

Forward Plan reference number: Not applicable

Report title: Casualty Reduction Schemes 2021/2022	
Report to: Councillor Kevin Bentley - Deputy Leader and Cabinet Member for Infrastructure	
Report author: Andrew Cook – Director of Highways & Transportation	
Date: 21 st April 2021	For: Decision
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County Divisions affected: All Essex	

1. Purpose of Report

- 1.1 The purpose of this report is to provide details of the outcome of the Casualty Reduction analysis that took place during 2020 and to seek approval for the 32-casualty reduction sites (set out in Appendix 1) identified for priority funding in 2021/22, in order to implement the casualty reduction remedial measures as identified in the Appendix 2.

2. Recommendations

- 2.1 To agree the 32 prioritised casualty reduction sites as identified in Appendix 1.
- 2.2 To agree the funding allocations against each of the 32 prioritised casualty reduction sites based on local authority district weighting, with a total value of £601,250 to be utilised for the feasibility / design / implementation of the casualty reduction remedial measures as identified in Appendix 2.

3. Summary of issue

- 3.1 Essex County Council is currently in the process of reviewing and setting new casualty reduction targets with the aim to reduce the numbers killed and seriously injured casualties on the roads in Essex. ECC has a 2030 Casualty Reduction Target of a 50% KSI (Killed or Seriously Injured) reduction based on the targets for 2020.
- 3.2 The provisional Essex road collision information currently for 2020 is as follows:
- 44 road collisions were recorded where one or more people were fatally injured.
 - 494 road collisions were recorded where one or more people were seriously injured.
 - 1458 road collisions were recorded where one or more people were slightly injured.

- 3.3 The criteria for identification of the Casualty Reduction Sites (Sites) was approved as part of the Local Highway Panel Terms of Reference on 9 November 2016. Accordingly Sites are now prioritised where:
- there is the highest severity ratio of killed or serious injury collisions;
 - ECC is responsible for the highway in question;
 - there is an identifiable pattern of the cause of the incidents; and
 - there is an engineering solution for treating the identified cause.
- 3.4 Essex Highways has conducted their annual review of road collisions across the Essex Network during 2020 reported through the Collision Reporting And Sharing (CRASH) system (a system that records and shares collision data with the Department for Transport (DfT), Highways England, police and local authorities). As part of that review a number of collision cluster sites were identified where there has been either: in urban areas, 4 or more personal injury collisions within a 50m radius over the past 3 years, and in rural areas 3 or more personal injury collisions within a 250 radius over the past 3 years. If a fatal collision has occurred on the network we will review the collisions over a period of 10 years in proximity to the collision location.
- 3.5 Further analysis was carried out to rank these collision cluster sites by the severity of the recorded KSI. Those ranking the highest were then investigated further to identify locations with a clear and treatable pattern, and to identify the necessary remedial works required in order to address the collision pattern.
- 3.6 The analysis has identified 32 Sites across Essex with a collision pattern which could be effectively treated through the introduction of safety engineering measures.
- 3.7 Site investigations have been undertaken, and where safety engineering remedial measures to the sites, that would result in reducing or ceasing future collisions have been identified, these have been given an initial costing, and is set out in Appendix 1. The design and/or implementation of sites would contribute towards the required reduction in KSI casualties.
- 3.8 The DfT each year calculate the average value of prevention per road accident. This represents the whole society cost when a collision occurs, and the most up to date figures are set out in Table 1 below.

Table 1:

Casualty Reduction Schemes 2021/2022

Table A 4.1.4: Average value of prevention per road accident by severity & road class						
£ (2020 prices and 2020 values)						
Accident severity		Road Class				
		Built-up1	Non Built-up2	Motorway	All	
Fatal		£2,227,263.59	£2,422,598.18	£2,548,891.14	£2,337,904.36	
Serious		£257,974.60	£292,512.96	£300,326.52	£267,642.35	
Slight		£26,312.36	£31,936.89	£37,947.16	£27,764.56	
All injury		£86,024.21	£173,261.10	£127,960.10	£104,553.51	
Damage only		£2,369.06	£3,463.43	£3,327.88	£2,494.51	
Average cost per personal injury accident (PIA) ³		£127,956.63	£200,275.80	£153,252.25	£142,964.82	
All accidents		£6,842.60	£22,758.66	£17,819.85	£8,718.24	

- 3.9 ECC has used these figures to calculate a First Year Rate of Return (FYRR) using the predicted financial value of the annual collision savings that the Site would create (DfT values) divided by the overall Site cost. All Sites to be implemented, aim to have a target of a FYRR of 100 and above, indicating a considerable cost / benefit to society.
- 3.10 Following the FYRR calculations made in relation to the Sites, it is estimated that 12.7 collisions per year would not have occurred had the remedial measures, identified as part of the investigations, been in place at the time the collision occurred.
- 3.11 When placed against the DfT figures, this level of reduction in collisions would generate cost benefit saving to society on a whole of £1,627,600 per year. (as set out in Table 2).

Table 2:

PER YEAR number of collisions that would not have occurred had the remedial measures been implemented at start of the collision period	Average Cost per Injury Accident from Table 1:	Cost Benefit savings to society
12.7	£127,956	£1,627,600

- 3.12 Table 3 below details the breakdown of the design and construction costs required to implement all of the identified 2021/2022 Casualty Reduction sites as per the options detailed in section 4. The total £6.6 Million Budget is comprised of the initial LHP Budget of £4million (per year) acknowledged for the next 3 years, with an additional £2.4million being added each year to the programme. (* awaiting confirmation)

District	Budget	CR	Remaining
Basildon	£ 700,000	£ 89,000	£ 611,000
Braintree	£ 607,789	£ 7,500	£ 600,289
Brentwood	£ 424,938	£ 23,250	£ 401,688
Castle Point	£ 428,675	£ 1,500	£ 427,175
Chelmsford	£ 700,000	£ 121,500	£ 578,500
Colchester	£ 700,000	£ 153,500	£ 546,500

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Epping	£ 549,775	£ 62,500	£ 487,275
Harlow	£ 443,658	£ 25,000	£ 418,658
Maldon	£ 400,000	£ 35,250	£ 364,750
Rochford	£ 413,904	£ 38,250	£ 375,654
Tendring	£ 595,240	£ 22,500	£ 572,740
Uttlesford	£ 636,021(*)	£ 21,500	£ 614,521
Total	£ 6,600,000	£ 601,250	£ 5,998,750

Table 3

- 3.13 The full Casualty Reduction Report will be provided to the LHPs together with the list of schemes that are to be undertaken in 2021/22. This will indicate to the LHPs any other lower ranked CR schemes that the LHP may identify as meeting local community needs. These could then be included in their proposed annual program of work. Each Local Highway Panel (with a proposed casualty reduction scheme for design or implementation) has been attended by Road Safety Engineering to ensure the Councillors have been fully briefed on the individual scheme's location, rationale and proposals being put forward.
- 3.14 The costs provided for the Sites are indicative and are not confirmed. When the Sites are taken to detailed design there may be other factors that will impact on the overall costs. If a Sites cost increases significantly this will have an impact on the First Year Rate of Return, and any increases in costs outside those specified in the LHP Terms of Reference will be reported to the Cabinet Member for further decision.
- 3.15 The Casualty Reduction scheme costs detailed in table 3 also include £24,250 of costs required to undertake post construction safety audits and assessments on all Local Highways Schemes throughout the 12 districts.

4. Options

- 4.1 ECC has the following options available:

Option 1: to approve the 32 Sites and the funding from each district's specific allocations (Recommended Option)

- 4.1.1 To fund the sites from the districts' allocations for 2021/2022. This means that the appropriate casualty reduction costs will be applied to each district where a Site has been identified. This is the recommended option, and allows for funding allocated to specific districts to be used within that district. The total remedial works is estimated to cost £601,250.00
- 4.1.2 This would ensure that there is funding in place to carry out the remedial works identified at the 32 Sites which would assist ECC in moving towards reducing the overall number of KSIs for 2021/22 period

Option 2: Not approve the Sites or funding allocations

- 4.1.3 ECC could chose not to approve the Sites and the allocation as set out in paragraph 4.1.1. In doing so ECC would fail to meet its Statutory duty, and may fail to reduce KSI's during the 2021/22 period. In doing so the number of KSI reported at the identified Sites might increase where the remedial works is not carried out.

5. Issues for Consideration

5.1 Financial implications

- 5.1.1 Capital Funding: For casualty reduction schemes capital funding has been allocated via the existing LHP budget allocation.
- 5.1.2 Revenue: For Casualty Reduction schemes, there is no requirement for an additional revenue budget. However consideration needs to be given in that any new casualty reduction schemes implemented within the Highway will add to ECC asset and infrastructure, and will require maintenance as per any newly installed asset that is delivered as part of the existing LHP programme. The maintenance of this new asset would be contained within the existing highways maintenance budgets.

5.2 Legal implications

- 5.2.1 Section 39 of the Road Traffic Act 1988 places statutory responsibilities on Local Authorities in respect of Road Safety to carry out studies into accidents arising out of the use of vehicles on roads or parts of roads, within their area and for which they are the responsible Highway Authority and in the light of those studies, take such measures as appear to the authority to be appropriate to prevent such accidents.
- 5.2.2 The ECC process for considering Road Casualty Reduction Schemes was amended in 2016 to ensure that Sites are prioritised on a countywide basis and that proposals are prioritised on the basis of reduction in number of people killed or seriously injured against the cost of implementation of the scheme. The current process will protect ECC's position if there is a future challenge regarding which Sites are prioritised.
- 5.2.3 The prioritisation process provides a transparent process which is as objective as possible and demonstrates that ECC monitors the safety of the roads for which it is responsible. Monitoring accident data and responding to changing trends is a key way of preventing road casualties and effective use of the process will reduce the risk of a prosecution under the Corporate Manslaughter and Corporate Homicide Act 2007 or under the Health and Safety at Work etc Act 1974.

6. Equality and Diversity implications

- 6.1 The Public Sector Equality Duty applies to the Council when it makes decisions. The duty requires us to have regard to the need to:

- (a) Eliminate unlawful discrimination, harassment and victimisation and other behaviour prohibited by the Act. In summary, the Act makes discrimination etc. on the grounds of a protected characteristic unlawful.
 - (b) Advance equality of opportunity between people who share a protected characteristic and those who do not.
 - (c) Foster good relations between people who share a protected characteristic and those who do not including tackling prejudice and promoting understanding.
- 6.2 The protected characteristics are age, disability, gender reassignment, pregnancy and maternity, marriage and civil partnership, race, religion or belief, gender, and sexual orientation. The Act states that 'marriage and civil partnership' is not a relevant protected characteristic for 6.1(b) or 6.1(c) although it is relevant for 6.1(a).
- 6.3 The equality impact assessment at Appendix 3 indicates that the proposed decision will not have a disproportionately adverse impact on any people with a particular characteristic.

7. List of Appendices

- 7.1 Appendix 1 – Casualty Reduction Site List 2021/2022
- 7.2 Appendix 2 – Casualty Reduction Reports, Detailed site analysis and scheme proposals
- 7.3 Appendix 3 – Equalities Impact Assessment

8. List of Background papers

- 8.1 Detailed site investigations.

I approve the above recommendations for the reasons set out in the report: Councillor Kevin Bentley, Deputy Leader and Cabinet Member for Infrastructure	Date 28/04/21
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In consultation with:

Role	Date
Director Highways and Transportation Andrew Cook	16/04/2021
Essex Traffic Manager /Head of Network Management Liz Burr	18/03/2021

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Head of Design Services Vicky Presland	15/03/2021
Executive Director for Corporate and Customer Services (S151 Officer) Nicole Wood	N/A – Consent not required
Director, Legal and Assurance (Monitoring Officer) Susan Moussa on behalf of Paul Turner	13/04/2021