

Rural Road Safety

Report of the Head of Planning, Transportation and Environment

1. Summary

The report provides a briefing to members on rural road safety in Devon.

2. Overview of Rural Road Safety in Devon County Council

Devon County Council (DCC) has a large road network of nearly 8000 miles, 7000 miles of which is rural. Over 6000 miles of the rural network are comprised of the more minor C-Class (C) and Unclassified (UC) roads. Within DCC more road deaths, serious injuries and slight injuries occur on our rural roads than on our urban routes.

Table 1 All injury collisions 2016-2020 in Devon

Roads	Miles	Fatal	Serious	Slight	Total All Injuries	KSI** per mile	All injuries per mile
Rural A-Roads	548	61	510	1763	2334	1.0	4.3
Rural B-Roads	379	10	184	600	794	0.5	2.1
Rural C & UC	6226	22	321	1139	1482	0.1	0.2
Totals Rural	7153	93	1015	3502	4610	0.2	0.6
Urban A-Roads	46	9	207	864	1080	4.7	23.5
Urban B-Roads	28	5	84	345	434	3.2	15.5
Urban C & UC	730	7	206	967	1180	0.3	1.6
Totals Urban	804	21	497	2176	2694	0.6	3.4
Totals All Roads	7957	114	1512	5678	7304		

** KSI= Killed & Seriously Injured combining Fatal and Serious injuries

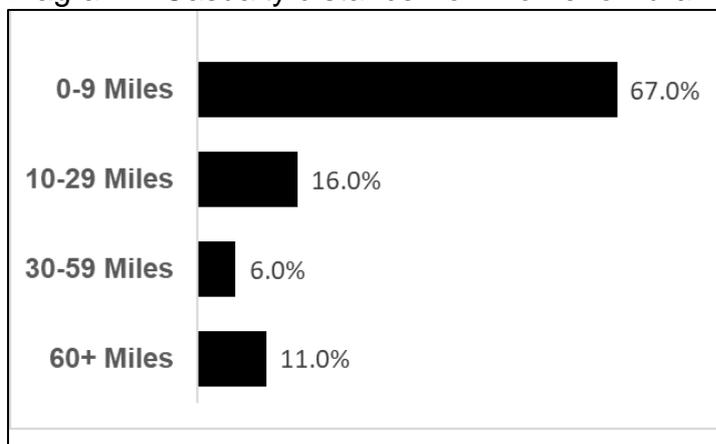
Table 1 provides a summary of recorded road injuries in Devon between 2016 and 2020. The table identifies that over the five-year period, 4610 or 63% of injuries occurred on our rural roads compared to 2694 or 37% on our urban routes. Furthermore, 1,108 fatal & serious (approx. 70%) accidents occurred on rural roads compared to 528 (approx. 30%) on the urban areas.

The highest proportion of rural road injuries occurred on our A-Road network. The County's A-Roads only comprise a small proportion of our total rural road network length, but it should be noted that our A-Road routes carry significantly higher volumes of vehicular traffic. Table 1 includes two columns to the right, that give an injury rate per mile for each class of road. In comparison to the more minor C (Classified) and UC (Un-Classified) rural roads, our rural A and B-Roads have experienced a much higher injury rate per mile. More significantly, the rate per mile for the most severe killed and serious categories of injury (KSI) is also significantly higher. The urban roads generally carry higher traffic flows with a larger number of vulnerable road users such as pedestrian and cyclists.

Examples of more detailed casualty statistic summaries are included in the Appendices to this report. The information in the Appendices has been taken from interactive casualty dashboards that are available to view and interrogate on both the public DCC road safety webpages and on local member dashboard webpages for their individual electoral areas. For the purposes of this report the information shown has been filtered to show only rural area injury statistics. In consideration of the detailed level of casualty information that is available, there are some important points below that have been highlighted for consideration.

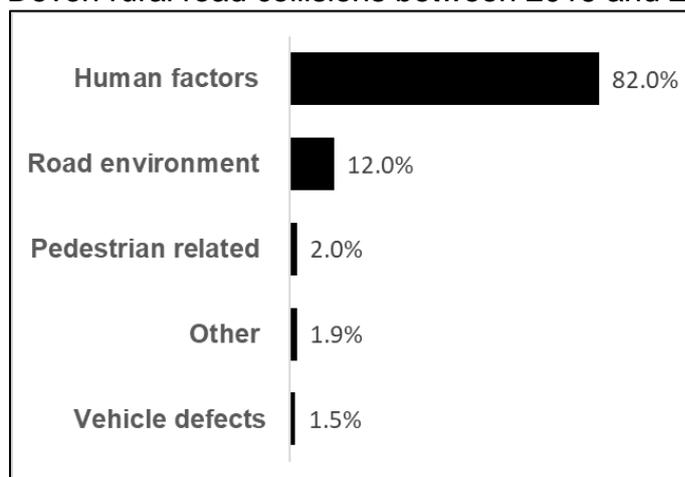
A high proportion of our recorded rural road injuries has involved local residents involved in collisions close to home and on routes that they are likely to be familiar with. Diagram 1 below illustrates that 67% of the recorded rural road injuries between 2016 and 2020 occurred less than 9 miles from home.

Diagram 1 Casualty distance from home for rural road injuries in Devon 2016-2020.



When the details of a road injury collision are recorded by the Police, up to six contributory factors can be selected from a current list of 78. These 78 factors can be grouped into five common categories called: human factors, the road environment, vehicle defects, pedestrian-related and all others. Diagram 2 below identifies that over the same study period 2016 to 2020 a high proportion of the collisions (82%) identified human factors as a contributory factor.

Diagram 2 Proportion by contributory factor category that has been recorded in Devon rural road collisions between 2016 and 2020.



Human factors or human errors are by far the most common group of contributory factors that feature each year in our rural road injury collisions. To help illustrate this point, Diagram 3 below identifies the Top 10 contributory factors that were recorded for rural injury collisions that occurred during the last full year of data 2020.

Diagram 3 Top 10 contributory factors recorded in 2020

Contributory Factor	Category
1). Failed to look properly	Human Factors
2). Loss of control	Human Factors
3). Failed to judge other persons path or speed	Human Factors
4). Slippery road (due to weather)	Road environment
5). Travelling too fast for conditions	Human Factors
6). Poor turn or manoeuvre	Human Factors
7). Careless\Reckless\In a hurry	Human Factors
8). Following too close	Human Factors
9). Sudden braking	Human Factors
10). Distraction in vehicle	Human Factors

Table 4 below identifies that cars are the mode of travel which are most commonly involved in our rural road injury collisions.

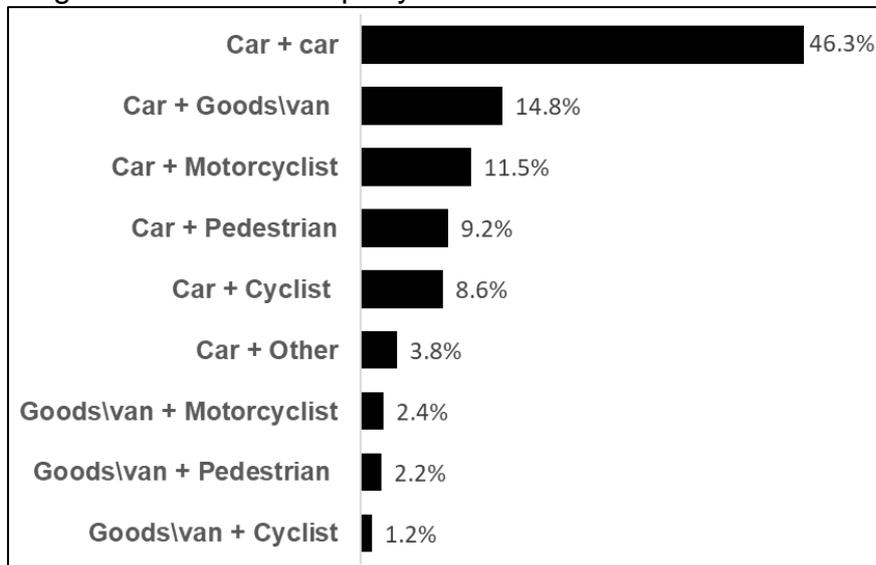
Table 4 Proportion of collisions by road user type for rural road injuries 2016 to 2020

Mode	Casualties
Cars	72%
Motorcyclists	10%
Goods\Vans	5%
Pedestrians	5%
Cyclists	5%
Other	3%

Cars make up by far the greatest proportion of all motor vehicle traffic using our roads but the most common type of rural road injury collision involves two parties, either two motor vehicles or a motor vehicle with another road user. As illustrated

below in Diagram 5 it is cars that are involved in more rural collisions with other motor vehicles and, to a lesser extent, rural collisions with other vulnerable parties like pedestrians and cyclists.

Diagram 5 Two vehicle\party collisions on rural roads between 2016 and 2020



This is illustrated in more detail in Appendix 1, which also identifies that single vehicle collisions are the second most common type of rural road collision. Cars are again involved in more single vehicle rural collisions than any other type of vehicle.

Within the wide age range of car drivers using our roads two age groups in particular have been identified as being at the greatest risk of being involved in a collision. These are the younger drivers aged 16 to 24, and older drivers aged 65+.

For further information Appendix 2 identifies rural road casualties by all road user types for the latest year 2020. It also identifies how these collision numbers for 2020 have compared to the previous 5 year and 10 year periods. The first page in Appendix 2 displays all injuries by road user type in our rural areas. The second page has been filtered to display only the killed and seriously injured by road user type.

From Appendix 2 Motorcycles can be identified as having a significant number of injury collisions in 2020. Nationally, motorcycles make up only 1% of all the traffic on our roads. However, as a vulnerable road user group they have a higher crash and injury rate than other vehicle types. Nationally, motorcycles account for approximately 20% of road deaths each year and motorcyclists continue to feature highly in our local rural road injuries statistics particularly for the most severe killed and seriously injured category of collisions. Motorcycles are the second most common road user type to be involved in a rural single vehicle collision. Across the county there are routes where there is a desire for motorcycle users to exceed the safe use of their motorcycle.

From Appendix 2 it is also worth highlighting the light goods vehicles or vans. This shows that all category rural injury collisions involving vans has increased in 2020 when compared to the previous 5 and 10 year periods. Collisions involving cars still

dominate the statistics however our rural injury collisions involving vans have increased by 29% in five years and by 23% over 10 years. A study by Parliamentary Advisory Council for Transport Safety (PACTS) has identified that per mile travelled, vans and light goods vehicles are involved in more deaths of other road users than any other vehicle type.

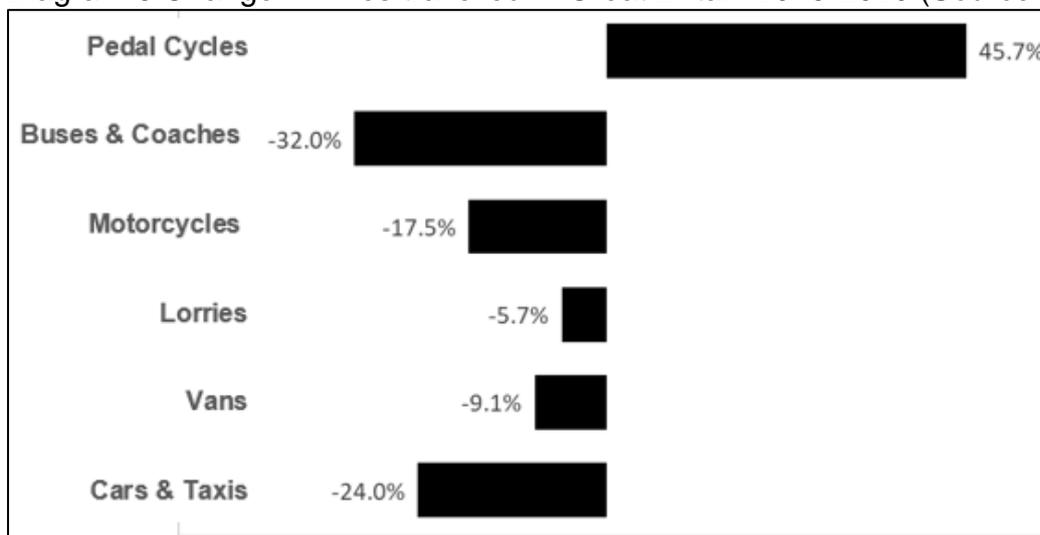
It is also worth highlighting the cyclists in Appendix 2, who are another vulnerable road user group. When looking at killed and seriously injured collisions for 2020, cyclist injuries increased by 5% (from a low base) over the previous five-year period and by 29% over 10 years. Appendix 3 provides an example of a more detailed factsheet that has been filtered to show only cyclist killed and seriously injured casualty statistics for the rural areas. From Appendix 3 it is evident that conflict between cars and cyclists is the dominant cause of these rural collisions.

3. COVID Pandemic

When considering the latest published year of casualty data for 2020, it is important to note the impacts from COVID. In 2020 the COVID pandemic had a significant impact on both traffic volumes and on road casualties in the UK.

Diagram 6 from Department for Transport (DfT) statistics is not specific to our rural areas but does illustrate the decrease in motor vehicle traffic that was experienced during the first national lockdown and the national increase in cycling activity during this same period. It is apparent that there has been a noticeable increase in leisure cycling on our roads.

Diagram 6 Change in miles travelled in Great Britain 2019-2020 (Source DfT)



Appendix 4 shows a summary graph of monthly traffic volumes from ten automatic traffic counter sites located across the Devon A-Road network. This graph illustrates the reductions in traffic flows that occurred across our mainly rural A-Road network during both 2020 & 2021. In particular, it shows the significant reduction in traffic during the first UK wide lockdown around April-July 2020.

Appendix 5 shows a graph of all road casualties recorded by month in Devon during 2020. And it also shows for comparison an average by month for the previous five

year period pre-COVID. From this graph you can see the overall reduction in injury collisions across the year but also the impact that the lockdown periods and a reduction in road traffic has had on the number of road injuries. Any decrease in traffic can lead to a smaller number of interactions between road users and the reduction in traffic flows in 2020 has had a positive impact on reducing road casualties.

At the time of writing this report, any official casualty data for 2021 has not yet been approved for publishing by the DfT; however, the graph in Appendix 4 shows that following the third lockdown period in 2021 the DCC A-Road traffic flows quickly returned to near pre-pandemic levels. From July to November 2021 the average A-Road traffic volumes in DCC were within 1-2% of the pre pandemic 2019 levels.

In July and August of 2021 there were a number of high-profile road fatalities on the DCC road network. In the rural areas these were predominantly local drivers\riders on A-Roads close to home. Some of these fatal collisions are still subject to ongoing police investigation and determination by the coroner's court. To the end of 2021 the provisional unvalidated collision data that we hold indicates a reduction in total road injuries and a reduction in killed and serious road injuries for the year.

Our rural communities have still experienced a long period of reduced road traffic and a likely increase in vulnerable road user activity as more people made use of our rural road network for walking, cycling and other leisure activities. With the return of traffic levels in 2021 and with increased community concerns about issues like speeds, vans and other business drivers, there could be increased conflicts and collisions that is not yet being fully reflected in the current provisional road injury statistics for 2021.

4. Statutory Duty

As a local highway authority DCC has a statutory duty under the Road Traffic Act 1988, to: -

- carry out studies into accidents arising out of the use of vehicles and
- must, in the light of those studies, take such measures as appear to the authority to be appropriate to prevent such accidents.

In performing this duty DCC maintains detailed records for all recorded road collisions across the authority and undertakes a comprehensive annual review process. This annual review process includes: -

- A Collision Cluster analysis to identify spot locations with a criteria for 5 or more injuries of any severity occurring within a 30m radius over a five year period. This analysis identifies potential locations where further detailed investigations may identify an emerging accident pattern and potential remedial measures to improve the road environment.
- A Wet\Damp Collision Cluster analysis identifies locations where 5 or more injuries have occurred within 200m over the last five years, of which 33% or more of the collisions occurred on a wet\damp road surface. This analysis

helps to identify potential road surface issues for further investigation by the Asset Management team.

- A route analysis is undertaken for the whole of the Devon A and B Road network, which since 2020 has included the A and B Road networks across Devon & Cornwall. Each A and B Road route is divided into logical route sections and a common methodology is used to calculate a performance rating for each section from red (worst performing) to green (best performing). Appendix 6 shows an extract from the current A and B Road Route performance dashboard covering Devon & Cornwall. The route sections listed to the left of this dashboard have been filtered to identify only the worst performing rural route sections within Devon in 2020 (this includes the trunk roads which are managed by National Highways).

The route methodology that is used to rank the performance of our A and B Road routes looks at the number of collisions using a severity index. The severity index is based on DfT published costs for a road injury. The current costs to the UK economy are estimated to be: -

- £2,053,814 for every fatality
- £237,527 for every serious injury
- £24,911 for every slight injury.

The sites and routes that are identified each year through this review process, are investigated to identify improvement schemes (casualty severity reduction schemes) for inclusion in the Transport Capital Programme. This also helps to inform the education, enforcement and other multi-agency activities for funding support through the Vision Zero South West road safety delivery plan. Devon has a large and mainly historic rural network with many roads that would not meet current design standards. Over recent decades there has been a lot of engineering investment made into reducing accidents at cluster sites like hazardous junctions, bends and pinch points. The number of cluster sites identified each year in the rural areas has been reducing and there is now a greater emphasis on working collaboratively at a wider geography with strategic highway partners and blue light services to tackle common contributory factors like inappropriate speed and road user behaviour along routes and across our network.

5. Vision Zero South West road safety partnership

Vision Zero South West (VZSW) is a regional road safety partnership for Devon and Cornwall. It incorporates the combined local authority areas of Devon County Council, Cornwall Council, Plymouth City Council, Torbay Council, and regional trunk road routes managed by National Highways. The partnership includes a wide range of partners from the emergency services and other agencies, including crucially Devon & Cornwall Police. The current objective of VZSW is to reduce killed and serious injuries by 50% by 2030 and, ultimately, aims to cut killed and serious injuries to zero by 2040.

The VZSW Road Safety strategy recognises that even the most conscientious person can make a mistake and tries to ensure that these mistakes do not lead to a collision. If a collision does occur, then that collision can be controlled to prevent it resulting in a death or a life-changing injury. The strategy employs a framework of interventions through five pillars of action: -

VZSW Five Pillars	DCC Rural Action Plan
Safer Roads	There are fewer accident clusters sites which are worthy of an engineering scheme but engineering investment is still being made on our rural routes. Examples of current schemes: Lynton Cross (A3123) and Kitterford & Modbury Cross (A3121).
Safer Speeds	VZSW provides a new opportunity for roads policing. There will be more speed enforcement by mobile and fixed site cameras. There will also be increased community speed watch and more speed detection officers to support community speeding problems.
Safer Vehicles	Nationally there is continued advancement in improved vehicle safety. A significant new raft of vehicle safety measures will become mandatory for new vehicles in 2022.
Safer Road Users	Improving road user behaviour for high-risk groups by combining publicity with support, training and enforcement.
Post Collision Response	Better coordination and improving processes with the emergency services, the NHS and other organisations will help to reduce the life-changing severity of road accidents.

VZSW was fully formalised in August 2021 with the integration of all Devon & Cornwall camera enforcement operations into the new partnership. Already there has been significant investment made into building up the roads enforcement capability. Alongside this, work has been coordinated across all local highway authorities to target education, training, and public awareness activities to improve road user behaviour. Based on a strategic needs assessment of road safety across the region there are eight priority delivery areas for VZSW: -

Target Group	DCC Action
Older drivers	Publicity, support, training and enforcement. Examples include providing free assessments, education and training for older drivers through educational programmes like Driving Safer For Longer and training referrals through police activity on high harm routes.
Motorcyclists	Publicity, support, training and enforcement. Examples include free Biker Down training and evaluation courses, subsidised advanced rider skills training (through IAM RoadSmart) and voluntary formal training referrals through roads enforcement activities.

Pedal Cyclists	Publicity, support and training. Examples include free Bikeability training for children and adults, targeted signing to improve driver awareness at conflict hotspots and cycle cameras to help identify dangerous driving behaviour for police interventions.
Pedestrians	Publicity, support and training. Examples include direct education and training courses offered to primary school children, online and interactive training courses offered for older school children and targeted publicity and public awareness campaigns.
Business Drivers	Publicity, support, training and enforcement. Examples include the Driving for Better Business programme for supporting large employers by offering training and support to their drivers. Also, enforcement and educational referrals from police activity on high harm routes, including targeted enforcement activities in partnership with the Driving and Vehicle Standards Agency.
Young Drivers	Publicity, support, training and enforcement. Examples include the Learn2Live educational programme for targeting new and pre-driver age groups and post-test driver training courses. Also, advanced driver skills training for the under 25's and targeted enforcement activities with the offer of formal education referrals.
High Risk Routes	Police enforcement activities to target dangerous driver behaviours. The fatal five for the Police are: i) inappropriate or excessive speed; ii) not wearing a seat belt; iii) driver distractions including using mobile phones; iv) driving under the influence of alcohol or drugs and v) careless and inconsiderate driving.
Post Collision Response	Academic research and work to coordinate and improve the resources and processes within the emergency services and NHS to reduce the life-changing severity of our road accidents.

Appendix 7 includes two graphs that shows how DCC and the VZSW partnership is currently performing against its strategic target to reduce killed and seriously injured casualties by 50% by 2030. To meet this ambitious target, partnership activities and resources will need to be focused on the areas that will have the greatest impact on reducing KSI casualty numbers.

To achieve continued reductions in KSI casualty numbers, improvements to rural road safety will continue to be a high priority for both DCC and Cornwall Council. For the rural communities in Devon, our focus will need to be on the worst performing A and B Road corridors and on the high risk road user groups across the region.

Dave Black
Head of Planning, Transportation and Environment

Electoral Divisions: All

Cabinet Member for Highway Management: Councillor Stuart Hughes

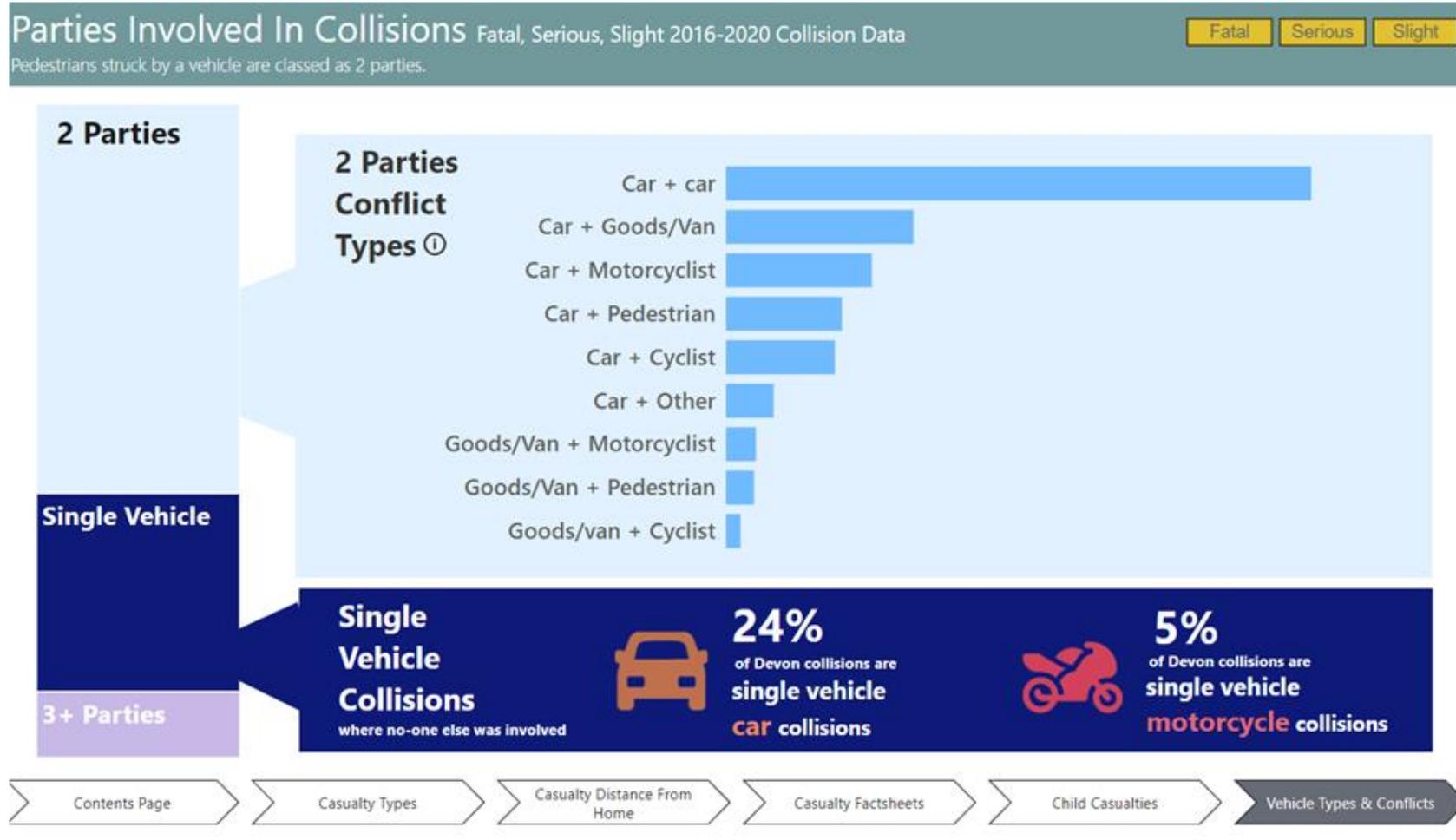
Local Government Act 1972: List of Background Papers

Contact for Enquiries: James Anstee
Tel No: 01392 382727

Room: County Hall, Exeter. EX2 4QD

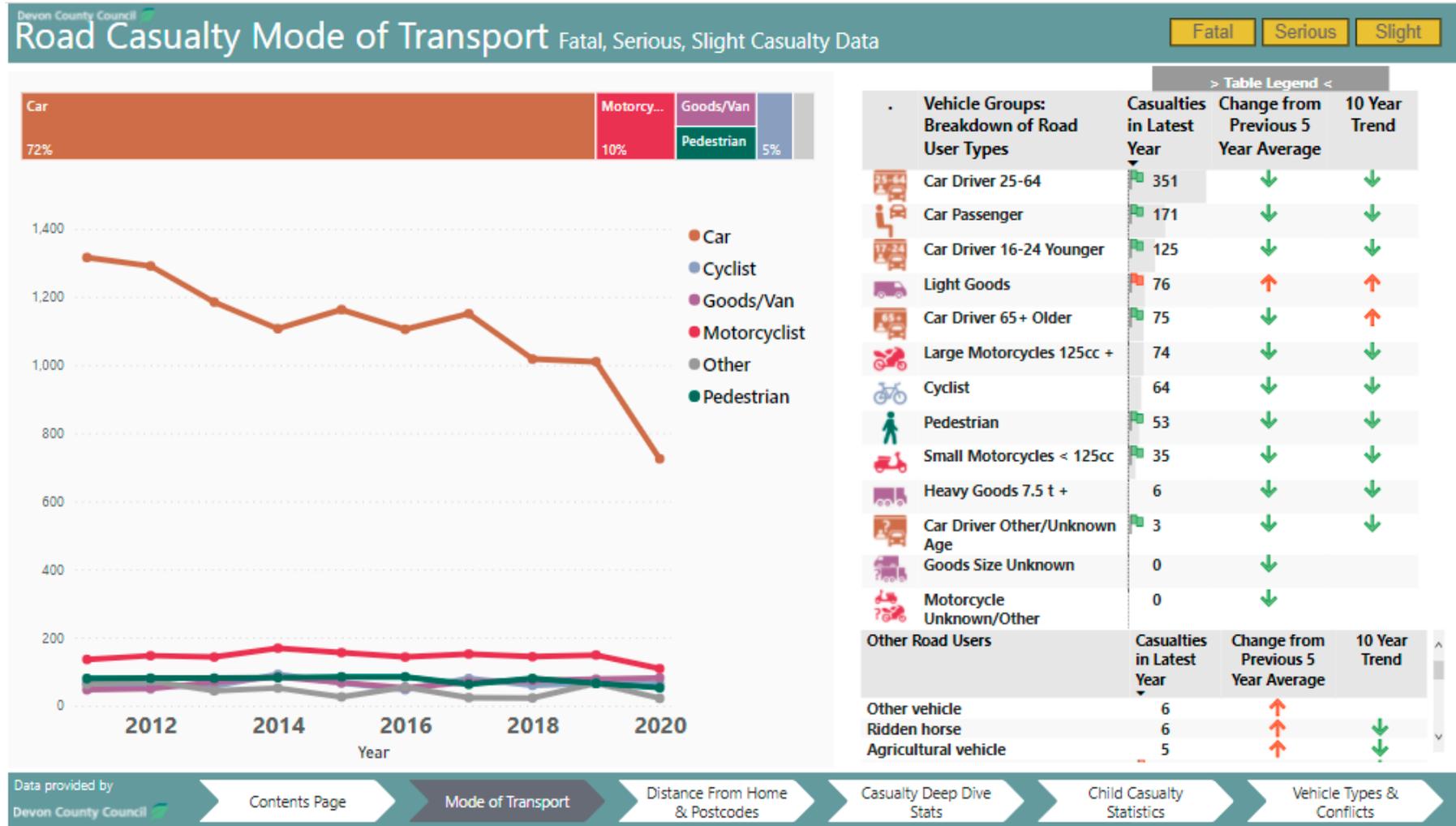
Background Paper	Date	File Reference
Nil		
Rural Road Safety – Final		

Appendix 1 to PTE/22/7 - Parties involved in collisions 2016-2020. Filtered to show all injuries severities for the rural areas only



Appendix 2 to PTE/22/7

Page 1 All severity rural road casualties broken down by road user type in 2020



Road Casualty Types Fatal, Serious, Slight Casualty Data

Fatal Serious Slight

Car
Motorcyclist
Pedestrian
Other

Cyclist
Goods/Van

Year	Car	Motorcyclist	Pedestrian	Cyclist	Goods/Van	Other
2012	85	40	15	10	5	5
2013	120	50	12	10	5	5
2014	115	55	18	15	10	5
2015	130	75	12	15	5	5
2016	155	50	25	15	10	5
2017	150	85	15	20	5	5
2018	125	65	25	18	10	5
2019	110	75	18	18	10	5
2020	105	55	18	18	10	5

> Table Legend <

Vehicle Groups: Breakdown of Road User Types	Casualties in Latest Year	Change from Previous 5 Year Average	10 Year Trend
Car Driver 25-64	84	↓	↑
Large Motorcycles 125cc +	44	↓	↑
Car Passenger	43	↓	↓
Cyclist	22	↑	↑
Car Driver 16-24 Younger	21	↓	↑
Pedestrian	19	↓	↑
Car Driver 65+ Older	18	↓	↑
Light Goods	15	↑	↑
Small Motorcycles < 125cc	12	↓	↑
Heavy Goods 7.5 t +	2	↓	↑
Car Driver Other/Unknown Age	1	↓	↑
Goods Size Unknown	0		
Motorcycle Unknown/Other	0	↓	
Other Road Users			
Agricultural vehicle	3	↑	↓
Other Motor Vehicle	2		↓
Other vehicle	2	↓	

[Contents Page](#)

[Casualty Types](#)

[Casualty Distance From Home](#)

[Casualty Factsheets](#)

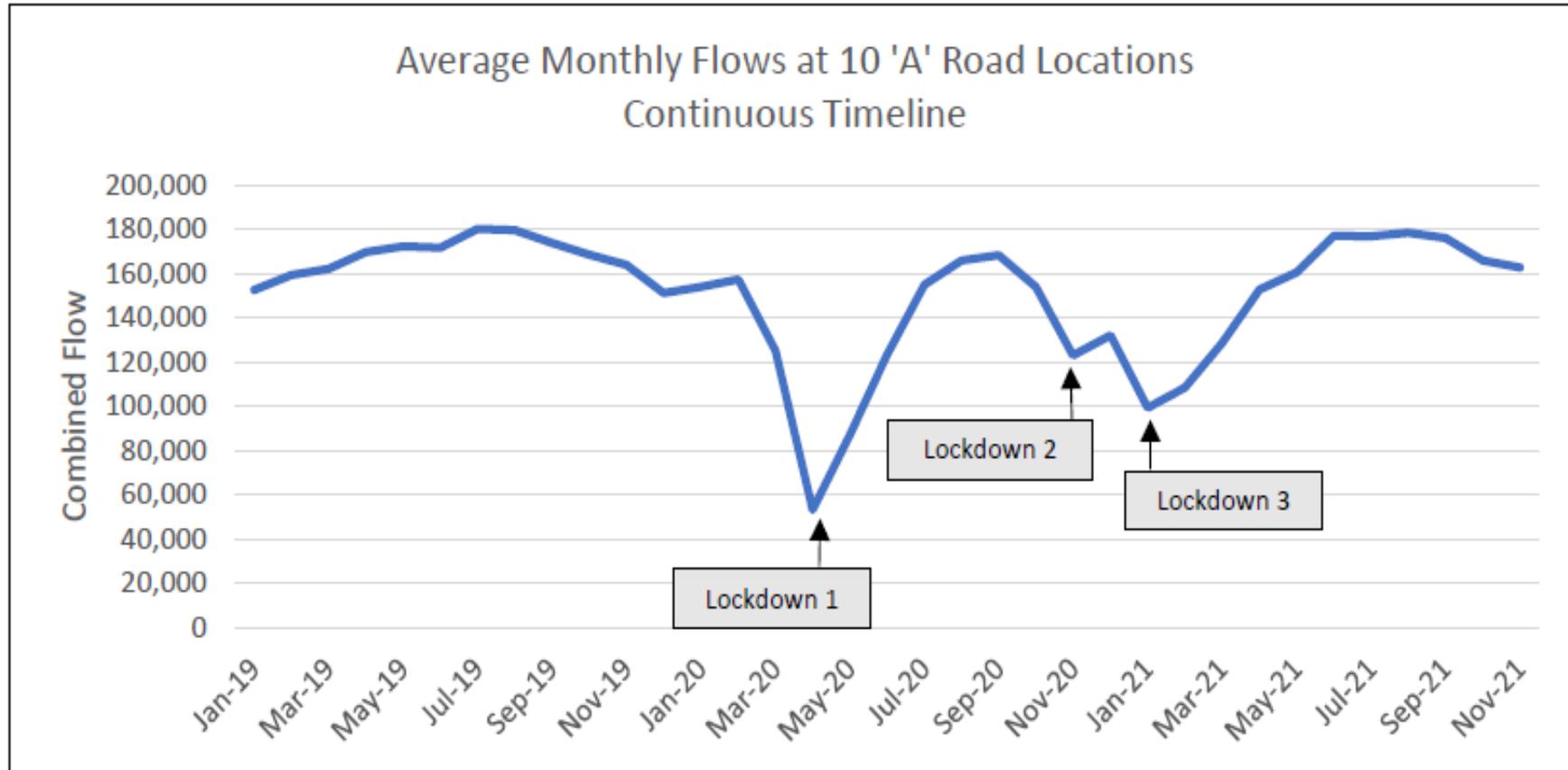
[Child Casualties](#)

[Vehicle Types & Conflicts](#)

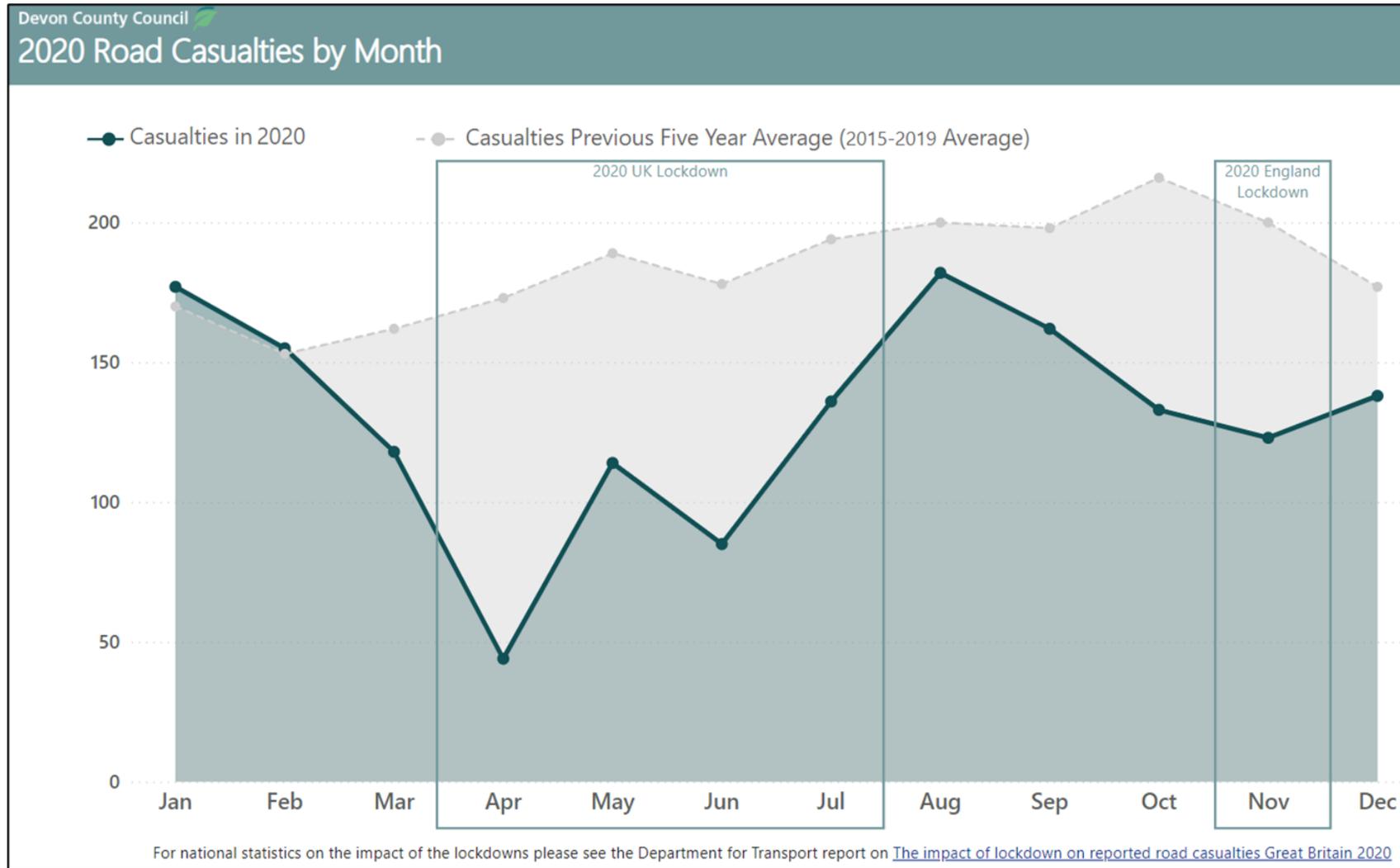
Appendix 3 to PTE/22/7 - Factsheet for cyclist casualties 2016-2020. Filtered to show only fatal and serious injuries in the rural areas only



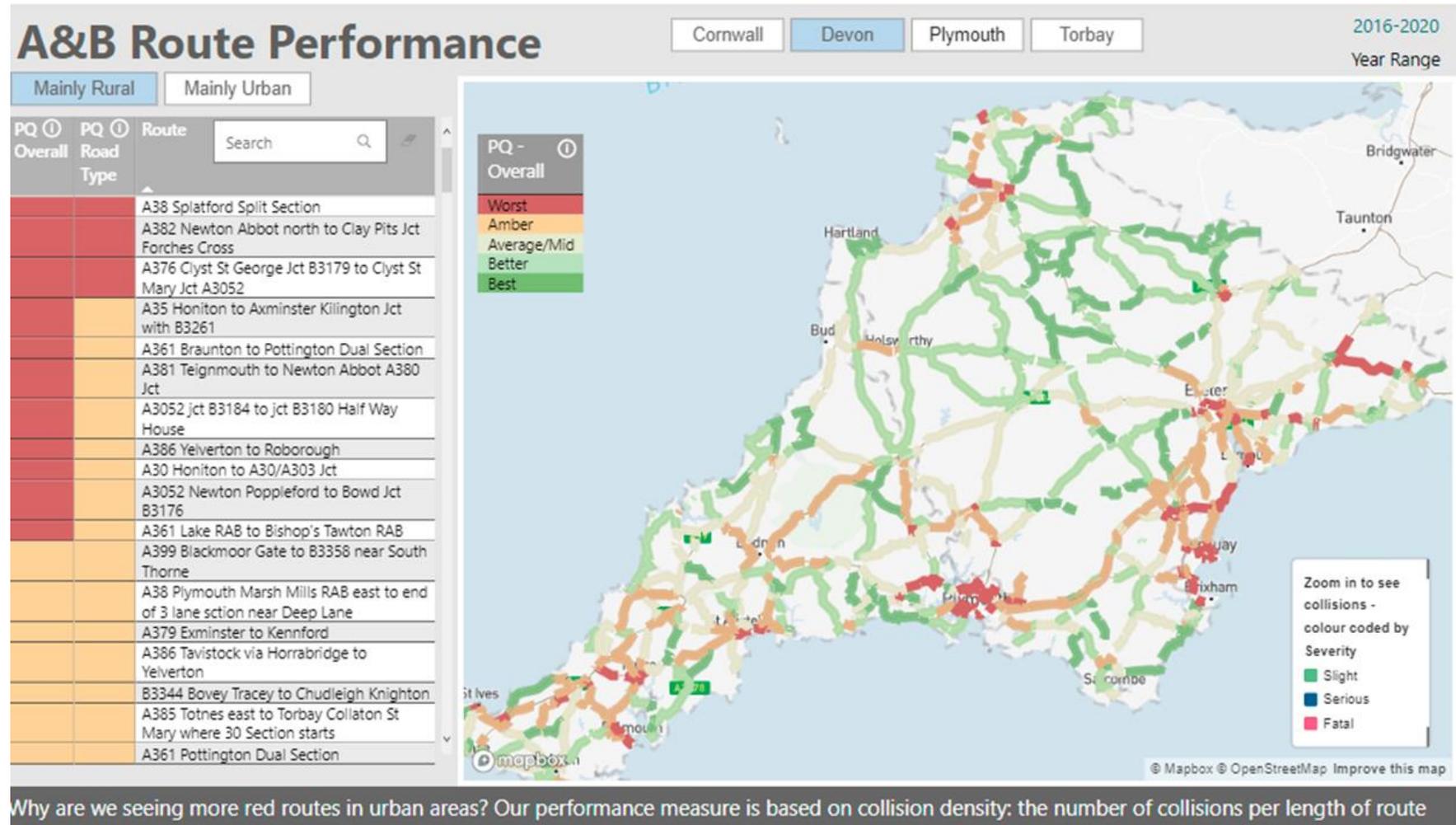
Appendix 4 to PTE/22/7 - Devon A-Roads Monthly Traffic Flows 2019 -2021



Appendix 5 to PTE/22/7 - Casualties by month for Devon in 2020



Appendix 6 to PTE/22/7 - A & B Road Route performance analysis 2016-2020

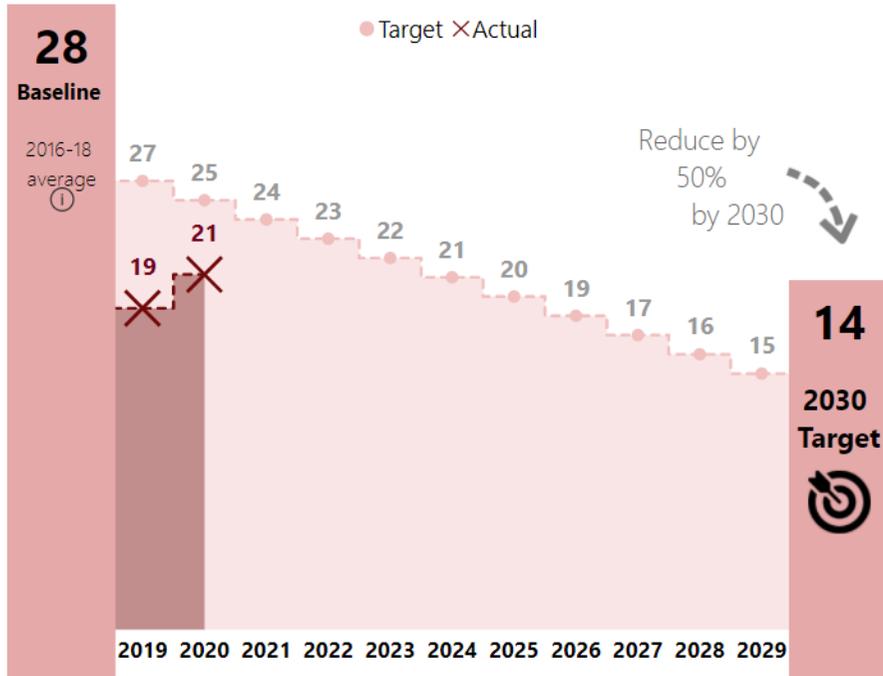


Appendix 7 to PTE/22/7 - Vision Zero South West (VZSW) Devon Targets

Devon Targets: Reduce by 50% by 2030

We have set a target locally to aim to reduce the number of killed and seriously injured on our roads by 50% by 2030, here we are showing what the year on year targets are to keep on track to reach the 2030 goal

Fatalities Target



Seriously Injured Target

