



RAC members are happier

Executive Summary

The RAC is calling for urgent action to lift the safety standards of our regional road network.

The Royalties for the Regions Fund should provide funding for a “Regional Roads Rescue Program” to financially underwrite this major effort.

The RAC believes an initial investment of \$25m, followed by annual funding of \$40m for the life of the Royalties for the Regions fund would make significant inroads into the problem and reduce the appalling cost of road trauma in regional Western Australia.

The Regional Roads Rescue Program would identify the most cost-effective solution to the specific road safety threat on regional road lengths.

The funding should be in addition to the regional share of road funding already made available through Main Roads WA programs such as Black Spots and any potential government funding of the Towards Zero road safety strategy.

Introduction

Any review of Western Australia’s record on road deaths and serious accidents can only come to one conclusion – too many people are being killed on our country roads.

In 2007, Western Australia recorded its worst annual road toll in the past decade with 235 people losing their lives. While 2008 was marginally better at 209 deaths, it was still the second worst performance of the preceding 8 years.

Already in 2009, 51 road deaths have been recorded (as at March 25) indicating that the State is again on track to record an annual toll in excess of 200 deaths.

These figures come against the background of a national performance where road deaths per 100,000 head of population have been declining. Western Australia still has the worst deaths per 100,000 record of any Australian State.

After significant reduction in the annual road toll in the first half of this decade, Western Australia’s death toll has been trending upward at an alarming rate.

The one constant throughout this decade has been the unacceptably high level of road deaths on regional roads. Over the past decade, deaths on country roads have made up around 60 per cent of our total road toll. This is despite the fact that only around 25 per cent of our population lives in regional Western Australia.

The vast majority of these deaths occur in single vehicle accidents where the vehicle has left the road.

The National Party made a commitment at the 2008 State election to secure and invest 25 per cent of the State's mining royalties in a "Royalties for the Regions Fund."

This fund would provide significant long term investments in projects to benefit regional communities.

The RAC believes that reducing the number of deaths on our State's regional roads should be a priority for the Royalties for the Regions Fund.

Better, safer roads in regional Western Australia will help reduce the social and economic cost of road trauma in the State. It would also provide additional economic benefits through increased road-based regional tourism and through ensuring our road infrastructure continues to meet the growing demands of heavy vehicle traffic to support economic activity.

The RAC recommends that a "Regional Roads Rescue Program" be developed to make targeted road safety investments in regional roads where there is an identified record of fatal or serious crashes.

The program would enable planners to choose from a menu of road safety improvement treatments to target the specific deficiencies of particular stretches of road.

The Regional Roads Rescue Program is not about building new roads – it is about improving the safety and survivability of our existing road network.

This work could take many years to complete and will require a long term commitment from the government and the community to ensure its success.

Western Australia's Road Safety Challenge

In response to the continuing scourge and appalling human cost of road trauma in Western Australia, the Road Safety Council worked with the community to develop a new long term road safety strategy. The ambitious "Towards Zero" road safety strategy has now been endorsed by the new government and has bi-partisan political support. What it presently lacks is a commitment to provide funds for the essential work required to tackle our road trauma crisis.

The RAC has presented its annual submission to the State Budget calling for a range of modest initial investments in the Towards Zero programs. The cost of these additional measures would be more than offset by the additional fines revenue to be collected by the government through the implementation of the enhanced speed enforcement measures called for in Towards Zero.

The RAC has recognised that the current economic downturn may place some restrictions on the government's ability to fully fund Towards Zero. This should not, however, prevent the government from making a start on the strategy.

In developing Towards Zero, the Road Safety Council called on the internationally-respected Monash University Accident Research Centre (MUARC's) to research the causes of road trauma in Western Australia.

MUARC's work identified that crashes at traffic intersections were the main contributor to road trauma in urban areas. In contrast, single-vehicle run-off-the-road accidents made up the vast proportion of fatalities from regional Western Australia.

A key component in the Towards Zero strategy is a proposed "Safe Systems Transformation Program". The strategy proposed that the program should target "key strategic routes (where crash densities tend to be higher) radiating out from the Perth metropolitan boundary into regional Western Australia."

The MUARC research identified the investment required to be \$75million per year. It did, however, call for a slow build up to that full investment with the initial years of the program to be used to develop the demonstration projects to help inform future investment decisions.

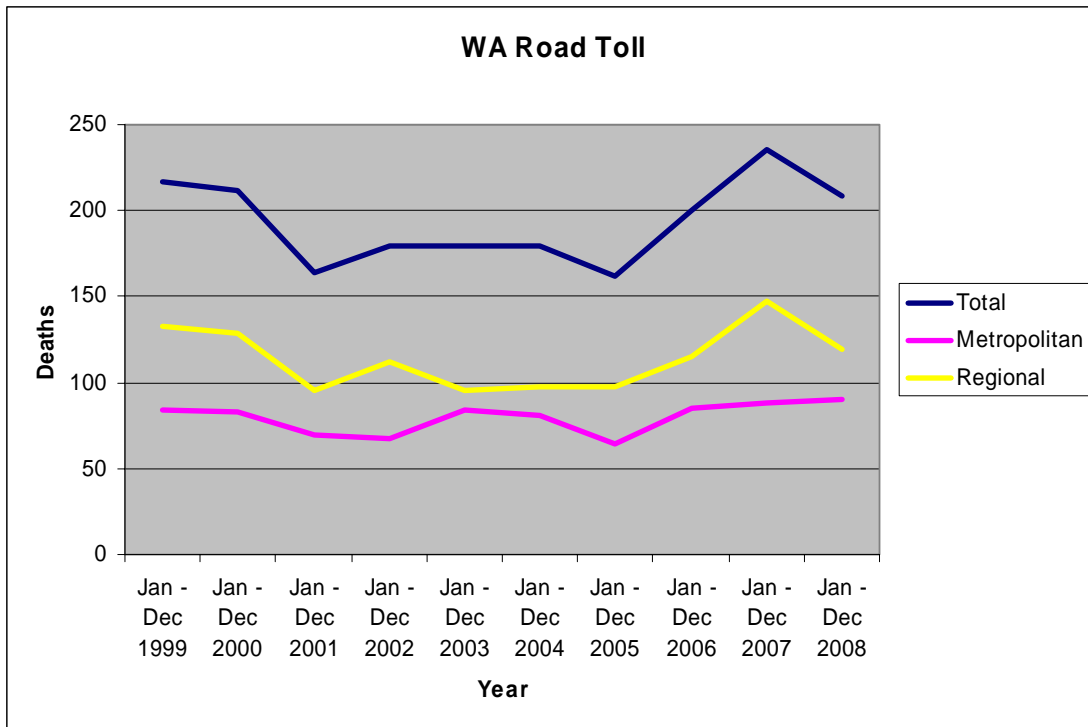
The RAC believes that regional Western Australia should not have to wait for road safety improvements. By harnessing the capacity of the Royalties for the Regions program, the State government could begin work on improving specific country roads with poor road safety records now.

Interstate Experience

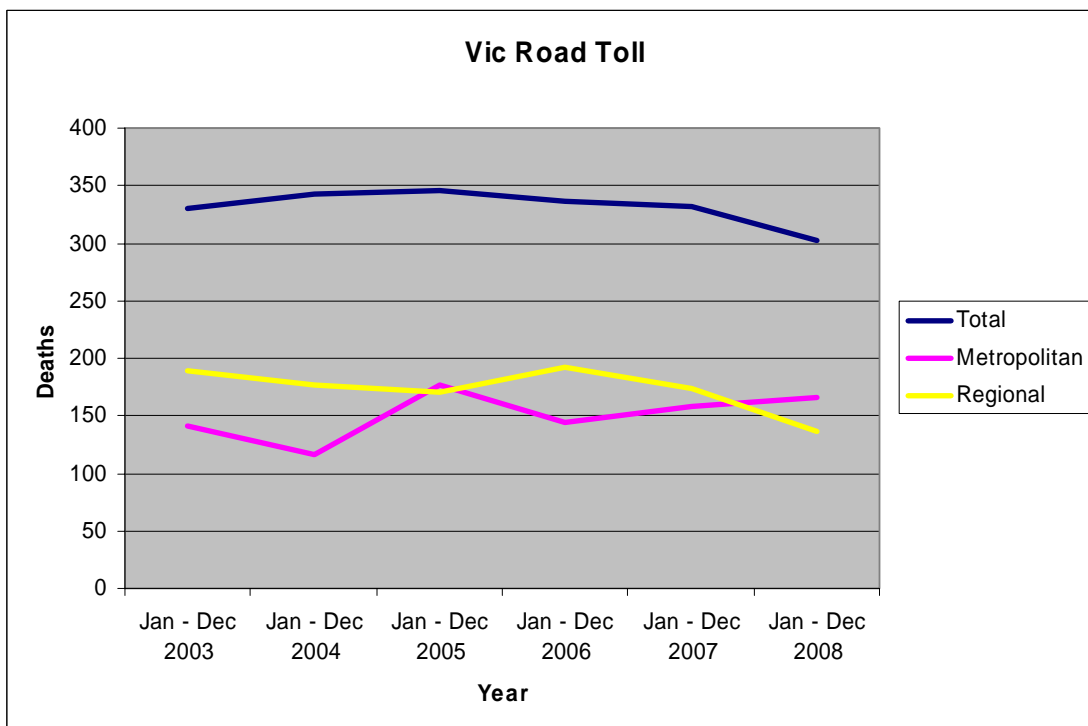
Western Australia is not alone in experiencing a disproportionate number of road deaths on country roads. Country road deaths in South Australia, for example, have averaged around 58 per cent of that State's road toll over the past seven years.

A review of our State's annual road toll over the past decade shows that reducing the number of country road fatalities is essential to delivering sustained overall reductions in the road toll.

The graph below shows that the surge in our road toll in 2007 was almost entirely attributable to a corresponding surge in road deaths on regional roads. In 2007 our road toll rose by 35 compared to 2006 – our regional road deaths in that year rose by 32.



Victoria is one State which has had remarkable success in bringing down the number of deaths on country roads. In 2003 Victoria recorded 189 deaths on country roads – 57 per cent of that year’s road toll. In 2008, 137 people died on Victorian country roads – 45 per cent of the annual road toll. Over the six years from 2003, country road deaths have averaged around 52% on the annual road toll.



The Victorian experience has not come about by luck. Victoria has made improving rural road safety a top priority and committed significant funding to improving the safety of its regional road network.

The RAC believes the Victorian experience provides a good model for efforts within Western Australia to lift our poor regional road safety record.

In 2006, the RAC Victoria (RACV), working with MUARC, developed a research report titled “Reducing Serious Injury and Death from Run-off-Road Crashes in Victoria – Turning knowledge into action.”

The report identified three fundamental strategies for dealing with run-off-road crashes:

Strategy 1: Crash Prevention Type A – Identify the immediate (behavioural) causes for vehicles leaving the road and reduce their incidence.

Strategy 2: Crash Prevention Type B – Reduce the probability of a vehicle leaving the roadway, no matter what the immediately preceding driver/vehicle behaviour.

Strategy 3: Injury Reduction – Reduce the consequences of crashes after vehicles have left the road.

The RAC endorses all three of these options as part of a coordinated strategy to reduce deaths and injuries on our regional roads.

The RAC believes that actions which would form part of Strategy 1 are best dealt with under the general thrust of the Towards Zero strategy and should be funded by government. They can be delivered through a mix of better enforcement (drink driving, speeding) or education (fatigue, distraction).

The RAC believes the Regional Roads Rescue Program should focus on the type of actions which formed part of Strategy 2 and Strategy 3 – improving the road and its surrounds to reduce the likelihood of an accident and to improve the survivability of anyone involved in an accident.

The RACV/MUARC report identified a range of measures under each strategy which should inform the thinking behind the Regional Road Rescue Program. These include:

Strategy 2

- Improving the road alignment (particularly horizontal curvature), especially for individual curves of unexpectedly small radius relative to the preceding road alignment
- Providing sealed shoulders on rural roads
- Routinely repairing pavement “drop off” occurrences where sealed pavements meet unsealed shoulders
- Improving the skid resistance of pavements, particularly on short radius curves
- Ensuring high quality roadside delineation (post-mounted delineators, chevron signs, raised reflective pavement markings, pavement markings etc) with special emphasis on tactile edge lines on rural roads.

Strategy 3

- Making poles and other roadside furniture more crashworthy
- Clearing the immediate roadside of any rigid obstacles
- Ensuring all roadside vegetation is crashworthy
- Installing some form of crash barrier to better manage energy transfer in a crash

Potential reductions in road trauma of specific treatments

The following table details the potential reduction in various crash types from applying specific road safety improvement treatments.

Potential reductions (per cent) in various crash types				
	Off road, on straight	Off road, on curve	Head on	Hit permanent obstruction
Treatment				
Install safety barriers	50-90	50-90		50-90
Remove roadside hazards	60-80	60-80		60-80
Seal shoulder	Up to 60	Up to 60	Up to 60	
Widen shoulder	20-30	20-30	20-30	
Advisory speed sign		20-40		
Line-marking/guideposts	10-20	10-30	30-40	10-20
Overtaking lane	30-50	20-30	20-30	
Improve alignment	30-50	30-50	30-50	

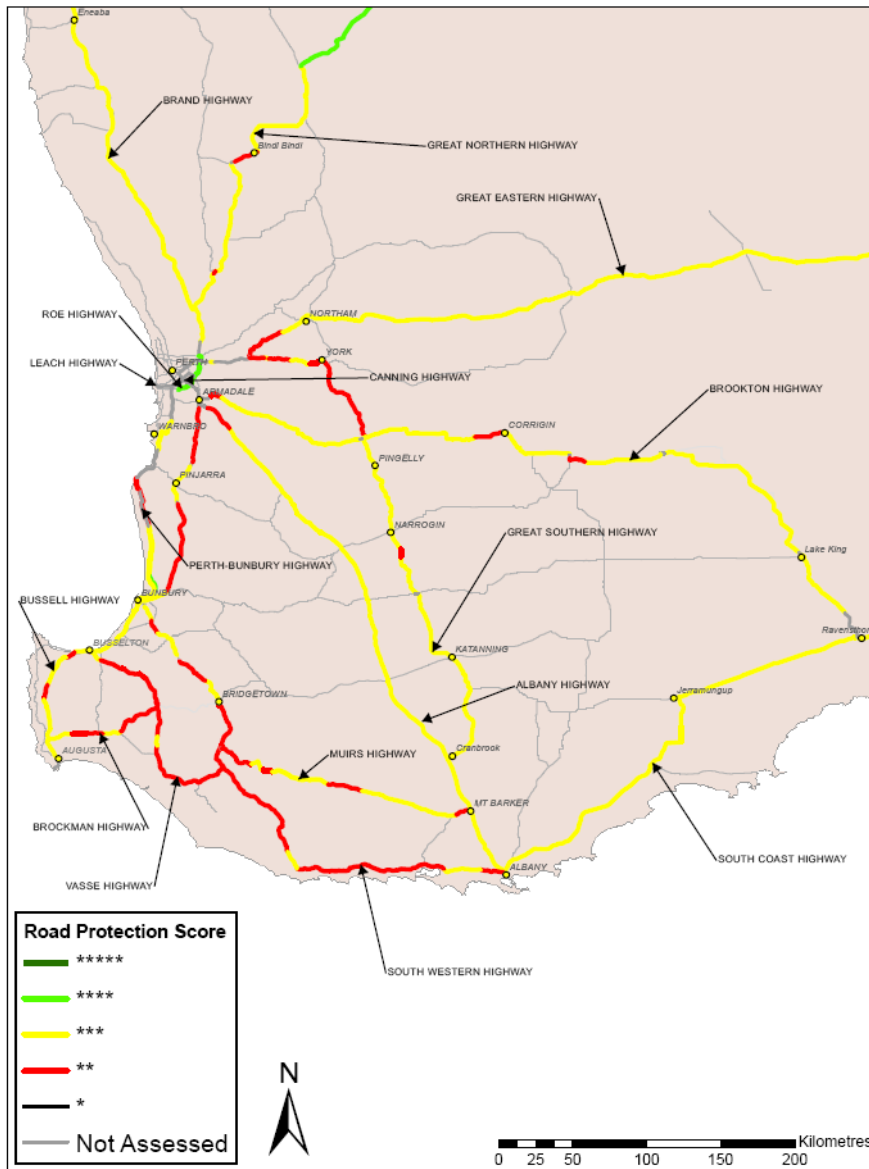
It has been estimated that reductions of up to 40 per cent in the number of crashes could be achieved through a targeted mix of road safety treatments including shoulder sealing, pavement widening, line-marking (audible edgelines etc) and guideposts, better signage, overtaking lanes and improving the safety of the roadside.

Target Roads

In 2008 the RAC commissioned a safety assessment of Western Australia's regional highway network under the Australian Roads Assessment Program (AusRAP).

The AusRAP analysis gives a rating of a road up to 5 stars. Any road which scores 3 stars or less is considered to be in need of remedial action to lift its safety performance.

The diagram below shows that the majority of our State's major highways fail this test.



The analysis identified more than 1,000 kilometres of highways which did not have a satisfactory safety rating (marked in red).

Freight traffic on some of these major routes is expected to double over the next two decades.

There is clearly an urgent need to accelerate our efforts to improve the safety of these roads.

Along with the AusRAP analysis, Mains Roads WA compiles maps of the five-year road accident history of Western Australia's regions. These maps reveal clusters of accidents on certain regional routes and provide further intelligence on which to base funding decisions for the Regional Roads Rescue Program.

The RAC used these maps in the development of our submission to this year's State Budget to identify roads which could benefit from the Regional Roads Rescue Program. These included:

- Brand Highway (near GinGin)
- Great Northern Highway (near Bindoon)
- Great Southern Highway (near Katanning)
- Albany Highway (near Kojonup)
- South Western Highway (near Denmark)
- Albany/South West Highways (near Albany), and
- South West Highway (Donnybrook to Manjimup)

This was intended to be an indicative not exhaustive list of the roads which should be targeted.

Main Roads WA has compiled a separate list of single-vehicle run-off road crash priority areas based on casualty crash density (crashes per kilometre). This covered almost 700 kilometres of road including sections of the following roads:

- Perth-Bunbury Highway
- Bussell Highway
- South West Highway
- Great Eastern Highway
- Pinjarra Road
- Coalfields Highway
- Great Northern Highway
- Port Headland Road
- Australind – Roelands Road
- Chidlow -York Road

An additional Main Roads list compiled priority areas based on casualty crash exposure (crashes per 100 million vehicle km travelled) which included;

- Pinjarra – Williams Road
- Williams – Darkan Road
- Karijini Road
- Nanutarra – Munjina Road
- Onslow Road
- Pemberton – Northcliffe Road
- Brookton Highway
- Vasse Highway
- Bindoon – Moora Road
- Broomehille – Jerramungup Road

The different lists simply serve to underline the extent of the problem facing the State.

It is clear from the roads identified that there is a major task facing the State to lift the safety standards of our regional roads.

This task will not be completed within a term of government and, in all likelihood, will require sustained investments over at least a decade to make any significant inroads into the problem.

The RAC believes it is futile to become bogged down in an argument about which list of roads or which assessment process provides the most accurate measure of where investment should be prioritised.

Using the Towards Zero template, the Regional Roads Rescue Program should identify a number of demonstration projects in high crash density priority areas. These should be implemented and then form the basis for an expansion of the effort throughout regional Western Australia.

Costs of Treatments

The concept of the Regional Roads Rescue Program is to treat road lengths – as opposed to programs such as Black Spots which target specific locations on roads.

In metropolitan areas, a significant number of accidents may occur at a single spot on a road (eg an intersection). In country areas, the same number of accidents may be recorded on a road but be spread out over many kilometres.

Under the Regional Roads Rescue Program, Main Roads would be tasked to design a road safety solution to treat the specific problem of the road in question. The solution would be a ‘fit for purpose’ response to the characteristics which make that stretch of road dangerous.

Given that the majority of fatal accidents in regional areas are of a single-vehicle run-off-road nature, the solutions will be heavily weighted to this threat.

A range of treatments are available to Main Roads depending on the specific problem encountered.

In some cases, better clearance of roadside obstacles, particularly vegetation, may provide a cost-effective solution.

The RAC believes the government should commission Main Roads and the Department of the Environment and Conservation to review guidelines covering the clearance of native vegetation from roadsides where there is a clear road safety danger. Options could include the funding of revegetation efforts in a corresponding area to match the area of native vegetation removed from roadsides. Given the high cost of physical improvements to roads (such as shoulder sealing, road barriers etc), it would be open to the government to use some of the funding from the Regional Roads Rescue Program to pay for the revegetation effort if it provided a more cost effective option.

Main Roads WA should be tasked to compile a business case for funding of specific treatments.

A recent analysis by Vic Roads provides an insight into treatment costs for run-off-road solutions:

Treatment type	Typical Cost (\$M)	Typical BCR
Seal shoulders with tactile edgeline	0.10 – 0.15 per km	1-2
Wire rope safety barriers	0.08 – 0.22 per km	8-10
Guardfence	0.1 – 0.25 per km	6-8
Delineation (Chevron signs, guidepost & line marking)	0.006 – 0.007 per km	5-10
Intelligent warning/Control signs	0.03 – 0.4 per sign	n/a

Informal feedback from Main Roads WA indicates that costs in Western Australia would most likely be in excess of those for Victoria due to the nature and current state of our road network.

In particular, the estimated cost for sealing shoulders with tactile edgelines would be more in the order of 0.2/\$M per kilometre.

A more detailed business case from Main Roads would firm up this number which the RAC believes may have come down due to a drop off in activity in the construction sector of the economy. The business case would also indicate the cost-benefit ratio specific to Western Australia and the expected savings in terms of lives saved and injuries prevented.

Summary

There is a clear and urgent need to take action to lift the safety standards of our regional road network.

The task will require concerted effort and significant funding over at least a decade.

The Regional Roads Rescue Program could provide that funding certainty. In addition to funding already provided for regional roads through Main Roads WA, it would provide a similar level of funding commitment for regional road safety as in Victoria where significant advances in regional road safety have been made over the past decade.

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