WAI 1

Our Ref: *AW/ge; 34/017*

25 February 2011

Road Safety Advisory Council
C/- Department of Infrastructure, Energy and Resources
GPO Box 936
HOBART TAS 7000

Dear Sirs

PROPOSED AMENDMENT TO THE *ROAD RULES 2009*
Reducing Rural Default Speed Limits in Tasmania

The above matter was considered at the 21 February 2011 meeting of Council. I note, however, that the period for consultation closed on 18 February 2011 which was prior to the Council meeting date.

Despite Council's late submission of comments in relation to this matter, I urge you to take cognisance of the input provided.

The following was the decision of Council at the 21 February 2011 meeting (minute ref. 053/11):

Cr Goninon/Deputy Mayor Downie
That Council advise the Road Safety Advisory Council that they do not support the proposal as:

i) Insufficient information is available as to how the scheme will be implemented with regard to the sections of the road network which will be speed zoned above 90km/h;

ii) The research indicates the major benefits are by reducing the speed limit on the main arterial road network, it is understood that much of this network will be outside the proposal, i.e. no speed reduction proposed.

iii) No specific information has been provided in the reports on rural accident locations where the speed limit may be reduced and accordingly the expected benefits cannot be defined.

Carried unanimously

Attached please find a copy of Council's report in relation to this matter.

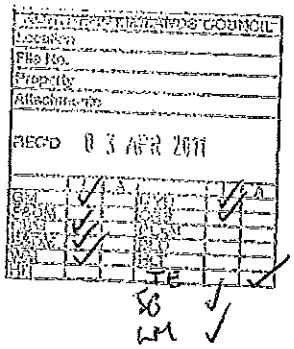
On behalf of Council, I wish to thank the Department for the opportunity afforded to Council to contribute to this process.

Yours sincerely

Adam Wilson
GENERAL MANAGER

Tasmania
Road Safety
Advisory Council

Mr Adam Wilson
General Manager
Northern Midlands Council
PO Box 156
LONGFORD TAS 7301



Dear Mr Wilson

I am writing in regard to the Road Safety Advisory Council's proposal to lower rural speed limits and to advise you of the next steps in this project.

As you are aware the Council recently undertook community consultation on a proposal to lower rural default speed limits. The Council considered the results of the community consultation at its meeting on 8 March and agreed in principle to recommend the introduction of safer speed limits for rural roads. This position takes account of expert advice, stakeholder and public submissions, community consultation and market research.

However, before the Council will make any formal recommendations to Government on this issue, work will be undertaken to determine which roads should retain a 100km/h speed limit. As part of this process road assessment criteria will be developed to provide an evidence-based approach to selecting which roads would have lower speed limits apply. It is intended that these criteria will be based on best practice road engineering principles and will be subject to an external peer review.

It is important to note however that no formal decisions have been made as to which roads will have a lower speed limit and it is the intention of the Council to involve local government once the road assessment criteria have been developed. This will provide local government with an opportunity to make submissions for roads which they believe meet the criteria to retain a 100km/h speed limit.

The Council has also agreed to conduct an examination of speed limit signage, including the use of 'End Speed Limit' signs, with a view to delivering clear and consistent speed limit signs.

Yours sincerely

John Gledhill
CHAIR
ROAD SAFETY ADVISORY COUNCIL

1 April 2011

Hon David O'Byrne MP
Minister for Economic Development
Minister for Innovation, Science and Technology
Minister for Infrastructure
Minister for Police and Emergency Management
Minister for Workplace Relations

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Ph +61 3 6233 8892 Fax +61 3 6233 7663
david.o'byrne@parliament.tas.gov.au

Tasmania

05 SEP 2012

NORTHERN MIDLANDS COUNCIL
Location
File No.
Property
Attachments
REC'D - 7 SEP 2012

	I	A		I	A
GM	✓		MYR		
P&DM			CRS	✓	
CSM			PLAN		
E&DM	✓		BLD		
WM			HLT		
HR			TE	✓	

SG ✓

Mayor Kim Polley
Northern Midlands Council
PO Box 156
LONGFORD TAS 7301

Dear Mayor Polley Kim

I am pleased to provide you with a copy of the *Safer Roads: Non-Urban Road Network Strategy* (the Strategy) which I launched on 4 September 2012.

In developing the Strategy, I have considered the recommendations of the Road Safety Advisory Council in relation to lowering speed limits on non-urban roads, and also the results of community consultation, and discussions with key stakeholders. As a result, the Government agreed with the community's view that there should not be a 'one size fits all' approach to reducing the non-urban speed limit. I therefore requested the Department of Infrastructure, Energy and Resources (DIER) to develop a broader strategic framework for improving safety on our non-urban roads.

The Strategy focuses on the State's extensive network of 100km/h non-urban roads to address a serious crash problem. The Strategy identifies the need to balance infrastructure treatments and speed management measures to improve the overall safety of the non-urban road network. The main focus of the Strategy is on improving, where possible, road and roadside infrastructure; with speed management being used where an infrastructure response is not possible.

As part of the Strategy's development independent criteria – the 'Tasmanian Criteria for 100km/h Roads' – (see attachment) have been created for assessing which sealed non-urban roads, or sections of roads, are of a standard to safely support a 100km/h posted speed limit. These criteria are based on Safe System principles but also take into consideration Tasmania's unique road environment.

For those sealed non-urban roads assessed as not being capable of safely maintaining a 100km/h speed, lower speed limits of 90km/h will be applied. All unsealed roads will have the speed limit reduced to 80km/h without any road assessment being undertaken. As part of this process 'end speed limit signs' will be replaced with new signs which will indicate the speed limit with additional advice indicating that road conditions are changeable and that caution should be exercised.

There is clear evidence that implementing such a sustained and co-ordinated approach to better aligning speed limits to the inherent safety of the road environment will result in large safety gains through reducing road user risk and increasing road user protection. It has

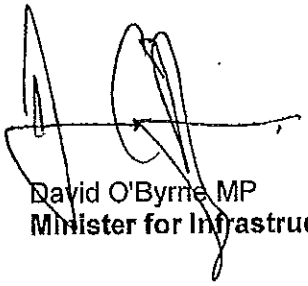
been estimated that the adoption of the approach advocated by the Strategy could result in 100 fewer Tasmanians being killed or seriously injured over the next six years.

No formal decision has been made at this stage as to which roads will retain a 100km/h speed or will have a lower speed limit apply. However, in order for a non-urban road to retain a 100km/h speed limit it will need to meet the 'Tasmanian Criteria for 100km/h Roads'. A preliminary assessment of higher standard State owned non-urban roads (i.e. those that carry more than 69 per cent of the traffic volumes) indicates that the majority of Tasmania's strategically important state-owned roads would retain a 100km/h speed limit.

Prior to the introduction of any new speed limits, DIER will be working with local Councils and their communities to identify any roads or sections of road they believe will meet the criteria for 100km/h non-urban roads. As owners of local roads, Councils' knowledge of their road assets will greatly assist in this process. DIER will conduct an initial review of submissions to determine whether they are likely to meet the necessary standard and if so a detailed independent assessment of the road will be conducted.

I look forward to the State and Local Governments working together to implement this important initiative.

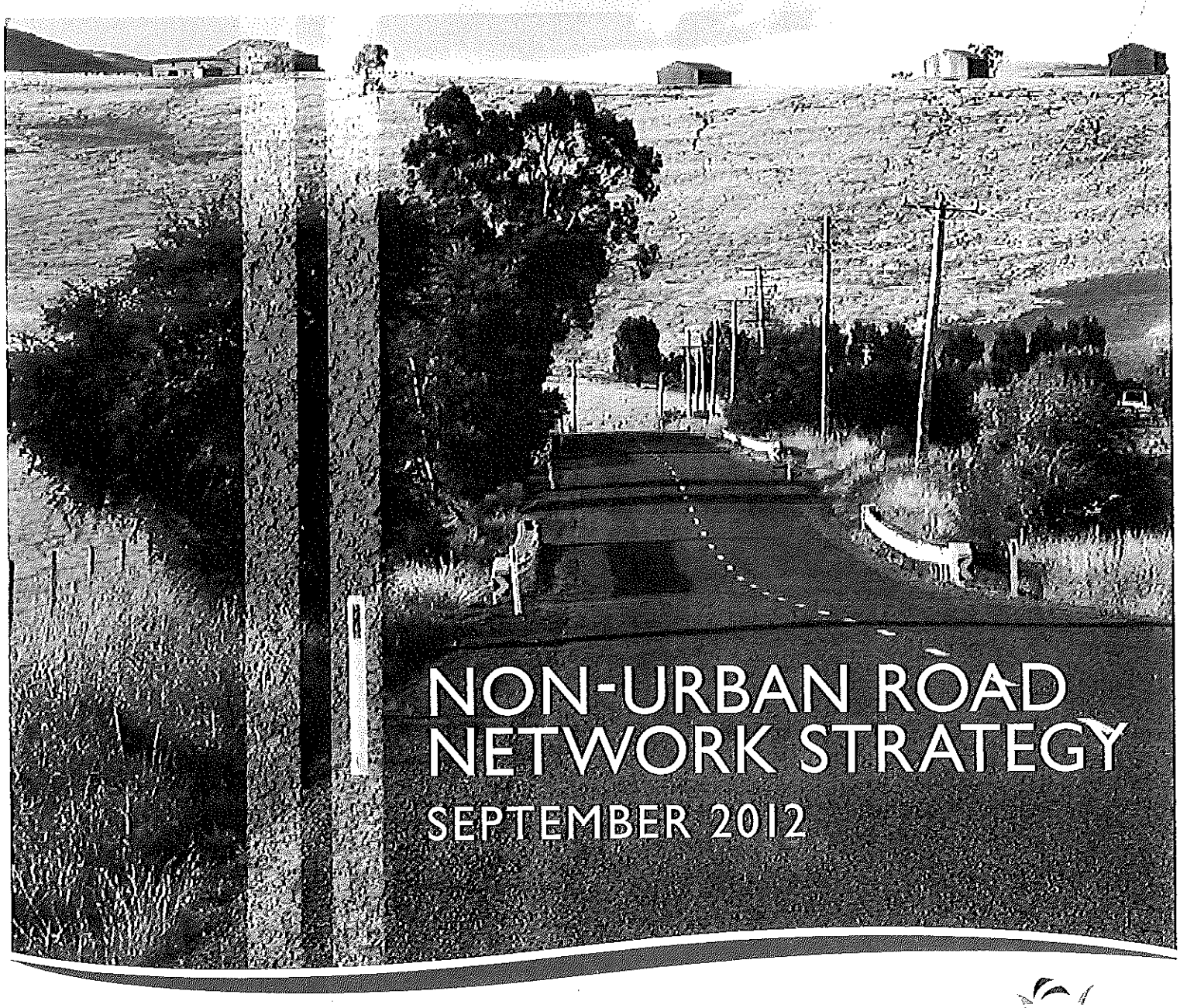
Yours sincerely



David O'Byrne MP
Minister for Infrastructure

SAFER ROADS

SAVE LIVES



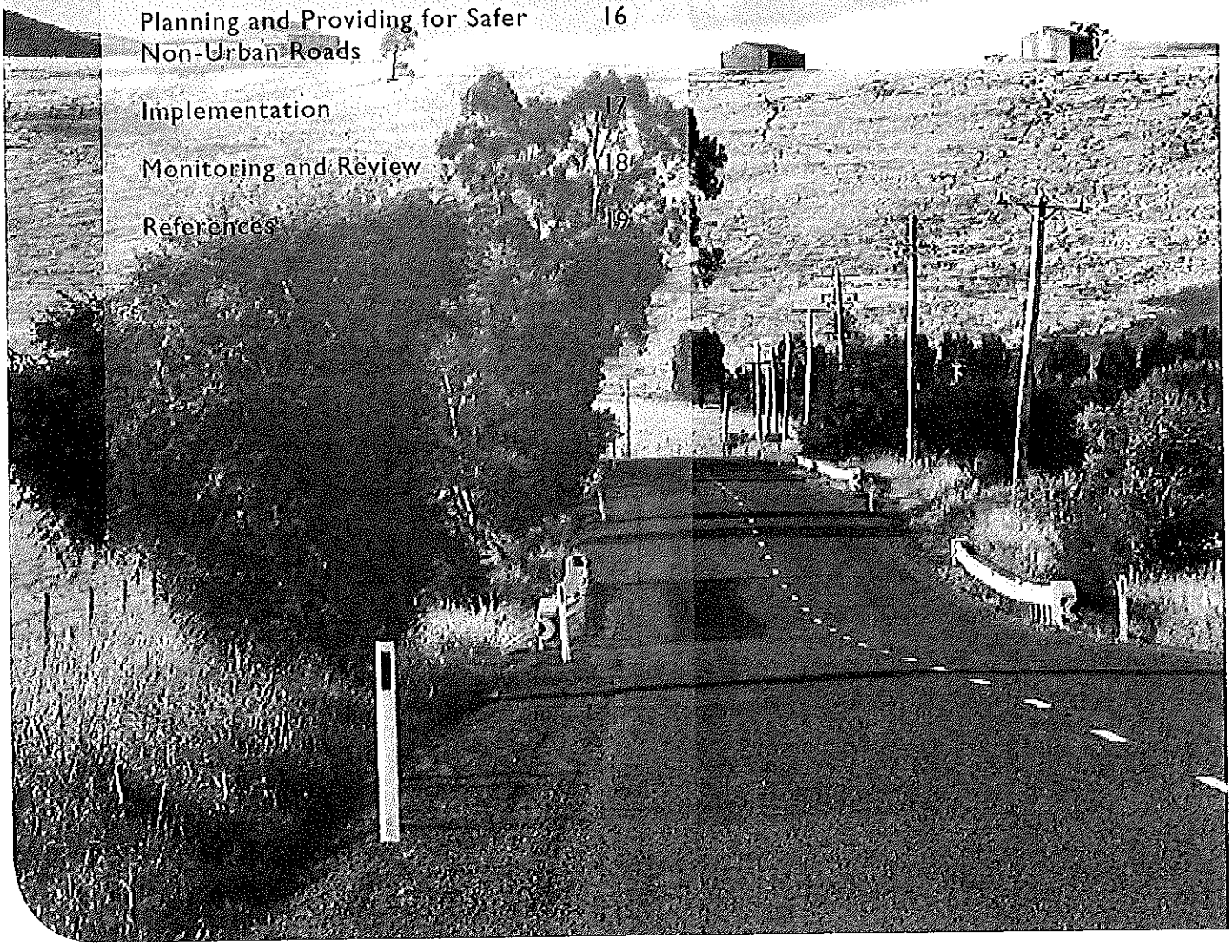
NON-URBAN ROAD NETWORK STRATEGY

SEPTEMBER 2012

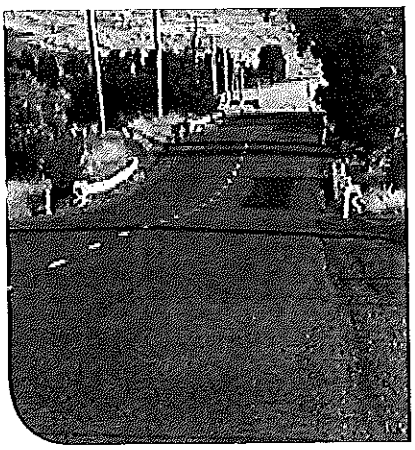
Department of Infrastructure,
Energy and Resources

Tasmanian Government

CONTENTS

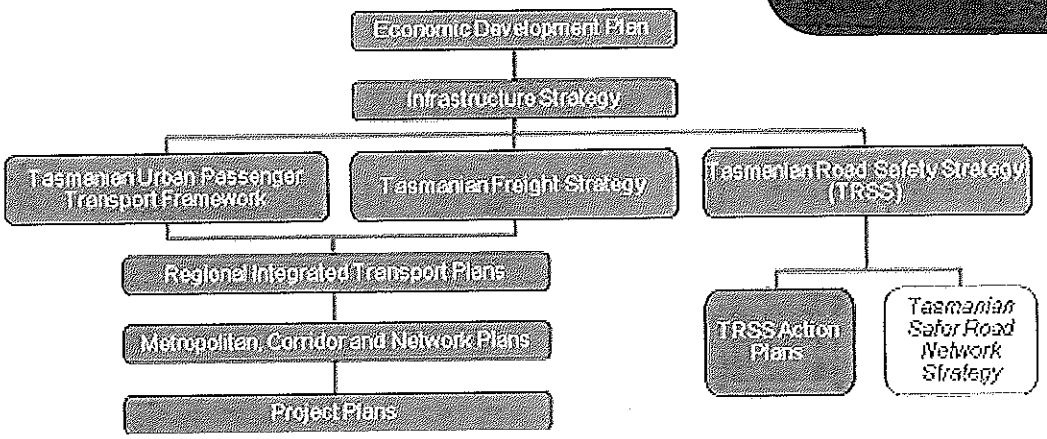


INTRODUCTION



A transport system that connects communities and facilitates the efficient movement of freight is vital for Tasmania. The Tasmanian road network is an integral component of this system.

The Tasmanian Government has developed a strategic framework (Figure 1), comprising of a number of policies, plans and strategies that combine to ensure that Tasmania's transport system performs effectively, efficiently and safely, and to guide future investment decisions.



(Figure 1: Strategic Framework)

The Safer Roads: Non-Urban Road Network Strategy enhances this strategic framework. It focuses on the State's extensive network of non-urban roads to which a 100km/h speed limit applies and which have been identified as having a significantly higher proportion of crashes than other speed zones. The Strategy represents the Tasmanian Government's commitment to improving the inherent safety of these roads by adopting new safety standards for 100km/h roads, and by better aligning road design and layout with an appropriate speed limit.

This Strategy complements the Tasmanian Road Safety Strategy 2007-2016 by utilising Safe System principles of safe roads and safe speeds. It identifies the need to balance infrastructure treatments and speed management measures to improve the overall safety of the non-urban road network. There is clear evidence that such a sustained and co-ordinated approach to better matching appropriate speed limits to the road standard will result in large safety gains through reducing road user risk and increasing road user protection.

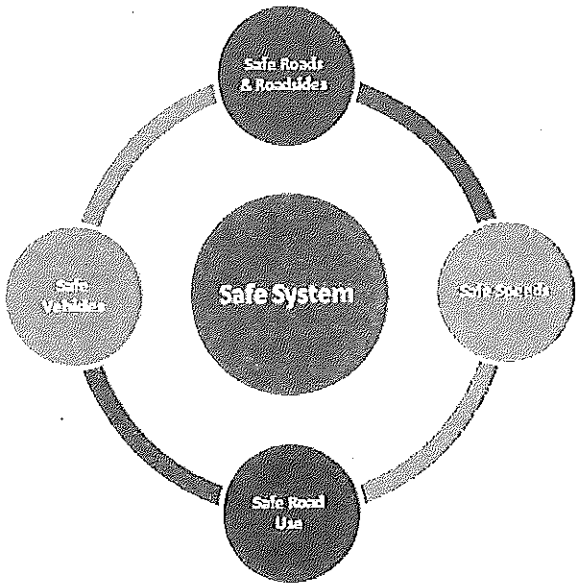
The Safe System approach has been adopted both nationally[1] and internationally[2] as the leading approach to improving road safety. It requires a holistic view of the road transport system and the interactions among road, roadsides, travel speeds, road users and vehicles.

It recognises that people will make mistakes and therefore the whole system needs to be more forgiving of these errors.

A Safe System approach recognises three major factors:

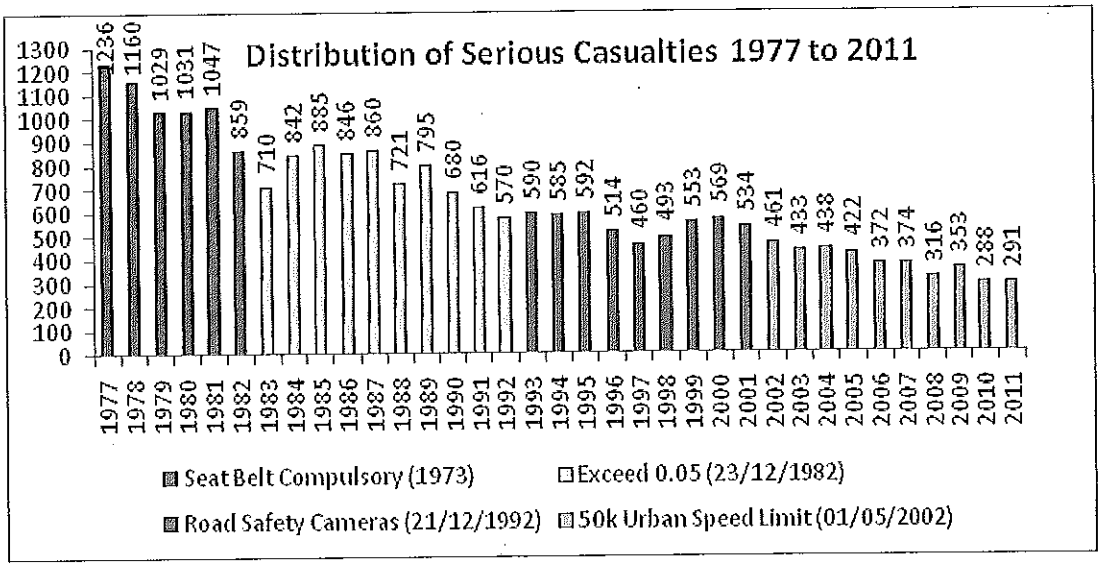
1. people make mistakes and crashes will continue to occur;
2. the human body is frail and can only withstand a certain level of force before sustaining serious injuries; and
3. the road environment should be forgiving so that the forces in crashes do not exceed the limits of human tolerance.

1 e.g. National Road safety Strategy 2011-2020 (Australia) and Tasmanian Road Safety Strategy 2007-2016
2 e.g. Vision Zero (Sweden) and Sustainable Transport (the Netherlands)



(Figure 2: Safe System Diagram)

A number of road safety initiatives have been introduced in Tasmania that have greatly contributed to reducing serious casualties (serious injuries and fatalities) on our roads. These include initiatives such as compulsory seatbelts, 0.05 BAC, introduction of road safety cameras and the introduction of 50km/h urban speed limits (Figure 3). The Strategy provides an opportunity to build upon these successes and further improve road safety in Tasmania.



(Figure 3: Key Road Safety Initiatives)

This Strategy is not an implementation plan. Further detailed planning and ongoing work is required to give effect to the Strategy. It will be supported by a performance monitoring and reporting regime.

The Strategy applies to State-owned roads; however it provides guidance for local government practices in the management of council-owned roads.

SAFER ROADS SAVE LIVES

TASMANIA'S NON-URBAN ROAD NETWORK

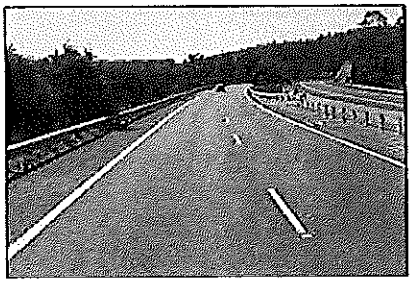
Tasmania has a large network (>18,000 kms[3]) of State-owned and local roads that cover a wide geographical area and the majority, around 14,500km, are non-urban roads[4].

Tasmania's non-urban roads are diverse in function and safety standard, including a mixture of sealed and gravel roads, and carry vastly differing levels of traffic. Many are winding, undulating, and narrow. They link urban centres, townships and provide access to remote areas of the State. Typically, they are single carriageway and the default speed limit (maximum 100km/h)[5] applies to around 11,000 kms of these roads. Many of these roads cannot safely support travelling at 100km/h.

A road is determined to be of a high, medium or low standard depending on whether it has certain safety features, such as sufficient shoulder sealing, edge lines, side and/or median barriers, intersection treatments, consistent alignment, and curves or hills. Figure 4 shows some examples of the varying standards of non-urban roads.

Significant investment is being made each year to improve the standard of Tasmania's non-urban road network. Investment levels reflect the different road functions and are focused on Tasmania's strategically important and high volume roads. Most of the investment has been on new road construction and major road upgrades, and in treating crash clusters on the network.

In the 2011/12 financial year alone, the Tasmanian Government has invested $120 million into the road network. This is in addition to the $54 million committed by the Australian Government. This funding has been expended on network development (such as the Community Roads Package), National Building Program (e.g. the Brighton Bypass), the National Blackspot Program and Engineering Services. This funding has been directed at areas where improvements are most needed and where safety is a key priority. Approximately $12 million has been budgeted from the Road Safety Levy for infrastructure projects in 2011/12.



High standard

Medium standard

Low standard

(Figure 4: Varying Standard of the Non-Urban Road Network)

3 Excludes private roads, unformed roads and tracks

4 Not in a built-up area. A built-up area is defined as an area in which either of the following is present for a distance of at least 500 metres or, if the length of road is shorter than 500 metres, for the whole road:

- buildings, not over 100 metres apart, on land next to the road
- street lights not over 100 metres apart

5 Note in the Kingborough and Tasman Municipalities a default speed limit of 90km/h applies on sealed roads and 80km/h on gravel roads

THE SAFETY ISSUE

Crash Statistics

Analysis undertaken by the Monash University Accident Research Centre (MUARC) has shown that there is a significant serious casualty crash problem on Tasmania's 100km/h non-urban roads. Statistics show that for the 10 year period from 2001-10, there were 3305 serious casualty[6] crashes on Tasmania's roads, and that almost 40 percent of these crashes (1319) occurred in 100km/h speed zones. This is more than in any other speed zone.

Speed Zone	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<50km/h	8	11	13	18	30	21	22	19	23	12
50km/h	1	44	49	48	43	42	36	46	46	42
60km/h	190	98	63	80	55	52	45	39	51	36
70km/h	5	12	11	18	12	13	6	3	13	6
80km/h	39	41	47	37	42	40	38	28	24	33
90km/h	0	0	1	0	1	0	0	2	2	7
100km/h	147	150	159	137	154	115	130	100	121	106
110km/h	28	24	20	21	18	20	25	23	19	11
Not stated	5	8	0	0	0	0	0	0	0	0
Total	423	388	363	359	355	303	302	260	299	253

(Table 1: Serious Casualty Crashes by Speed Zone 2001 to 2010)

The majority of the 1319 serious casualty crashes resulted from: run-off road crashes (65%); head on collisions (18%); and intersection crashes (2%).

Taking into account the number of vehicle kilometres travelled the crash rates on Tasmania's 100km/h non-urban roads are high and widely dispersed. This is best illustrated by mapping individual[7] and collective[8] crash risk.

On the crash risk maps (Maps 1 & 2), black and red indicate the highest level of being in a crash.

Analysis of the individual and collective crash risk of the non-urban road network shows that crashes are generally dispersed and it is difficult to find clusters of crashes where similar types of crashes occur within close proximity. This makes it increasingly difficult to apply appropriate infrastructure treatments to address specific crash problems.

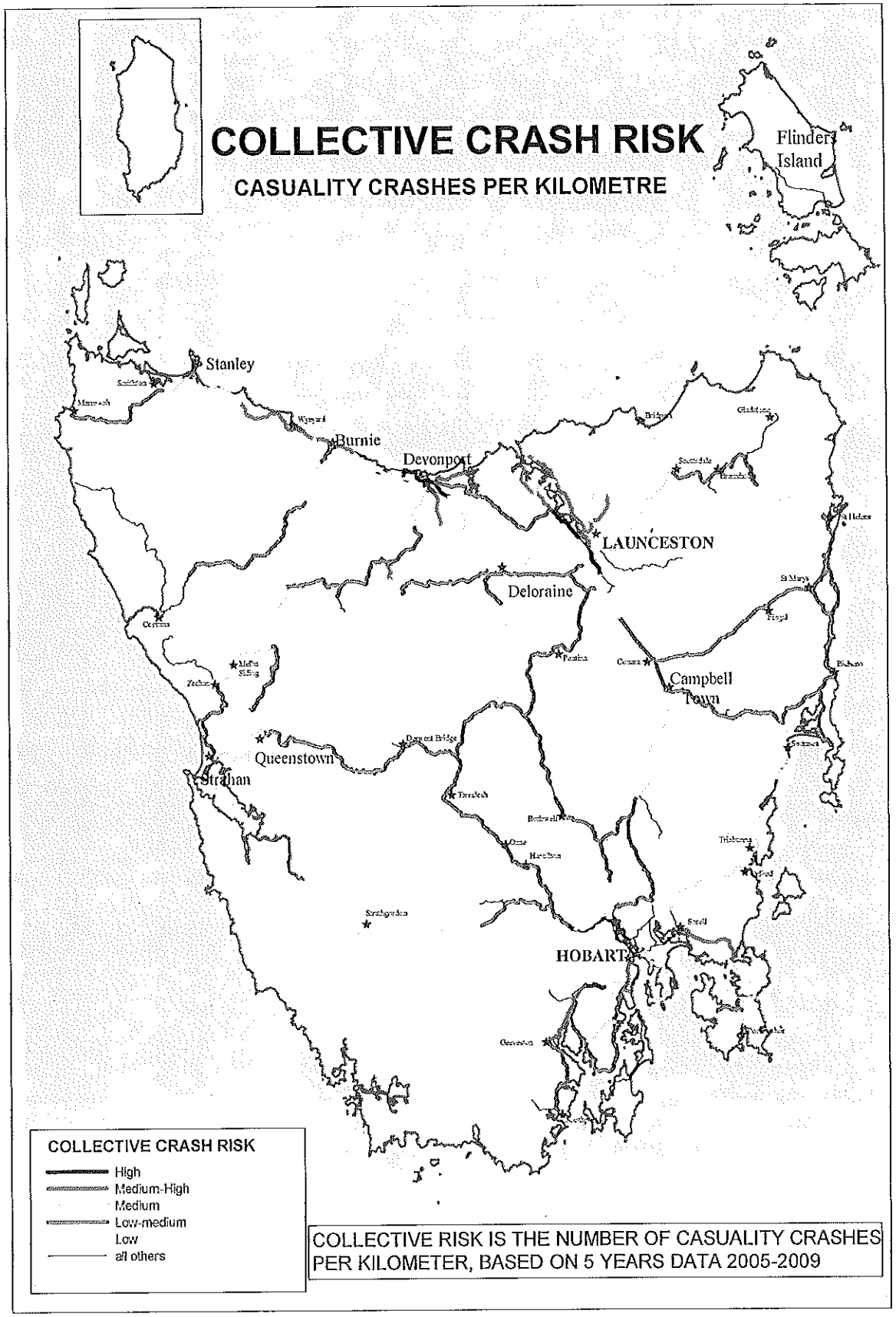
This analysis shows that many of the 11,000km of non-urban roads to which a 100km/h speed limit applies cannot be safely driven at 100km/h.

Tasmanians cannot ignore that a large proportion of serious crashes in the State are occurring on 100km/h roads and that their exposure to crashing is most prevalent on this part of the road network.

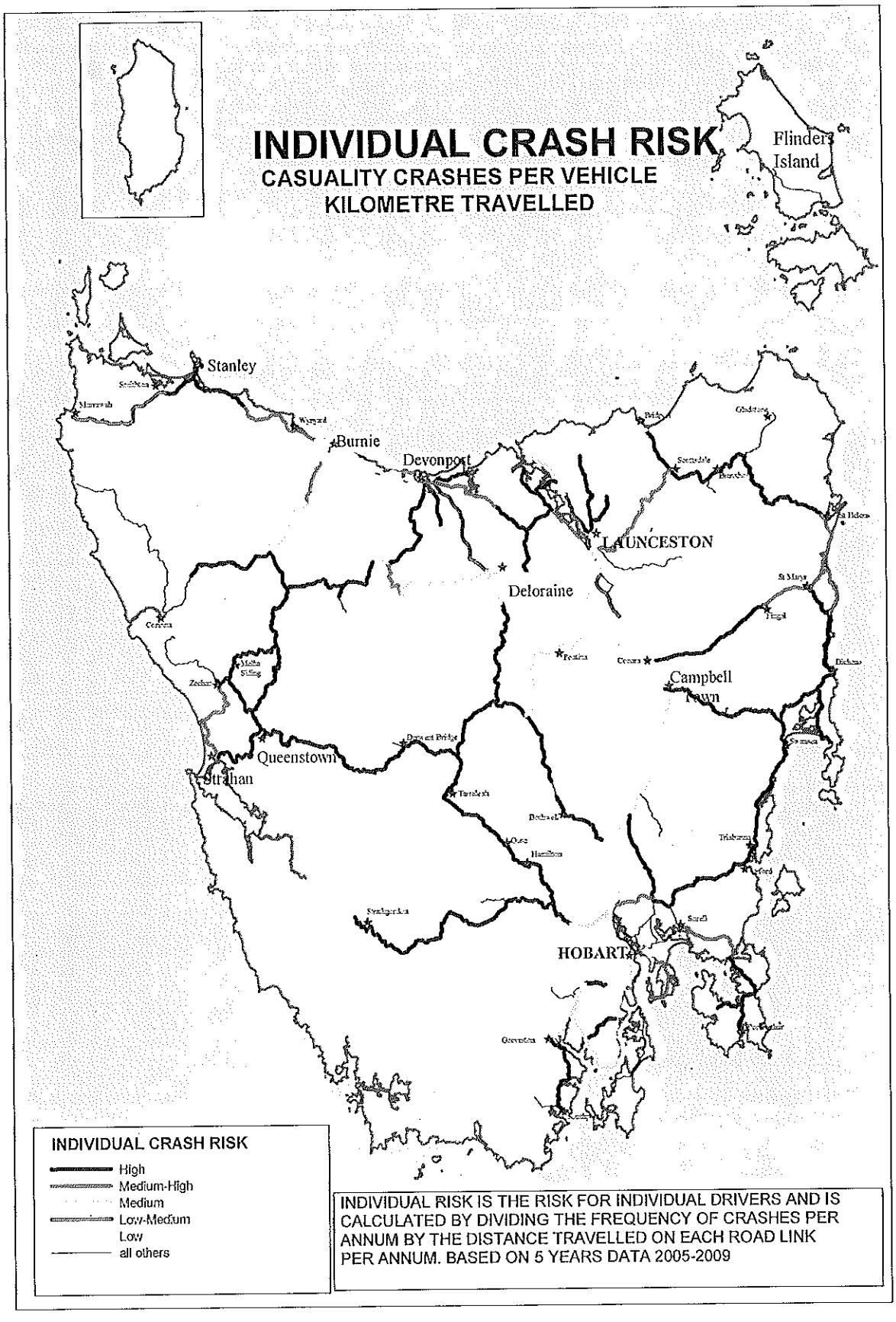
6 Fatalities and serious injuries

7 Individual risk takes traffic volume explicitly into account. It shows casualty crash risk per vehicle kilometre travelled. This is the risk for individual drivers and is calculated by dividing the frequency of crashes per annum by the distance travelled on each road link per annum.

8 Collective risk shows the density or total number of crashes on a road over a given length. It is calculated by dividing the number of casualty crashes per annum by the length of the road link.



(Map 1: Collective Crash Risk)



(Map 2: Individual Crash Risk)

Road Standard Assessment

As a result of the high crash risk on the State's 100km/h non-urban road network, further analysis has been undertaken to determine which non-urban roads or sections of road in Tasmania can safely support a 100km/h speed limit and which roads should have a lower speed limit apply. This analysis has been based on two sets of technical road assessment criteria for 100km/h roads developed by the Australian Roads Research Board. The criteria are aligned with Safe System principles and have been subject to a third party peer review[9].

Using the first set of criteria, the 'Optimal Model' (Figure 5) that is closely aligned with Safe System principles, very few sections (if any) of non-urban roads in Tasmania meet the criteria, and therefore would have a lower speed limit apply.

OPTIMAL MODEL

- Divided roads with a median barrier in rural environments with no direct abutting access.
- At major intersections, roundabout intersection treatments are provided.
- At minor intersections, provide:
  - acceleration and deceleration lanes; and
  - protected right-turn lanes on major carriageway.
- Road edge lines provided.
- Minimum lane width 3.5m, with sealed shoulders of 2-2.5m (based on Austroads 2009a).
- Horizontal curve radii not to be less than 500m radius (based on Austroads 2009a).
- Roads that are flat or gently undulating only (based on Austroads 2009a).
- Roadsides shielded with continuous safety barriers.
- Crash record is lower than the average crash history for rural highways.

(Figure 5: Optimal 'Safe System' Criteria for 100km/h roads[10])

By applying the less prescriptive second set of criteria, the 'Tasmanian Criteria for 100km/h Roads' (Figure 6) to Tasmania's higher standard roads (i.e. those that carry more than 69 per cent of the traffic volumes), it is clear that most of Tasmania's strategically important roads would be able to maintain a 100km/h speed limit.

TASMANIAN CRITERIA FOR 100KM/H ROADS

- Undivided or divided roads in rural environments where the land use is developed farm land with no or with a low number of access points.
- Well delineated with centre lines and edge lines provided.
- Desirable lane width of 3.5metres; with desirable sealed shoulder width of 1.0m.
- Alignment generally straight or gently curving in flat or slightly undulated roads; on isolated curves with tighter radius, curve warning and speed advisory signs are to be installed.
- Roadside and medians protected by safety barriers:
  - where roadside hazards (which may include steep batter slopes) are located, roadside barriers are to be installed; and
  - median barriers to be installed where the median width is less than 15m (based on Austroads 2009a).
- Crash record over the last five years is lower than the average crash rate for rural highways.

(Figure 6: Tasmanian Criteria for 100km/h roads[11])

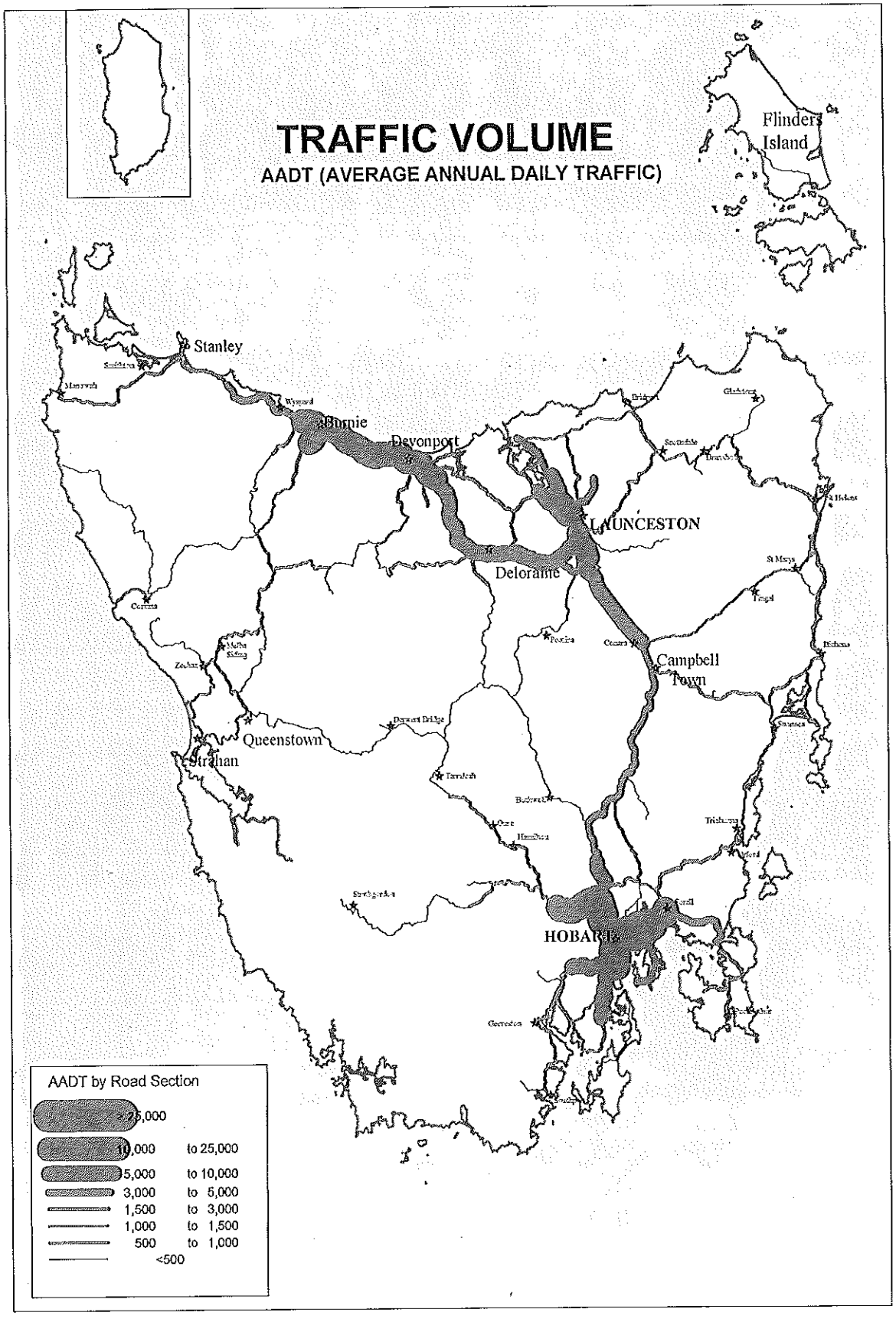
To ensure there is no blanket reduction of speed limits and that roads receive the appropriate speed limit, assessment of roads or sections of roads on the non-urban network will be undertaken in consultation with local government and the community.

9 Wooley, J., & Lydon, M., (2011) Development of new criteria for the application of a transitional model for 100 km/h speed limits on rural roads in Tasmania - Peer Review; Centre for Automotive Safety Research, University of Adelaide, Adelaide.

10 Tziotis M., Phillips, C., (2011) Development of potential new criteria for the application of the 100 km/h speed limit on rural roads in Tasmania – Report 1 of 2; ARRB Group, Melbourne.

11 Tziotis M., Phillips, C., (2011) Development of new criteria for the application of a transitional model for 100 km/h speed limits on rural roads in Tasmania - Report 2 of 2; ARRB Group, Melbourne.

This process will allow for local government and the community to nominate sealed non-urban roads or sections of roads to be assessed against the Tasmanian criteria for 100km/h roads. If the road or section of road meets the criteria, following the review process, it will receive a posted 100km/h speed limit. If it does not meet the criteria it will receive a 90km/h speed limit, either through new signage or the application of the non-urban default speed limit. All unsealed non-urban roads will have an 80km/h speed limit apply. Through this process, the speed limit for non-urban roads will truly match the safety of the road environment.



(Map 3: State Traffic Volumes)

IMPROVING THE SAFETY OF NON-URBAN ROADS

There is a substantial ongoing opportunity for improving the safety risk profile of Tasmania's non-urban road network. Under the Safe System approach, there are several mitigating treatments that are available, including infrastructure investment and speed management. A Safe System approach also focuses on improving road user behaviour and vehicle safety.

Infrastructure Investment

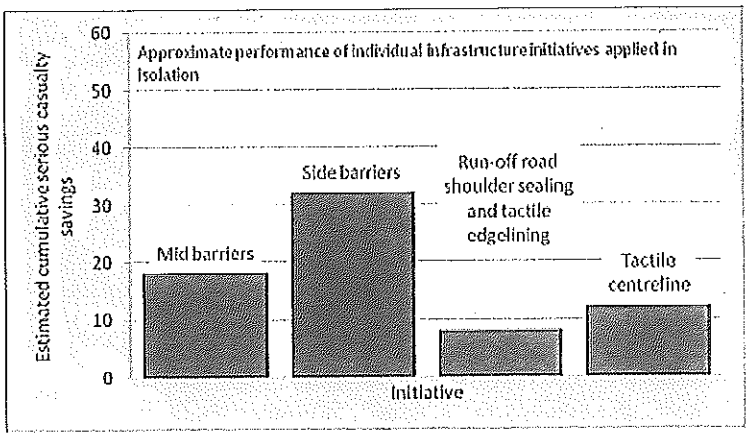
Improving the safety infrastructure of the road and roadside can have a significant impact in reducing crash risk, and minimising the consequences of a crash should it occur.

Road and roadside safety improvements fall into two broad categories of infrastructure investment:

1. Spending on new road construction and major upgrades of existing infrastructure. This includes converting highways to dual carriageways. The primary benefits of such investment are improved mobility and associated economic benefits. Generally safety improvements are a secondary benefit of such investment. Together with ongoing maintenance work, such investment counts for the majority of road funding in Tasmania.

2. Investment in safety focused road and roadside infrastructure projects. Such an approach targets known crash problems and includes initiatives such as Black Spot Programs and broader route based projects aimed at improving the overall safety of the road network. Due to the specific focus on safety such investment is associated with increased safety benefits and greater benefit-cost ratios.

Installation of flexible barrier systems, as either median or roadside treatments, has been shown to significantly reduce serious head-on and run-off road crashes by a substantial 80-90 percent[12]. Modelling conducted by MUARC (Figure 7) has indicated that barrier treatments are cost effective, comply with Safe System principles and target Tasmania's most severe crash types. Investment of $6 million per annum on such treatments is estimated to result in a 5 percent reduction in crashes[13].



(Figure 7: MUARC Evaluation of Infrastructure Treatments)

Previously, road infrastructure investment has focused on new road construction and major upgrade projects. However, greater focus is now required on investing in safety based infrastructure projects, with the aim of providing a more forgiving road and roadside environment for road users.

12 Larsson, M., Candappa, N.L., and Corben, B.F., (2003) Flexible Barrier Systems along High-Speed Roads – A Lifesaving Opportunity: MUARC, Report No 210, Melbourne.
13 Healy, D., Logan, D., Liu, S., Peiris, S., Hoareau, E., & Corben, B., (2010) An Independent Evaluation of Proposed Initiatives for the Tasmanian Road Safety Action Plan 2010-2013: MUARC, Melbourne.

Many of the safety-focused infrastructure treatments are relatively low-cost however significant infrastructure investment will be required to apply such treatments across the road network. Such improvements will also take time.

The MUARC evaluation shows that significant reductions in serious casualties can be achieved in Tasmania through strategic and on-going investment in road and roadside infrastructure to prevent run-off road and head-on crashes.

There are however constraints on the level of infrastructure improvements that can be undertaken, and the number of highways that will eventually be upgraded to dual carriageways are limited. Roads are a long life asset and the Government cannot improve them all at once. It is also not possible, due to physical constraints, to upgrade all roads, and road upgrades are not always necessary or justified. Reasons include topography (i.e. unable to widen or straighten roads), low traffic volumes, dispersed crash history and inconsistent standards within the road length. Infrastructure improvements can also take a long time to complete and other initiatives may therefore need to be considered to address crash risk in the short to medium-term.

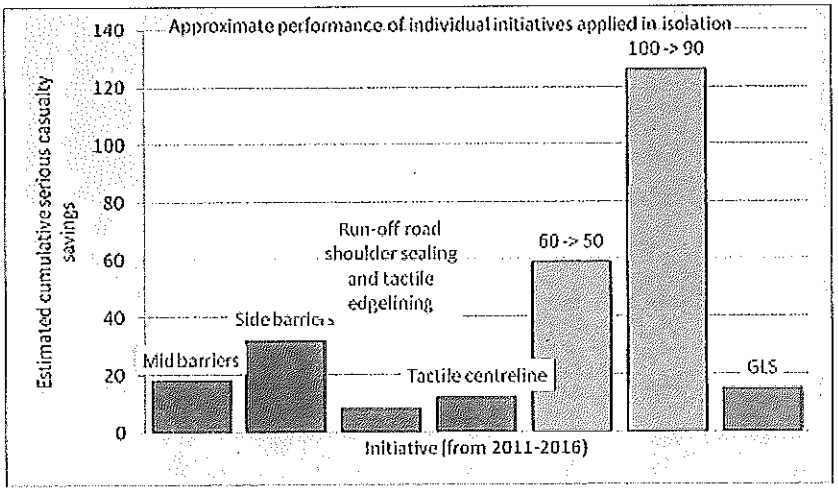
Speed Management

"The objective of speed management is to contribute to road safety, mobility and amenity on public roads by providing a credible system of speed limits which are compatible with the speed environment[14]."

Speed management has an important place in improving the risk profile of our infrastructure where roads cannot be upgraded, e.g. due to physical constraints, or as an interim measure until infrastructure treatments can be undertaken. There is a significant body of evidence which suggests that speed limits that complement the road environment can manage impact forces to within human tolerances, and reduce the likelihood of a crash occurring.

While speed may not cause every crash, it has an impact on all crashes, regardless of their cause. The higher the travel speed, the less chance there is of avoiding a crash and the greater the forces the human body is exposed to in the event of a crash. Speed is consequently an aggravating factor in all crashes. Managing travel speed, i.e. aligning to road environment, is integral to providing a safe road network.

Modelling conducted by MUARC shows that reducing the speed limit on all sealed non-urban roads from 100km/h to 90km/h will result in 126 fewer serious casualties over the next six years (Figure 8).



(Figure 8: MUARC Evaluation of Road Safety Initiatives)

14 Australian Standard 1742.4, Manual of uniform traffic control devices – Speed controls

Taking an approach of retaining higher standard roads or sections of road at 100km/h would still achieve around 100 fewer serious casualties over the next six years.

To ensure compliance and credibility speed limits need to be set at an appropriate level for the nature and function of the road. Aligning speed limits to the road standard, i.e. design speed, ensures this is the case. Effective speed management practices also require appropriate enforcement to ensure compliance with the speed limit.

The key is to balance infrastructure and speed to make a safer non-urban road system. The speed limit on a road must match the standard of the road so that road users of the road system know what to expect and drive appropriately to the prevailing road conditions. Such an approach is consistent with the National Road Safety Strategy 2011-2020 which acknowledges the need for network-wide alignment of speed limits with the inherent risk and function of the road and roadside environment[15].

Complementary Initiatives

In addition to the Safe System principles of safe roads and safe speeds, the Tasmanian Government will continue to put considerable effort into improving the safety of vehicles and road users.

Vehicle technology has come a long way in recent years. Not only do newer vehicles now have greater safety features to protect occupants in the event of a crash, they have the capability to reduce the likelihood of a crash and to simplify the driving task. Safety features such as crumple zones, airbags and electronic stability control are contributing to make vehicles safer and the community demand for increasing occupant protection is influencing manufacturers to provide many safety features as standard in new cars. Table 2 outlines some of the initiatives being considered or undertaken to improve vehicle safety.

ACTION	EXPECTED OUTCOME
Review mandatory safety standard for Government vehicles	• Improved safety of second hand vehicles. • Enhanced workplace safety.
Develop and promote vehicle fleet safety standards for commercial fleets	As above
Public Education Campaign on choosing safer vehicles	• Increased awareness of importance of vehicle safety features. • Improved consumer decision making when purchasing a vehicle. • Greater uptake of vehicle safety features in Tasmanian vehicle fleet.
Support for the Australian New Car Assessment Program (ANCAP)	As above

(Table 2: Vehicle Safety Initiatives)

Most road users do obey the laws of the road, have good awareness and choose to drive responsibly. But even these people can make mistakes. In addition, there are some people who put themselves and others at risk, by breaking the road laws and these people contribute to the number of casualty crashes on our roads. The Tasmanian Government targets inappropriate road user behaviours through education, enforcement and appropriate penalties.

15 Australian Transport Council (2011) National Road Safety Strategy 2011-2020; Canberra, ACT. Available at www.atcouncil.gov.au/documents/atcnrss.aspx.

ACTION	EXPECTED OUTCOME
Further Changes to the Graduated Driver Licensing System (GDLS)	• An investigation into the application of best practice restrictions in Tasmania, including benefits and social implications, will inform future policy development in this area.
Alcohol Interlock Program	• Increased compliance with drink drive regulations.
Public Education	• Improved road user behaviour. • Reduction in serious casualties.
Enforcement	• Increased general road rule compliance. • Reduction in serious casualties.
Community Road Safety Partnerships	• Increased community awareness of road safety issues and effective road safety practices. • Increased communication on road safety. • Possible reduction in high-risk road user behaviours.

(Table 3: Road User Behaviour Initiatives)

The second three year Action Plan 2011-13[16] supporting the Tasmanian Road Safety Strategy 2007-2016 provides more details of planned initiatives to enhance vehicle safety and to improve road user behaviour, along with other road safety initiatives being undertaken in Tasmania.

16 A copy of the second action plan is available on the Department of Infrastructure, Energy and Resources website at www.transport.tas.gov.au/safety/tasmanian_road_safety_strategy

PLANNING AND PROVIDING FOR SAFER NON-URBAN ROADS

The Tasmanian Government will continue to provide significant investment in coming years on Tasmania's key strategic routes, leading to long term improvement on the road transport system. This investment will be applied according to state-wide priorities and will be consistent with Safe System principles.

There are significant challenges with investing in improving the infrastructure of Tasmania's very extensive 100km/h non-urban road network. Over the last 20 years safety infrastructure investment has focused on improving locations with the worst crash clusters. However, now the majority of crashes are generally dispersed across the network, and it is difficult to find clusters where similar crash types are occurring in close proximity to each other. This makes them harder to treat cost-effectively. As a result, the focus of investment will shift to Safe System road upgrades and preventative treatments aimed at addressing the problem of head-on and run-off road crashes.

To help prioritise future safety investment for 100km/h roads Tasmania will utilise a number of tools. Upgrades to sections of the 100km/h non-urban road network will be undertaken when that part of the network sufficiently warrants improvement. This may be due to issues relating to safety, efficiency or enhancing connectivity. Upgrades to the network will be based on providing the best return to the community for that investment.

When a section of road has been identified for upgrading, the adopted standard will ensure the improved safe operation of the road and that upgrades align with Safe System principles.

Each road owner will need to determine its own priorities for upgrading across its own network, in the context of the funds it has available and the transport outcomes it is delivering.

For 100km/h roads, the new road assessment criteria (both the Optimal and Tasmanian Criteria for 100km/h Roads) are additional tools that will provide a clear standard for future road upgrades, infrastructure safety treatments and design planning for new roads. For the first time it enables infrastructure investment on Tasmania's non-urban road network to be more targeted and based on Safe System principles.

Recognising it is not currently feasible or acceptable to the community to fully implement the 'Optimal Model' on Tasmania's non-urban road network, the 'Optimal Model' will be adopted as an aspirational model and the Tasmanian Government will work progressively towards implementing this model, applying aspects of it where feasible and as funds allow. The 'Tasmanian Criteria for 100km/h Roads' will be utilised immediately on the non-urban road network.

For those sealed non-urban roads assessed as not being capable of safely maintaining a 100km/h speed, lower speed limits of 90km/h will be applied. All unsealed roads will have the speed limit reduced to 80km/h without any road assessment being undertaken. This is strongly supported by the community[17].

In addition, there is a strong commitment that, when the standard of roads or sections of road are raised to meet the 'Tasmanian Criteria for 100km/h roads, the speed limit will be progressively raised back to 100km/h, unless there are extenuating circumstances. However, the reality is that it will never be feasible to widen and straighten all the 11,000km of non-urban roads in the State, so drivers can safely travel at 100km/h.

To assist drivers to better understand the new speed limit, and in response to community concerns over the use of 'end speed limit' signs, new signage will apply on Tasmania's non-urban roads. On roads that meet the 'Tasmanian Criteria for 100km/h' roads, standard speed limit signs will be posted to advise drivers that the speed is 100km/h. On roads that do not meet the criteria, signs will be used to indicate the maximum speed limit (90km/h on sealed roads and 80km/h on unsealed roads) but that caution needs to be exercised and travel speed lowered where necessary, to suit the road conditions.

17 Community attitude surveys indicate that over 90 percent of the community believe 80km/h is appropriate or still too high a speed limit on unsealed non-urban roads.

IMPLEMENTATION

The following actions will be undertaken to implement this Strategy. Some actions are immediate while others will be worked towards over the longer term.

- Consultation with local government and their local communities in assessing which non-urban roads or sections of road are to retain a 100km/h speed limit. Submissions will be sought for road lengths, which are believed to meet the necessary standard to retain a 100km/h speed limit, to be assessed against the 'Tasmanian criteria for 100km/h roads'.
- Apply the 'Tasmanian Criteria for 100km/h Roads' to all new major road projects and where appropriate and achievable apply the 'Optimal Model'.
- Apply Safe System principles, as appropriate, to all new road projects including upgrades.
- Work with local government to promote Safe System road design.
- Consider future opportunities to upgrade roads that do not currently meet the 'Tasmanian Criteria for 100km/h Roads' standards for higher speed limits, when upgrading the road network for strategic purposes.
- Amend infrastructure funding guidelines and agreements to provide greater emphasis on the safety benefits of road and roadside investment. Cost-benefit analysis with high safety values will underpin future infrastructure investment and safety upgrade decisions.
- Provide targeted treatments aimed at reducing run-off road and head-on crashes. Infrastructure treatments (e.g. median and/or side safety barriers) and/or reduced speed limits will be undertaken on road sections based on crash history analysis.
- Observe the outcomes of national Safe System demonstration projects, in specific local municipalities, being undertaken as part of the National Road Safety Strategy 2011-2020.
- Identifying funding and prioritising allocation of resources to road safety projects.

MONITORING AND REVIEW

The Road Safety Advisory Council (RSAC) oversees the Tasmanian Road Safety Strategy 2007-2016, Action Plans and the associated initiatives and projects. It monitors the effectiveness of initiatives and the resulting road safety benefits.

Specific projects, including the lowering of speed limits to match infrastructure on lower standard non-urban roads, will be monitored and evaluated against baseline data. These results will be reported back to the RSAC and will be made publicly available.

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Wooley, J., & Lydon, M., (2011) Development of new criteria for the application of a transitional model for 100 km/h speed limits on rural roads in Tasmania - Peer Review; Centre for Automotive Safety Research, University of Adelaide, Adelaide.

Tziotis M., Phillips, C., (2011) Development of potential new criteria for the application of the 100 km/h speed limit on rural roads in Tasmania – Report 1 of 2; ARRB Group, Melbourne.

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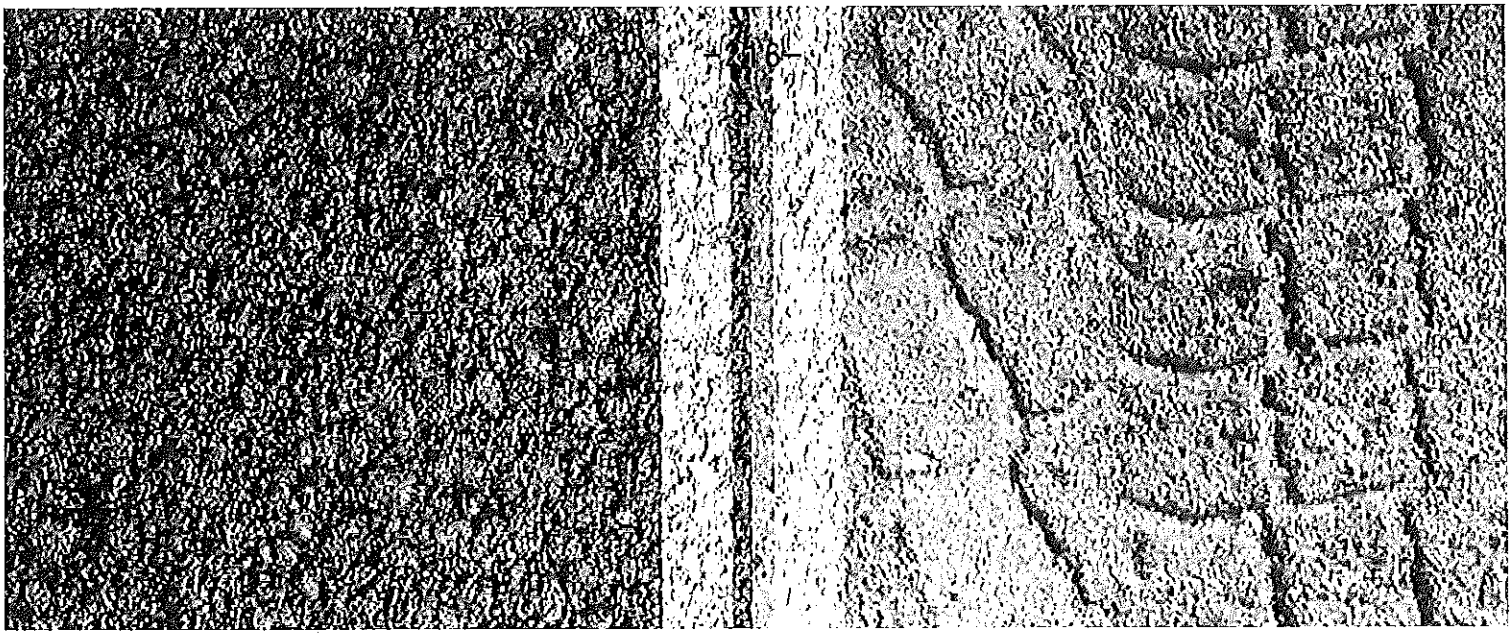
Larsson, M., Candappa, N.L., and Corben, B.F., (2003) Flexible Barrier Systems along High-Speed Roads – A Lifesaving Opportunity: MUARC, Report No 210, Melbourne.

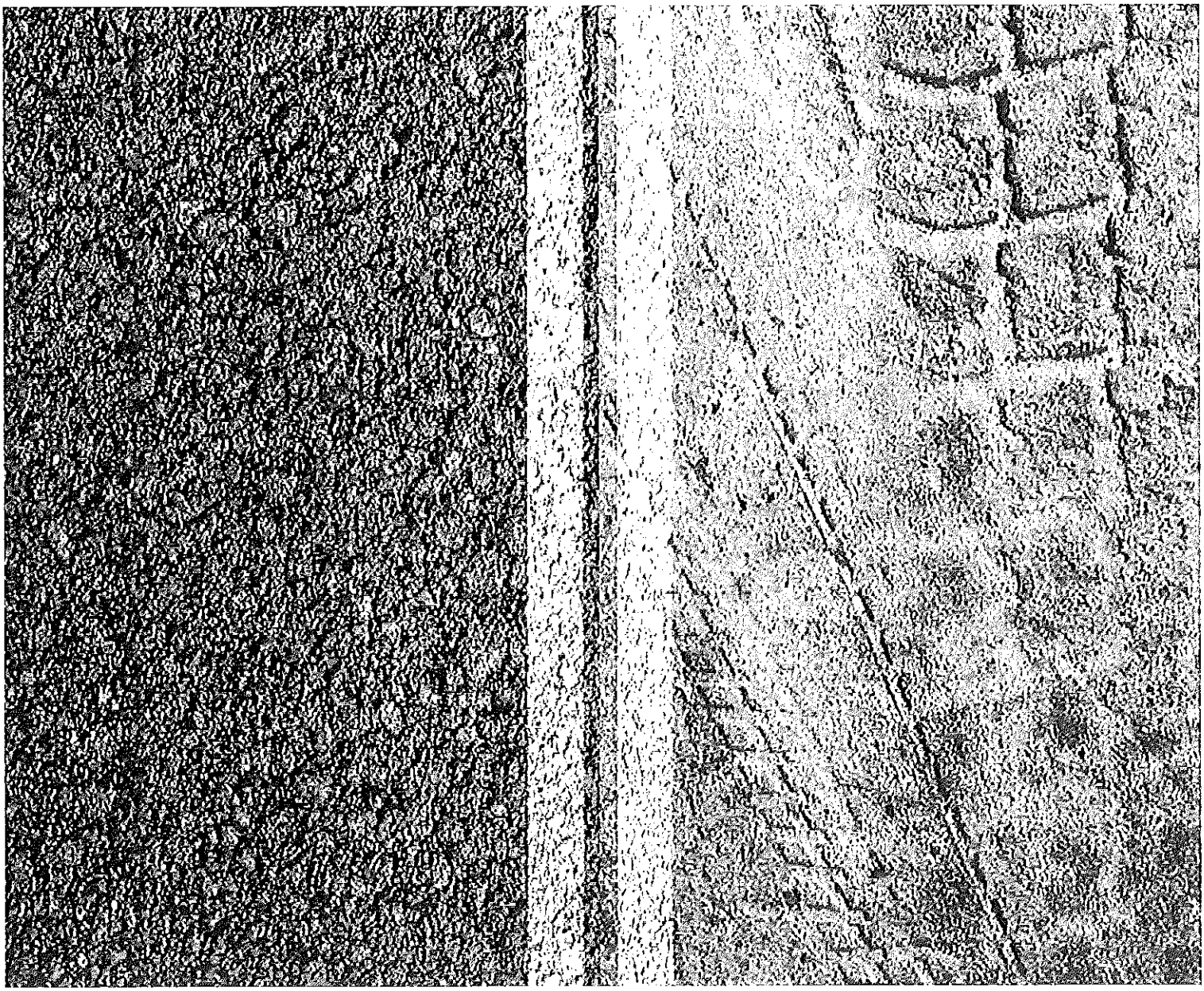
Healy, D., Logan, D., Liu, S., Peiris, S., Hoareau, E., & Corben, B., (2010) An Independent Evaluation of Proposed Initiatives for the Tasmanian Road Safety Action Plan 2010-2013; MUARC, Melbourne.

Australian Standard AS 1742.4, Manual of uniform traffic control devices – Speed controls

Australian Transport Council (2011) National Road Safety Strategy 2011-2020; Canberra, ACT.



www.saferroads.tas.gov.au



053/11 ROAD SAFETY ADVISORY COUNCIL - REDUCTION IN RURAL ROAD DEFAULT SPEED LIMITS

Officer : *Terry Eaton - Engineer*

1 PURPOSE OF REPORT

This report is provided to inform Council of the proposal to reduce default rural road speed limits and to provide a review of the background material for Council's consideration for a formal response.

2 BACKGROUND

The Road Safety Advisory Council is proposing to reduce the rural default speed limit to 90 km/h for sealed and 80km/h for gravel roads respectively and have produced a Regulatory Impact Statement to support the proposal.

A review of the details of the Regulatory Impact Statement and the supporting research has been undertaken to ascertain the likely merit or otherwise of the proposal.

3 STRATEGIC PLAN 2007/201

The Strategic Plan 2007/2017 provides the guidelines within which Council operates. The goals identified in the strategic plan, *"Volume 1 – Mapping Our Direction", 5.1 Transport Infrastructure Operations* are applicable to this report.

4 FINANCIAL IMPLICATIONS

It is understood that in practice the proposal is to extend the "speed zoning" concept within the state by adding an additional 90km/h rural speed control element to the existing provisions of generally 80, 100 and 110 km/h, with a need to sign speed limited sections of road at variance with the 90km/h default limit. No information has been made available as to how this will be achieved and the cost sharing for implementation signing.

Council manages some 470km of rural sealed roads and some 410km of rural unsealed roads. Whilst no audit has been undertaken it is likely that up to some 150km of the sealed road network could be of a standard to permit maintenance of the present 100km/h speed limit with an indicative cost for sign provisions and placement in excess of $50,000 (cost to audit, locate sign positions, provide signs and install).

5 RISK ISSUES

No specific evidence has been provided as to the quantum of the benefits (risk reduction) for users of Northern Midlands Council roads nor, for that matter, local

government managed roads within the state.

6 CONSULTATION

This proposal has been developed by the Road Safety Advisory Council with the agenda item provided to Council for their consideration for a response to the Road Safety Advisory Council consultation process. However, it should be noted no information has been provided as to how the responses are to be assessed, i.e. a structured or unstructured assessment, at this time there is no evidence as any structure to the consultation assessment. The consultation process for the Kingborough and Tasman trials as reported indicates a simple macro reporting approach.

Council facilitated a Community Forum to discuss the proposal at the Council Chambers on Monday, 24 January 2011, with representatives of DIER compiling notes on the meeting, it is understood that Council has not been advised as to how the forum views will be reported to the Road Safety Advisory Council.

7 DISCUSSION

A review of this proposal indicates:

7.1 **Rural roads** are all roads outside cities and towns and include the **state managed highway network**.

7.2 The proposal is to provide for the default speed limits to apply where the road standard is not satisfactory for higher speed operation with speed zoning by signing of the higher speed sections of road.

7.3 It appears the proposal is based on influencing attitudinal change "to drive slower" based on physics, i.e. the lower the speed, the lower the forces involved should any accident occur with a likely reduction in the resulting injuries.

7.4 No information has been provided as to the likelihood of the effectiveness of the proposal as:

7.4.1 No information has been provided as to accident locations such as a breakdown of accident locations on both state managed and local roads.

7.4.2 It is understood the majority of the state major highways will be excluded from the proposal with no change to the speed limits on those roads.

7.4.3 The actual state highways, where the default reduced speed limit will apply, have not been listed.

7.4.4 No research findings have been provided to indicate the potential accident savings on Council managed rural roads.

7.4.5 Whilst mentioned in the Impact Statement, little regard has been given to the costs of the proposal by the increased travel time. The predicted savings with the speed reductions is $23.43 million but with time costs of $22.1 million, i.e. a saving of $1.33 million (6%) provided speed reductions are also put in place on the state network.

8 OFFICERS COMMENT

Having reviewed the support documentation and research provided with the lower default speed limit proposal it appears the specific objective to lower/ reduce crash severity is based on physics along with the proposal, as presented, to remove sections of the main highway network from the proposal substantially limiting the likely benefits from the change.

Indications are that the proposal, as outlined, will be an extension of the present speed zoning provisions which may add further to motorists' confusion as to the speed limit in place on different sections of the overall road network. This confusion and the reduction in speed below the reasonable travel speed for higher standard roads may induce complacency/inattention with the potential for increased accidents.

Historically, both car and road standards have improved over time, this proposal suggests a deterioration in driver ability – maybe that is the central issue to address rather than what appears as a peripheral proposal as a road safety initiative. The issue is assessing "inappropriate" speed rather than speed itself, i.e. driver ability/ attitude/ perception issues rather than a road standard issue.

9 OPTIONS FOR CONSIDERATION

Option 1

That Council advise the Road Safety Advisory Council that they support:
i) Reduction of the sealed rural road default speed limit to 90km/hr;
ii) Reduction of the gravel rural road default speed limit to 80km/h.

Option 2

That Council advise the Road Safety Advisory Council that they do not support the proposal as:
i) Insufficient information is available as to how the scheme will be implemented with regard to the sections of the road network which will be speed zoned above 90km/h;
ii) The research indicates the major benefits are by reducing the speed limit on the main arterial road network, it is understood that much of this network will be outside the proposal, i.e. no speed reduction proposed.
iii) No specific information has been provided in the reports on rural accident locations where the speed limit may be reduced and accordingly the expected benefits cannot be defined.

10 ATTACHMENTS

- Proposed Amendments to the *Road Rules 2009* – Reducing Rural Default Speed Limits in Tasmania.
- Email to DIER dated 21 January 2011 (3 February 2011).
- Email from DIER dated 8 February 2011.

RECOMMENDATION

That the matter be discussed.

DECISION

Cr Goninon/Deputy Mayor Downie

That the matter be discussed.

Carried unanimously

Cr Goninon/Deputy Mayor Downie

That Council advise the Road Safety Advisory Council that they do not support the proposal as:

i) Insufficient information is available as to how the scheme will be implemented with regard to the sections of the road network which will be speed zoned above 90km/h;

ii) The research indicates the major benefits are by reducing the speed limit on the main arterial road network, it is understood that much of this network will be outside the proposal, i.e. no speed reduction proposed.

iii) No specific information has been provided in the reports on rural accident locations where the speed limit may be reduced and accordingly the expected benefits cannot be defined.

Carried unanimously

Notes from Safer Roads meeting with DIER

Tramsheds, Launceston Wed 14th Nov 2012

Non-Urban Road Network Strategy Sept. 2012

Discussions included

- Drivers + how they use the road / behaviour
- Infrastructure
- Speed
- Recommendations from councils to leave speed limit as is – roads must meet criteria. If marginal then crash risk will be assessed.
- Initial criteria were a lot stronger than they are now. Criteria will not change
- More informed discussions to be had with individual councils
- To change road rule regulations re Rule Default – has to go to Parliament. Legislation re default speed limits – 90 on sealed, 80 on gravel unless otherwise signed.
- Results of initial road assessment process will go back to councils
- Some councils under the impression that assessment is already done
- Collective : per km / rate of crashes Individual : traffic volume / rate of crashes
- Rather than be reactive + wait for crashes to occur, be proactive
- Is there a trade-off ie. Deterioration if less funds spent? Will level of service change? No intention to reduce funding or maintenance, at least to as they are. Recognise limited funds available.
- More network based approach: where freight / people travel
- Prioritize funding re benefits / asset management – reduce speed, reduce maintenance requirements. Need quality control. Question re standards criteria.
- Suggestion that it would be better to target maintenance
- Suggestion that it would be better to target driver attitude
- Roads will be upgraded to meet standards eg. Esk Hwy
- Will councils be told / what consultation? DIER to receive nominations re which roads from councils. If marginal, DIER to assess, site visits. If necessary independent assessment – why, why wouldn't meet criteria.
- Will funding go to the Midlands Hwy + not West Tamar Hwy with political push for 4 lanes? Midlands Hwy Partnership – targets for improvement – funding submission to Federal Govt. for 2014. DIER would rather see safety improvements + centre barriers than duplication.
- Discussion re policy – cost to Local Govt? (some councils had been told otherwise, that DIER to provide + councils to install) Road assessment + signage (asap) – all cost to State Govt, plus education campaign. 30 Gateway signs around state + end of speed limit signs replacement.
- Heavy vehicles – no trends seen, stability issues looked at, Gazetted network. National Heavy Vehicle Regulator – consistent standards nation-wide – next year
- Some councils nominating all roads. Must be consistent across every municipality. Can nominate roads that don't meet criteria – will be assessed. Suggested that some roads are safe for 100km/hr but for realistic reasons will never meet the criteria.

From: Kerr, Suzannah (DIER) [Suzannah.Kerr@dier.tas.gov.au]
Sent: Tuesday, 20 November 2012 1:40:31 PM
To: Kerr, Suzannah (DIER)
CC: Nibbs, Graeme (DIER); Ginneliya, Gunadasa (DIER); Wilson, John (DIER)
Subject: Roadworks on Esk Main Road Avoca

Esk Main Road
Avoca to Leona Road
Shoulder Sealing

Road reconstruction works will commence on 3 December 2012 along a five kilometre section of Esk Main Road from Gray Street in Avoca, east to the junction of Esk Main Road and Leona Road.

The works will include widening the road to provide two three metre lanes with one metre sealed shoulders to meet High Productivity Vehicle requirements, strengthening the road pavement to improve ride quality and safety.

It is anticipated that works will be completed by the end of May 2013, weather permitting.

At times traffic will be reduced to one lane. Speed restrictions and altered traffic conditions will also be required and this may cause delays.

Your safety is important to us so please drive with care and follow the traffic signs and other directions.

The project is funded by the State Government Community Roads Package.

Information is also available on the DIER website: www.dier.tas.gov.au or you can contact DIER's Project Manager Guna Ginneliya on (03) 6233 5298 or by email: guna.ginneliya@dier.tas.gov.au

Kind regards,

Suzannah

logo.jpg

Suzannah Kerr | **PROJECT OFFICER**
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Roads and Traffic Division
Department *of* Infrastructure, Energy *and* Resources
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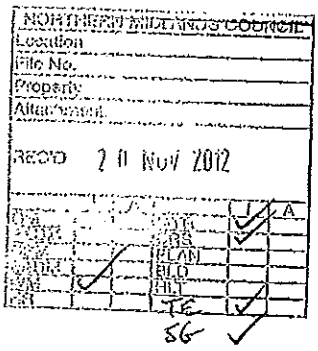

570853

Examiner
24 Nov. 2012

LEGISLATIVE COUNCIL SELECT COMMITTEE

RURAL ROAD SPEED LIMITS

The Legislative Council has established a Select Committee to inquire into and report upon —

(1) The issue of the Government's proposed rural road speed limit reduction from 100km/h on sealed roads and the potential impacts/benefits on the communities; and

(2) Any other matters incidental thereto.

The Committee invites written submissions or requests to present verbal evidence from interested individuals or organisations. Electronic submissions are encouraged and all submissions can be provided to:

Mr Tom Wise
Clerk of Committees
Legislative Council
Parliament House
HOBART 7000
Tel: (03) 62 122311 Fax: (03) 62 311849
Email: tom.wise@parliament.tas.gov.au

Submissions become the property of the Committee and should not be disclosed to any party prior to the Committee's final report. The Committee's Terms of Reference are also available on the Parliament of Tasmania website (www.parliament.tas.gov.au), or by contacting Mr Wise.

Submissions and requests should be received at the above address by no later than close of business on Friday 18 January 2013.

Members of the Committee:

Hon Greg Hall MLC, Independent Member for Western Tiers
Hon Ivan Dean, MLC, Independent Member for Windermere
Hon Kerry Finch, MLC, Independent Member for Rosevears
Hon Tony Mulder MLC, Independent Member for Rumney
Hon Tania Rattray MLC, Independent Member for Aspley

Opinion

Ever-lower speed limits are not the answer

Peter Leschen

The DIER Non-Urban Road Network Strategy[1] identifies a road safety problem with Tasmania's rural roads, where 1319 serious casualty accidents have occurred in 100 km/h speed zones in the last 10 years. It seeks to reduce the speed limit on these roads to 90 wherever the roads do not meet very demanding DIER criteria for a 100 zone.

The map showing roads with the highest crash risk indicates that most of our rural roads away from the main arteries between Hobart, Launceston and Devonport will be affected. Similarly, many urban and semi-urban areas are having lower speed limit zones extended. This is being done in the name of our safety, but I suggest that the endless focus on lower speeds and ever tighter enforcement is well past the point of diminishing road safety returns.

While the strategy identifies a correlation between rural 100 km/h zones and high accident risk on these roads, it provides no evidence that the major cause of these accidents was breaking the speed limit or travelling too fast for the conditions. 65 percent of the crashes involved single vehicles that ran off the road, and 18 percent involved head on collisions. Why so many single vehicle accidents?

In 2005, a naturalistic driving study was conducted in Virginia[2]. It involved 100 instrumented cars with 241 drivers going about their daily business over 12-13 months and 2 million road miles. It recorded 15 police-reported and 67 non-police-reported crashes, 761 near-crashes, 8295 incidents, and many examples of poor road safety behaviour. The study is important because it covers a wide cross-section of drivers in many driving situations.

The most important finding was that nearly 80 percent of all crashes (93 percent for rear-end crashes) and 65 percent of all near-crashes involved driver inattention within 3 seconds of the incident. Prior estimates suggested inattention was a factor in 25 - 30 percent of crashes[3], but this was based on statistics from crashes attended by police, so does not include near misses or unreported accidents, nor cases where drivers did not admit inattention.

The pervasiveness of inattention is a crucial finding. It helps explain why fatigue and at least some aspects of alcohol abuse are so dangerous, as well as mobile phone use, children fighting in the back and a host of other factors; they all make inattention much more likely.

An alert driver should react to danger in less than one second (our governments used 0.75 seconds until about 1999, before changing average reaction time to 1.5 seconds). An inattentive driver who is distracted for just two seconds will travel an additional 34 metres at 60, 44 metres at 80 and 56 metres at 100 before reacting. The implications for stopping distances are even starker. The alert driver will stop from 65 in less distance (about 40 metres) than the distracted driver can stop from 40, or from 100 in the same distance (about 75 metres) as the distracted driver can stop from 65[4]. Of course, the period of inattention could be significantly longer than two seconds, with even greater consequences.

Just as the Virginia study found that the vast majority of accidents and near misses involved inattention, I suggest it is the crucial factor in most of those single vehicle and head on crashes on our country roads. Failure to watch the road for just two seconds provides more than enough time to cross the centre line or drop a wheel off the road, and if your subsequent, startled reaction is incorrect a crash is very likely.

This suggests that the level of driver alertness is much more important than speed. The danger of inattention is perhaps the most important road safety message of all, yet it ranks far behind speed, alcohol and fatigue in government advertising and road safety literature[5]. It should be at the centre of our road safety campaigns.

Conversely, the focus on speed limits and enforcement is greatly overdone. We are constantly told that a reduction of just 5 km/h causes a major reduction in crash risk, and current enforcement policies penalise such tiny infractions of speed limits. It is certainly true that the consequences of an accident are worse at higher speeds; the Power Model[6] widely used by governments says that 90 is safer than 100, but also says that a further reduction to 80 would double the safety benefit, so why stop at 90? This kind of modelling tells us nothing about the causes of accidents or what the speed limit should be.

The DIER strategy suggests that many rural roads are not capable of supporting a 100 km/h limit. Yet, with the exception of freeway style roads, any country road or highway, whether it meets DIER criteria or not, will have twisty or otherwise hazardous sections that will not support 100 and straights and other sections where 100 is quite safe in the right conditions. No speed limit replaces the requirement for drivers to judge when they need to slow down for a particular section of road.

All drivers are responsible to drive their vehicles safely at speeds appropriate for the conditions at the time. Speed limits are necessary, but limits that are set too low frustrate and penalise the vast majority of safe and responsible drivers, discourage proper levels of driver responsibility and alertness, and lead to disrespect for the law and law enforcement.

About 80 percent of infringements are for less than 10 km/h over the limit while only one percent are for more than 25 km/h over the limit[7]. Surely a warning rather than a fine would be more appropriate and just as effective for all those minor offences, as well as freeing government from claims of revenue raising?

Speed limits on our rural roads should not be reduced. Instead, let's emphasise that driving remains one of the most potentially dangerous things we do, and there is no excuse for failing to give it our complete, undivided attention.

1. *Non-Urban Road Network Strategy, September 2012, DIER, Tasmanian Government*
2. *100-Car Naturalistic Driving Study, Virginia Tech Transportation Institute (VTTI), 10 June 2005 http://www.vtnews.vt.edu/articles/2005/06/2005-834.html*
3. *Wang, Knipling, and Goodman, 1996*
4. *National Motorists Association – reaction time and braking performance calculator, http://www.aussiemotorists.com/braking/index.htm*
5. *For example, see Tasmanian Road Rules, 8 Apr 11, on the DIER website, which has one paragraph on inattention after all the other safety information*
6. *Nilsson, G. (2004). Traffic safety dimensions and the Power Model to describe the effect of speed on safety. Bulletin 221. Lund Institute of Technology, Department of Technology and Society, Traffic Engineering, Lund.*
7. *Victorian Government figures for FY2011/12 accessed on 29 Sep 12 at http://www.bamexsavelives.vic.gov.au/home/statistics/fines+by+category/speeding+categories/*