

Environment, Communities and Fire Scrutiny Committee

13th January 2020

Road Safety Framework Progress

Report by Director Highways, Transport and Planning

Executive Summary

This report presents an update on the Council's progress to achieving road casualty reduction targets set in the Corporate Plan together with how road safety interventions are delivered and proposals for the future.

As is reflected nationally, casualty data for West Sussex remains stubbornly at the same level over the last few years. This report identifies that the current level of investment is unlikely to change that situation and suggests some alternative ways forward.

The focus for scrutiny

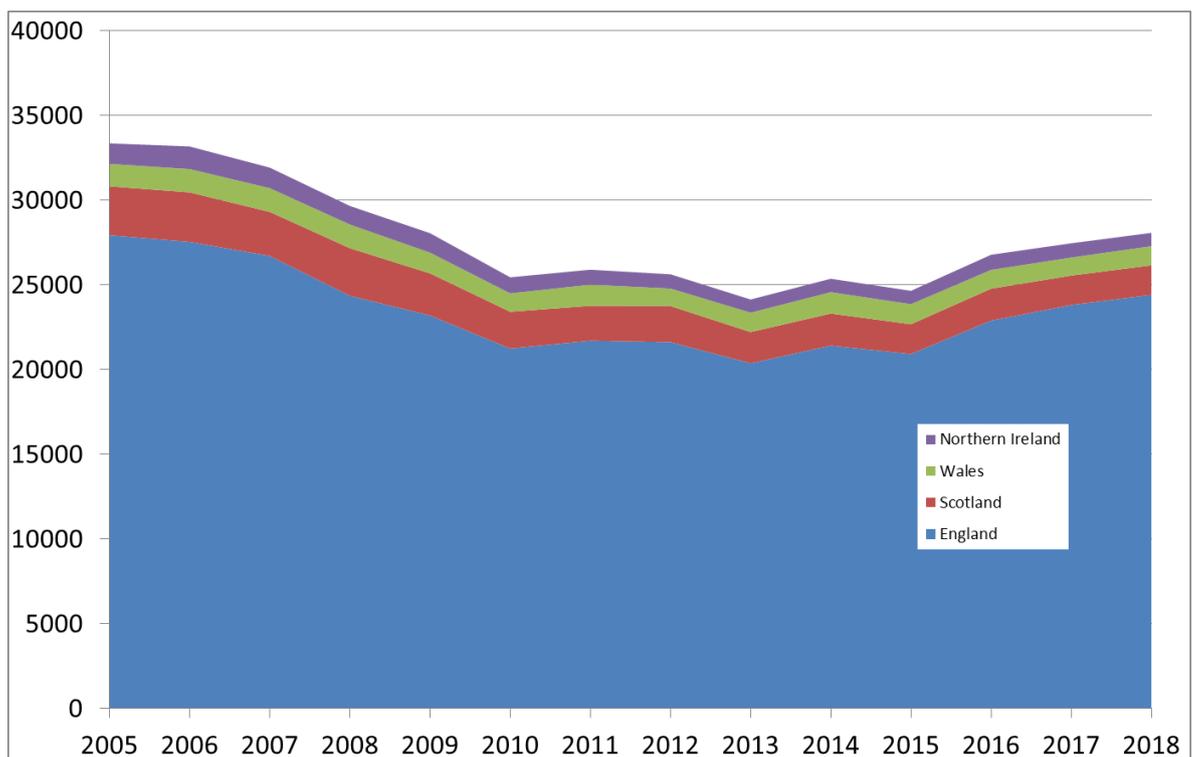
The Committee is asked to consider WSCC's performance together with the suggested future approach noting that any additional funding would be subject to further business case and approval.

1. Context/ Background

- 1.1 The West Sussex Plan, A Strong, Safe and Sustainable Place, contains a measure of success based on the number of people killed or seriously injured in road traffic accidents.
- 1.2 This has been translated into a performance aim to be a top quartile performer amongst our statistical neighbours, measured by the number of people killed and seriously injured per billion vehicle miles by March 2022.
- 1.3 Based on current traffic flow figures this requires a 48% reduction in the number of KSI (Killed and Seriously Injured) Casualties from the 2016 outturn of 483.

2. National Background

- 2.1 At a national level the number of deaths and seriously injured casualties has stagnated since 2010 across most of the UK. In 2010 a total of 25457 KSI casualties were recorded against 27,266 in 2018. In part this may have been influenced by the gradual adoption by English police forces of a new national collision recording system called CRASH that more accurately classifies casualty severity. CRASH is discussed later at paragraph 4.0. Scotland, Wales and Northern Ireland, yet to adopt CRASH or a similar system, all show a fall in KSI in 2018 relative to 2010.
- 2.2 While the adoption of CRASH is likely to be affecting the seriously injured statistic, this is not true with regard to fatalities and these might be considered a more robust indicator of national performance. As with KSI the trend in the number of fatalities has been broadly flat since 2010. In great Britain 1784 people were killed in reported road traffic collisions in 2018 compared to 1850 in 2010, a 3.5% reduction.
- 2.3 UK KSI performance from 2005 to 2018

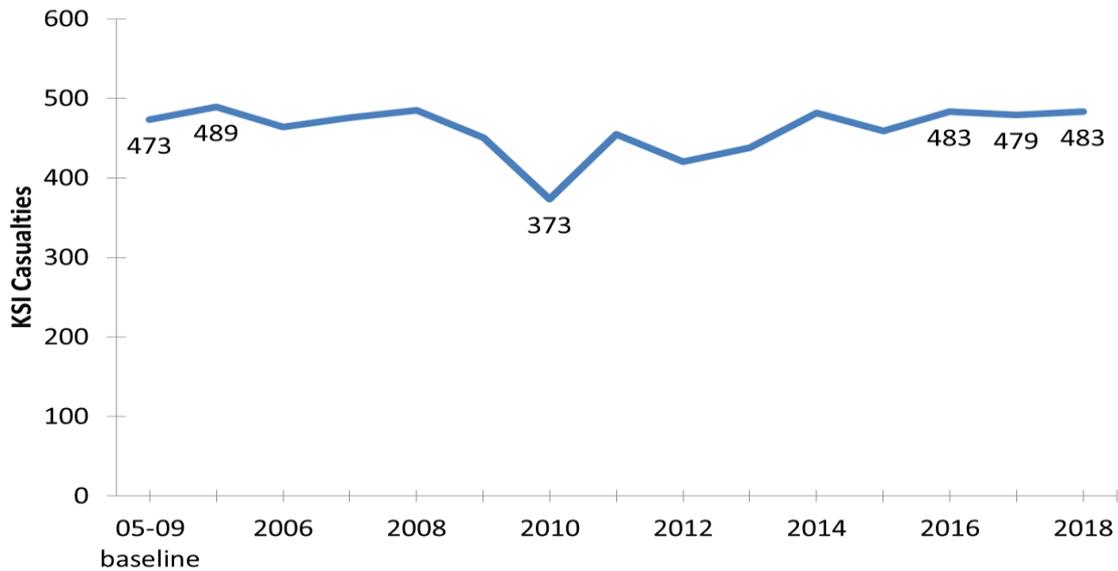


3. WSCC Progress against Targets

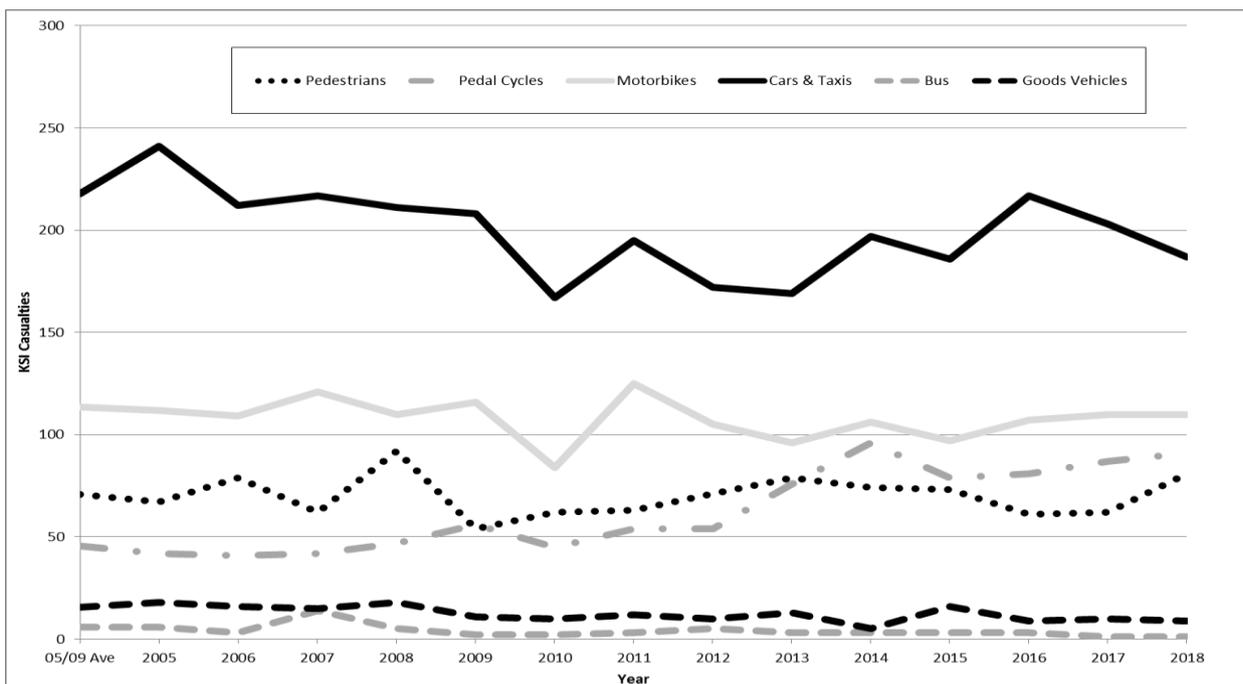
- 3.1 The numbers of KSI casualties in West Sussex have flat lined since 2011 and this reflects the national picture as set out in the recent PACTS* report – Road Safety Since 2010, published in December 2018. While this lack of change should be seen against the increase in population and longer term traffic growth, the progress against our milestones is disappointing and highlights the need for continual effort to reduce casualties on our roads. In terms of total KSI casualties the

outturn in 2018 was higher than the 2005-2009 baseline average of 473.

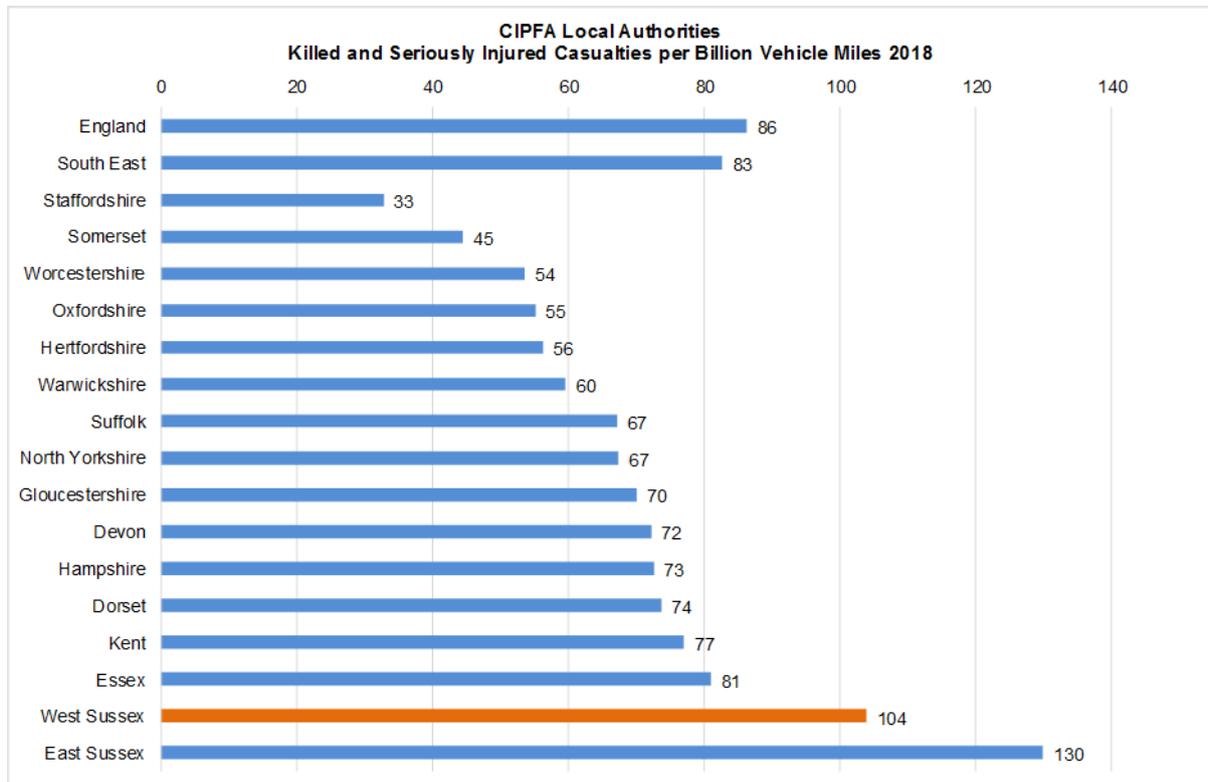
West Sussex - KSI Casualty Performance



	<u>Killed or seriously injured casualties by road user types</u>									<u>2018</u>		
										<u>Percentage change over</u>		
	<u>2005-2009</u>	<u>2010-2014</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2017</u>	<u>2005-2009</u>	<u>2010-2014</u>	
<u>Average</u>	<u>Average</u>								<u>Average</u>	<u>Average</u>		
Pedestrian	71	70	79	74	73	61	62	81	-30.6%	-14.41%	-16.05%	
Pedal Cyclists	46	65	76	96	79	81	87	91	-4.6%	-99.56%	-40.00%	
Powered two-wheeler	114	103	96	106	97	107	110	110	0.0%	3.17%	-6.59%	
Car/Taxi/Minibus	218	180	169	197	186	217	203	187	7.9%	14.14%	-3.89%	
PSV	6	3	3	3	3	3	1	1	0.0%	83.33%	68.75%	
Goods Vehicle	16	10	13	5	16	9	10	9	10.0%	42.31%	10.00%	
Other Vehicle/User	4	2	2	1	5	5	6	4	33.3%	-11.11%	-66.67%	
Total	473	434	438	482	459	483	479	483	-0.8%	-2.11%	-11.39%	



3.2 The aspiration to be a top quartile performer amongst our statistical neighbours measured by the number of people killed and seriously injured per billion vehicle miles by March 2022 was extremely challenging. In 2016 West Sussex was in the bottom quartile with only East Sussex having a poorer performance. This position has not changed.



3.3 The whole of 2018 showed a very slight increase in the number of reported road traffic collisions compared to 2017, with 1915 injury collisions being recorded in 2018 against 1901 in 2017. While the number of KSI casualties has remained broadly similar, the estimated number of vehicle miles travelled shrunk slightly in 2018 and this has resulted in an increase in the number of KSI casualties per billion miles travelled from 102 in 2017 to 104 in 2018.

Milestones towards achieving a top quartile position against the CIPFA statistical neighbours group.

Updated Oct 2019 following the DfT's release of Recorded Road Casualties Great Britain 2018.

KSI per billion vehicle miles:											
2021 KSI Casualty Target - 48% Reduction of 2016 Outturn											
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Milestones							91	81	72	63	54
Outturn	102	96	101	108	101	103	102	104			

WSCC KSI (Killed and Seriously Injured) Casualties											
2021 Target 48% Reduction of 2016 Outturn											
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Milestones							429	380	336	292	249
Outturn	455	420	438	482	459	483	479	483			

KSI per Million People:											
2021 KSI Casualty Milestone - 51% Reduction of 2016 Outturn											
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Milestones							508	450	393	336	279
Outturn	563	515	533	582	549	572	562	562			

The output to achieve a top quartile position will need to be adjusted annually to reflect the performance of the other authorities.

- 3.4 The table above demonstrates that WSCC is falling short of achieving its target.

4. CRASH collision recording system

- 4.1 Sussex Police via the Sussex Safer Roads Partnership supply West Sussex County Council with the collision (and resulting casualty) data.
- 4.2 In June 2019 Sussex Police adopted the new national computer system called CRASH to record road traffic collisions; this system is now used by over half of the police forces in the UK. The information collected by the police for each injury collision remains the same.
- 4.3 The key difference is that rather than relying on the attending officer's interpretation of severity, the CRASH system determines severity from each individual injury.
- 4.4 The more accurate classification of severity has seen a large increase in the number of serious injuries recorded by those police in forces who were early adopters of CRASH, ranging from +5 to +15% (Note, around half of police forces in England adopted this system at the end of 2015 early 2016). This is likely to exacerbate the flat lining in KSI performance since 2011
- 4.5 The Office for National Statistics have suggested national adjustment factors to allow for reasonable comparison to be made with pre and post-CRASH data. WSCC has yet to adjust its 2005-2009 baseline average, which is used to measure progress on KSI reduction.

5 Road Safety Delivery

- 5.1 Road safety interventions follow an engineering, educational and enforcement delivery model as discussed in the Road Safety Framework

2016 – 2026.

- 5.2 **Engineering improvements** are delivered by WSCC Highways, Transport and Planning local safety programme. Interventions are currently intelligence-led, based on the analysis of the road traffic collisions database.
- 5.3 **Education, Training and Publicity (ETP)** programmes are aimed at helping people to be aware of, and to understand, road safety issues and risks, and providing appropriate training to improve their ability to safely use the road environment in a variety of modes. Predominately these are pan-Sussex initiatives delivered through the Sussex Safer Roads Partnership. They also include initiatives delivered by the West Sussex Fire and Rescue Service (WSFRS) including Safety Drive Stay Alive. WSFRS whole-time operational crews also deliver 4 road safety campaigns each year based around distracted driving, speeding, occupational drivers and driving under the influence (Christmas). The themes are based around the most frequent incident types.
- 5.4 WSCC Highways, Transport and Planning deliver Bikeability cycle training to around 9000 school children annually, currently funded from a combined budget made of elements from the Direct Schools Grant, HT&P revenue, Public Health grant and Department for Transport grants. Other than this there is no WSCC revenue funding for undertaking ETP initiatives.
- 5.5 **Enforcement** is targeted by Sussex Police at sites where assessment of casualty data, community feedback and intelligence indicates a priority for intervention. Enforcement includes safety camera deployment introduced through the Sussex Safer Roads Partnership. This area of activity is aimed primarily at changing behaviour, with support in education and training.
- 5.6 The Sussex Safer Roads Partnership consists of Brighton and Hove City Council, East Sussex County Council, East Sussex Fire and Rescue Service, Sussex Police and West Sussex County Council (including West Sussex Fire and Rescue Service). The Brighton and Sussex University Hospital NHS Trust joined the partnership in 2017.

The SSRP's vision is to "create a safer environment, significantly reduce life changing injuries and eliminate fatalities". To achieve this, the SSRP has issued a Sussex-wide strategy that identifies encouragement, education, and engineering and enforcement tools to reduce road casualties. West Sussex will continue be a member of the SSRP and contribute to its objectives. More details on the SSRP governance and activities can be found at appendix A.

6. **Potential Future Investment Approach**

- 6.1 Current funding levels and casualty trends suggest that the numbers of KSIs could be held at a base level against traffic and population growth, but not improved upon. Our approach therefore is to consider increasing our level of intervention via adopting the Safe Systems methodology.
- 6.2 Data from some pioneering countries shows that about 30% of serious crashes are caused by deliberate violations and risk-taking behaviour, while the majority result from simple errors of perception or judgement by

otherwise compliant persons. An approach to road safety assuming that humans can be faultless road users throughout their lives is flawed (ITF (2016), Zero Road Deaths and Serious Injuries: Leading a Paradigm Shift to a Safe System, OECD Publishing, Paris)

- 6.3 Safe Systems seeks to design the transport system to protect users from death or serious injury in the event of an accident. This is a fundamental change in philosophy that recognises humans are, by their very nature, frail and error prone, and that we should ensure that vehicles and roads are designed such that when crashes occur the forces that result can be tolerated.
- 6.4 The Safe System approach consists of four key principles
 1. No matter how well we are trained and educated about responsible road use people make mistakes that can lead to road crashes. The road transport system needs to accommodate this.
 2. People are fragile. The human body has a limited physical ability to tolerate crash forces before harm occurs
 3. All people involved in designing, building, managing and using the road traffic system have a shared responsibility to ensure that road crashes are prevented as much as possible or, when they occur, do not lead to fatal or serious injuries
 4. All parts of the system need to be integrated and strengthened to multiply their effects and if one part fails other parts will ensure road users are still protected.
- 6.5 Central to our approach is to reduce the likelihood of injury via physical separation, reduced crash energy and improved highway quality.
- 6.6 Understanding road quality in the context of casualty reduction is a vital first step to drive interventions. The traditional approach of considering historic crash data needs to be augmented by a route-based qualitative assessment. Such a methodology has been successfully developed for use in the International Road Assessment Programme (iRAP). This led to government investment of £2.458m via the Safer Roads Fund and our recent intervention on the A285.
- 6.7 The iRAP approach involves star-rating the road network. Star Ratings are based on road attribute data and provide a simple and objective measure of the level of safety 'built-in' to the roads for each of vehicle occupants, motorcyclists, pedestrians and bicyclists. A low quality road is a one star road, while most modern motorways could be considered to be examples of 5 star roads. Beginning with the Major Roads Network and moving on to other A and B class roads, we would use this data to drive specific pro-active investment into road quality.
- 6.8 Specific proposed programmes for road safety interventions are as follows:

- Managing and enforcing traffic speed on higher risk roads – based on star rating data - where higher speeds cannot be made safer due to road conditions to consider speed enforcement such as average speed cameras.
- Route safety interventions linked to star rating to install low cost measures to improve lower quality roads.
- Crash cluster site interventions – maintaining the traditional cluster site analysis this approach would seek to intervene at those sites where accidents currently cluster.
- Urban safety management – apply junction treatments where vulnerable users are typically injured.
- Continue with existing delivery of improved cycling and walking routes to separate vulnerable road users from other traffic.
- Work with SSRP to further develop ETP interventions and driver training courses

7. Resource Implications and Value for Money

- 7.1 All capital and revenue expenditure is subject to a business case and appropriate governance. The potential solutions suggested above will therefore only be made if and when funds become available and a successful case may be made. This will be on a scheme by scheme basis.
- 7.2 The table below describes the basic financial rationale for the interventions suggested. Presently capital funding stands at £3.7m per year from the Integrated Transport Block provided by the Department for Transport. This block funds all highway improvements e.g. community highway schemes, cycling and walking schemes, crossing schemes, safety schemes etc.

Action	Potential Cost	Benefit / Cost Ratio (BCR) or First Year Rate of Return (FYRR)
Star rating the MRN and A road network	£85K	Leading to development of Safer Roads Investment Plans with a BCR >3.5
Speed Management	£100k - £200k/km	Routes identified to obtain a min. FYRR of 100% at each site and to achieve an average collision reduction of at least 25% on treated route sections and a 50% reduction in severity.
Route Safety Interventions	£20k /km (average £200k per scheme)	Routes identified to obtain a min. FYRR of 100% at each site and to achieve an average

		collision reduction of at least 25% on treated route sections
Cluster Site (black spot treatments)	£600k / year (as existing from Integrated Transport Block capital fund)	Sites identified as having a treatable pattern in injury collisions – 5 in 3 years and a predicted first year rate of return (FYRR) above 150% or a casualty saving above 0.2 p.a. with average collision reduction of at least 25% at each site
Urban Safety Management	£30k - £60k / junction	Mass action to achieve an average collision reduction of at least 30% within treated area with a FYRR of 100%
Cycling and walking schemes	£500k / km for separated route	BCR in excess of 3
Work with SSRP to deliver ETP programme	N/A funded via speed diversion courses.	Programme dependant

7.3 Overall cost to WSCC and national economy

The annual value of prevention of injury collisions across West Sussex in 2018 is estimated to be in excess of £187m (estimated from DfT national statistics in respect of value of prevention of injury collisions). This sum encompasses all aspects of the valuation of casualties, including the human costs which reflect pain, grief and suffering; the direct economic costs of lost output and the medical costs associated with road accident injuries.

8. Risk Management Implications

- 8.1 The proposal does not impose additional risk on the Council. It is expected that renewed and revised road safety activity such as that proposed should help to reduce risk and in particular financial and reputational risk to the Council.

9. Impact of the proposal

- 9.1 Equality Act. An equality impact report was undertaken during the development of the Road Safety Framework in 2016. The Road Safety Framework outlines the principles upon which the County Council will base its road safety activity. The intent, to reduce the number of people killed or seriously injured on the road network within West Sussex, relates to all those who use the roads in the county. No feedback was received during the public consultation to indicate concerns regarding a negative impact on individuals or groups.

10. **Crime and Disorder Act Implications** – it is expected that the road safety activities will reduce the Council's risk under the Crime and Disorder Act.

Lee Harris
Executive Director
of Place Services

Matt Davey
Director of Highways Transport
and Planning

Contact: Matt Davey 033022 25622

Appendices

Appendix A – SSRP Operations Manager's Report
Appendix B – Road Casualty Data Overview

Background Papers

Road Safety Framework 2016-2026