

## CABINET MEETING – 15 JUNE 2021

### EXECUTIVE SUMMARY SHEET – PART I

**Title of Report:**

Proposed new assessment and ranking system for minor road safety schemes.

**Author(s):**

Executive Director of City Development

**Purpose of Report:**

To provide details of a proposed new assessment and ranking system for minor road safety schemes and seek Cabinet approval for its implementation.

**Description of Decision:**

Cabinet is recommended to approve the implementation of a new assessment and ranking system for minor road safety schemes as detailed in this report.

**Is the decision consistent with the Budget/Policy Framework?** \*Yes

**If not, Council approval is required to change the Budget/Policy Framework**

**Suggested reason(s) for Decision:**

The current system of minor road safety scheme assessment does not address the changing circumstances in accidents and collisions throughout the city and the reduction in their occurrence over the last 10 years.

In addition, the current assessment system which utilises strict evidence-based criteria, results in a “black or white” decision with no “grey” areas, and requests for service often being denied. This does not adequately meet the demands of elected Members and the communities they represent, nor the perceived road safety concerns they express.

The proposed new scheme assessment and ranking system is intended to better meet the road safety concerns/perceptions of communities and builds on the work that elected Members have carried out in support of these communities.

**Alternative options to be considered and recommended to be rejected:**

Do Nothing – This will not meet the road safety concerns/perceptions of communities.

**Impacts analysed.**

Equality ☐ N Privacy ☐ N Sustainability ☐ N Crime and Disorder ☐ N

**Is the Decision consistent with the Council’s co-operative values?** Yes

**Is this a “Key Decision” as defined in the Constitution?** Yes

**Is it included in the 28-day Notice of Decisions?** Yes



**PROPOSED NEW ASSESSMENT AND RANKING SYSTEM FOR MINOR ROAD SAFETY SCHEMES**

**Report of Executive Director of City Development**

**1. Purpose of the Report**

- 1.1 To provide details of a proposed new assessment and ranking system for minor road safety schemes and seek Cabinet approval for its implementation.

**2. Description of Decision (Recommendations)**

- 2.1 Cabinet is recommended to approve the implementation of a new assessment and ranking system for minor road safety schemes as detailed in this report.

**3. Reasons for decision**

- 3.1 The current system of minor road safety scheme assessment does not address the changing circumstances in accidents and collisions throughout the city and the reduction in their occurrence over the last 10 years.
- 3.2 In addition, the current assessment system which utilises strict evidence-based criteria, results in a “black or white” decision with no “grey” areas, and requests for service often being denied. This does not adequately meet the demands of elected Members and the communities they represent, nor the perceived road safety concerns they express.
- 3.3 The proposed new scheme assessment and ranking system is intended to better meet the road safety concerns/perceptions of communities and builds on the work that elected Members have carried out in support of these communities.

**4. Background**

- 4.1 There are limited financial and other resources for minor road safety schemes throughout the City. As such, officers currently prioritise schemes using evidence-based criteria, to help ensure that resources are being deployed efficiently and with maximum benefit to the community.
- 4.2 The assessment and prioritisation process can look either at a single site or street or an area comprising of many streets. For the prioritisation of road safety schemes, the single site or street approach is normally taken, although a clear understanding of the likely area affected by traffic diverting from the proposed scheme will be assessed. Where the effects on surrounding streets are likely to prove significant, the area-based approach may be more appropriate.
- 4.3 The existing ranking system provides a common basis for assessment, and the prioritisation process uses criteria such as recorded accidents, vehicle speeds, traffic flow and proximity of schools, among others.
- 4.4 The Council takes its duty to improve the safety of road users very seriously, and is proactive, when possible, in implementing road safety measures when appropriate, and continues to work year-round, with the aim of casualty reduction.

- 4.5 The Council regularly monitors accident and collision data for the city throughout the year and prepares an annual accident/collision report in conjunction with the Traffic and Accident Data Unit (TADU). TADU is a service used by all of the local authorities in the region and Northumbria Police. Via this monitoring the Council can look for accident/collision hot spots, assess any common causality that arises and investigate potential mitigation measures to address concerns if required.
- 4.6 Road accidents have been described as multi-factor random occurrences that can happen anywhere and at any time and often for no apparent reason. The highway authority is unable to predict where the next accident will occur and so under normal circumstances cannot act in a totally proactive way.
- 4.7 It is accepted that many of the accidents that occur on the highway go unreported. The accident record used as a 'standard' by the Council is the record of personal injury accidents as reported to the Police over the latest 3-year period. It is acknowledged that the Police record of injury accidents should be regarded as a minimum due to under-reporting. Nevertheless, this record is still regarded as the best reference available for determining and comparing danger on the highway. Similarly, other highway authorities generally refer to the Police record of personal injuries in order to discharge their duties.
- 4.8 Unfortunately, as indicated above, there are no other criteria other than accident occurrence for establishing or measuring in an objective way the true 'safety' of a road and this is the chosen method we use.
- 4.9 Notwithstanding the reduction in accident occurrence over the last 10 years, the Council continues to take road safety very seriously. Unfortunately, there are simply not sufficient resources available to introduce measures to every requested location. Potential schemes need to be assessed and prioritised against those proposed for other locations. When determining which schemes are given the highest priority it is necessary to evaluate such issues as the volume, degree of severity and nature of accidents.
- 4.10 Consequently, those locations displaying high levels of accident occurrence, or where accidents have resulted in fatal or serious injury are, by necessity, given the highest priority.
- 4.11 In the 10 years since the base level of accident/collision occurrence (average 2005-2009) has been used to benchmark current trends, there has been downward movement in accident occurrence within the city. The last 10 years accident data compared with this base is as indicated below: -

All Casualties						
Year	Fatal	Serious	Slight	All KSI	Total	% Change from base
<b>2005-09 base</b>	7	95	927	102	1030	
<b>2011</b>	3	71	733	74	807	-21.65
<b>2012</b>	7	89	696	96	792	-23.11
<b>2013</b>	3	67	723	70	793	-23.01
<b>2014</b>	3	74	717	77	794	-22.91
<b>2015</b>	3	68	678	71	749	-27.28
<b>2016</b>	0	88	594	88	682	-33.79
<b>2017</b>	4	90	430	94	524	-49.13
<b>2018</b>	3	86	437	89	526	-48.93
<b>2019</b>	10	101	428	111	539	-47.67
<b>2020</b>	6	88	300	94	394	-61.75

- 4.12 Although, there is no single factor that has contributed to this downward trend we are confident that the Council's programme of road safety works already implemented and the road safety education programmes that we undertake, have provided a significant contribution to this reduction.
- 4.13 The remaining injury accidents are often distributed randomly across the Council's 1,200 kilometres of road and there are very few actual "Hot Spots" identified during our regular accident/collision reviews. Consequently, there is a strong possibility that the perception of a "Road Safety" issue is not based on actual evidence, albeit that residents still have a strong belief that their road is "dangerous", and something needs to be done.
- 4.14 It was for the above reason and following requests for service from Members in support of their communities, that consideration is being given to amending the existing assessment criteria to facilitate some types of minor road safety and traffic calming measures. These would be proactive road safety measures that would not normally be implemented, as there is no empirical evidence available for the requested locations, to suggest that there is an immediate problem.
- 4.15 However, on urban roads it is recognised that reducing vehicle speeds can lead to safer environments for all road users, particularly those seen as vulnerable. Consequently, implementing a minor road safety scheme, which is not necessarily supported by factual evidence of an issue, could still be beneficial to communities.

## 5. Current Position

- 5.1 The two primary or **High Priority Factors (HPF)** currently used as prioritising criteria, are as follows: -
- Examination of the accident/collision database to determine the number of road traffic accidents/collisions, resulting in personal injury, that have occurred on the road or area in question in the latest 3-year period.
  - Measuring the level of vehicle speed in relation to the signed speed limit in force. This is confirmed by undertaking a speed and traffic volume survey using appropriate counting equipment. A new survey is only undertaken if there has not been a previous speed survey completed within the previous 3-year period. Surveys up to three years old are considered to be valid unless there has been significant development which may have caused an increase in traffic using the road.

5.2 At the same time consideration is also given to the following additional criteria: -

- A basic assessment of whether the current speed limit is still appropriate for the type/usage of the road.
- Establish the type of road it is, i.e. residential road, 'A' or 'B' road, town centre etc. Also, whether there are any schools or other vulnerable groups using the route and whether there is the potential for conflict between pedestrians and vehicles.
- Establish what type of traffic is using the road (HGVs, cars, public transport etc) and what the traffic volumes and percentage mix are using the route.
- Investigate if there have been any other speeding requests on the same road.

5.3 If the two HPF criteria detailed above have not been satisfied, generally no further action is taken.

5.4 However, if either of the HPF criteria above are satisfied further investigation work is undertaken: -

- Examination of the accident details to determine if the introduction of road safety or traffic management measures, would have addressed the causality of the accident(s) or were they genuine errors in judgement.
- If the recorded 85%ile speed of vehicles using the road is in above the 10% plus 2mph threshold utilised by the police when determining if speed camera enforcement would be appropriate the site would be referred to the police for action and/or a minor road safety scheme considered

5.5 The above investigation may suggest that a minor road safety scheme would be of benefit. Unfortunately, there are simply not sufficient resources available to introduce measures to every requested location. Potential similar schemes are assessed and prioritised against those proposed for other locations. When determining which schemes are given the highest priority it is necessary to evaluate such issues as the volume, degree of severity and nature of accidents. Consequently, those locations displaying high levels of accident occurrence, or where accidents have resulted in fatal or serious injury are, by necessity, given the highest priority.

5.6 As stated previously, if there is no evidence of recent actual injury accidents occurrence or no evidence that the speed of traffic travelled by the vast majority of drivers is excessive, no further action is generally taken at that time.

## 6. Proposals

6.1 The proposals are to use a twin sifting system to establish a scheme and priority ranking system for minor road safety schemes, based on a variation of the two **High Priority Factor (HPF)** prioritising criteria detailed in section 4 above as Sift 1, with additional **Medium Priority Factor (MPF)** criteria used during a new Sift 2.

**Sift 1** – This is a variation of the existing two **HPF** assessment criteria currently used:-

- Accidents and their severity for the latest five-year period (extended from a three-year period previously used) are weighted and allocated a score in accordance with the Priority Ranking Assessment Sheet at Appendix A. Extra weight is given to accidents involving injury to vulnerable road users. If the site or street is high on the priority list mainly due to recorded accidents, then Accident Investigation and Prevention (AIP) measures may be indicated rather than traffic management and calming.
- A weighted point score based on the measured 85%ile vehicle speeds in excess of the existing speed limit and with a weighted point score for the level of vehicular flow.

6.2 With a score of **20** or above, the development of an appropriate minor road safety scheme based on the **HPF** alone, would automatically be progressed subject to funding and resources being available.

**Sift 2** - This utilises a further set of factors that cover a greater range of influencing criteria. These **MPF criteria** when scored and added to the Sift 1 scores will give an overall ranking score enabling competing service requests to be fairly assessed. Points are awarded based on these additional criteria and include the following: -

- Road Geometry influences the driver's perception of a route and consequently vehicle speed, the road width is factored against the gradient of the road to assign a rating.
- Frontage Properties, which front onto the street(s) relevant to the study. There is an assumption that more pedestrians will cross, and a weighting is given accordingly depending on numbers and location.
- Pedestrians Generators that generate pedestrian activity influence the ranking of the scheme. Schools; bus routes; hospitals; nursing homes; playgrounds; community centre; local shops; doctor's surgeries etc.

6.3 Requests for road safety schemes using the new sifting methodology, will be scored during the current financial year and the top **10** ranked potential schemes should be developed and progressed during the following financial year, subject to funding and resource availability.

6.4 Funding will primarily be taken from the Local Transport Plan annual grant allocation. However, there is an opportunity for Members through their local arrangements to fund the schemes providing they meet the scoring criteria.

6.4 Schemes not progressed will be retained on the ranking list and will be reassessed during the following year alongside any new requests for service received.

6.5 Schemes that have been on the ranking list for over 3-years and have not been progressed will be removed from the list as there is little chance of the scheme progressing further.

6.6 Fine tuning of the assessment methodology will be a continuous process to better improve service provision.

## **7. Reasons for the Decision**

- 7.1 The current system of minor road safety scheme assessment does not address the changing circumstances in the accident/collision occurrence throughout the city and the reduction that has occurred in this occurrence over the last 10 years.
- 7.2 In addition, the current assessment system which utilises strict evidence-based criteria, results in a “black or white” decision with no “grey” areas, and requests for service often being denied. This does not adequately meet the demands of elected Members and the communities they represent, nor the perceived road safety concerns they express.
- 7.3 The proposed new scheme assessment and ranking system is intended to better meet the road safety concerns/perceptions of communities and provide improved support to elected Members.

## **8. Alternative Options**

- 8.1 Do Nothing – This will not meet the road safety concerns/perceptions of communities.

## **9. Impact Analysis**

- 9.1 The following issues have been considered: -
  - (a) **Equalities** – No equality or diversity implications have been identified.
  - (b) **Privacy Impact Assessment (PIA)** – No privacy issues have been identified.
  - (c) **Sustainability** – No sustainability implications have been identified.
  - (d) **Reduction of Crime and Disorder** – None.

## **10. Other Relevant Considerations / Consultations**

- (i) **Financial Implications** – There are no additional financial implications of the proposed change in assessment methodology. The development and delivery of road safety schemes based on the new priority ranking system will be undertaken within the existing approved budget.
- (ii) **Risk Analysis** - None.
- (iii) **Employee Implications** – None.
- (iv) **Legal Implications** – The proposals will help to discharge the Council’s statutory duties under the Road Traffic Act 1988 to prepare and carry out a programme of measures designed to promote road safety, and to take appropriate steps both to reduce and prevent traffic accidents .
- (v) **Policy Implications** – **TBC**.

## **11. List of Appendices**

Appendix A – Priority Ranking Assessment Sheet



**Appendix A – Priority Ranking Assessment Sheet**

Location					
HIGH PRIORITY FACTORS (HPF)		POINTS VALUE			
Risk Assessed	Criteria	Low (1)	Medium (3)	High (5)	Points
Collision history	Casualties latest 5 years (Junction, route, street or area as appropriate)	0 = No score	1 - 3	Vulnerable Rd user or > 3	
Casualty severity	No of Slight, Serious and Fatal casualties x point score for each. (i.e. 3 slights + 1 serious = 6pts)	Slight	Serious	Fatal	
Existing speed limit	Signed limit (mph)	20 = No score	30	40	
Measured Speed (85%ile)	Speed above signed limit (mph)	0 = No score	<10% + 2mph	>10% + 2mph	
<b>HPF Sub Total</b>					
MEDIUM PRIORITY FACTORS (MPF)		POINTS VALUE			
Traffic Flow	Peak hour flow	50 - 250	250 – 500	> 500	
HGV's	HGV Mix	1% - 5%	5% - 10%	> 10%	
Cycle Flow	Total / hour (Only score if no cycle lanes/shared surfaces present)	1 - 10	10 - 20	> 20	
Pedestrians Crossing	Total / hour	25 - 50	50 – 100	> 100	
Road classification	A, B/C or unclassified (UC)	UC = No score	B or C	A	
Speed camera enforcement	Yes = 0	-	No	-	
Carriageway width	(m)	-	7.0 – 10.0	> 10.0	
Gradient	Percentage	-	2% - 5%	> 5%	
Footways	One or both sides (width of footway)	-	1.8 – 2.5	< 1.8	
Junction visibility	Manual for Streets (m)	-	40 - 60	< 40	
Number of Junctions	None = 0	1	2 - 3	> 3	
Driveways	None = 0	-	One side	Two sides	
On-street parking	None = 0 (Affects pedestrian visibility)	Two sides	One side	None	
Street lighting	Yes = 0	-	No	-	
Traffic control (Crossings)	Desire lines only	Refuge	-	None	
Frontage properties	Properties along route, street, area or within 50m vicinity of junction	5 - 10	10 - 20	> 20	
Frontage	One or both sides of carriageway	-	One side	Two sides	
Schools	Number accessed (within 500m)	-	1 school	2 schools	
Bus routes	Number of services	-	1	2 or more	
Nursing homes	Facilities along route, street, area or within 50m vicinity of junction None = 0	-	Yes	-	
Community or sports centre		-	Yes	-	
Play areas		-	Yes	-	
Shops		-	Yes	-	
Doctors surgeries		-	Yes	-	
<b>MPF Sub Total</b>					
VALUE		POINTS VALUE			
Risk Assessed	Criteria	Low (1)	Medium (5)	High (10)	Points
Estimated cost of scheme	Cost may impact on deliverability	> 75k	25k - 75k	< 25k	
<b>(HPF + MPF + VALUE) TOTAL</b>					

