

Legislative Council of Tasmania

Road Safety Inquiry submission – July 2021

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Ray has been a resident of Franklin since 2005, is retired, and is passionate about eliminating road trauma in the Huon Valley and throughout Tasmania, and wishes to assist state and local governments in any way possible to achieve this. He is a member of the Australasian College of Road Safety as a personal road safety advocate.

The problem

Road trauma incidence on Tasmania's road network has plateaued since 2013 which indicates that current approaches, including the scale of our response, to road safety need urgent revision if Tasmania is to achieve zero road trauma by 2050. Other Australian jurisdictions have introduced policies and increased effort, which have had a significant impact on road trauma. This submission outlines some possibilities.

The Austroads Road Risk Assessment Case Study (2019) of the Tasman Highway found that only three segments of road (< 50km in total) were of sufficient standard to safely justify the 100kph posted speed limit on a infrastructure risk based analysis, and the recommended speed limit for the majority of the highway in rural zones was 70-80kph to minimise road trauma on the highway.

The Transport Services Group is well aware that the majority of Tasmanian roads have a posted speed limit that is unsafe on the majority of road segments where there are no median and run-off barriers. This encourages drivers to exceed a safe speed, although drivers could chose to drive at a safer speed below the speed limit. Making Tasmanian roads safe is a mutual responsibility for all stakeholders, but they need to be convinced. (Examples 1-3)

While calling for funding of major highway upgrades is important, the more urgent need is to for the Transport Services Group to incrementally align speed limits with the road infrastructure risk rating, a key strategy of the Safe System adopted by the Australian Transport Council in 2004. **Until it does so, road trauma will not decline significantly, and certainly not reach zero by 2050.**

'Within the Safe System approach, it is acknowledged that humans will continue to make mistakes and that road infrastructure and vehicles should be designed to minimise the effect of a crash. Similarly, speeds should be set such that they minimise the effect of a crash, given the prevailing road infrastructure.' (Austroads Guide to Road Safety Part 3 2021)

Approximately 60% of road fatalities occur on rural roads. To make Tasmania's rural road network safe (compliant with Austroads' guidelines) without reducing the current posted speed limits would require at least the installation of median and run-off barriers, an impossibly huge investment in road infrastructure and many decades to achieve.

In 2019 Western Australia launched a plan to reduce the speed limit by just 10kph on most roads with existing limits above 40kph, which would result in nearly 50 per cent fewer fatalities and

serious injuries on WA roads by 2030. Despite vocal opposition to the plan, it is proceeding, and Tasmania could follow suit if there is sufficient community support to reduce road trauma.

'Where a road does not meet the safety standards appropriate to its function, the speed limit should reflect the road as it is, not the road as it ought to be.' (Austroads Guide to Road Safety Part 3 2021)

The Transport Services Group to urgently establish a speed reduction plan and engage with affected stakeholders to create demand for safe speeds. (Recommendation 1).

The Tasmanian government recognises the need for this and 'speed moderation' is mentioned in the current Road Safety Action Plan: 'Research tells us that even small reductions (10 km/h) in travelling speeds can lead to reductions of 25 per cent in serious casualties across the road network. ... Reviewing individual roads to assess whether current speed limits are appropriate for the level of safety features provided.' (Towards Zero Strategy 2017-2026)

Indications are that the community will support safer speed limits, as has been the case with speed limit reductions on the Huon Highway in recent years.

Suggested policy changes to improve road safety

Speed Zoning Policy

The Tasmanian Speed Zoning Guidelines document advises that speed zones should not be changed too frequently and suggests that 'the speed limit should reflect the road's characteristics ... so that its justification is self-evident to motorists,' and 'isolated hazards ... are better addressed with physical works or warning signs...' While this makes good sense, there is no recommendation for a minimum length of speed limit segment.

The Tasmanian Speed Zoning Guidelines key factors refer to the use of crash history to justify lowering the default speed limit. This reactive rather than proactive approach is clearly at odds with the Towards Zero Strategy for safe speeds and the Austroads Guidelines, which encourage setting speed limits according to crash risk (Infrastructure Risk Rating IRR) not crash frequency.

Suggested Speed Zoning policy revisions (Recommendation 2):

1. Establish the primary goal of the policy: To minimise the incidence of road trauma in the event of a crash, and that the preservation of life will override all other considerations.
2. Ensure that the policy is consistent with Austroads advice and the Towards Zero strategy.
3. Establish a minimum road segment per speed zone (eg 80kph-.8Km, 100kph-2Km, 110kph-10Km).
4. Incorporate an assessment of crash risk (IRR) when determining the safe speed limit for a given road segment.
5. Set a maximum speed for any sealed road without a median barrier to 90kph.
6. Undertake a review of the speed limit whenever a crash occurs at a given location, to ensure that the posted speed limit complies with the policy.
7. If road trauma occurs, the speed limit at that location must be reduced immediately.

Infrastructure Development

'The choice between lowering the speed limit or improving infrastructure is strongly influenced by budget. Victorian data suggest that infrastructure solutions are cost-effective on roads with high traffic volumes (>4000 vehicles per day) whereas speed limit solutions may be more cost-effective on low traffic volume roads (<2000 vehicles per day).' (Australian Transport Council 2011)

When road trauma occurs, calls are usually made for infrastructure treatments to reduce crash risk and eliminate trauma at the crash location. However, localised infrastructure treatments are costly, take a long time to implement, and in the meantime lives continue to be put at risk unnecessarily.

An Austroads spokesperson suggests that 'A proactive approach of small change across the entire network has been proven to provide a better outcome compared with solely a high level reactive response at specific locations. Based on contemporary learning, network-wide proactive programs (collective risk driven) plus a small proportion of blackspot investment would be the appropriate way for any strategy going forward.'

Austroads advice would suggest that a smaller proportion of available funds should be applied to specific locations such as these, and a substantially greater proportion of funding should be applied to incremental infrastructure safety improvements for the entire corridor, to proactively reduce crash risk and road trauma. (Example 4)

The Transport Services Group to prioritise proactive whole-of-corridor infrastructure improvements above localised projects. (Recommendation 3).

Automated Enforcement

'Enforcement plays an important part in speed management in general but faces a number of challenges in regional and remote areas, including low traffic volumes and limited resources. Police in regional and remote areas are also responsible for general duties and may have limited time to dedicate to traffic enforcement. Also, due to geography, large road networks with low traffic volume, and personnel limitations, police presence may not be economically justifiable.' (Austroads Guide to Road Safety Part 3 2021)

Distraction and speed are the two major causes of road trauma. Several jurisdictions, including QLD, NSW, and VIC are implementing camera-based technology to detect the use of mobile phones and point-to-point speeding.

In 2019 NSW reported the following outcomes from fixed speed camera locations:

- 36 per cent reduction in casualty crashes
- 74 per cent reduction in fatalities
- 41 per cent reduction in injuries.

It is understood that automated speed enforcement is relatively under-utilised in Tasmania compared to the rest of Australia. In most other jurisdictions, fines collected from safety cameras goes to fund the camera programs with the remaining funds being reinvested in road safety initiatives.

Introduce legislation to implement the latest infringement detection technology and allocate camera revenue to fund the camera program, road safety promotion, and the rehabilitation of crash victims. (Recommendation 4)

Regional Road Safety Officer

Tasmania local governments manage about 80% of the road network with many rural councils responsible for maintaining roads with scarce resources, and many road safety matters including crashes and hazards, are not brought to the attention of infrastructure managers.

Historically, local groups developed road safety initiatives through the CSR program, however this program was largely replaced by federally funded programs in 2014. These community based groups also focussed on road infrastructure issues and driver behaviour.

A police officer who served on the Huon Valley road safety committee stated that its work on improving road infrastructure did not make significant progress. (Example 5)

However, the task of identifying and investigating all infrastructure hazards throughout the road network and prioritising and progressing safety treatments is greatly needed, requires professional skills, but the size of the task is probably not known (Examples 6, 7).

State Growth to propose a funding for locally based and accredited road safety officers to achieve zero road trauma in the region. (Recommendation 5)

Suggested road safety officer role:

Purpose:

- Prevent road trauma and improve road safety for road users in the region;
- Ensure that the road network complies with the Austroads Guide to Road Design;
- Initiate and deliver effective treatments, that are consistent with Austroads Treatment of Crash Locations, to avoid and reduce road trauma;
- Engage with road infrastructure stakeholders, including emergency services to facilitate delivery of the "Towards Zero Action Plan 2020-2024";
- Implement the Speed Zoning Policy;
- Develop community demand for road safety;
- And prioritise LGA-managed road infrastructure projects.

Responsibilities:

- Investigate every road crash and near-miss in a timely manner and report findings to all stakeholders;
- Investigate every stakeholder road infrastructure concern and report findings;
- Conduct road safety audits, where appropriate, according to the Austroads Safety Audit Guidelines;
- Set speed limits on the entire LGA road network that are consistent with the Tasmania Speed Zoning Guidelines;
- Develop, implement, and support road safety projects;
- Contribute to the development of regional road safety policies and procedures;
- Deliver road safety advice and interventions consistent with Austroads guidelines;

- Develop effective relationships and data sharing with internal and external stakeholders, particularly serious injury data, unattended crash data, and near-miss data;
- And provide road safety status, project proposals, progress reports and evaluations, to all stakeholders.

Proposed strategy

Immediate

1. Develop and publish a speed reduction plan.
2. Revise Speed Zoning Policy.
3. Reduce speed limits immediately on all road segments with a high incidence of crashes in speed zones over 50kph, or where an instance of road trauma may have been avoided by a lower speed limit. This may not reduce the frequency of crashes, but it will reduce road trauma.
4. Reduce the speed limit on road segments where the mean speed is below the posted speed limit (Example 8).
5. Actively engage stakeholders to create a demand for road safety.
6. Canvass stakeholders to gather community support for proposed legislation and transport policy changes.
7. Review all infrastructure projects and balance funding appropriately with whole-of-corridor treatments, and publish results.
8. Introduce legislation to establish automatic enforcement technology and targeted investment of infringement revenue.
9. Introduce legislation to establish a funding program for regional road safety officers and their training.

Short/mid term – within the next 3 years

1. Implement the regional road safety officer program.
2. Gather and publish evidence, including the economic impact from trials of lowered speed limits to promote safe speeds.
3. Implement automated enforcement, commencing at locations where speed limits have been reduced.
4. Apply the revised Speed Zoning policy to all roads throughout Tasmania.

Examples:

1. The Midland Highway south of Campbell Town where a double fatality crash occurred in July 2021.

The speed of that segment is 110kph on a two-lane highway yet there is no median barrier, and the majority of vehicles travel at 120kph.

If a safer speed limit of 90kph was posted at such segments of highway, then the probability of fatality in the event of a crash would be much, much lower, even though crashes may still occur. The probability of a fatality resulting from a head-on collision is 10% at 70kph, rising to 100% at 110kph, and 60% at 90kph.

2. The segment of the Bass Highway at Exton where a double fatality occurred in July 2021.

At Exton, the Bass Highway cross-section transitions from a divided four-lane highway with a median barrier to a two-lane highway with no median barrier, yet the speed limit does not reduce to reflect the much greater risk of a crash and trauma. While the police indicated that distraction was the possible cause of the head-on crash, the unsafe speed limit resulted in trauma even though the vehicles involved had adequate safety technology.

Driver expectation of the speed limit on the Bass Highway rural segments between Launceston and Wynyard is 110kph, irrespective of the safety standard of the highway at any point.

3. The Midland Highway at Ross where a triple fatality occurred in October 2020.

The speed limit of 110kph is clearly inconsistent with the safety standard of the highway at that location.

4. The Summerleas road intersection upgrade on the Huon Highway cost \$20.5M, and the Sandfly Road intersection upgrade will cost c\$7M.

Could a less costly solution have achieved the same result and some of this funding been used to, for example, install median barriers, apply raised profile road markings, on the entire corridor?

The proposed flyover at Leith will cost \$15M for a 2km section of the Bass Highway. What other options were considered to make the whole segment between Devonport and Ulverstone road infrastructure safer?

5. The bridge on the Esplanade at Huonville where a fatality occurred in October 2015, and the hazard still exists.

Robert Armstrong campaigned for over 15 years to have the bridge widened, without success. Funding was finally approved for the Huon Link bypass in 2021.

6. At the Southbridge Waste Transfer Station intersection on the Huon Highway the number of crashes and near misses has increased in recent years.

The hazard was reported to council in 2018 and the speed limit was subsequently reduced from 100kph to 80kph, although it is well understood that a side-impact collision at a speed of 80kph will probably prove fatal. Other low cost treatments were suggested to mitigate the risk but they were not applied.

In August 2020 a fatality occurred following a side-impact collision at the intersection. Following the crash, a road safety audit was not undertaken but the yield marking was moved closer to the highway, however council took no other action to mitigate the continuing risk, such as removing vegetation to improve sight line visibility.

Another side-impact collision occurred in March 2021 which fortunately did not result in trauma because the impact occurred at an angle. There have been no remedial treatments to reduce the risk of another crash since that time, despite several approaches to council.

It is probable that a road safety officer would have acted to mitigate the crash risk with every available measure until a Blackspot treatment was commenced.

7. At the junction of the Esplanade and Huon Highway at Huonville the stop marking was invisible for several years, until lobbying rectified this.
8. The Lyell Highway on the outskirts of Queenstown has a posted speed limit of 100kph but the mean speed is probably 30kph for a distance of 4km, with 100kph only safely achievable to the east of Linda.