From the Mayor

Mildura Rural City Council believes that human life and health are paramount. The Council, with the support of its road safety partners, will strive to eliminate death and serious injury from its roads by adopting the philosophy and principles of the globally recognised Safe System road safety vision.

The Safe System will be progressively applied across the municipality, prioritised according to problems and places where the greatest savings in severe trauma can be made. This will be in line with the Victorian Government’s Towards Zero strategy that seeks to bring the road toll down to zero. This will take time but there are many things that we can do in the short term to reduce the number of deaths and the number of serious injuries on our rural and city roads.

*The Council aims to be Australia’s most liveable city. To do this, all residents and all visitors must be able to make their journeys safely.*

To make us the most liveable city means having good access to all destinations; those within and those outside the Council area. We have many places of natural beauty and cultural significance and we want residents and visitors to be able to see them, appreciate them, and be protected from road crashes while they do so. This means that access should be within a predictable and reasonable time, and not necessarily in the shortest time possible.

Residents and visitors also want good access to health services and to educational, recreational and sporting opportunities, and to the community benefits that come from prosperous and value-adding businesses, industries and tourism. This access can be by motor vehicle, bicycle or walking.

Active forms of travel, such as walking, cycling and public transport use can make us all healthier. So, making sure that we have high-quality public spaces and an environment where the air is clean and free of harmful noise also support our health, our social connection and our enjoyment of life. The threat to life and health from undertaking everyday activities, including travel, needs to be as low as practicable and this Strategy helps to make sure that Council works towards that goal, and works towards making Mildura the most liveable city into the foreseeable future.
# Table of contents

From the Mayor 2
Table of contents 3
1. Our Vision 4
2. Federal and State context 4
   How does this compare to the last strategy? 5
   Our commitment 6
3. The Safe System 7
   Principles of the Safe System 8
   Elements of the Safe System 9
   Post-Crash Care 10
4. What’s happening on our roads? 11
   What does the data show? 11
   What did you tell us? 15
   ANRAM 21
5. What works and what doesn’t? 22
6. Moving Towards Zero 25
7. Targets 27
8. What you can do 28
   Safer people 28
   Safer vehicles 29
   Safer roads and speeds 29
9. Areas for improvement 30
1. Our Vision

Mildura Rural City Council’s long term vision is to achieve the Towards Zero target of zero deaths and serious injury crashes on our roads and create the most liveable, people friendly community in Australia.

Our safety vision is to ensure safe travel within the Mildura Council road network for our local community and our visitors. The objective of this strategy is to set the framework for reducing death and serious injury on our roads and to set the framework to do this in a fast and efficient manner over the coming years.

2. Federal and State context


The road safety targets set out by the National strategy aim for a reduction in fatalities and serious injuries of 30% over a period of 10 years. The Victorian Strategy aims for a 20% reduction in deaths and a 15% reduction in serious injury over a five-year period.

We aim to exceed these road safety expectations and are committed to achieving a 30% reduction in both fatalities and serious injuries (FSI) within our shire by the end of the five-year life of this strategy.

Figure 1 shows the existing number of serious crashes over the last 10 years and the projected number of crashes over the next five years, assuming we meet our 30% target.

Figure 1: Current and future FSI crash trends and targets
How does this compare to the last strategy?

Mildura’s last road safety strategy started in 2010 and ran for seven years. The strategy set a target of 30% reduction in all crash types, based on yearly averages. The starting, target and actually achieved figures are shown in Table 1.

Table 1: Comparison of previous targets and actual crashes

<table>
<thead>
<tr>
<th>Crash severity</th>
<th>Crashes per year in 5 years to 31/12/08</th>
<th>Target per year in 7 years to 31/12/16</th>
<th>Crashes per year in 6.8 years to 31/10/16</th>
<th>Actual change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatal</td>
<td>5.8</td>
<td>4</td>
<td>2.3</td>
<td>-60%</td>
</tr>
<tr>
<td>Serious</td>
<td>51</td>
<td>36</td>
<td>28</td>
<td>-45%</td>
</tr>
<tr>
<td>Other</td>
<td>113</td>
<td>79</td>
<td>66</td>
<td>-41%</td>
</tr>
<tr>
<td>All crashes</td>
<td>169.8</td>
<td>119</td>
<td>96.3</td>
<td>-60%</td>
</tr>
<tr>
<td>All Fatal and Serious Injury crashes</td>
<td>56.8</td>
<td>40</td>
<td>30.3</td>
<td>-47%</td>
</tr>
</tbody>
</table>

The data indicate that the 30% reduction targets have been far exceeded in all categories of crashes. It is very unlikely that this rate of reduction can be maintained into the future. Problematic areas of the network typically lead to clusters of crashes (“blackspots”). Treating these blackspots generally leads to large reductions in crash numbers, as the problems causing the crashes are removed. As the number of blackspots reduces over time, due to the road safety work being undertaken to treat them, the opportunity for large reductions in crash numbers also reduces. The remaining crashes are typically isolated and often have no obvious cause that can be treated. It is this effect that makes it difficult to keep achieving large crash reductions, and why the rate of reduction typically reduces over time.

While our proposed reduction target (30%) is less than that already achieved (60%) it is considered to be a realistic target going forward.

---

1 Data to the end of 2016 is not yet available.
Our commitment

At Mildura Rural City Council, we commit to aligning with the National and State strategies by setting an ultimate goal of zero deaths and serious injuries on roads within our region. We also commit to implementing the Safe System through current and future road safety projects and initiatives.

Our road safety strategy considers not only the road safety improvements possible within its lifetime, but also plans for an ability to continue road safety efforts into the future.

The strategy will implement Post-Crash Care as an element of road safety in line with the latest Safe System principles, and ensure that future works maximise the ability for emergency services to reach road trauma victims in a timely manner.
3. The Safe System

The Safe System is internationally regarded as the most appropriate framework with which to dramatically reduce road trauma. The approach was pioneered in Sweden, and by adopting this framework, that country has reduced fatalities and serious injuries by almost 40 per cent over the past ten years.

At Mildura Rural City Council, we commit to implementing the Safe System through our current and future road safety projects and initiatives to achieve road trauma reductions within the municipality.

The Safe System is depicted in the diagram below.

Figure 2: The Safe System
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 in Mildura:

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

   There is no one someone won’t miss!

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

2. **People are vulnerable**

   If the vehicles we use on our roads every day crash at high-speed, then our bodies are subject 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 control the safety elements that are within our influence. We can reduce or avoid physical impacts greater than can be withstood by the human body by addressing the elements of the Safe System.

   While it may not be possible to prevent all impacts, the energy levels of crashes should be contained to levels that are low enough to prevent fatalities or serious injury.

3. **People make mistakes**

   To err is human, and while we continue to control our vehicles manually, our errors will continue to result in crashes. However, such 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.

   We all make mistakes, but no one should have to pay for it with their life or a life changing injury.

4. **Shared responsibility**

   Creating a safe road network is everyone’s responsibility. Businesses, organisations, individuals, and the Mildura Rural City Council all have a role to play in order for us to move Towards Zero.
Elements of the Safe System

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

The Safe System elements are described below:

1. **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 in a manner in which risk is avoided or minimised for road users, and the severity of potential crashes is reduced. Our roads should be forgiving towards errors by road users and provide the safest possible outcome in adverse circumstances.

2. **Safer speeds** – When a crash occurs, the weight of the vehicle and its speed at the moment of impact determine 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 is concerned with ensuring that appropriate speed limits are applied and road users travel at speeds that are safe for the road conditions.

3. **Safer people** – Crashes often have an element of human error involved. We must all therefore be careful to ensure that we are aware of the rules, aware of other road users, and are using the road network in a manner where we are able to dedicate the attention and reasoning required for our chosen mode of transport.

4. **Safer vehicles** – Newer and better safety features are continually being implemented in vehicles. These safety features can assist in preventing crashes by automatically detecting dangerous situations and reacting appropriately, or reducing the impact on its occupants once a crash has occurred. Increasingly safe vehicles play an important role in increasing personal safety and reducing road trauma.
Post-Crash Care

Our ultimate goal of zero deaths and serious injuries will require time to achieve. While we strive to apply the Safe System to our extensive 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 can be a critical factor in determining the severity of the crash. As such, it is essential that emergency response times and accessibility for emergency vehicles are considered in our road safety planning. All road safety projects undertaken by Council will incorporate consideration for post-crash care.
4. What’s happening on our roads?

MRCC has a unique set of roads and a unique set of causes leading to road trauma. In order to effectively address road safety issues in our region, we must understand the particular set of safety issues present on our roads. This is accomplished by combining the following two analyses:

- **What road safety concerns are highlighted by crash data trends?**
  
  Data from previous crashes in the region provide us with valuable insight into the problem locations and reveal crash trends. This is critical to helping us understand the locations where crashes occur, and the issues for which road safety improvements are most critical.

- **What road safety concerns are highlighted by the road users?**
  
  Information obtained from the local community can identify high risk locations, areas with many near misses or nuisance crashes, and areas where particular groups of road users do not feel safe on our roads. This information, which is often missing from the recorded data, can help us to solve road safety issues before any incidents occur.

The analysis and combination of these elements allow us to create a strategy and action plan tailored to address the most pressing road safety concerns in Mildura. The relevant results are presented below.

**What does the data show?**

Data from the last 10 years of crashes in Mildura have been analysed. Some of the most notable findings are presented below. The complete set of data is available in the Mildura Rural City Council Road Safety Strategy 2018-2022 Technical Report.

**Fatal and serious injury is declining**

As we have already seen, the number of fatal and serious injuries on our roads is declining. Aside from a couple of upward movements, the overall trend is clear. Figure 3 again shows the yearly trend in FSI crashes.
When we look at fatal crashes only, it is encouraging to see that we had a fatality-free year in 2011/12. The data available at the time of writing show a total of four fatal crashes at the end of 2015/16, which is the same as 10 years earlier. While there is a general downward trend, more work can be done to reduce the number of fatal crashes.
There appears to be an upward trend in pedestrian crashes

Looking at pedestrian FSI crashes, we can see that there are significantly fewer than in 2007/08, but also that they now appear to be on an upward trend, which is worrying.

Figure 5: Yearly pedestrian FSI crashes
**Intersection and run-off-road crashes are the most prevalent**

Crashes are grouped into categories, as shown in Figure 6. Examples of crash types in each category are given below the figure and diagrams of all crash types are included in Appendix A. As is common in regional areas, most FSI crashes have involved vehicles leaving the road, either on a straight or on a curve. The second most common crash type involves ‘T-bone’ style crashes at intersections. These cross-type crashes are often high speed, high energy impacts that lead to severe outcomes. Head-on style crashes and pedestrian crashes also feature highly.

**Figure 6: Prevalence of crash types**

<table>
<thead>
<tr>
<th>Crash Type</th>
<th>Number of Crashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off path on straight</td>
<td>118</td>
</tr>
<tr>
<td>Adjacent directions</td>
<td>82</td>
</tr>
<tr>
<td>Off path on curve</td>
<td>59</td>
</tr>
<tr>
<td>Opposing directions</td>
<td>44</td>
</tr>
<tr>
<td>Pedestrians</td>
<td>36</td>
</tr>
<tr>
<td>Same direction</td>
<td>32</td>
</tr>
<tr>
<td>On path</td>
<td>18</td>
</tr>
<tr>
<td>Manoeuvring</td>
<td>17</td>
</tr>
<tr>
<td>Overtaking</td>
<td>7</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>5</td>
</tr>
</tbody>
</table>

**Examples of crash types:**

- **Pedestrians:** all crashes involving pedestrians
- **Adjacent directions:** ‘T-bone’ style crashes (at intersections only)
- **Opposing directions:** head on (but not while overtaking), right turner fails to give way
- **Same direction:** rear end, lane changing
- **Manoeuvring:** U-turns, parking, reversing
- **Overtaking:** head on, pulling out, cutting in
• On path: animals/objects on road, cyclist hits car door, vehicle hits parked car
• Off path on straight: all crashes involving a vehicle leaving a straight section of road
• Off path on curve: all crashes involving a vehicle leaving a curved section of road
• Miscellaneous: passenger/load falls from vehicle, train crashes

What did you tell us?

Online questionnaire survey

Residents were asked to fill in an online survey about their views on road safety in Mildura. In total, 180 people responded to the survey, although some chose not to answer some questions. The answers to some of the key questions are shown below.

Highest priority problems

People were asked which three road safety problems should have the highest priority and their answers are shown in Figure 7. 155 people responded to this question. Note that as people could provide more than one answer, the totals add up to more than 100%.
Eleven people listed Other as a reason. Generally, the responses provided fitted a reason that that person had already given. These have been left as Other. In one case the response fitted a reason that had not already been given. In this case, the response has been reassigned and the Other selection removed.

Two-thirds of people suggested driver behaviour as one of the primary causes of crashes. Unfortunately, driver behaviour is very difficult to address. Indeed, research by the Monash University Accident Research Centre and the Office of Road Safety at Main Roads WA indicates that the biggest gains in roads safety will come from road infrastructure improvements, speed management (both enforcement and speed reduction) and vehicle safety features, rather than from addressing driver behaviour, which is inherently hard to do. This is why we will focus our attention on the principles of the Safe System and target road safety initiatives that we can implement and that we know work.

---

How to prevent run-off-road crashes

People were asked what they thought needed to be done to prevent run-off-road crashes. 130 people answered this question and were able to provide up to three answers. People were able to answer this question freely and a great variety of answers were received. These answers have been grouped into the following general categories:

- **Road infrastructure.** Suggestions included wider lanes, more overtaking lanes, more roadside barriers and better signage and line marking.

- **Enforcement.** Responses generally focused on mobile phone use and drink and drug driving, but also included speeding, general ‘bad driving’ and minor infringements such as not indicating. This category also includes an increased police presence.

- **Advertising.** This category includes public awareness campaigns and the like (including road safety messages on signs), but not direct driver education.

- **Training.** This includes all direct driver education such as that provided in school and driver training courses.

- **Lower speed limits.**

- **Rest stops.** A number of people simply listed ‘fatigue’ (the problem) while others mentioned ‘rest stops’ (the solution). All have been considered as rest stops.

- **Other.** A number of responses that did not easily fit into any of the above categories.

- **Removed.** A small number of responses have been removed as they were either ‘don’t know’, unclear or inappropriate.

The answers are shown in Figure 8.
Nearly half of all respondents suggested that better road infrastructure would be the best way of reducing run-off-road crashes. We know that certain treatments, such as wire rope safety barriers, can lead to large reductions in crash numbers and crash severity. Council will investigate ways in which it can roll out these treatments to help reduce trauma on our roads.

**Improving driver behaviour**

When people were asked which road safety problems should have the highest priority, the most common answer was driver behaviour. When asked the best way to improve driver behaviour, the following answers (Figure 9) were received. Again, 130 people responded to this question and a great variety of answers were received. They have been consolidated into the same categories as in the previous question.
**Figure 9:** Suggestions as to what can be done to improve driver behaviour (respondents’ top three)

<table>
<thead>
<tr>
<th>Category</th>
<th>Proportion of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>40%</td>
</tr>
<tr>
<td>Enforcement</td>
<td>38%</td>
</tr>
<tr>
<td>Advertising</td>
<td>28%</td>
</tr>
<tr>
<td>Other</td>
<td>20%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Managing speed**

People were asked to select from a list of possible actions what they thought had the most potential to manage speed (speed limits, compliance, speed in dangerous areas, etc). 118 people responded and up to three answers could be given. The answers are shown in Figure 10.
Community focus groups

Figure 10: Suggestions as to what could be done to manage speed (respondents’ top three)

A number of community consultation sessions were held in January 2017. The aim of these sessions was to gain an understanding of the community’s current thoughts on speed limits, liveability, consistency and safety. Opinions on the proposed speed management plan were also sought.

The following are the main findings of the consultation:

- All groups were car dominated. There was little to no use of other transport modes
- All groups had a higher level of concern for personal safety than for road safety
- There was generally good knowledge of speed limits in the Mildura area, but with some confusion and debate. There was some acknowledgement of the flaws in speed zoning when there is a default limit
- All groups expressed a need for consistency in speed limits
- There was general concern with road user behaviour
- There was generally high level of support for speed limit plans in principle. There were some discussions about the implementation. Highest level of support was for 40 km/h speed limits in residential areas. All felt that communicating that some roads will have their speed limits increased will be important
- There was disagreement about whether there is a link between infrastructure and liveability (i.e. footpaths, crossing points, etc.)
There was similarly some disagreement about whether there is a link between speed limits, liveability and safety

- All acknowledged the link between speed limits and safety
- All felt that there are too many speed zones, too much confusion, and that more consistency is required
- There were some safety concerns with speed limits – especially in residential and education areas

**ANRAM**

The Australian National Risk Assessment Model (ANRAM) is a system that enables road agencies to identify road sections with the highest risk of severe crashes. The system uses three types of input to produce risk scores for road sections:

1. Risk assessment module, which calculates the relative risk of FSI crashes due to the effect of various road features, speed limits and potential for conflict.
2. Crash prediction module, which uses safety performance data to predict the frequency of FSI crashes given various road characteristics, such as section length, traffic flow, road infrastructure and speed.
3. Crash validation module, which computes expected FSI crashes by comparing and combining predicted FSI crashes (from the crash prediction module) and observed FSI crashes (from crash data) to produce ANRAM FSI crash estimates.

The output is an estimate of road safety risk on road sections, which can be displayed in map form for easy interpretation. Mildura has been working to produce these maps, an example of which is shown in Figure 11, and these will assist in prioritising roads for infrastructure upgrades. In the map, the size of the pie charts represents the number of crashes in that location, while the slices represent the types of crashes that have occurred.

*Figure 11: Example of ANRAM map produced by MRRC*
5. What works and what doesn’t?

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 methods and initiatives we should implement in order to achieve the results we want. Research\(^3\) has shown that road trauma can be reduced when:

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

The following approaches and initiatives have proven to be effective in addressing some of the most common problems on our roads:

**Education and experience**

- Road safety programs for all ages that are not delivered as one-off sessions
- 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 focus on the social competence of students to assist them develop resilience, coping strategies, refusal skills and self-efficacy to behave in a safe manner
- Using resources available from VicRoads, 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
- Targeted campaigns addressing road safety issues and identifying actions for road user groups

---

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
✓ Reducing the number and frequency of speed limit changes

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
✓ Having a visible enforcement presence

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
✓ Gateway treatments on the approach to lower speed areas

Vehicle safety features

✓ The promotion of Five Star safety rated vehicles
✓ Intelligent speed assist devices that inform drivers of the speed limit
✓ Company policies that promote the safest vehicles and safe driving practices
Knowing what doesn’t work is just as important as knowing what does. Investing in an approach that yields poor results can cost our community a lot of money, resources and time, and in some cases, result in declining road safety outcomes. 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.\(^4\)
- Stand-alone one day or one-off events, forums and expos
- Fear appeals such as trauma ward visits, or testimonials from crash victims or offenders
- Relying on driver simulators
- Encouraging participation or membership of racing car clubs or go-karting
- Unnecessarily restricting the movement of pedestrians or cyclists
- Increasing speed limits in any form
- Isolated Council works without support from relevant State Government authorities such as VicRoads and Public Transport Victoria.


6. Moving Towards Zero

Achieving our ultimate goal of zero fatal and serious injury crashes will take time and effort and will be achieved through a set of coordinated and carefully planned steps. It is not an ambition that can be reached solely by council, road designers, or road users, but rather, it is a joint effort that requires the prioritization of road safety from everyone involved.

Council will be a road safety leader for the local community by creating opportunities for members of the community to get involved in the push for greater road safety. Council will also be a road safety leader to local businesses by demonstrating safer driving policies and systems that can be duplicated and modified by local businesses.

To become a road safety leader for our community, Mildura Rural City Council will:

- **Embrace the Safe System approach as the model for road safety**
  The Safe System (as explained in Chapter 3) is the basis of this strategy and the Federal and State Government road safety strategies. We will embrace the Safe System by building capabilities, encouraging people to operate in manners consistent with the Safe System, and ensure that Safe System solutions are developed and delivered.

- **Build on our success**
  Because of the significant declines in serious crashes shown in Figure 3, Mildura is recognised as a national road safety leader in the development and implementation of road safety infrastructure. We have also had great success in obtaining State Government grants to implement evidence based road safety initiatives.

  Our road toll is dropping; however, we’re not going to rest on our laurels. We’re going to build on our success and fill any gaps to continue to eliminate trauma on our roads.

- **Address the most severe risk locations and risk factors**
  While Mildura has addressed many of our blackspots over the past ten years there are still locations of high risk on our road network. These are areas of crash history or areas with potential for crashes to happen in the future. These can be identified by crash analysis, risk assessments, road safety audits or by talking to community members who drive, ride and walk the road every day.

- **Engage community and businesses to participate in road safety activities and projects**
  The Mildura community is passionate about reducing road safety. Every week, many people volunteer their time to help protect our community. Over 300 community members have been involved in the development of this strategy and have reconfirmed their commitment to help eradicate road trauma in our community. Council will continue to engage with the community and businesses to make it easier for these groups and individuals to make a positive change.
Engage with State and Federal governments for participation and funding for road safety activities and projects

We will work in partnership with both the State and Federal Government to make sure Mildura receives our fair share of investment in road safety. We will also look at what we can do to help the state and the nation, from volunteering in pilot programs to standing up and supporting evidence based state-wide and national initiatives.

Our community has spoken strongly about the need for improved driver behaviour. Mildura will facilitate improvements where possible through education, encouragement and support for enforcement activities, using existing programs and resources available from the State Government. The Mildura Rural City Council will also be a model in the community for road safety practices.

Only accept safe developments, projects, designs and construction

Mildura is a rapidly growing area and we must make sure we keep people safe on the roads as we grow. While we have good checks and balances in place to make sure new projects and developments are safe, we will formalise these processes and help our ethically responsible developers provide safe and efficient developments.

Reduce risk for active transport users

Mildura has committed to increasing active transport, including walking and cycling. We want all ages of our community to be and to feel safe as they improve their health by walking and riding their bikes. We will work with both those inside and outside the vehicle to improve behaviour, we will improve the road and roadside environment, and promote good practice in the community.

Manage road safety risks of roads awaiting maintenance activities

Roads, just like houses, require constant maintenance to keep them safe, efficient and in proper working order. Council works with contractors to distribute road maintenance funds in a strategic manner that takes into account the safety, strategic function and condition of roads. Not all roads can be fixed immediately, but we can do things to manage the risk of these roads until maintenance activities are undertaken. Council will update its policies and processes to ensure they reflect the community’s needs.
7. Targets

Our long-term goal is to achieve zero deaths and serious injuries on our roads. Setting targets for ourselves along the way motivates and engages us, and creates a standard for us to monitor our progress against. By monitoring our progress, we can identify initiatives that are successful, and ones we need to review.

Our target by the end of this strategy is to achieve a 30% reduction in fatalities and serious injury crashes throughout the municipality.

Progress on delivering the strategy will be continually monitored by council with public reporting after 18 months and after 3 years. Yearly updates on the progress of the strategy will be documented and reviewed. These reviews will be provided to councillors along with police reported crashes within the life of the strategy. These reviews will also provide an opportunity to update and adjust the strategy for future conditions.

More frequent monitoring may be introduced if the targets are not being achieved.
8. What you can do

Council is delighted by the support and enthusiasm shown by the community towards increasing road safety. Here are some of the ways that we can all contribute towards safer road in Mildura:

**Safer people**

- Behave the way you want your community 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.
- 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.
- Encourage your sporting club to undertake a Looking After Our Mates education session.
- 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 [SaferPplayers.com.au](http://SaferPplayers.com.au) to reduce their risks in their first years of driving.
- Download road safety apps, including the VicRoads Road Mode Android app, to silence incoming text messages and calls while you’re driving, or the BikeBell app to warn you of cyclists in the area.
Safer vehicles

- Make sure that your next car is ANCAP 5 Star Safety rated
- Consider purchasing 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.
- Lobby your employer to provide the safest car in its class as your work vehicle; this will help filter safer cars into the second-hand car market.

Safer roads and speeds

- Report all road faults and hazards on local roads to Mildura Rural City Council (5018 8100), and on arterial roads to VicRoads (13 11 71).
- Report any crashes or incidents to Victoria Police so that they can be added to the State Government database of crashes.
9. Areas for improvement

Based on community input received and the crash data analysed to date, the following areas should be prioritised for road safety improvements:

- **Pedestrian crashes.** There has been an upward trend of pedestrian crashes in recent years which needs attention. The majority of these crashes have occurred in Mildura CBD in 50 and 60 km/h zones. Nearly half of these were ‘pedestrian near side’ and ‘pedestrian far side’ crashes, which involve pedestrians being hit by a vehicle as they cross the road. This would include pedestrians stepping out into the road. Measures to reduce vehicle speeds in the CBD and other activity centres should be investigated.

- **Further to the above, measures to protect all vulnerable road users (pedestrians, cyclists and motorcyclists) should be provided in activity centres.**

- **High speed crashes.** The majority of non-pedestrian crashes have occurred on 100 km/h roads. While this is likely to be a reflection of the number of 100 km/h roads, it nevertheless indicates that the majority of FSI crashes are high speed, high energy incidents. The appropriateness of 100 km/h speed limits on some of the narrow, two-way roads in rural areas should be reviewed, particularly where the roads provide access to private properties.

- **Run-off-road crashes.** Taken together, off path on straight and curve crashes are the most prevalent FSI crash type in Mildura. Consideration should be given to installing continuous wire rope safety barriers on high speed roads in rural areas, particularly where there are hazards such as trees at the roadside.

- **Intersection crashes.** The second most prevalent category of FSI crashes is ‘T-bone’ style crashes at intersections. Most of these have occurred in 60 and 100 km/h zones. It is likely that the crashes on 100 km/h roads were high severity incidents. In line with Safe System principles, measures to reduce speeds through intersections to 50 km/h or less, or to reduce the number of conflict opportunities (by banning turns for example), should be investigated. As crashes on 100 km/h roads are most prevalent, these roads should be prioritised.

- **Head-on crashes.** Also in the top five FSI crash types, road infrastructure, such as centre line wire rope safety barriers, should be considered on high speed roads to prevent head-on crashes.

- **Education.** Road safety education should start in primary school and Council can encourage this by providing funding for education programs in its schools.

- **Lobbying.** Council has limited opportunity to influence some aspects of road safety, such as licencing policies and vehicle standards, as these are generally handled at the state and national levels. However, Council can still lobby the State and Federal Governments for better road safety policies, and vehicle manufacturers for better safety features in all vehicles.
Appendix A: Crash diagrams
(Definitions for classifying accidents)
<table>
<thead>
<tr>
<th>PEDESTRIAN ON FOOT IN TOW / PRAM</th>
<th>VEHICLES FROM ADJACENT DIRECTIONS (INTERSECTIONS ONLY)</th>
<th>VEHICLES FROM OPPOSING DIRECTION</th>
<th>VEHICLES FROM SAME DIRECTION</th>
<th>MANOEUVRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEAR SIDE 100</td>
<td>CROSS TRAFFIC 110</td>
<td>1 - WRONG SIDE 2 - OTHER HEAD ON (not overtaking) 120</td>
<td>VEHICLES IN SAME LANE 130</td>
<td>U' TURN 140</td>
</tr>
<tr>
<td>EMERGING 101</td>
<td>RIGHT FAR 111</td>
<td>RIGHT THROUGH 121</td>
<td>VEHICLES IN SAME LANE 131</td>
<td>U' TURN INTO FIXED OBJECT PARKED VEHICLE 141</td>
</tr>
<tr>
<td>FAR SIDE 102</td>
<td>LEFT FAR 112</td>
<td>LEFT THROUGH 122</td>
<td>VEHICLES IN SAME LANE 141</td>
<td>LEAVING PARKING 142</td>
</tr>
<tr>
<td>PLAYING, WORKING, LYING, STANDING ON CARRIAGEWAY 103</td>
<td>RIGHT NEAR 113</td>
<td>RIGHT/LEFT 123</td>
<td>LANE SIDE SWIPE 133</td>
<td>ENTERING PARKING 143</td>
</tr>
<tr>
<td>WALKING WITH TRAFFIC 104</td>
<td>TWO TURNING RIGHT 114</td>
<td>RIGHT/RIGHT 124</td>
<td>LANE CHANGE RIGHT (not overtaking) 134</td>
<td>PARKING VEHICLES ONLY 144</td>
</tr>
<tr>
<td>FACING TRAFFIC 105</td>
<td>RIGHT/LEFT FAR 115</td>
<td>LEFT/LEFT 125</td>
<td>LANE CHANGE LEFT 135</td>
<td>REVERSING 145</td>
</tr>
<tr>
<td>ON MEDIAN / FOOTPATH 106</td>
<td>LEFT NEAR 116</td>
<td></td>
<td>VEHICLES IN PARALLEL LANE 136</td>
<td>U' TURN SIDE SWIPE 146</td>
</tr>
<tr>
<td>DRIVEWAY 107</td>
<td>LEFT/RIGHT FAR 117</td>
<td></td>
<td>VEHICLES IN PARALLEL LANE 137</td>
<td>LEFT TURN SIDE SWIPE 147</td>
</tr>
<tr>
<td>STRUCK WHILE BOARDING OR ALIGHTING VEHICLE 108</td>
<td>TWO LEFT TURN 118</td>
<td></td>
<td>VEHICLES IN PARALLEL LANE 138</td>
<td>EMERGING FROM DRIVEWAY - LANE 148</td>
</tr>
<tr>
<td>OTHER PEDESTRIAN 109</td>
<td>OTHER ADJACENT 119</td>
<td>OTHER OPPOSING 129</td>
<td>OTHER SAME DIRECTION 139</td>
<td>OTHER MANOEUVRING 149</td>
</tr>
</tbody>
</table>

1. Definition for classifying accidents (DCA) should be determined by first selecting a column using the text above & then by diagrammatic sub-division.
2. The sub-division chosen should describe the general movement of vehicles involved in the initial event. It does not assign a cause to the accident.
3. Supplementary codes have been defined for most sub-divisions. These codes give further detail of the initial event.
### Definitions for Classifying Accidents

<table>
<thead>
<tr>
<th>Overtaking</th>
<th>On Path</th>
<th>Off Path on Straight</th>
<th>Off Path on Curve</th>
<th>Passenger and Miscellaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head On (not sideswipe) 150</td>
<td>PARKED 160</td>
<td>OFF CARRIAGeway to LEFT 170</td>
<td>OFF CARRIAGeway RIGHT BEND 180</td>
<td>FELL IN/OUT VEHICLE 190</td>
</tr>
<tr>
<td>Out of Control 151</td>
<td>DOUBLE PARKED 161</td>
<td>LEFT OFF CARRIAGeway INTO OBJECT - PARKED VEHICLE 171</td>
<td>OFF RIGHT BEND INTO OBJECT/PARKED VEHICLE 181</td>
<td>LOAD ON MISSILE STRUCK VEHICLE 191</td>
</tr>
<tr>
<td>Pulling Out 152</td>
<td>ACCIDENT OR BROKEN DOWN 152</td>
<td>OFF CARRIAGeway TO RIGHT 172</td>
<td>OFF CARRIAGeway LEFT BEND 182</td>
<td>STRUCK TRAIN 192</td>
</tr>
<tr>
<td>Cutting In 153</td>
<td>VEHICLE DOOR 163</td>
<td>RIGHT OFF CARRIAGeway INTO OBJECT - PARKED VEHICLE 173</td>
<td>OFF LEFT BEND INTO OBJECT/PARKED VEHICLE 183</td>
<td>STUCK RAILWAY CROSSING FURNITURE 193</td>
</tr>
<tr>
<td>Pulling Out - Rear End 154</td>
<td>PERMANENT OBSTRUCTION ON CARRIAGeway 164</td>
<td>OUT OF CONTROL ON CARRIAGeway 174</td>
<td>OUT OF CONTROL ON CARRIAGeway 184</td>
<td>PARKED CAR RUN AWAY 194</td>
</tr>
<tr>
<td>Temporary Roadworks 165</td>
<td>OFF END OF ROAD 'T' INTERSECTION 175</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Struck Object on Carriageway 196</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Animal (not ridden) 167</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Overtaking 159</td>
<td>Other On Path 169</td>
<td>Other Straight 179</td>
<td>Other Curve 189</td>
<td>Unknown 199</td>
</tr>
</tbody>
</table>

4. The number 1,2 identify individual vehicles involved when the DCA is linked with other vehicle/driver information.
5. These codes were used for 1987 accidents and replace the Road User Movement (RUM) code.

Produced by the Road User Behaviour Branch, Road Safety Division, VIC ROADS - DCA.pm4 & DCA.pm4