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COUNCIL EXECUTIVE

**ACCIDENT INVESTIGATION AND PREVENTION (AIP)
CASUALTY REDUCTION PROGRAMME 2021/22**

REPORT BY HEAD OF OPERATIONAL SERVICES

A. PURPOSE OF REPORT

The purpose of this report is to seek approval for the list of proposed prioritised casualty reduction schemes for the 2021/22 programme.

B. RECOMMENDATION

It is recommended that the Council Executive approves the list of proposed prioritised casualty reduction schemes for implementation.

C. SUMMARY OF IMPLICATIONS

I Council Values	Making best use of our resources and working in partnership
II Policy and Legal (including Strategic Environmental Assessment, Equality Issues, Health or Risk Assessment)	Policy: The Accident Investigation and Prevention (AIP) casualty reduction programme is identified in the Community Safety Strategy and in the Road Safety Plan. The council has a statutory responsibility for road safety under the Road Traffic Act 1988. Legal: None.
III Implications for Scheme of Delegations to Officers	None.
IV Impact on performance and performance Indicators	The AIP casualty reduction programme contributes to the casualty reduction performance indicators.
V Relevance to Single Outcome Agreement	The AIP casualty reduction programme contributes to the outcome: "We live in resilient, cohesive and safe communities."
VI Resources - (Financial, Staffing and Property)	Financial: The proposed schemes will be funded from the council's road casualty reduction budget with £280,000 allocated in 2021/22.

Maintenance costs relating to the schemes will be accommodated in future Roads and Transportation revenue budgets.

Schemes will be designed to minimise these future revenue costs as far as is practicable.

VII Consideration at PDSP

The casualty reduction programme was considered at the Environment PDSP at its meeting on 1 June 2021.

The panel members agreed to note the report and its recommendations be forwarded to the Council Executive for approval.

VIII Other consultations

Consultation will be carried out with Police Scotland on the programme as a whole and with any frontagers directly affected by any of the proposed schemes.

Schemes which require a traffic regulation order will have additional statutory consultation and a period for objections. Further reports will be prepared for the council executive in these cases.

D. TERMS OF REPORT

D1 Background

The Council's Community Safety Strategy identifies the need for a road casualty reduction programme utilising accident investigation and prevention (AIP) techniques.

Research for the Department for Transport has found that local safety schemes which tackle proven casualty problems represent very good value for money and make a significant contribution to casualty reduction.

D2 Progress to date

The current casualty reduction programme commenced in 2007/08 and since then, a total of 91 schemes have been completed.

It is too early to assess fully the effects of all of these schemes on casualty reduction. However, full monitoring (more than 36 months of after data) has now been carried out for the schemes introduced from 2007/08 to 2016/17. Initial monitoring (less than 36 months of after data) has been carried out on schemes introduced in 2017/18 and 2018/19.

The results of the monitoring are provided in Table 1.

The results of this monitoring continue to be very encouraging and indicate an overall reduction in accidents at treated sites of approximately 64% giving a first year rate of return of 436%. A full explanation of the first year rate of return calculation is given in Appendix 1.

Year	Number of schemes	Accident reduction at schemes	First year rate of return
2007/08 (full monitoring)	9	38%	863%
2008/09 (full monitoring)	12	54%	323%
2009/10 (full monitoring)	13	40%	468%
2010/11 (full monitoring)	11	41%	647%
2011/12 (full monitoring)	7	67%	284%
2012/13 (full monitoring)	5	67%	439%
2013/14 (full monitoring)	4	87%	355%
2014/15 (full monitoring)	4	55%	80%
2015/16 (full monitoring)	11	60%	303%
2016/17 (full monitoring)	5	100%	503%
2017/18 (initial results)	5	84%	170%
2018/19 (initial results)	5	81%	840%
2007-2019 Overall	91	64%	436%

Table 1 – AIP programme monitoring results

D3 Prioritised schemes for 2021/22

For the 2021/22 programme, officers identified so-called ‘sites for concern’ in four ways. Firstly, 33 single sites where there were four or more accidents in a five year period were identified. Secondly, the accident rates on all rural class A and B class routes and on urban routes were analysed with the 10 urban and rural routes with the highest accident rates investigated in detail. Finally, all residential areas in West Lothian were mapped, the accident rates and total number of accidents calculated and detailed investigations carried out on the top five areas for both categories.

The investigation / analysis work undertaken involved using the recorded injury accident data collected by the police to identify sites for concern and analyse crash patterns to develop remedial measures. The process is used nationally and is endorsed by The Royal Society for the Prevention of Accidents (RoSPA) through its Road Safety Engineering Manual.

The accident patterns at each of these sites for concern were investigated and a total of 19 sites taken forward for development of remedial measures. These remedial measures have been prioritised based upon value for money criteria. Appendix 1 shows the list of schemes taken forward and prioritised.

The available funding will allow the introduction of around 15 schemes in 2021/22, subject to final scheme costs. As the accident data is analysed on an annual basis, the programme will be re-ordered next year to take account of up-to-date accident problems.

D4 Speed reduction and accident/casualty prevention – additional considerations

At the meeting of full Council on the 29 September 2020, officers were instructed to include the investigation of traffic convictions and complaints, plus the inclusion of lamppost repair/replacement, crash barrier repairs, structural repairs of masonry all caused by speeding or unsafe driving of vehicles.

Council asset investigations into damage repairs can be carried out, however there is not enough detailed information to determine any cause or contributory factors as to the reasons why council assets have been damaged. This information would not be suitable to determine any proposed casualty or speed reduction decisions.

Police Scotland have advised that speeding offences do not require a crime report as it is a non-recordable crime and they are unable to provide numbers or sufficient information for analysis. Speeding tickets issued by Police officers at the roadside and completed without a court appearance would result in points being added onto a driver's licence without the Police being aware of the outcome.

The Police are unable to carry out any specific checks for court convictions as they would require specific offenders' details to carry out checks on the Police National Computer. The Police do not keep any other manual record of convictions as the data and information would be endless.

At the meeting of the Environment PDSP on 1 June 2021, it was raised that this programme should take into consideration public and community concerns to treat locations where there is a perception that areas are unsafe. It was confirmed at the meeting that the funding which is made available for this programme is allocated to treat locations where accidents are occurring. This programme is evidence based and aims to reduce the likelihood of accidents re-occurring by the introduction of suitable engineering measures. It would not be appropriate to invest funding in locations where there is a perception that a location is considered unsafe when there is no data or evidence to confirm this is the case.

E. CONCLUSION

The AIP casualty reduction programme is the council's main opportunity to make a significant impact in meeting casualty reduction targets and this is backed up by national research and local results.

The schemes prioritised for this financial year maximise the council's investment through first year rate of return prioritisation and will deliver improvements across West Lothian.

F. BACKGROUND REFERENCES

Department for Transport (2009). Road Safety Research Report No. 108 – Contribution of Local Safety Schemes to Casualty Reduction. DfT, London. Available from: <http://www.dft.gov.uk/pgr/roadsafety/research/rsrr/theme5/rsrr108.pdf>

Appendices/Attachments:

Appendix 1 – Casualty Reduction Schemes 2021/22 – Prioritised list

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Date of meeting: 22 June 2021

APPENDIX 1 – CASUALTY REDUCTION SCHEMES 2021/22 – PRIORITISED LIST

Schemes have been prioritised using an economic assessment method known as First Year Rate of Return (FYRR). It is a simple way of calculating whether a scheme can be justified in economic terms.

The FYRR is calculated using the formula:

$$\%FYRR = \frac{\text{Annual_Accident_Savings} \times 100}{\text{Scheme_cost}}$$

The annual accident savings are calculated using accident costs from Road Accidents Scotland 2016 and are weighted based upon whether the site is in an urban or rural location. This mechanism reflects that the cost to society of road accidents is higher in rural areas. As a decreasing number of identified sites include fatal or serious accidents, the severity weighting applied in previous years has not been used.

An estimated FYRR of more than 100% indicates that the scheme benefits will outweigh the costs within the first year. An estimated FYRR of less than 100% indicates that the scheme is still beneficial but the benefits take more than a year to outweigh the costs.

Schemes will be implemented in priority order until the available funding is exhausted. It will not be possible to implement every scheme in 2020/21 due to budget constraints. It is anticipated that the first 15 schemes will be implemented this year.

Rank	Ref	Location	Ward	Proposals	Estimated Scheme Cost	Estimated Annual Cost Saving to Society ¹	Estimated FYRR (%)
1	AIP/2020/031	B8020 from A904 to Winchburgh.	2	Warning signs for bends and junctions.	£5,000	£105,407	2108.1
2	AIP/2020/005	B7015 Gavieside Road junction with Happy Valley Road.	7	Improved junction signs.	£3,000	£46,178	1539.3
3	AIP/2020/021	A89 junction with the roundabout at east access to Tesco Depot (westbound).	8	Improved road markings and warning signs.	£10,000	£82,318	823.2
4	AIP/2020/003	B7002 Whitburn Road, Bathgate junction A801 Boghead Roundabout.	8	Improved circulatory markings and warning signs. Visibility clearance. 40mph speed limit.	£15,000	£116,450	776.3
5	AIP/2020/014	Howden East Road at the junction with Howden West Road, Livingston.	4	Give way sign, drainage and visibility improvements.	£5,000	£38,613	772.3

Rank	Ref	Location	Ward	Proposals	Estimated Scheme Cost	Estimated Annual Cost Saving to Society ¹	Estimated FYRR (%)
6	AIP/2020/023	Almondvale Boulevard at the junction with Terrace Roundabout.	4	Road marking improvements on the circulatory carriageway.	£5,000	£38,613	772.3
7	AIP/2020/019	B792 Blackburn Road junction at Wester Inch Roundabout.	8	New chevron warning signs	£5,000	£32,492	649.8
8	AIP/2020/010	A7066 junction A801 Boghead Roundabout	7	Improved circulatory markings and warning signs. Visibility splay clearance. 40mph speed limit.	£15,000	£85,329	568.9
9	AIP/2020/027	B7008 from West Calder to the A70.	6	Bend warning signs along route and drainage works.	£20,000	£105,407	527.0
10	AIP/2020/013	A803 Blackness Road junction M9 eastbound on-slip road	1	Sign alterations, road marking and coloured surfacing.	£25,000	£102,897	411.6
11	AIP/2020/025	B8020 north Greendykes Road bend 370m east of junction with the U17	2	Improved warning signs, high friction treatment around bend and drainage improvements.	£50,000	£114,442	228.9
12	AIP/2020/015	The A904 junction with the B8046.	1	New directional signage and coloured contrast surfacing in hatched areas.	£30,000	£61,738	205.8
13	AIP/2020/011	George Place junction with Union Road, Bathgate	8	Close the pedestrian precinct at its south end to discourage access.	£25,000	£40,262	161.0
14	AIP/2020/002	B792 junction of Marjoribanks Street and Hopetoun Street, Bathgate.	8	Signalise junction with pedestrian facilities on each leg.	£60,000	£53,447	89.1

Rank	Ref	Location	Ward	Proposals	Estimated Scheme Cost	Estimated Annual Cost Saving to Society ¹	Estimated FYRR (%)
15	AIP/2020/024	A899 West Main Street junction Clarkson Road, Broxburn	2	Previous AIP scheme upgrade signals with split phasing. Additional civils works.	£15,000	£10,360	69.1
16	AIP/2020/009	The A801 junction with the A706 Avon Gorge	1	Signalisation of junction	£280,000	£163,130	58.3
17	AIP/2020/051	Rashierigg, Broxburn	2	Replace Zebra crossing. 20mph speed limit roundels and selective traffic calming on access roads.	£60,000	£33,198	55.3
18	AIP/2020/052	Glebe Road, Whitburn	7	Flat top road humps at main access points to area. With area wide 20mph speed limit.	£60,000	£23,545	39.2
19	AIP/2020/039	North Bridge Street / Hopetoun Street from junction with A89 Glasgow Road to settlement boundary on C9, Bathgate.	8	Change Zebra crossing to a signalised crossing	£30,000	£9,653	32.2

¹ The cost savings identified are not directly recouped by the council but are savings to society as a whole. The costs include both human costs and direct economic costs