

MOORABOOL COMMUNITY

# ROAD SAFETY STRATEGY

2020-2024



SAFE  
SYSTEM  
SOLUTIONS 



MOORABOOL  
SHIRE COUNCIL



1

## FROM THE MAYOR

Moorabool is growing faster than we all anticipated. Our population is forecast to increase to over **80,000+** people by 2041.

Moorabool Shire is a fast-growing semi-rural municipality nestled between Melbourne, Geelong and Ballarat. It offers residents picturesque and friendly surrounds with the vibrancy of an active, growing community.

Moorabool is growing more quickly than we all anticipated. Our population is predicted to grow to 80,000+ by 2041. We can expect more vehicles on our roads, and more people using our road network than ever before. We want all residents, visitors and commercial drivers to be able to travel easily and safely and be protected from road crashes. So, we are committed to adopting the philosophy and principles of the globally recognised Safe System approach.

Moorabool Community Road Safety Strategy is built around the Safe System which will help us, over time, reduce the road toll to zero, in line with the Victorian Government's Towards Zero strategy.

We have reviewed road crash data, consulted with the community and used our own experience to identify where the most pressing issues are and understand what can be done to address those issues. Our aims for road safety improvement over the next four years are set out in the Action Plan in this strategy.

To achieve our road safety goals requires a shared responsibility. We will work hard to deliver our commitments and will work with our road safety partners in government, industry and the community. Development in the Shire will be managed in an environmentally, socially and financially responsible way. Together we can continue to reduce road trauma as our community grows and is ever more active.

The Moorabool Community Road Safety Strategy will help us make travelling around the Shire safer for everybody.

**Cr David Edwards**  
Mayor, Moorabool Shire Council

### THE SAFE SYSTEM ENCOMPASSES ALL FACTORS THAT CONTRIBUTE TO A CRASH.

#### :: SAFER ROADS ::

Our roads should be designed, built and maintained in such a way that risk is avoided or minimised for road users, and the severity of potential crashes is reduced.

#### :: SAFER SPEEDS ::

Our roads should have appropriate speed limits and road users should travel at speeds that are safe for the road conditions, so that the chances and consequences of a crash are reduced.

#### :: SAFER PEOPLE ::

We should all exercise care, attention and awareness of others when we travel, for our own safety and the safety of others.

#### :: SAFER VEHICLES ::

Vehicle safety features can help prevent crashes by automatically detecting dangerous situations and reacting appropriately, or by reducing the impact on vehicle occupants if there is a crash.

Our population is set to increase to **80,000+**.

**80,000+**

# 2

## OUR VISION

Our long-term vision is to achieve the target of zero deaths and serious injury crashes.

zero

Moorabool Shire Council has a long-term vision of achieving the Towards Zero target of zero deaths and serious injury crashes on our roads.

In order to accomplish this goal, we recognise that traditional road safety engineering activities will not be enough, and we will have to do more.

### THIS MEANS WE WILL

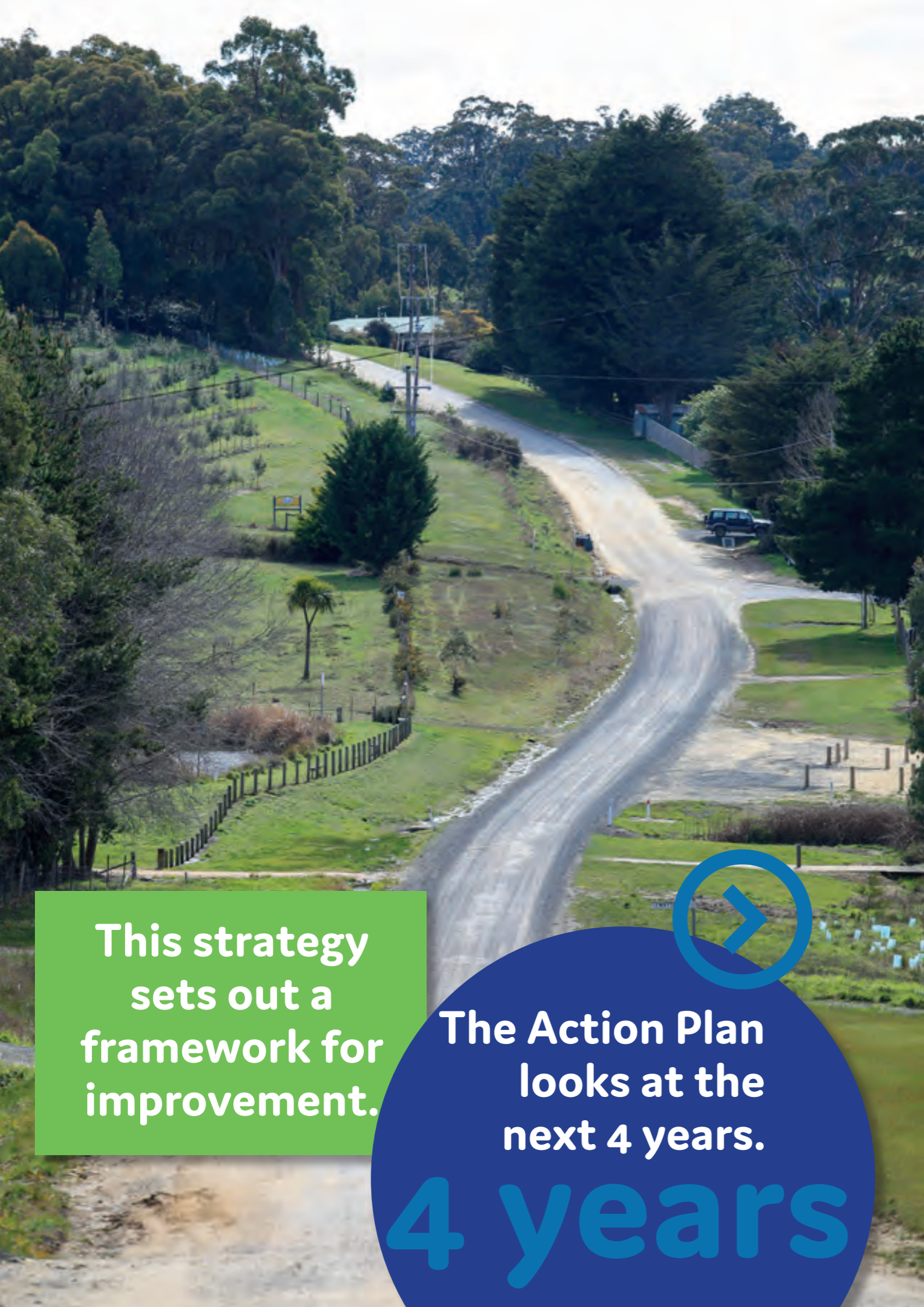
- 1. Embrace the Safe System approach and act as an exemplar by encouraging others to do the same.**
- 2. Support active transport such as walking and cycling which is extremely important for a healthy and sustainable community, recognising that pedestrians and cyclists are particularly vulnerable road users.**
- 3. Collaborate with road safety partners, so that together we can achieve more than if we act in isolation.**
- 4. Listen to, inform and engage with our community so that they have the opportunity to influence and contribute to road safety initiatives in the Shire.**

### Embracing the safe system approach means that we will:

- » Make the roads, paths, tracks and other transport infrastructure as safe as possible.
- » Encourage people to travel at safe speeds.
- » Encourage safe travel behaviour to minimise personal risks and risks to others.
- » Promote the use of vehicles that are safer for drivers, passengers and other people.

We will continue to improve road safety within our Shire for all road users by working together with our road safety partners and the community in general. This strategy sets out a framework for improvement and an Action Plan for the next four years.





**This strategy sets out a framework for improvement.**

**The Action Plan looks at the next 4 years.**  
**4 years**

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# 3

## ABOUT THE SHIRE

### Our Community

- 2016 Population **32,000**
- 2041 Predicted Population **80,000**

### Our Roads

- Local roads **1460** km
- Sealed roads **890** km
- Unsealed roads **570** km

Located 40km  
to the west  
of Melbourne.

**40km**

Moorabool Shire is located to the west of Melbourne, close to the Geelong and Melbourne seaports and 40km from Melbourne CBD. It is positioned along the major road and rail transport corridors between Melbourne and Adelaide.

Covering an area of 2,110 square kilometres, it encompasses many towns including Bacchus Marsh, Ballan, Gordon, Wallace, Mount Egerton and Blackwood. With national parks, forests, gorges, water catchments and mineral springs Moorabool provides an array of living options. Some of Moorabool's key attractions and natural assets include the Wombat State Forest, Brisbane Ranges National Park, Lerderderg State Park, Werribee Gorge State Park and Bacchus Marsh Avenue of Honour.

At the 2016 Census, Moorabool had a population of 32,000 and this is predicted to grow to 80,000+ by 2041.

There is a thriving economy of over 5,500 businesses including construction, health care and social assistance, manufacturing, retail and education which contribute to an annual output of about \$2 billion.

Moorabool Shire Council is responsible for the management and maintenance of 1460km of local roads which comprise of 890km of sealed roads and 570km of unsealed roads including bridges, paths and roadside drainage. The freeway and arterial roads, which are roads connecting urban centres or connecting local roads to freeways, are managed by Regional Roads Victoria (the yellow roads in Figure 1).



Figure 1: Map of Moorabool Shire



# 4

## STATE AND LOCAL COMMITMENTS

Although we have been making gradual improvements, we know that it is becoming more and more difficult to maintain progress. However, we are determined to get those numbers down.

Our aim is for zero fatalities and serious injury crashes.  
**zero**

At the time of writing this strategy, Victoria's 'Towards Zero Strategy and Action Plan 2016-2020', was due to be updated/replaced, with an anticipated publication date at the end of 2020.

The new state strategy is expected to set targets for getting closer to zero fatalities and for significant reductions in serious injuries. This Moorabool Community Road Safety Strategy is aligned with the principles, best practice and aspirations of Towards Zero which will continue to be relevant in the new state strategy.

For this strategy, data from the period between 2014 and 2018, was analysed to identify crash types, crash conditions and trends.

Over this period 17 people died on roads within Moorabool's boundaries and 226 were seriously injured (Figure 2). Latest data for 2019 became available during the writing of this strategy and shows that across the state road trauma numbers have increased compared to 2018.

**In 2019 there were 7 fatalities in Moorabool.**

Figure 3 shows the casualties numbers split between local roads which are managed by Council, and arterial roads and freeways managed by Regional Roads Victoria.

Moorabool Fatalities and Serious Injuries

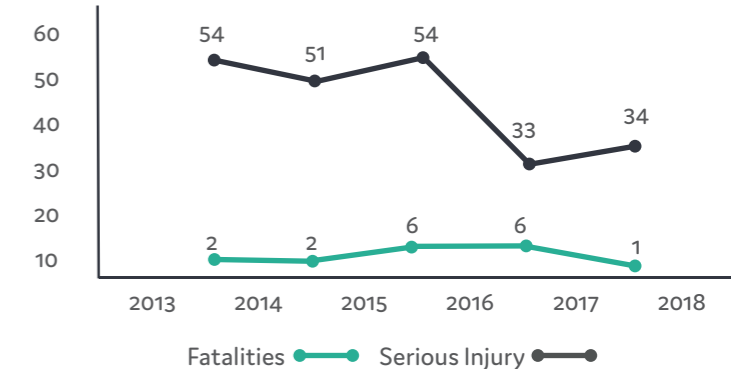


Figure 2: Annual Fatalities and Serious Injuries

Annual Fatalities

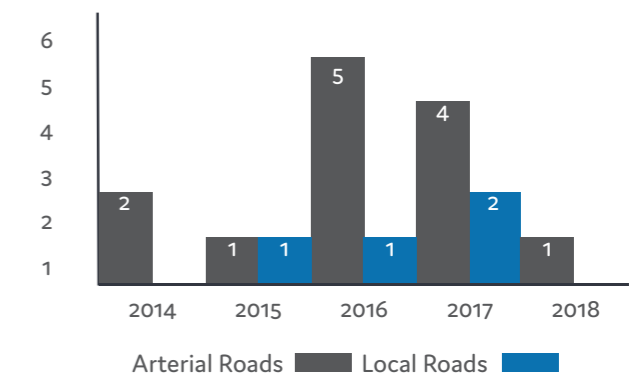


Figure 3A: Annual Fatalities by Road Classification

Annual Serious Injuries

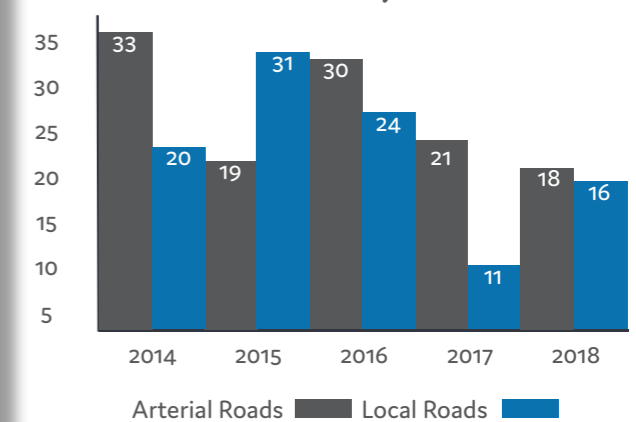


Figure 3B: Annual Serious Injuries by Road Classification

### Over a 5 year period there were:

(excluding 3 serious injuries whose locations are not known)

#### Local Roads

Fatalities **4**

Serious injuries **102**

#### Arterial roads and freeways managed by Rural Roads Victoria

Fatalities **13**

Serious injuries **121**



# 5

## WHAT'S HAPPENING ON OUR ROADS?

There is a steady decline in fatal and serious crashes overall.

The Action Plan is tailored to address the most pressing issues.

# tailored

To understand road safety issues in Moorabool Shire, we look at the data collected for crashes that have occurred on our roads and listen to the community to get the perspective of road users.

### Road safety concerns highlighted by historical crash data trends



By looking at crash data over a 5-year period, we can build a picture of the type of crashes that are happening, when and where they are happening, and the conditions at the time. This helps us to understand the factors involved in crashes and what actions might be taken to improve safety.

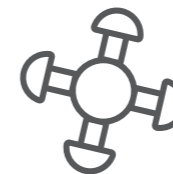
### Road safety concerns highlighted by the road users



When developing this strategy, we conducted an online public survey and held two open community consultation sessions. We also collected feedback through regular forums held with a variety of interest groups, through our website and other communication channels. This information supplements our engineering data and gives us an insight into road safety issues that matter to the community.

These elements allow us to create a strategy and action plan tailored to address the most pressing road safety concerns in Moorabool.

### Applying knowledge, expertise and best practice



This strategy was developed with guidance from a Working Group which drew on the local knowledge and expertise of specialists in Moorabool Shire Council and the practical experience of Victoria Police. The group was supported with input from a diverse group of stakeholders, including the Department of Transport, Regional Roads Victoria, Transport Accident Commission, State Emergency Service, Rural Ambulance Victoria, Country Fire Authority, Parks Victoria and RoadSafe Central Highlands.

## What does the crash data show?

Analysis of crash data for the last 5 years provides valuable information on where to target road safety treatments and what kinds of treatments are likely to be most effective. An overview of the data shows that safety trends are generally positive and there are no 'stand out' areas demanding urgent attention. There are a few areas that provide an opportunity to further reduce casualty crashes as described below.

### 1. Fatal and serious injuries are declining but continued improvement is a challenge

As shown earlier in Figure 2, fatal and serious injuries are declining. This trend is mirrored in Figure 4 which shows the number of crashes involving fatal and serious injury (FSI).

Number of FSI Crashes

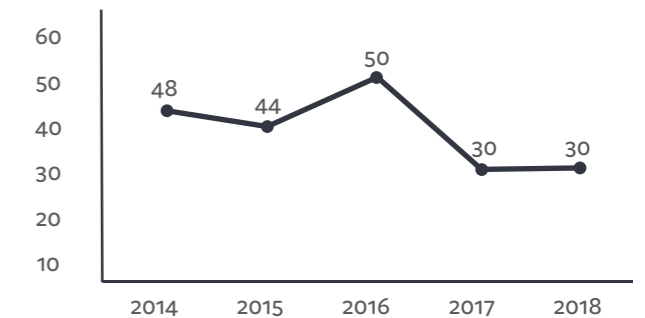


Figure 4: Yearly FSI Crashes

In the five years between 2014-2018, there were 453 crashes that resulted in fatal, serious or minor injuries. More than half of these crashes involved minor injuries, and 202 crashes resulted in FSI. Figure 4 shows that there is a steady decline in FSI crashes overall. Figure 5 shows that fatal crashes are trending slightly upward whilst serious injury crashes are trending down.



# what's happening on our roads? continued

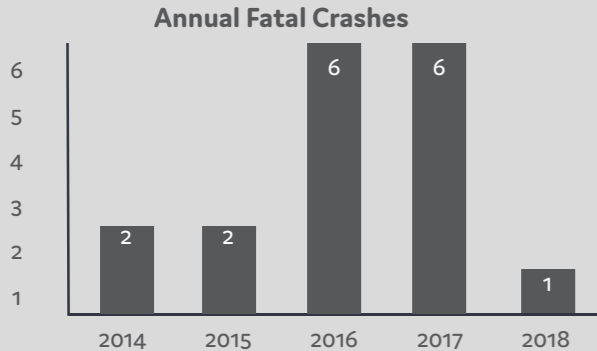


Figure 5A: Annual Fatal Crashes



Figure 5B: Annual Serious Injury Crashes

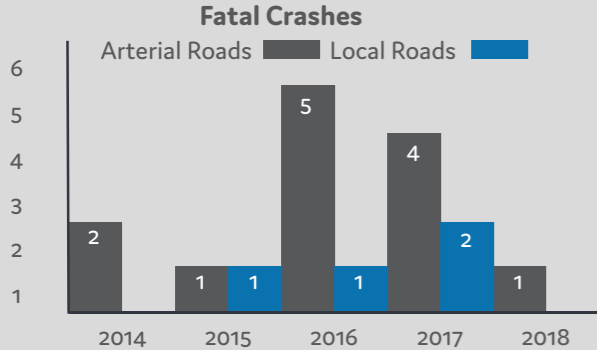


Figure 6A: Yearly Fatal Crashes by Road Classification

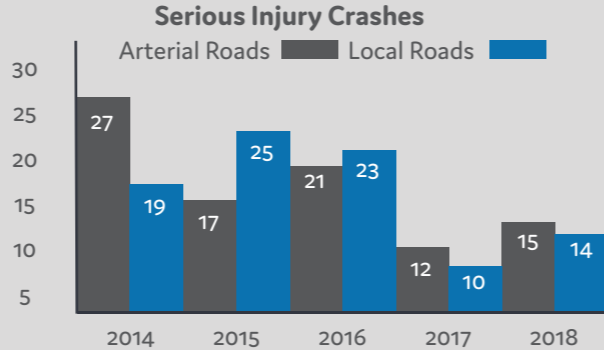


Figure 6B: Yearly Serious Injury Crashes by Road Classification

## Crash 'hotspots' are Bacchus Marsh, Ballan, Lal Lal and Balliang East

Crash hotspots, for fatal and serious injuries, are usually in locations which combine lots of movements with higher speeds – leading to a higher likelihood of something going wrong. Crash data enables us to identify high risk locations that may be good candidates for road safety treatments, for example see the Heat Map, Figure 7.

Heat maps provide a high-level view of where crashes are occurring but they do not show why they are occurring – that requires more detailed investigation.

Although most of these roads shown on the heat map are arterial roads or freeways, some of the crashes may be at intersections with local roads. Not all safety treatments will be targeted at hotspots, sometimes opportunities arise for implementing improvements at other locations where the benefits outweigh the costs.

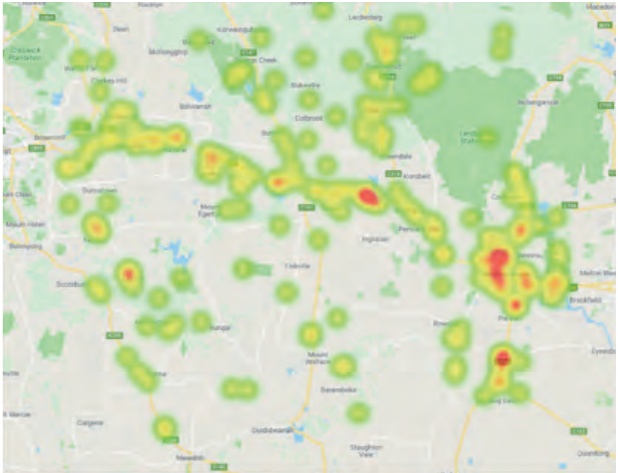


Figure 7: Heat Map showing Crash Hotspots



Our aim is to ensure that we continue the downward trend, which becomes more challenging as crash numbers decline.



# what's happening on our roads? continued

## There is an issue with run-off road crashes on high speed roads.

Run-off road crashes account for nearly 50% of all FSI crashes and these are split almost equally between local and arterial roads. Three quarters of these occurred on straight sections (not curves/bends) and the majority of these resulted in hitting an object or parked car. Figure 8 shows the most prevalent crash types.

### Most Prevalent FSI Crash Types

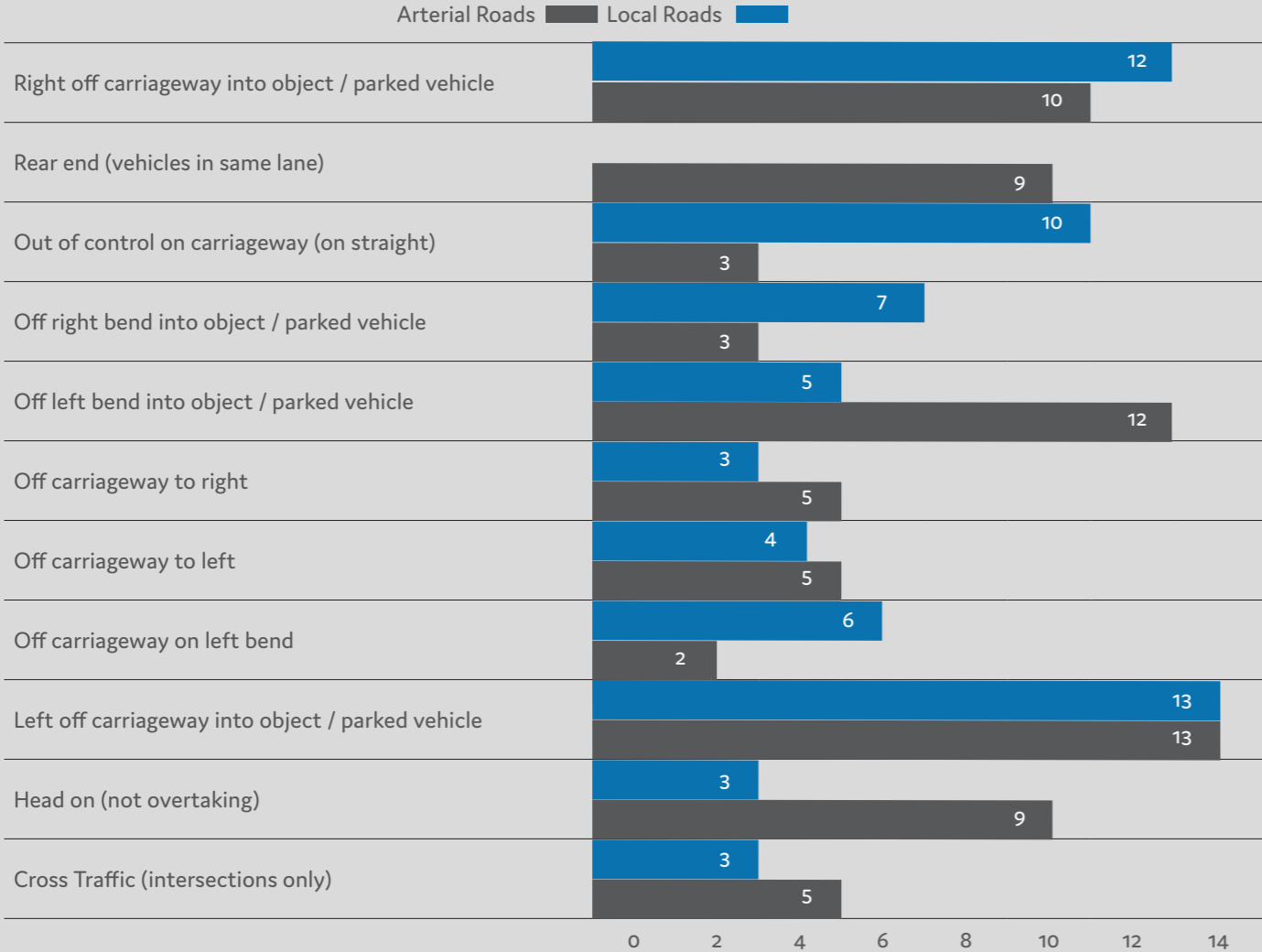


Figure 8: Most Prevalent FSI Crash Types by Road Classification

There is a high proportion of high-speed roads in the Shire and nearly 60% of FSI crashes occurred on roads with a 100km/hr or higher speed limit (Figure 9). This means that a large proportion of FSI crashes in Moorabool involved vehicles running-off straight sections of high speed roads. Data also shows that these crashes most often occur when driving conditions are good, for example, during daylight and dry weather.

Crashes of this type suggest that the cause may be driver distraction, lack of concentration and/or fatigue. When these crashes occur, the risk of obtaining a serious injury is increased or consequently could be fatal due to the speed at which vehicles are moving.

### There are several road safety treatments which can help, including:

- » Safety barriers to prevent or minimise run-off road crashes;
- » Removal of, or protection from, objects that might be hit;
- » Lower speed limits to reduce impact forces;
- » Audio Tactile Line Markings to alert drivers that are drifting out of lane;
- » Sealed shoulders that allow more leeway for errant vehicles to get back into the traffic lane;
- » Roadside rest stop facilities; and
- » Education campaigns on distraction and fatigue.

### FSI Crashes by Road Classification and Speed Limit

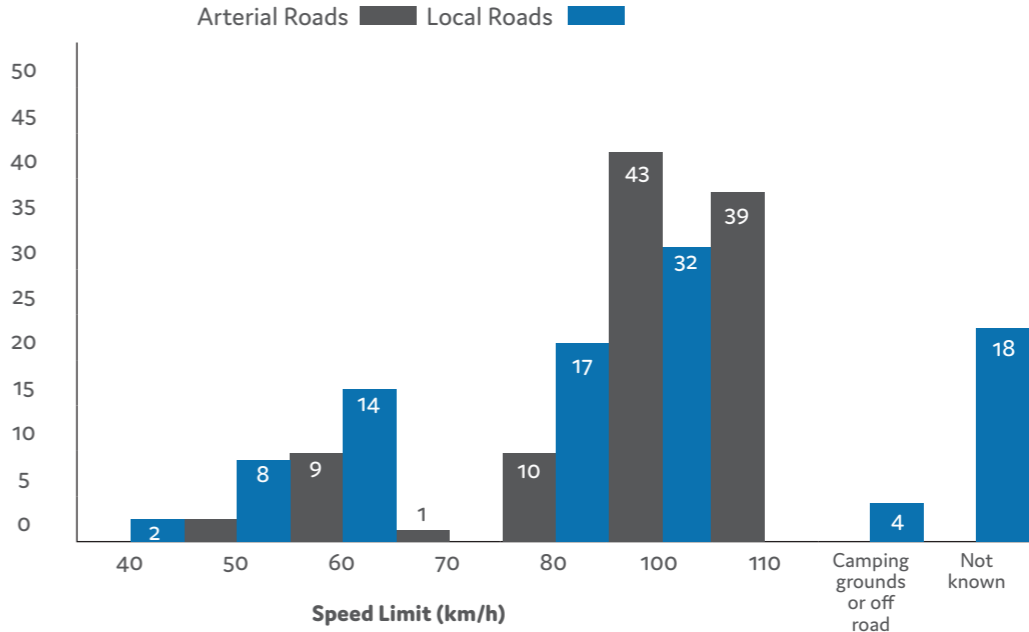


Figure 9: Road Speed Limit and Classification for FSI Crashes



# what's happening on our roads? continued

Figure 10 and Figure 11 show the breakdown of FSI crashes between sealed and unsealed roads. Figure 10 includes both local and arterial roads within the Council whereas Figure 11 includes only local roads within the Council. There are 890km of sealed roads and 570kms of unsealed roads within Moorabool Shire.

The majority of crashes occur on sealed roads because that is where there is the most traffic. There are a disproportionately high number of 'out of control on a straight carriageway' crashes on unsealed roads. This is because unsealed roads are of a lower standard than sealed roads but still have a high speed limit.

## Most Prevalent FSI Crashes on all Roads

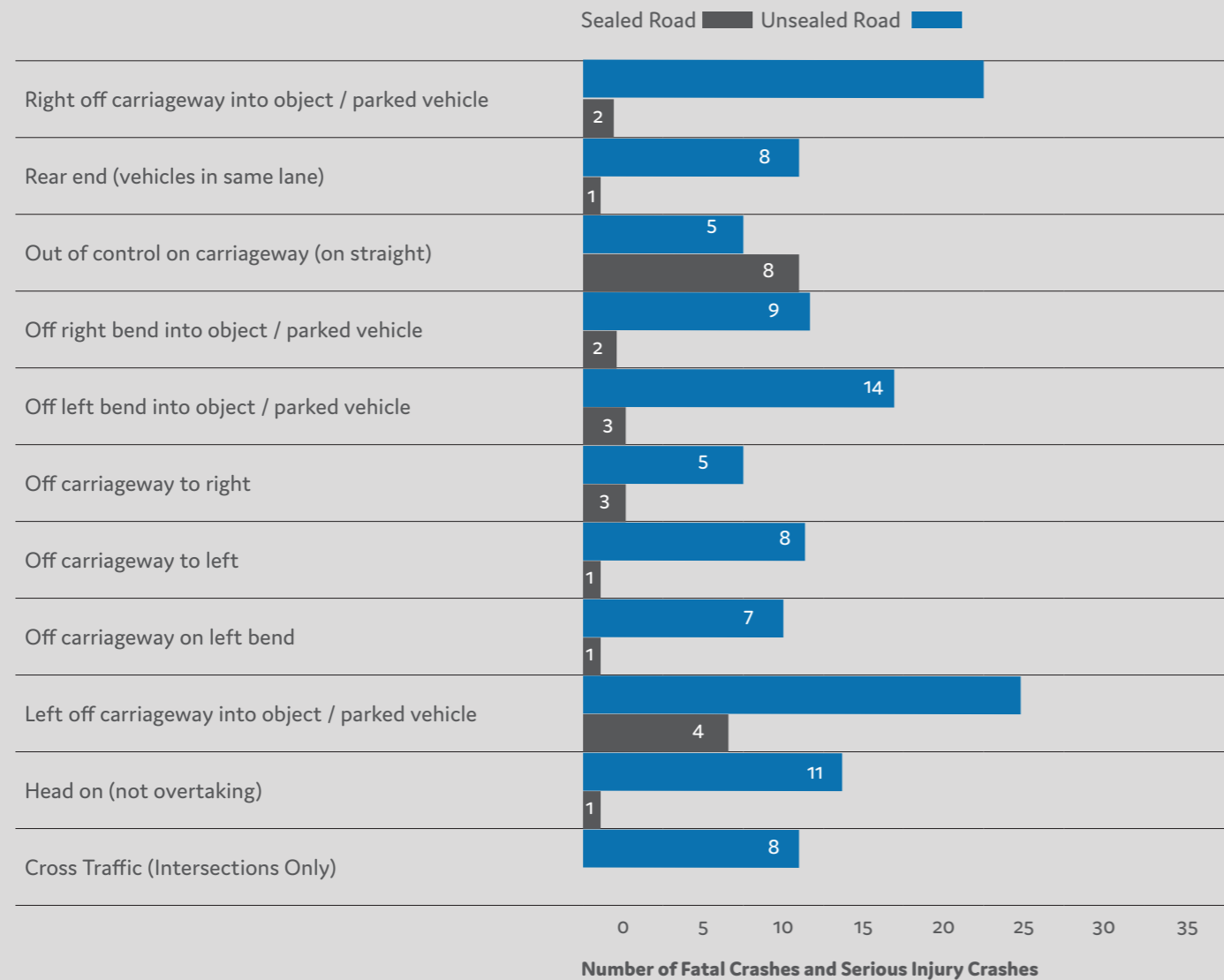


Figure 10: Most Prevalent FSI Crash Types on all Roads by Road Surface Condition

## Most Prevalent FSI Crashes on Local Roads

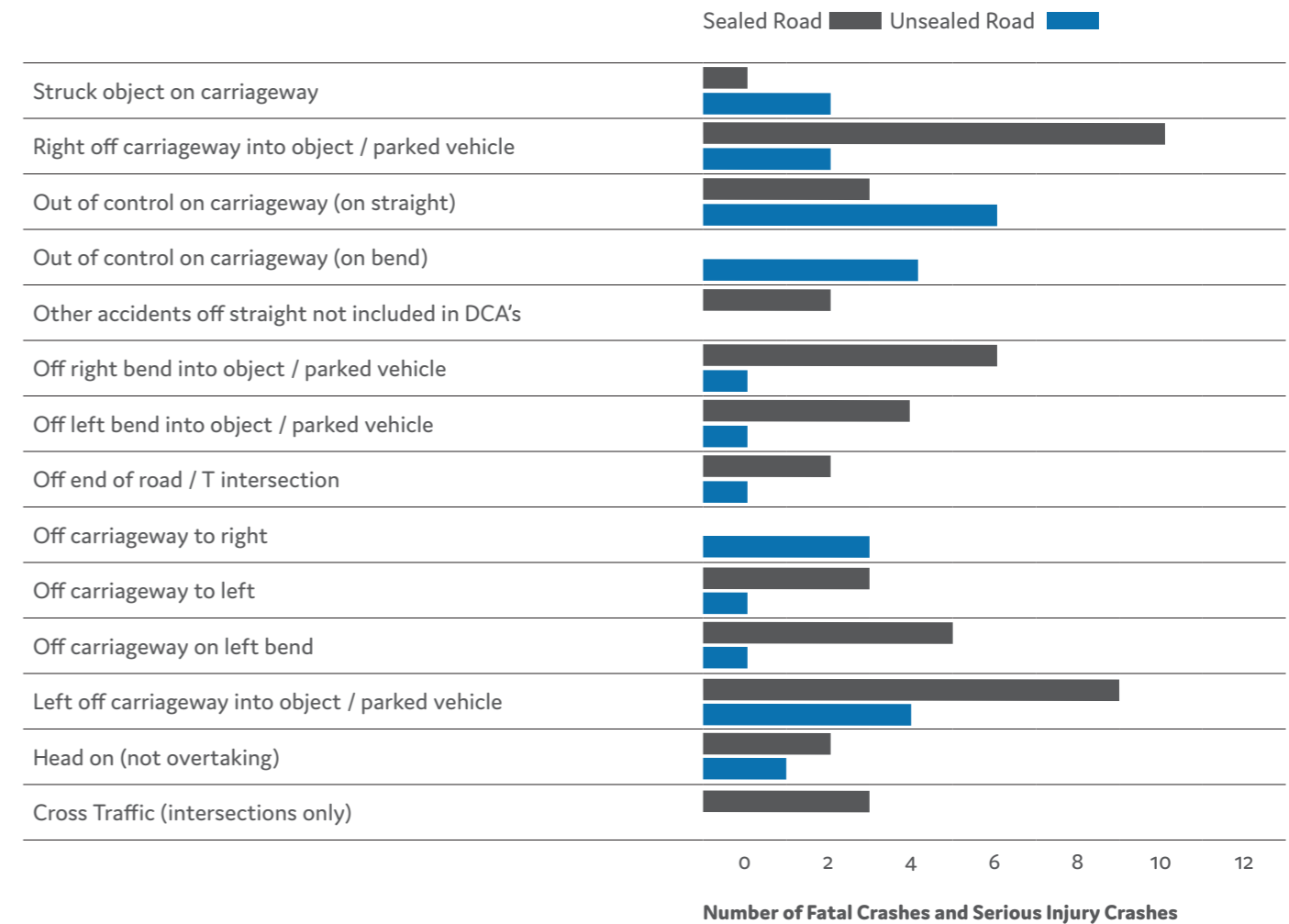


Figure 11: Most Prevalent FSI Crash Types on Local Roads by Road Surface Condition

## Fatal Crashes

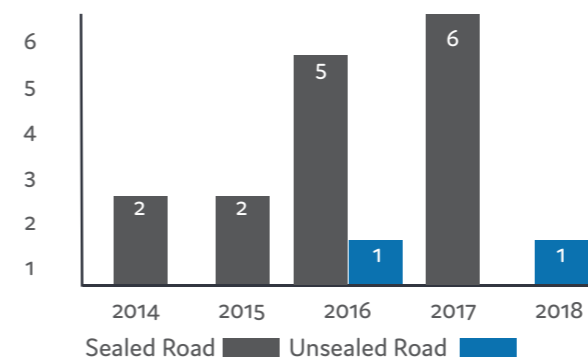


Figure 12A: Yearly Fatal Crashes by Road Surface Type

## Serious Injury Crashes

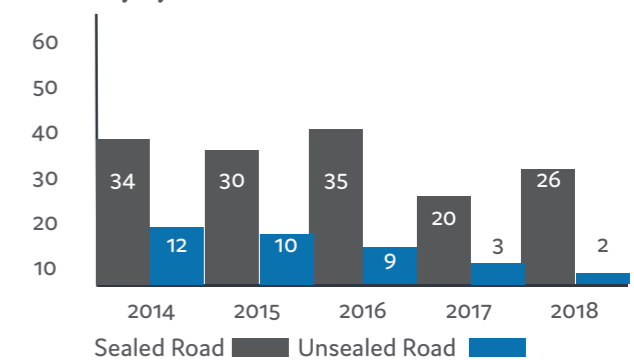


Figure 12B: Yearly Serious Injury Crashes by Road Surface Type



# what's happening on our roads? continued

## At risk road user groups

Moorabool is a popular destination for visitors, holiday makers and through traffic. Approximately one third of FSI crashes involve non-residents. Actions in this strategy take into account the need to tackle visitor and through traffic issues (for example fatigue); but there are still significant challenges with improving safety, and safe driving behaviours, for local people who are not travelling long distances and know their roads well.

Middle aged adults between 30 and 50 years of age have the highest involvement in FSI crashes (see Figure 14). This is likely to be a reflection of the demographics for the shire where the median age is 39 years.

Young adults aged 17-25 account for 25% of the total fatal and serious injuries, which is disproportionately high for an age group that makes up about 10% of Moorabool's population.

FSI Crashes - Driver Origin

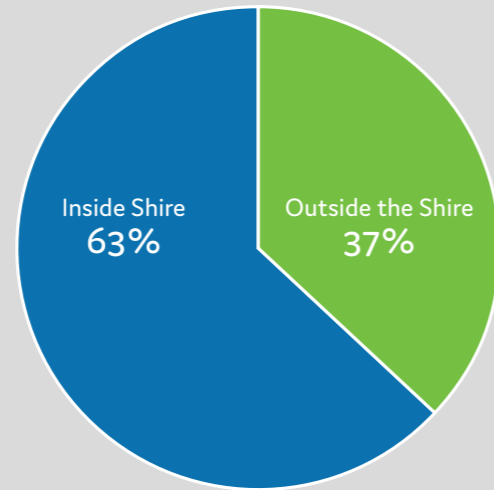


Figure 13: FSI Crashes by Origin of Drivers

These are typical figures for Victorian shires - the challenge for Moorabool and the whole state is to bring these numbers down. Council will continue to support campaigns, such as L2P Program and Fit to Drive, and consider vulnerable groups such as the young and old when implementing road safety initiatives.

The proportions of FSI crashes, broken down by user types, are not unusual. However, progress in respect of pedestrian safety, has been varied (see Figure 16) and given the steep incline between 2017-2018, there is a clear need to exercise vigilance.

Fatal and Serious Injuries by Age Group

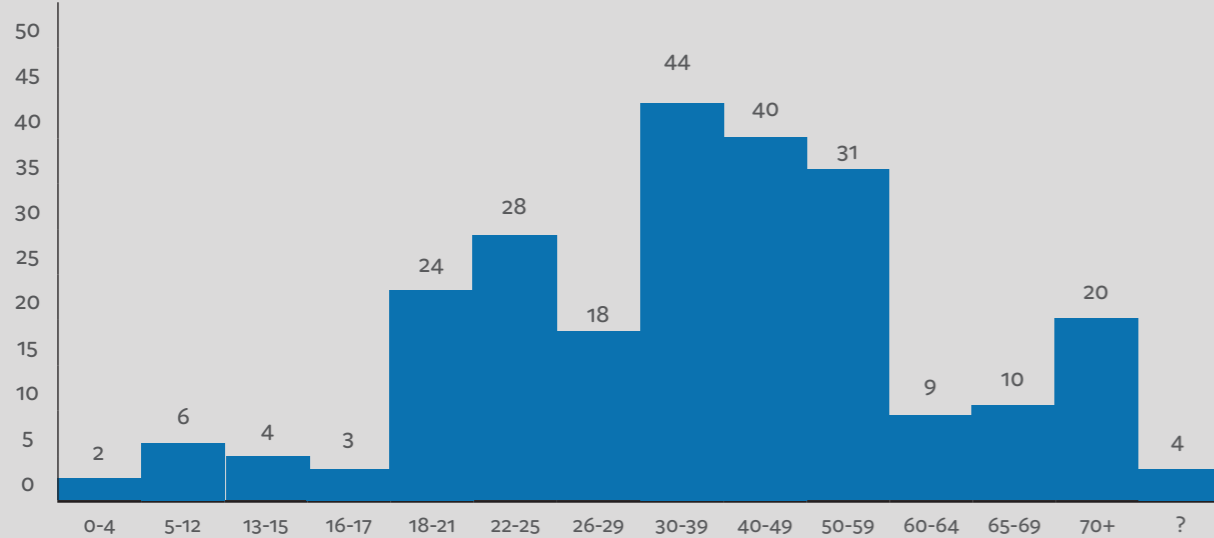


Figure 14: Distribution of Fatal and Serious Injuries by Age Group

Walking and cycling are critical to a healthy and vibrant community; and are an important part of a transport system that is environmentally and financial sustainable.

FSI Crashes (2014 - 2018)

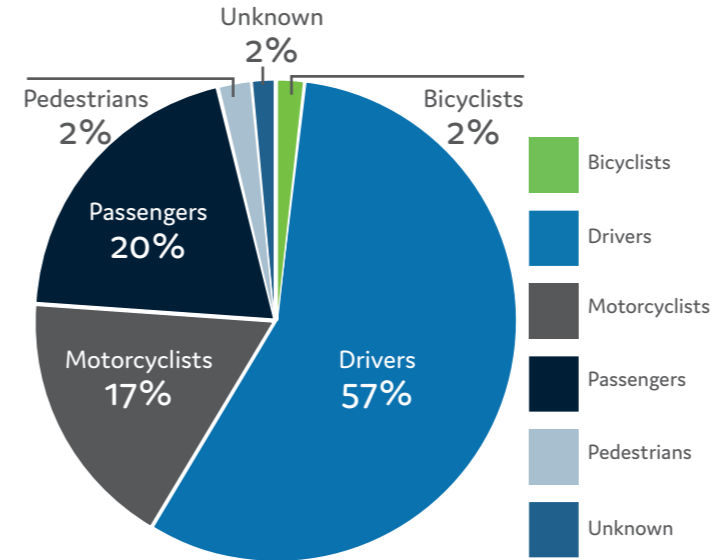


Figure 15: FSI Crashes by Road User Type

This strategy recognises the importance of vulnerable road users such as pedestrians and cyclists.



So, we will encourage and enable people to walk and cycle and recognise their safety needs.

Annual Trend for Pedestrian Crashes

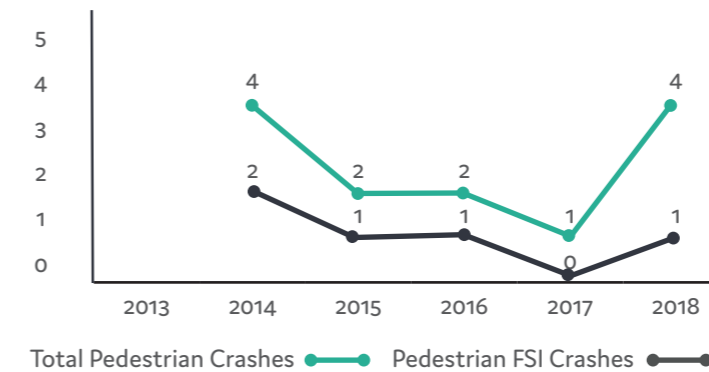


Figure 16: Pedestrian FSI over five-year period



Encouraging people to walk and cycle safely.

safely



# what's happening on our roads? continued

## All alcohol related crashes showed a decreasing trend

Despite an initial increase in 2015, Figure 17 shows the number of alcohol related crashes decreasing over the past 5 years. In the last year of data this reduction has become steeper. Council supports the state's efforts to separate drinking from driving and will take opportunities to promote drink driving messages to the community.

Across the state drug driving is a serious road safety issue. In the last five years approximately 41% of all drivers and motorcyclists killed who were tested, had drugs in their system, with cannabis and stimulants the most common substances detected. One in four Victorians who use drugs admit to driving under the influence of illicit drugs.

The number of drug tests conducted by Victoria Police has increased from 40,000 tests in 2014 to 150,000 tests in 2019. Council will continue to support policing and communication campaigns aimed at reducing drug driving.

Number of Alcohol Related Crashes Each Year

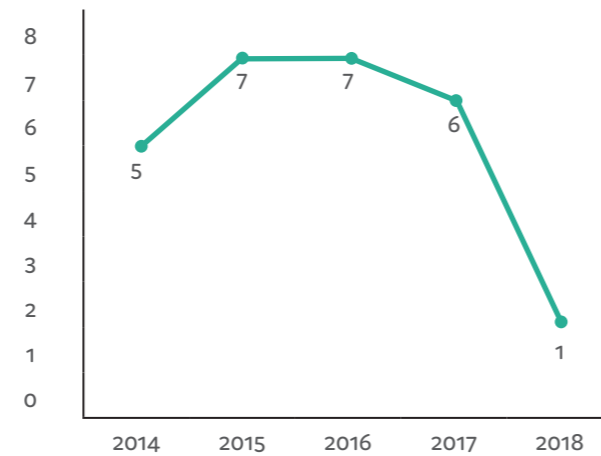


Figure 17: Yearly Trend of all Alcohol Related Crashes



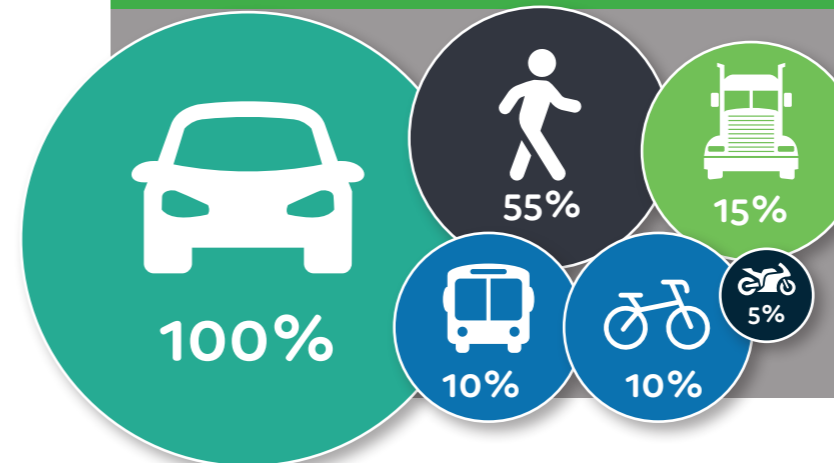
## What did you tell us?

To inform development of this strategy we invited residents and those who travel to or through the Shire to complete an online survey about their views on road safety. We also convened two community engagement meetings that were open to all residents and visitors to provide their views directly to Council staff. Some of the feedback is summarised below.

### YOUR FEEDBACK

1. Most people use a car and have concerns with the quality of country roads; many people may be deterred from walking.
2. Many people are not satisfied with the quality of roads or the availability of footpaths and cycle paths.
3. Most people believe that speed limits are about right in town.
4. Many people believe that a significant percentage of other drivers exhibit poor or very poor behaviour on our roads.
5. Respondents identified their highest priority road safety issues.

### PROPORTION OF RESPONDENTS USING VARIOUS TRANSPORT MODES FREQUENTLY



The full benefit of walking is not being realised.

1. Most people use a car and have concerns with the quality of country roads; many people may be deterred from walking.

Car is the predominant mode of transport. Just under half of respondents indicated that they do not walk as a means of transport on a daily or weekly basis, see below.



### What this means is:

- » If vehicle use grows in line with population growth, congestion and safety challenges will increase; and
- » the full benefit of walking, which is an important part of a sustainable transport system and a healthy lifestyle, is not being realised.



# what's happening on our roads? continued

2.

Many people are not satisfied with the quality of roads or the availability of footpaths and cycle paths.



When asked to rate the safety of road infrastructure, many people were not satisfied and scored negatively, especially for infrastructure in country/rural areas.

The primary concern for drivers was the quality of the surfacing, particularly for country roads. Although crashes are rarely caused by substandard surface quality, the feedback has been noted. With regard to footpaths and cycle/shared paths the main concern was lack of infrastructure or paths being in close proximity to traffic. These concerns will influence Council's approach to infrastructure management road safety actions over the next four years.

3.

Most people believe that speed limits are about right in town.

Community consultation allowed a more detailed discussion of perceptions related to speed limits and revealed that the issues are complicated.

Roads are designed so that drivers can feel safe driving at the speed limit provided there are no other factors at play.

However, multiple factors such as poor weather conditions, unpredictable behaviour, distractions and lack of concentration can significantly increase risks. Additionally, there is a belief that travelling above the speed limit results in large travel time savings, when in fact time savings are negligible.

### What this means is:

- » Speed limits will be reviewed where risks are high, especially for vulnerable users such as pedestrians and cyclists; and
- » Speed limits will be made more consistent across the shire so that people are more easily able comply.

4.

Many people believe that a significant percentage of other drivers exhibit poor or very poor behaviour on our roads.

### What this means is:

- » As a part of this strategy there are ongoing actions to work with road safety partners on education initiatives around sharing the road. Council will also explore opportunities to raise awareness of the dangers of distraction when driving (e.g. using mobile phones when driving).

5.

### Road Safety Issues.

These issues have been noted and have influenced the development of this strategy and the list of actions shown in the Action Plan in Section 10.

### What this means is:

- » Driver distraction and mobile phone use is a rapidly increasing concern for residents of Moorabool, reflecting similar rising concerns across the state; and
- » Roadside Hazards were mentioned frequently in two contexts: as an obstacle that could be struck in a crash, or as an obstruction to visibility.

- 85%** Road condition
- 45%** Distraction/lack of concentration (eg. mobile phones)
- 40%** Heavy vehicles on local roads
- 25%** Roadside hazards
- 20%** Lack of knowledge of road rules
- 15%** Drink/drug driving
- 15%** Inappropriate driving speed



### RESPONDENT VIEWS ON LEVELS OF SAFETY FOR ROADS INFRASTRUCTURE

	TOWN			COUNTRY		
	Less than Adequate	Adequate	More Than Adequate	Less than Adequate	Adequate	More Than Adequate
Roads	20%	70%	10%	65%	30%	5%
Footpath	15%	65%	20%	55%	35%	10%
Cycle/shared Path	45%	45%	10%	60%	35%	5%



#### car drivers. 1 in 2 poor/very poor

There were concerns around drivers not paying sufficient attention to the task of driving, or not being disciplined enough to maintain a good standard of driving for the whole journey. This related to issues such as lack of concentration, proneness to distraction and lack of consideration for other road users.



#### truck drivers. 1 in 3 poor/very poor

There was a general wariness around the imposing nature of large trucks on narrow local roads. They were perceived as a nuisance and a risk, although unsafe behaviours were not specifically identified.



#### cyclists. 1 in 3 poor/very poor

There was a common perception that cyclists were an impediment to safe and efficient traffic flow on narrow country roads, especially if riding two abreast.

There was a recurring perception that other road users can behave selfishly and do not 'share the road'



# 6

## THE SAFE SYSTEM



The approach was pioneered in Sweden where it was used to reduce fatalities and serious injuries by almost 40 per cent over ten years. The system has been adopted nationally and at a state level in Australia, and Moorabool Shire Council is committed to using the Safe System in road safety projects and practices.

The Safe System is internationally regarded as the best framework with which to dramatically reduce road trauma.

Internationally regarded as the best way to reduce road trauma.

# trauma



# the safe system continued

## Principles of the Safe System

The Safe System framework is based upon the following principles.

We will apply these principles to current and future projects and practices in Moorabool:

**1. The only acceptable death or serious injury toll on our roads is zero (zero tolerance).**

Everyone will be missed by someone.

Road safety needs to focus on the reduction of fatalities and life changing injuries.

**2. People are vulnerable**

If vehicles crash at high-speed, then our bodies are subjected to forces that they cannot withstand.

The approximate tolerances for the human body under different crash conditions are:

- » Head-on crash 70 km/h
- » Side impact crash with another vehicle 50 km/h
- » Side impact crash with a tree 30 km/h
- » Pedestrian crash 30 km/h

While our natural tolerances to physical forces are outside of our control, there is a lot that we can do to reduce or avoid physical impacts greater than can be withstood by the human body by addressing the elements of the Safe System.

**3. People make mistakes**

Human error is inevitable, and on our roads human error can result in crashes and trauma. However, crashes need not (and should not) result in death or serious injury.

The Safe System recognises the unavoidable nature of human error, and rather than placing the blame on the road user, it recognises the need for those involved in road design, road maintenance, and road use to share responsibility for the large variety of factors that contribute to a crash. This approach addresses a broad range of road safety issues without diminishing the responsibilities of road users.

**4. Shared responsibility**

Creating a safe road network is everyone's responsibility. Businesses, organisations, individuals and Moorabool Shire all have a role to play in moving Towards Zero.

## Elements of the Safe System

The Safe System is composed of four interacting elements which encompass all the factors that contribute to a crash. Understanding our road environment and where these elements can be better applied allows us to determine the measures that will best contribute to improving road safety.

The Safe System elements are described below:

### Safer Roads

Road infrastructure plays a vital role in helping reduce crashes and minimising the severity of injuries if there is an accident.

Our roads should be designed and maintained so that risk is avoided or minimised for road users, and the severity of crashes is reduced.

Our roads should be forgiving of errors by road users and provide the safest possible outcome in adverse circumstances.

### Safer Speeds

When a crash occurs, the weight and speed of the vehicle at the moment of impact determines how much force is transferred to the people involved.

For our fragile bodies, even a small difference in speed can mean the difference between life and death.

The 'Safe Speeds' element aims to ensure that speed limits are appropriate and that road users travel at speeds that are safe for the conditions.

### Safer People

Crashes often involve an element of human error.

We should all pay care, attention and reasoning to the way that we use the roads.

This also means that we must be aware of the road rules and other road users - for all modes of transport.

### Safer Vehicles

Newer and better safety features are continually being introduced to vehicles.

These features can assist in preventing crashes by automatically detecting dangerous situations and reacting appropriately, or by reducing the impact forces on those involved in a crash.

Increasingly safe vehicles play an important role in improving personal safety and reducing road trauma.

The Safe System is composed of four interacting elements which encompass all the factors that contribute to a crash.



# the safe system continued

## Post-Crash Care

Our goal of zero deaths and serious injuries will require time to achieve. While we strive to apply the Safe System to our road network, crashes will continue to occur. When a serious crash occurs, emergency services are required to attend the scene.

Accessibility to the crash location affects the time required for emergency response personnel to reach individuals injured in the crash. The length of time between when the crash occurs and when emergency treatment is received is a critical factor in the severity of a crash.

As such, it is essential that emergency response times and accessibility for emergency vehicles are considered in our road safety planning.

It is essential that emergency response times and accessibility for emergency vehicles are considered in our road safety planning.



Understanding our road environment allows us to determine the best measures to improving road safety.

**understanding**



# 7

## WHAT WORKS AND WHAT DOESN'T?

Research has shown that road trauma can be reduced when:

1. We see a commitment from leaders;
2. We commit to a methodical approach;
3. The community is involved in planning and delivering road safety outcomes; and
4. We adopt safety measures that have been shown to be effective in the past.



Where the crash risk is high the speed needs to be reduced.  
**reduced**

### Safer Roads Infrastructure Improvements

- ✓ Identifying and addressing high risk locations with infrastructure to reduce the likelihood and consequence of crashes;
- ✓ Installing proven safety measures such as pedestrian and cycle friendly roundabouts, separated cycling facilities, pedestrian crossings and roadside barriers; and
- ✓ Gateway treatments on the approach to lower speed areas.

### Safer Speeds Speed Management

- ✓ Reducing speeds where the crash risk is high;
- ✓ Reducing travel speeds to below 30km/h in locations where there is a risk of a crash between a pedestrian/cyclist and a car/truck;
- ✓ Supporting new speed limits with road infrastructure such as traffic calming measures, road surface changes or visual cues to drivers;
- ✓ Supporting speed limits with enforcement; and
- ✓ Reducing the number and frequency of speed limit changes.

These approaches and initiatives have proven to be effective in addressing some of the most common problems on our roads and as such they have influenced our strategy and our Action Plan (see section 10).

There is a lot of information available on road safety and the effects of different safety measures. This provides us with an excellent starting point when deciding what we should do to achieve the results we want.



# what works and what doesn't continued

## Safer People Education and Experience

- ✓ Road safety programs will be evidence based;
- ✓ Promoting a safer driving culture in local communities;
- ✓ Engaging the youth, their parents, and other partners who can deliver road safety messages to young drivers;
- ✓ Involving schools in road safety education and programs;
- ✓ Ensuring that educators on road safety are properly trained;
- ✓ Ensuring that programs are interactive, age appropriate and engaging;
- ✓ Delivering programs, especially for teenagers, that help people develop good judgement, resilience, coping strategies and refusal skills enabling them to act in a responsible and safe manner;
- ✓ Using resources available from Department of Transport, the TAC and other road safety agencies;
- ✓ Ensuring that adequate driving experience (120 hours or more) with a supervising driver is achieved for learner drivers; and
- ✓ Targeted campaigns addressing road safety issues and identifying actions for road user groups.

Fylan, F., Hempel, S., Grunfeld, B., Conner, M., Lawton, R. (2006), *Effective Interventions for Speeding Motorists. Road Safety Research Report No. 66*. London: Department for Transport.

Darnton, A. (2008) *Lessons from theory to practice: Summary of Findings from GSR Behaviour Change Knowledge Review*. London: University of Westminster.

## Safer People Enforcement

- ✓ Enforcement at locations with high risk of crashes;
- ✓ Providing information to the community about relevant road safety laws, the level of enforcement and legal consequences;
- ✓ Aligning enforcement activities with education and media campaigns; and
- ✓ Having a visible enforcement presence.

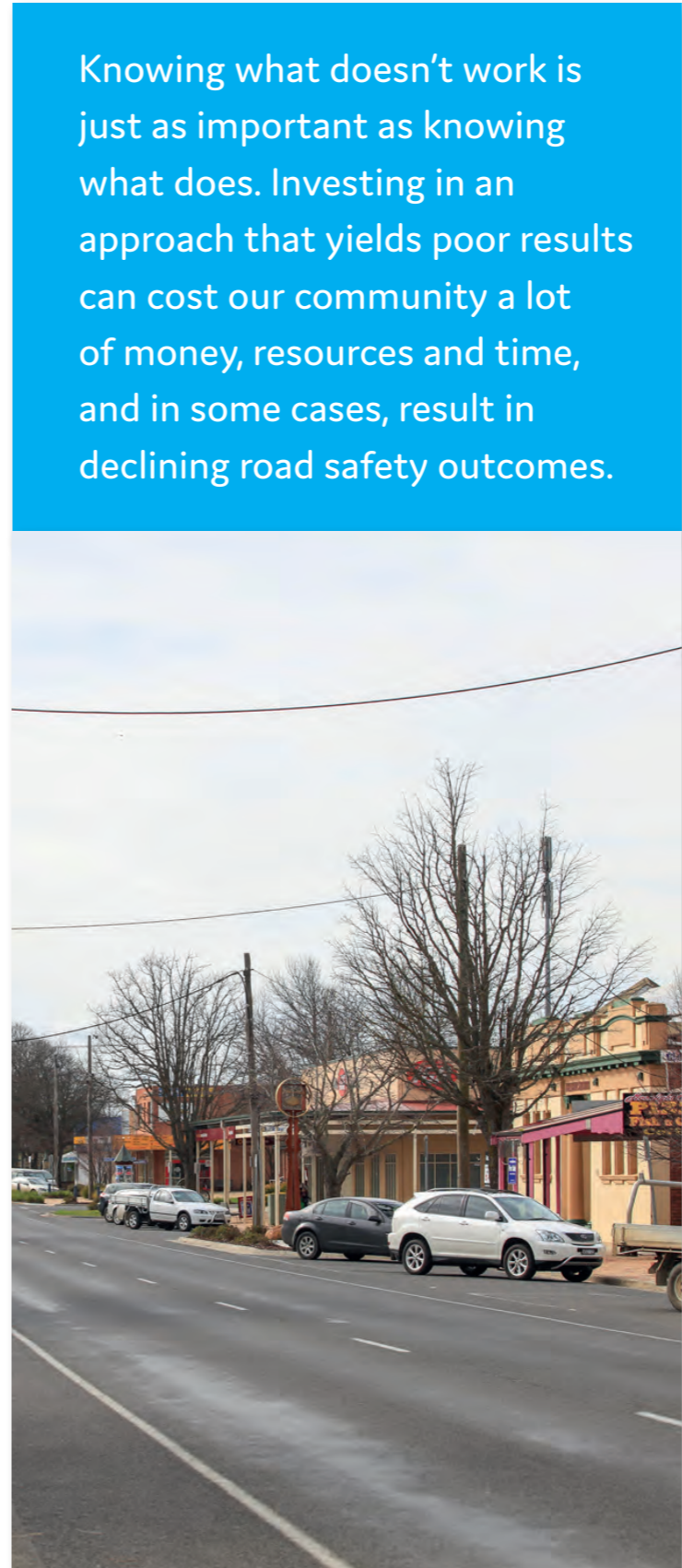
## Safer Vehicles Safety Features

- ✓ The promotion of ANCAP Five Star safety rated vehicles;
- ✓ Intelligent speed assist devices that inform drivers of the speed limit; and
- ✓ Company policies that promote the safest vehicles and safe driving practices.

Health Communication Unit (2004). *Changing Behaviours: A Practical Framework*. Toronto: Centre for Health Promotion, University of Toronto

RACV (2007) *The Effectiveness of Driver Training as a Road Safety Measure*. Monograph.

VicRoads (2014) *Youth Road Safety – Effective Practice*, [www.vicroads.vic.gov.au](http://www.vicroads.vic.gov.au)



Based on statistics from previous implementation, here are some of the things that we know are **not** effective in reducing road trauma:

- ✗ A culture of blame instead of looking at what can be done to improve the system as a whole;
- ✗ Training that involves off-road driver training and especially any driving skill-based programs such as 'advanced driver training'. This has been shown to increase risk taking behaviour by drivers;
- ✗ Stand-alone one day or one-off events, forums and expos run in isolation of evidence-based strategy;
- ✗ Fear appeals such as trauma ward visits, or testimonials from crash victims or offenders;
- ✗ Relying on driver simulators;
- ✗ Unnecessarily restricting the movement of pedestrians or cyclists;
- ✗ Adjustments in speed limits which are not evidence based; and
- ✗ Undertaking road safety work in isolation - without support from relevant State Government authorities such as Transport Accident Victoria, the Department of Transport and Public Transport Victoria.

RACV (2007) *The Effectiveness of Driver Training as a Road Safety Measure*. Monograph.

VicRoads (2014) *Youth Road Safety – Effective Practice*, [www.vicroads.vic.gov.au](http://www.vicroads.vic.gov.au)



# 8

## WHAT WE CAN ALL DO



When riding your bike,  
always wear a helmet  
and fit lights at night.

# bright at night

In developing this strategy, the community input through the online survey, consultation sessions and other interest group forums has been excellent.

### Safer Roads & Speeds

- » Report all road faults and hazards on local roads to **Moorabool Shire Council** 5366 7100 or via email [info@moorabool.vic.gov.au](mailto:info@moorabool.vic.gov.au)
- » Report all road faults and hazards on arterial roads to **Regional Roads Victoria** 13 11 70
- » Report any crashes or incidents involving injury to **Victoria Police** so that they can be added to the State Government database of crashes.

### Safer Vehicles

- » Make sure that your next car is ANCAP 5 Star Safety rated and lobby your employer to provide the safest car in its class if you use work vehicles.
- » Consider using an intelligent speed assist device to make sure you don't exceed the speed limit.
- » Ensure your car is always in roadworthy condition and is regularly maintained.

In line with the Safe System approach and recognising that we all have a shared responsibility to make our roads safer, here are some of the ways that we can make a difference.

### Safer People

- » Behave the way you want others to behave while travelling. Keep to the speed limit and don't use your mobile phone while driving.
- » Always wear full safety gear if you travel on a motorbike or scooter.
- » Watch out for cyclists when entering and exiting parking spots and when opening your car door.
- » When riding a bike, always wear a bicycle helmet and **"be bright at night"** by fitting lights to your bike.
- » Report hoon behaviour to the **Hoon Hotline** on 1800 333 000.
- » Never exceed the speed limit, but also remember that it's a limit, not a target, and always drive to the conditions.
- » Share the road by being mindful of all other road users.
- » Plan your journey so that you know what conditions are going to be like and allow plenty of time for your journey so you don't feel the need to rush.
- » Identify a safe route to school for your children and teach them to use that route.
- » Assist a young driver to get **120** hours of supervised driving practice, making them safer when they become a probationary driver.
- » Consider becoming an L2P mentor to help a young driver without access to a supervisor get vital driving practice.
- » Direct young drivers to **SaferPplaters.com.au** to reduce their risks in their first years of driving



# 9

## WHAT MOORABOOL SHIRE COUNCIL WILL DO

### Moorabool Shire Council, like all Local Government Authorities, has important roles to play in improving road safety, including:

- » As a Road Authority, we have a primary responsibility for the safety of the roads we own and manage, including a duty of care towards road users.
- » As a Planning Authority, we have a duty to consider the implications of decisions regarding land use and developments and ensure that road safety is not compromised.
- » As an employer and fleet operator we have a duty to ensure the safe operation of our staff and vehicles (applying these principles and practices to our contractors) and to provide leadership to other organisations and the broader community in improving standards.
- » Lobbying higher levels of government for funding transport infrastructure and services which will benefit the community and for changes to legislation which may have a particular impact on its community, e.g. aspects of police traffic enforcement.
- » Engaging and empowering its community in relation to road safety issues, in encouraging safe road user behaviour, and in coordinating local resources for better road safety outcomes.

Together with our road safety partners and a more engaged community we can continue to improve road safety within the Shire for all road users - residents and visitors alike.

This strategy sets out a framework for improvement.

# improvement

We are committed to improving road safety and the Towards Zero target of zero deaths and serious injury crashes on our roads. We will continue to play our part in a Victorian Road Safety Strategy.

Our road safety data, engineering and roads management experience and community feedback has helped us to identify broad safety improvement themes.

- 1. We will embrace the Safe System approach,** act as an exemplar and encourage others to do the same. This means that we will integrate the Safe System principles into our way of working, including the way that we plan, design, deliver, maintain and operate our road network. We will also build the Safe System capabilities of our staff, including following best safety practices when driving for work. [See Action Plan Theme 1.](#)
- 2. We will address the most severe risk locations and risk factors on our roads.** Road safety risks on Council managed roads will be investigated through regular planned inspections, through inspections prompted by community feedback and in response to crashes and crash history. Council will undertake road safety improvements based on evidence of need, value for money and prioritisation of resources. [See Action Plan Theme 2.](#)
- 3. We will promote the use of safe vehicles.** Modern vehicles with best in class safety features are much safer for drivers, passengers and other people. Council will continue to operate a fleet of vehicles with a 5-star ANCAP rating and will promote safe vehicles and safe driving policies with its service providers and wider industry. [See Action Plan Theme 4.](#)
- 4. We will encourage people to travel at safe speeds.** Council recognises the critical impact that speed has on road safety outcomes and will continue to conduct speed zone reviews as an important part of its Local Area Traffic Management Plan. Council supports the principle that speed limits should reflect the operating environment and be consistent across the Shire. We will work with the Department of Transport to achieve this, and also with Victoria Police and the community to address locations where speeding is perceived to be an issue. We will support initiatives that improve compliance with speed limits. [See Action Plan Theme 3.](#)
- 5. We will reduce risks for active transport users,** recognising how important this is for a healthy sustainable community and that pedestrians and cyclists are particularly vulnerable. We will continue to deliver the actions set out in our Moorabool Hike and Bike Strategy (June 2014) and Bacchus Marsh Integrated Transport Strategy (December 2015). We will work with schools to support and promote walking and cycling and ensure that pedestrian and cyclist safety is considered in all future planning programs. [See Action Plan Theme 5.](#)
- 6. We will engage with the community** to encourage and support safer behaviours. Opportunities will be identified and exploited to raise awareness and encourage appropriate behaviours relating to driver distraction and sharing the road with other vehicles, particularly large vehicles and cyclists. Engagement will be two-way, and the community will be able to input their ideas and views through various forums and communication channels such as Council's website. [See Action Plan Theme 6.](#)
- 7. We will work with road safety partners** to deliver the best possible safety solutions on both our local roads and arterial roads and freeways. Safety is a network wide and multi-faceted issue and, in keeping with the Safe System principle of 'shared responsibility', it is critical that we work hand in hand with safety partners such as the Department of Transport, Regional Roads Victoria, Victoria Police, State Emergency Service, Country Fire Authority and RoadSafe Central Highlands. Additionally, we will seek Federal and State Government funding where appropriate. [See Action Plan Theme 7.](#)



# 10

## ACTION PLAN

Implement training for Council staff to promote the Safe System ethos.

ethos



### 1. Safer System Approach

We will embrace the Safe System approach and promote its application.

Initiative	Action	Performance Measure	Timeframe	Delivery Team
1.1	Council to formally commit to the Safe System approach and Towards Zero targets.	<ul style="list-style-type: none"> <li>» Formal internal launch of the Road Safety Strategy.</li> <li>» Public launch of Road Safety Strategy on Council Website.</li> </ul>	2020	Communications and Asset Management Units
1.2	Implement training for the appropriate Council staff to promote a Safe System ethos.	<ul style="list-style-type: none"> <li>» Council leaders and senior management with road related responsibilities to be trained in Safe System principles.</li> <li>» All staff involved in planning, design, construction, maintenance, landscaping and operations of roads to be trained in Safe System principles and best practice</li> </ul>	2020-21	Asset Management Unit
1.3	When responding to the design for new developments road safety outcomes will be a priority consideration using the Safe System Principles.	<ul style="list-style-type: none"> <li>» Introduce a Safe System Principles check and allocate responsibility for its application.</li> <li>» Introduce Road Safety Design Audits for new development works, where appropriate.</li> </ul>	2020-21	Planning and Engineering Services Units

### 2. Safer Roads

We will address the most severe risk locations and risk factors on our roads.

Initiative	Action	Performance Measure	Timeframe	Delivery Team
2.1	Conduct road safety investigations and/or risk assessments in areas of high priority.	<ul style="list-style-type: none"> <li>» Undertake audits/assessments of routes with high crash rates.</li> <li>» Undertake assessments of road configuration, alignment and traffic volumes to inform a program of road upgrades (see initiative 2.2).</li> <li>» Introduce a Safe Systems principles check on road infrastructure upgrades, including signage and line marking improvements.</li> <li>» Undertake an audit of Trunk Collector, Collector and Access 1 roads for the delineation improvements, including centrelines, edge lines RRPMS, signage and guideposts.</li> </ul>	2020-24	Asset Management Unit
2.2	Implement a program of delineation improvements on local roads.	<ul style="list-style-type: none"> <li>» All delineation improvements identified in the audit for Trunk Collector, Collector and Access 1 roads collated and referred to the Long Term Capital Improvement Program.</li> </ul>	2020-24	Asset Management Unit
2.3	Undertake road upgrades where warranted, as part of the Long Term Capital Improvement Program.	<ul style="list-style-type: none"> <li>» Include a program of road widening and upgrades in the Long Term Capital Improvement Program for implementation.</li> <li>» Undertake a program of intersection sealing where gravel roads intersect with sealed roads.</li> </ul>	Annual	Asset Management and Engineering Services Units
2.4	Continue to conduct regular road inspections that will include identification of tree management and nature strip regulation requirements to ensure the safety of road users.	<ul style="list-style-type: none"> <li>» Expand Road Management Plan (RMP) inspections to include carriageway clearance for heavy vehicles in the next RMP review.</li> <li>» Develop an infrastructure policy for nature strips that integrates the Safe System approach to road safety.</li> </ul>	2021	Operations Services and Asset Management Units
2.5	Develop a procedure for providing protection from roadside hazards where new works are undertaken based on road hierarchy, default speeds and traffic volumes.	<ul style="list-style-type: none"> <li>» Guidance written and integrated into procedures for new works.</li> </ul>	2021-22	Engineering Services Units
2.6	Work with developers to ensure new developments are designed and built to cater for local area traffic management needs.	<ul style="list-style-type: none"> <li>» Develop and implement a process that requires developers to design and build new developments with local road transport needs in mind.</li> </ul>	2021-22	Engineering Services and Planning Units



# action plan continued

## 3. Safer Speeds We will encourage people to travel at safe speeds.

Initiative	Action	Performance Measure	Timeframe	Delivery Team
3.1	Continue to review speed zones within the Shire to address areas of high speed and ensure that speed limits align with Safe System principles.	<ul style="list-style-type: none"> <li>» Ensure that Safe Speed is always considered as part of the Local Area Traffic Management process.</li> <li>» Advocate for new safer speed limits where appropriate.</li> </ul>	Ongoing	Asset Management Unit
3.2	Monitor speeding and other unsafe road user behaviour.	<ul style="list-style-type: none"> <li>» Review community feedback in relation to speeding and rat-running.</li> <li>» Notify Victoria Police of areas identified as having issues with speeding or hoon behaviour.</li> </ul>	Ongoing	Asset Management Unit

## 4. Safer Vehicles We will promote the use of safe vehicles.

Initiative	Action	Performance Measure	Timeframe	Delivery Team
4.1	Review and update Council's Fleet Policy	<ul style="list-style-type: none"> <li>» Review and update Council's Fleet Policy to incorporate latest appropriate vehicle safety developments.</li> <li>» Fleet Policy to include a minimum 5-star ANCAP safety requirement.</li> <li>» Develop and implement Council's Safe Driving Policy.</li> </ul>	2021-2022	Finance Unit
4.2	Encourage safe driving and use of safe vehicles.	<ul style="list-style-type: none"> <li>» Investigate the viability of specifying minimum safety standards for Council service provider vehicles.</li> <li>» Ensure Council complies with National Heavy Vehicle Regulator chain of command requirements.</li> </ul>	2021-2022	Finance and Governance Units

## 5. Safer People We will encourage active transport.

Initiative	Action	Performance Measure	Timeframe	Delivery Team
5.1	Continue to complete inspections to ensure pathways are clear and accessible allowing the community to walk around the neighbourhood safely.	<ul style="list-style-type: none"> <li>» Conduct proactive and reactive inspections in accordance with Council's RMP.</li> </ul>	Ongoing	Asset Management Unit
5.2	Implement pedestrian improvements identified through the Local Area Traffic Management Process.	<ul style="list-style-type: none"> <li>» Include the identified list of works in the Long Term Capital Improvement Program, as appropriate.</li> </ul>	Ongoing	Asset Management Unit
5.3	Improve safety and connectivity for pedestrians and cyclists through the use of shared paths and bicycle lanes.	<ul style="list-style-type: none"> <li>» Conduct an audit of the existing shared path network to assess signage, markings and hazards.</li> <li>» Include priority recommendations in the Long Term Capital Improvement Program.</li> </ul>	2021-22	Asset Management Unit
5.4	Ensure new developments are designed and built to cater for active and public transport.	<ul style="list-style-type: none"> <li>» Develop and implement a process that requires developers to design and build new developments with active and public transport in mind.</li> </ul>	2020-21	Engineering Services and Planning Units

## 6. Safer People We will engage with the community.

Initiative	Action	Performance Measure	Timeframe	Delivery Team
6.1	Promote community road safety messaging through Council's Moorabool Matters and social media channels.	<ul style="list-style-type: none"> <li>» Participate in National Road Safety Week annually and promote within the community.</li> <li>» Share messages and information from road safety partners to the community.</li> </ul>	Ongoing	Communications Unit
6.2	Support education campaigns for older road users.	<ul style="list-style-type: none"> <li>» Support delivery of campaigns for safe walking, mobility scooters, driving and the use of public transport.</li> </ul>	2021-22	Aged & Disability Unit
6.3	Support education campaigns for younger road users.	<ul style="list-style-type: none"> <li>» Support delivery of campaigns for safe driving.</li> </ul>	2021-22	Child, Youth and Family Unit
6.4	Assist RoadSafe Central Highlands, Transport Accident Commission and Regional Roads Victoria to promote targeted road safety messages and programs.	<ul style="list-style-type: none"> <li>» Targeted messages may include:                             <ul style="list-style-type: none"> <li>- Towards Zero;</li> <li>- Western Highway Safety;</li> <li>- Motorcycle Programs;</li> <li>- L2P Program;</li> <li>- Fit to Drive</li> <li>- Looking After Your Mates Program;</li> <li>- Road Safety Week; and</li> <li>- Stop, Revive, Survive.</li> </ul> </li> </ul>	Ongoing	Communications Unit

## 7. Working Together We will proactively work with our Road Safety Partners.

Initiative	Action	Performance Measure	Timeframe	Delivery Team
7.1	Support road safety partners to promote road safety.	<ul style="list-style-type: none"> <li>» Support Regional Roads Victoria to promote infrastructure improvements on arterial road problem locations.</li> <li>» Work with Public Transport Victoria and bus service operators to improve the safety of public transport and links for pedestrian and cyclists.</li> </ul>	Ongoing	Asset Management Unit
7.2	Proactively seek opportunities to apply for funding and grants to address road safety outcomes.	<ul style="list-style-type: none"> <li>» Review all available grant funding schemes and prepare a provisional and prioritised program of applications (including Blackspot Funding, TAC etc).</li> </ul>	Annual	Asset Management Unit
7.3	Council to attend RoadSafe Central Highlands meetings	<ul style="list-style-type: none"> <li>» Attend bimonthly meetings, provide data to inform the meetings and proactively support appropriate actions.</li> <li>» Provide support in road safety promotional activities.</li> </ul>	Bimonthly	Asset Management Unit



This strategy sets out a framework for improvement and an Action Plan for the next four years.





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