' traffic engineers are responsible for designing improvement schemes on the highway network to improve safety for all road users. They design highway engineering schemes to prevent and reduce the number and severity of casualties occurring on Kent's roads. We will ensure our engineers are appropriately qualified to carry out this role and they receive the road safety engineering training they require to keep their skills up to date. Our engineers will ensure they design all schemes to the relevant design standards, and they will undergo the appropriate safety audit/assessment as required by the County Councils' policy and are built without putting our contractors or the public at risk of undue harm.
- 9.13 As part of our Duty of Care, the Council will undertake regular safety inspections to identify and rectify those defects that meet the current intervention levels and that are likely to increase risk to the users of the highway network. We will ensure road safety is integrated within existing highway maintenance programmes and that this area (especially safety critical carriageway markings or warning signs) is prioritised in our maintenance inspections and work programmes.

ACTIONS³⁶:

This Strategy commits Kent County Council to:

- A9.1 Continue to implement a Crash Remedial Measure (CRM) programme at locations with the highest crash frequencies where engineering measures will prevent their outcome in the future.
- A9.2 Develop the CRM programme to take account of non-personal injury crash data and other risk factors identified by research.
- A9.3 Ensure all highway engineering schemes are designed to the relevant standards and that they undergo the appropriate safety audit / assessment as required by the County's policy. Carry out post-scheme implementation monitoring to assess level of success.
- A9.4 Carry out regular safety inspections to identify and rectify quickly any defects likely to create danger to all users of the highway network.

Actions; Review and Update, September 2017

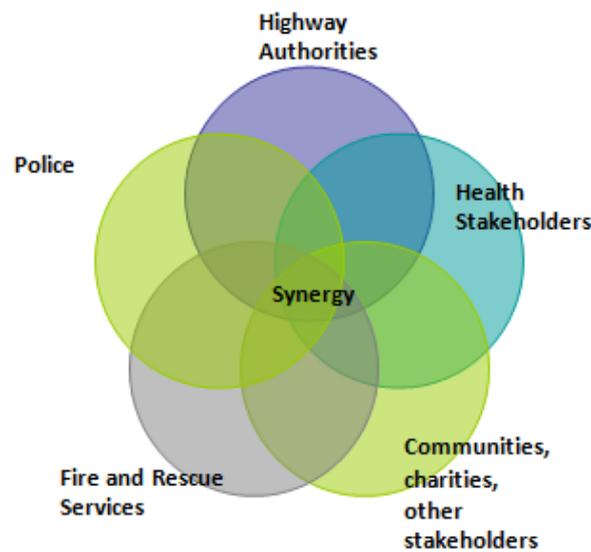
- A9.1 Agreed as still relevant
- A9.2 Agreed as still relevant
- A9.3 Agreed as still relevant
- A9.4 Agreed as still relevant

³⁶ See also Appendix 1: Delivery Action Plan which contains an annual summary.

10. Engagement and Partnership Working

- 10.1 Successful casualty reduction cannot be achieved in isolation and requires professionals from a range of backgrounds working together to provide an holistic approach to problem solving and identification and implementation of integrated solutions. To be most effective it also requires Engagement with and support from partner organisations, stakeholders, businesses, local communities and residents as illustrated in Figure 5.

Figure 5 Partnership working



- 10.2 Local authorities, the police, the fire and rescue service and other health stakeholders are vital partners in delivering casualty reduction outcomes. Joint investment by these partners must continue to be delivered in a way that maximises beneficial outcomes in a period of ever tightening budgets. Casualty Reduction Partnerships can contribute to the delivery of a *systems approach* to road safety.

- 10.3 The key success factors identified by partnership members nationally include³⁷:

- Greater resource availability (financial and personnel)
- Wider stakeholder contacts, networks and therefore influence
- Reduced duplication of investment
- Integration of investment solutions (packages), generating benefits greater than the individual elements
- Economies of scale due to, for example, the increased bargaining power of partnerships, especially in the case of education, training and publicity (ETP) interventions

³⁷ Road Safety Research Report No. 124, Delivery of local road safety

- 10.4 In its report, Changing Lanes³⁸ of September 2009, the Audit Commission noted that:
- “There is critical importance to, and significant performance benefits from close partnership working to improve road safety”*
- 10.5 And in 2011 the Department for Transport concluded that;³⁹
- “In the last five years, effective partnership and inter-agency working has generated efficiency savings and enhanced the integration of investment.”*
- 10.6 There is a role for a great many organisations both private and public in road casualty reduction. The prime organisations are those that have statutory responsibilities regarding the road network. Nationally the Police and Fire and Rescue Services have affirmed their commitment to reducing the injury toll on our roads

Fire and Rescue Services

- 10.7 The Chief Fire Officers’ Association’s mission is *“to work with a range of partners in order to be a world leader in delivering an integrated road safety education or approach which results in safer roads throughout the UK”*⁴⁰.

Police

- 10.8 The Association of Chief Police Officers (ACPO) sets out its policy for road safety enforcement in *“Policing the Roads - 5 Year Strategy 2011-2015”*⁴¹ and states
- “The service should focus the full weight of the law against those individuals who deliberately and illegally use a motor vehicle to commit offences and antisocial behaviour; and make an even greater use of the benefits offered by education so as to reduce and even eliminate the more unintentional careless behaviour where road safety is nonetheless challenged.*
- The highest possible reductions in road casualties cannot be achieved by enforcement and education of offenders alone. It is necessary to maximise road safety gains by working in partnership with the many other valuable partners who share the same objectives or have a stake in reducing road casualties.”*

District and Local Councils

- 10.9 District Councils, as local planning authorities, have a key role to play in shaping new development and investment from source in terms of making highways safer, in addition to other key local community safety functions.
- 10.10 Town and parish councils represent the first tier of local government. While they do not have statutory highways responsibilities, they often act as a key route through

³⁸ *Changing Lanes, Evolving roles in road safety*

³⁹ *Road Safety Research Report No. 124, Delivery of local road safety*

⁴⁰ *CFOA Road Safety Strategy 2013-16, Chief Fire Officers Association, 2013*

⁴¹ *ACPO Uniformed Operations, Policing the Roads – 5 Year Strategy 2011-2015*

which residents' views can be expressed. Improvements to transport are likely to be central elements in Neighbourhood Plans as they are developed at this level.

- 10.11 As the Localism agenda develops, town and parish councils may also acquire a more important role in road safety, for example by funding speed indication devices, traffic calming or community schemes.

Partners in Kent

- 10.12 Kent County Council is part of the Casualty Reduction Partnership (CaRe) in Kent. Formed in mid-2007 the CaRe Group brings together professionals from Kent County Council, Medway Council, the Highways Agency, Kent Fire and Rescue Services and Kent Police to focus on priority road user groups and the main factors in crashes/casualties. The vision of the CaRe group is "the effective co-ordination of local partners working in collaboration to reduce road casualties in Kent". Collectively, the CaRe partners have endorsed the 2020 casualty reduction targets set out in Section 4.2.
- 10.13 The County Council is also part of the Kent and Medway Safety Camera Partnership, the Kent Community Safety Partnership and the Driver Diversionary Schemes Partnership. Kent County Council supports district based community safety partnerships both in terms of providing tailored data and information, through district casualty profiles and gap analysis, as well as practical support at local engagement events.
- 10.14 As a large organisation with a wide range of responsibilities, there will always be opportunities to improve co-ordination and delivery of initiatives. The County Council is committed to improving internal partnerships through a *One Council* approach. As discussed in Section 2, there are opportunities for improving road safety and contributing to casualty reduction through wider public health, education and communities work.
- 10.15 This Strategy particularly recognises the importance of contributing to wider public health objectives through delivering traffic calming schemes and 20mph zones in residential areas as well as through delivering improved cycle and pedestrian routes and training initiatives, such as Bikeability, to equip users with the necessary skills to use the highway safely.
- 10.16 Many of the Councils' road safety education and safer routes initiatives are delivered through schools. Schools are also a key focus for public health interventions and joining up child pedestrian safety training or walking bus initiatives delivered in partnership with the Kent and Medway Walk to School Charity⁴² with healthy eating and other initiatives to tackle childhood obesity as a priority.

⁴² www.kmcharityteam.co.uk/walktoschool/

The role of media engagement

10.17 The media can have a strong influence on road user behaviour and perceptions. Effective engagement can therefore play a key role in promoting safe driving behaviours and reducing crashes. Kent County Council is working to develop relationships with local TV, radio and newspaper groups to complement road safety education campaigns and support individual and community based awareness and action.

ACTIONS⁴³:

This Strategy commits Kent County Council to:

- A10.1 Work closely with all partners and stakeholders to ensure casualty reduction is tackled using all the tools available and use the most appropriate solution to the identified problem, be that engineering, education or enforcement or a combination of all three.
- A10.2 Continue to actively support the Kent and Medway Casualty Reduction Partnership (CaRe) work as well as other partnerships to co-ordinate initiatives.
- A10.3 Embed road safety as part of the County Councils' *One Council* culture in particular with public health, education and communities departments.
- A10.4 Enhance engagement with local media and Kent residents and provide information and 'self-help' tools to enable communities to promote road safety in local areas.

Actions; Review and Update, September 2017

- A10.1 Agreed as still relevant; KCC is an integral partner of the Casualty Reduction Partnership, where activity is coordinated and opportunities for collaboration are identified.
- A10.2 Agreed as still relevant, although the name of the group is no longer CaRe. Other partnerships exist both with some strategic partners (e.g. Safety Camera Partnership) and with other agencies (e.g. Community Safety Partnerships).
- A10.3 Agreed as still relevant. Broader County Council links exist (e.g. with Education through schools and the use of Road Crossing Patrols and Public Health through Community Safety Partnerships) and these continue to be developed.
- A10.4 Agreed as still relevant. Good liaison exists with local media through press coverage and direct approaches to KCC to participate in media debates. Self-help tools have been developed for schools and parents (e.g. Childlife and Responsible Parking web sites, downloadable resources for campaign messages and Speedwatch match funding opportunities).

⁴³ See also Appendix 1: Delivery Action Plan which contains an annual summary.

11. Funding

- 11.1 Death and injury has a huge emotional and financial impact on society, both to the people and families and witnesses directly and indirectly affected, as well as to the wider public purse, through the emergency services, NHS and social services. Placing financial figures on each of these impacts, the established cost of dealing with a fatal crash is £1.9 million⁴⁴ and the average cost of dealing with a crash involving injury is £75,000.
- 11.2 Kent County Council is determined to maintain good quality services against rising demand, reducing central government funding and national inflationary pressures. A focus on reducing road casualties can reduce demand for social and other support services run by the Council that support and rehabilitate people injured on our roads.
- 11.3 In the context of the Local Transport Plan for Kent, the County Council delivers a £1.4 million programme of education, training and publicity, and a £1 million programme of casualty remedial measures. Under this Strategy, it is planned to sustain and improve value for money of the Council's current levels of funding.
- 11.4 Kent County Council will continue to prioritise developing bids for Government and other external funding including to the Local Growth Fund and through the Local Enterprise Partnership and the Council will work closely with the new Strategic Roads Corporation in Kent to coordinate investment in safer roads.

ACTIONS⁴⁵:

This Strategy commits Kent County Council to:

- A11.1 Sustain and prioritise spending on road casualty reduction initiatives and develop and support bids to Government and the private sector as opportunities arise.

Actions; Review and Update, September 2017

- A11.1 Agreed as still relevant; funding for road safety education and engineering is provided through KCC budget allocations or successfully bid for locally or nationally, including bids to LTP and Access Fund and KCC Combined Member Grant..

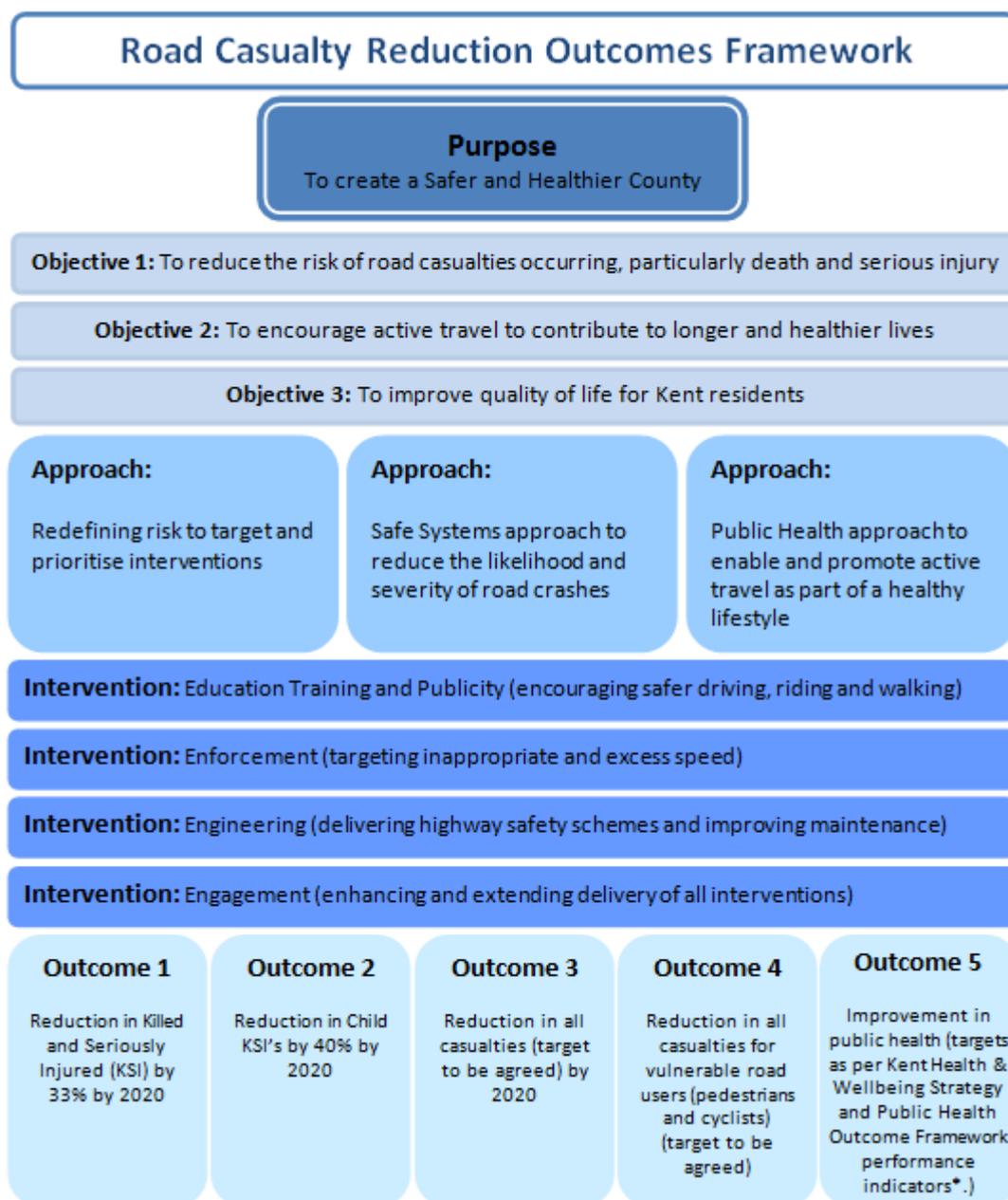
⁴⁴ *Road Casualties Great Britain Annual Report*, Department for Transport, 2012

⁴⁵ See also Appendix 1: Delivery Action Plan which contains an annual summary.

12. Outcomes Framework

- 12.1 This Strategy aims to contribute to creating a safer and healthier county. It accords with the County Councils' Statutory Duty to promote road safety and to act to reduce the likelihood of road casualties from occurring as well as our moral and financial imperatives.
- 12.2 Death and injury on Kent's roads must continue to be tackled as effectively as possible. We want to enable and encourage more active forms of travel to contribute to longer and healthier lives. We want to improve the quality of life for Kent residents.
- 12.3 This Strategy draws on the latest data and research available, to target more effectively a comprehensive programme of road safety interventions, as well as improving how we work with our partners and stakeholders.
- 12.4 This Strategy commits the County Council to work towards an outcomes framework in terms of delivering its high level targets of 33% reduction in Killed and Seriously Injured (KSI) and 40% reduction in child KSI by 2020, as well as monitoring targets linked to all casualties, vulnerable road users and improving public health.
- 12.5 Our outcomes framework (overleaf) is a resource to link our broad objectives with the approaches we intend to take, which will follow through into specific interventions. Actions for the current financial year are set out in a Delivery Action Plan at **Appendix 1**.

Table 7 Road Casualty Reduction Outcomes Framework



⁴⁶ The relevant Public Health Indicators as set out by the Public Health Outcomes Framework are references 1.16, 1.10, 2.06i, 2.06ii, 2.12, 2.13i and 2.13ii. More information can be found here www.phoutcomes.info

Appendix 1: Delivery Action Plan

This Delivery Action Plan, which will be updated and published annually, contains specific initiatives to deliver the policies and achieve the outcomes set out previously. The annual Delivery Action Plan will be drafted each December with a final draft available at the end of January. The final Plan will then be published at the end of March for the following financial year. This will be available on the Kent County Council website.

Table 8 Delivery Action Plan 2017/18

Date	Activity	Primary Target Group	Estimated Reach 2014 / 15	Estimated Reach 2017 / 18
Data and Research				
Sept	Complete phase 1 review of non casualty data to determine risk and identify interventions	Internal	n/a	Ongoing; EuroRAP tool being investigated to rate major routes
Aug	Publishing of Kent Annual Trend Report	On line	n/a	Completed August 2017
Nov	Publishing of Casualty Profiles for Community Safety Partnerships (CSP)	To CSP members	n/a	County wide data provided through Kent CSP portal; localised data on request
Sept	Complete the annual cluster site analysis	Internal	n/a	Completed July 2017
Apr-Mar	Identification of residential areas for potential 20mph zones, subject to consultation	Internal	TBC	Ongoing
Alongside CRASH release	Review and update of STATS19 to capture all relevant information e.g. school names and disability/evidence of impairment	Internal	n/a	CRASH system operating since January 2016. Working with Kent Police to identify process improvements and to understand effect on casualty reporting
Education (Publicity)				
Apr-Mar	Good Egg Guide - child seat fitting	Adults	1,000	1,000
Apr-Mar	Foreign Driver information	Adults	500,000	5,000
Apr-Mar	Development of campaign web site - www.kentroadsafety.org	Adults	7,000	8,000
Oct	Drug Drive campaign	17-34 year olds	850,000	850,000
May-Oct	Kent Bikers campaign - motorcyclists	25-50 year olds	500,000	500,000
June	Summer Drink Drive campaign	17-50 year olds	1,250,000	1,250,000

Dec	Winter Drink Drive campaign	17-50 year olds	850,000	850,000
July	Mobile Phones campaign	17-34 year olds	700,000	700,000
Apr-Mar	Streetlights mean 30	Adults	1,250,000	800,000
Sept	Speak Out campaign	16-24 year olds	1,250,000	1,250,000
Mar	Seatbelt campaign	17-34 year olds	850,000	500,000
Education (Education and Training)				
Apr-Mar	Driver Diversionary Schemes	Adults	35,000	35,000
Apr-Mar	At Work driver training courses (minibus drivers)	Adults	500	500
Apr-Mar	Non-offender (HASTE) Speed Awareness Course	Adults	2,500	400 Roll out to KCC drivers; available to the public through KCC web site
Apr-Mar	Driving Business Safely Workshops (4 per year)	Adults	50 businesses	Deleted – handed over to Kent Fire to lead
Apr-Mar	Adult Cycle Training	Adults	800	100 Interest in advertised opportunities less than expected
Apr-Mar	Community Safety / Public Events	Adults & children	10,000	7,500
Apr-Mar	Junior Road Safety Officer	5-11 year olds	12,500	12,500
Apr-Mar	Young Driver Education	16-18 year olds	5,000	3,000
Apr-Sept	Safety in Action	10-11 year olds	5,000	5,000
Nov	Licence to Kill Production	16-18 year olds	6,000	6,000
Jan - Mar	Smart Brothers - <i>stop look listen think</i> training	5-11 year olds	17,500	10,000
Feb	Young Driver Theatre in Education	16-18 year olds	3,000	3,000
Apr-Mar	Bikeability Cycle Training	Children (Yrs. 5-6)	3,500	3,500
Apr-Mar	Support Kent Messenger Walk to School initiatives	Primary children	36,500 children in 178 schools	40,000 children in 200 schools
Apr-Mar	Small Steps pedestrian training	Primary Yr. 2	1,500 children in 50 schools	1,500 children in 50 schools. Additional funding secured and recruitment of delivery staff
Enforcement				
Ongoing	Enforcement at fixed camera sites	n/a	72 sites	79 sites

	Safety Camera site upgrading/ digitisation	n/a	Subject to procurement	25 upgrades in year 4 year programme
	Actions from 3 yearly Operational Review	n/a	Monitoring sites for decommission/ downgrading	Monitoring sites for decommission/ downgrading
	Implementation of Temporary Sites	n/a	Resident raised	Resident raised
			Road Works	Road Works
			CRM Support	CRM Support
			Reactive following crash	Reactive following crash
			Speed Watch Support	Speed Watch Support
Engineering				
Apr-Mar	Implement a programme of Crash Reduction Measures (CRM)	n/a	55 Sites	59 sites
Apr-Mar	Safety Inspections of the highway	n/a	8500 km of carriageway/footway surveyed	8500 km of carriageway/footway surveyed
Apr-Mar	Implement a programme of Integrated Transport Measures with road safety/ public health benefits including cycle routes, traffic calming, 20 mph, pedestrian crossings.	n/a	37 Sites	40 sites
Engagement				
April	Report to Cabinet Committee results of Casualty Reduction Strategy Consultation	Members	n/a	n/a
May	Publishing of Kent Road Casualty Reduction Strategy	On line	n/a	ongoing
1/2 yearly	Highways Agency Strategic Meeting to reduce incidents on the Primary Road Network (HA Area 4 and 5)	n/a	n/a	ongoing
Apr-Mar	Parish Seminars/ Joint Transportation Board	n/a	n/a	ongoing
Apr-Mar	CaRe Partnership Meetings (quarterly)	n/a	n/a	ongoing
Apr-Mar	Kent Driver Diversionary Scheme Board Meetings (quarterly)	n/a	n/a	ongoing

Apr-Mar	Kent & Medway Safety Camera Partnership Board Meetings (quarterly)	n/a	n/a	ongoing
Apr-Mar	Community Safety Partnership Meetings	n/a	n/a	ongoing
Apr-Mar	School Crossing Patrols (service transferred from LEA in 2014)	126 sites (not all active) 184 staff (fluctuates)	n/a	126 sites monitored
Sept-Mar	Youth Travel Ambassador Scheme (bid funded until 31/3/20)	15 secondary schools in academic year 1; +5 in year 2, +5 in year 3 (total 25)	n/a	4,000

Appendix 2: Reference and supporting information

Reports

Road Casualties in Kent, Annual Review 2012 Kent County Council, August 2013

www.kent.gov.uk/roads-and-travel/road-safety/crash-and-casualty-data

Bold Steps for Kent, Kent County Council, December 2010

www.kent.gov.uk/about-the-council/strategies-and-policies/corporate-policies/bold-steps-for-kent

Road Safety Education, Training and Publicity plan 2013/14, Road Safety Kent County Council, April 2013

www.kentroadsafety.info/campaign-resources/docs/KCC-Comms-Doc_web.pdf

Growth without Gridlock, A transport delivery plan for Kent, Kent County Council, December 2010

www.kent.gov.uk/about-the-council/strategies-and-policies/transport-and-highways-policies/growth-without-gridlock

Local Transport Plan for Kent 2011-16, Kent County Council, April 2011

www.kent.gov.uk/about-the-council/strategies-and-policies/transport-and-highways-policies/local-transport-plan

Joint Health and Wellbeing Strategy, Kent Health and Wellbeing Board, 2013

www.kent.gov.uk/your_council/priorities,_policies_and_plans/priorities_and_plans/social_care_and_health/health_and_wellbeing_strategy.aspx

Strategic Framework for Road Safety Department for Transport, May 2011

www.gov.uk/government/publications/strategic-framework-for-road-safety

Action for roads: a network for the 21st century, Department for Transport, July 2013

www.gov.uk/government/publications/action-for-roads-a-network-for-the-21st-century

Road Safety Engineering Manual RoSPA

www.rospace.com/roadsafety

Road Casualties Great Britain 2012 Department for Transport, September 2013

www.gov.uk/government/publications/reported-road-casualties-in-great-britain-main-results-2012

Road Safety Research Report No. 124, Delivery of local road safety, Department for Transport, August 2011

<http://webarchive.nationalarchives.gov.uk/20120606181145/http://www.dft.gov.uk/publications/rsrr-124/>

Changing Lanes, Evolving roles in road safety Audit Commission, February 2007

<http://archive.audit-commission.gov.uk/auditcommission/sitecollectiondocuments/AuditCommissionReports/NationalStudies/20070226changinglanesreport.pdf>

ACPO Uniformed Operations, Policing the Roads – 5 Year Strategy 2011-2015 Association of Chief Police Officers, 2011

http://www.acpo.police.uk/documents/uniformed/2011/20111116%20UOBA%20PolicingtheRoadYearStrategy2011_2015.pdf

Strategy for Public Health in Kent, Kent County Council, 2007/2008

www.kent.gov.uk/your_council/priorities,_policies_and_plans/priorities_and_plans/strategy_for_public_health.aspx

CFOA Road Safety Strategy 2013-16, Chief Fire Officers Association, 2013

www.cfoa.org.uk/download/40522

Road Traffic Act 1988, Secretary of State, 1988

www.legislation.gov.uk/ukpga/1988/52/section/39

Evaluation of the National Speed Awareness Course, ACPO, July 2011

www.roadsafe.com/pool/files/SpeedAwarenessResearch%5B1%5D.pdf

Annual Report of the Chief Medical Officer, Surveillance Volume, 2012: On the State of the Public's Health

www.gov.uk/government/uploads/system/uploads/attachment_data/file/298297/cmo-report-2012.pdf

Cycling safety – a special report, NHS, 2014

www.nhs.uk/news/2014/02february/pages/cycling-safety-a-special-report.aspx

Web links

Kent County Council www.kent.gov.uk

Kent Police www.kent.police.uk

Kent Road Safety www.kentroadsafety.info

Kent Fire and Rescue Services www.kent.fire-uk.org

Kent and Medway Safety Camera Partnership www.kmscp.org

Predictive Policing www.predpol.com

EuroRAP www.eurorap.org

Department for Transport www.gov.uk/government/organisations/department-for-transport

Kent and Medway Public Health Observatory www.kmpho.nhs.uk

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