



PARLIAMENT OF  
NEW SOUTH WALES

## Speed limits and road safety in regional NSW



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The motto of the coat of arms for the state of New South Wales is “Orta recens quam pura nites”. It is written in Latin and means “newly risen, how brightly you shine”.

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# Membership

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## Chair's foreword

During this inquiry there have been tragic road accidents on regional roads, deeply affecting families and tight-knit communities. Recent floods have also damaged road infrastructure, limiting the ability of impacted communities to respond and recover. As such, the Committee's inquiry into speed limits and road safety in regional NSW is timely. Much has been done to improve road safety, but it is evident that more work is needed to improve safety on our regional roads.

Based on evidence to the inquiry, the Committee found that the current default speed limit of 100 kilometres per hour on many regional roads may be too high, given their condition. Inquiry participants highlighted that the condition and design of roads in certain parts of regional NSW is poor and called for roads to be better maintained and improved. This included calls for more overtaking opportunities. The Committee agrees and recommends the construction of more overtaking lanes to help improve road safety and avoid drivers taking unnecessary risks when overtaking. Recognising that variable speed limits can help improve road safety, the Committee also recommends that Transport for NSW consider expanding their use in regional areas.

For new roads, designed to modern high standards of safety, evidence suggested that, subject to investigation, the speed limit could be increased to above 110 kilometres per hour. The Committee recommends that Transport for NSW investigate the feasibility of increasing the speed limit on roads with a 5-star safety rating.

Local councils voiced frustration to the Committee about the time taken by Transport for NSW to respond to their requests to review speed limits. The Committee believes that reviews should be completed more quickly. Transport for NSW should respond to these requests within four months or provide written explanation for the delay, including an estimated timeframe for completion.

Infrastructure improvements, such as painted line markings, wide shoulders and barrier protection, can also help make regional roads safer. The Committee also heard that education on driving to the conditions is vital to ensure drivers can safely navigate the variable conditions and risks present on regional roads.

The heavy vehicle industry also raised infrastructure concerns, especially the need for more rest areas with better amenities and cleanliness. The Committee agrees that drivers, especially those driving heavy vehicles, need access to proper rest areas. It recommends that Transport for NSW increase the number of rest areas and ensure they are designed and maintained to a high standard. The industry should also be more involved in the design of new roads and upgrades. The Committee also recommends that Transport for NSW implement a public campaign to educate light vehicle drivers about how to drive and navigate around heavy vehicles.

While vehicles incorporating new technologies are safer, their uptake in regional NSW is slow, especially in comparison to metropolitan areas. Additionally, many technologies are not effective because the required road infrastructure is not present. It is clear that the development of vehicle technology is outpacing road infrastructure and technology uptake in regional areas. Addressing road infrastructure deficiencies is vital to help improve the uptake and use of new technology in regional areas. The Committee also acknowledges and welcomes the heavy

vehicle industry's implementation of new technologies and safer vehicles to improve road safety.

The Committee also heard about the distressing trend of suicide by truck. While the Committee received limited evidence on this issue, it recommends that Transport for NSW investigate and report on the issue. This can help to both identify how often it happens and measures that could reduce its prevalence.

The Committee hopes that the 15 recommendations and 4 findings in this report will help bolster safety on regional roads. On behalf of the Committee, I thank inquiry participants for their insightful evidence. I also thank the members of the Committee for their valuable contributions to this report, and the Committee staff for their hard work.



**The Hon. Lou Amato MLC**  
Chair

# Findings and recommendations

Finding 1 \_\_\_\_\_ 1

Driving to the speed limit and to the road conditions is an important part of keeping our roads safe, particularly for younger and inexperienced drivers.

Finding 2 \_\_\_\_\_ 1

A default speed limit of 100 kilometres per hour on regional roads may not be appropriate given the varying road conditions across the vast network of regional roads in New South Wales.

Recommendation 1 \_\_\_\_\_ 6

That Transport for NSW be required by legislation or regulation to respond to all local council speed zone review requests within four months or provide a written explanation for the delay that includes an estimated timeframe for the completion of the review.

Recommendation 2 \_\_\_\_\_ 6

That Transport for NSW publish on the Centre for Road Safety's website an explanation for why a speed limit may have been decreased on a regional road to enhance public understanding of and compliance with the new limit. Transport for NSW should also liaise with the relevant local council to publish the explanation on the council's website.

Recommendation 3 \_\_\_\_\_ 11

That Transport for NSW investigate the feasibility of increasing the speed limit on roads that have a 5-star safety rating.

Recommendation 4 \_\_\_\_\_ 15

That Transport for NSW consider expanding the use of variable speed limits in regional areas to help improve road safety.

Recommendation 5 \_\_\_\_\_ 15

That Transport for NSW consider the use of dual signs that show the standard speed limit and the reduced speed limit for the conditions, such as when the road is wet or unsealed.

Recommendation 6 \_\_\_\_\_ 17

That Transport for NSW investigate and report on the number of instances of truck by suicide and consider measures to reduce its occurrence.

Recommendation 7 \_\_\_\_\_ 19

That Transport for NSW and SafeWork NSW review their protocols to consider increasing speed limits when workers are not present at road work zones.

Finding 3 \_\_\_\_\_ 22

Painted line markings are an efficient infrastructure treatment which can enable the use of vehicle technology and help make regional roads safer.

Recommendation 8 \_\_\_\_\_ 26

That Transport for NSW construct more overtaking lanes and truck pull over areas on regional roads to help improve road safety and travel times.

Recommendation 9 \_\_\_\_\_ 26

That Transport for NSW consider allowing a speed limit tolerance when vehicles are safely overtaking on stretches of road where overtaking is allowed.

Recommendation 10 \_\_\_\_\_ 27

That Transport for NSW undertake public campaigns focussed on educating metropolitan and regional drivers about the need to drive to the road conditions, rather than just focus on the speed limit.

Recommendation 11 \_\_\_\_\_ 27

That Transport for NSW include more education about regional road conditions in its Graduated Licensing Scheme.

Recommendation 12 \_\_\_\_\_ 29

That Transport for NSW ensure funding for road safety improvements is based on community need and does not rely solely on the number of accidents to determine where improvements are to be made.

Finding 4 \_\_\_\_\_ 32

The development of vehicle technology is outpacing road infrastructure and technology uptake in regional New South Wales.

Recommendation 13 \_\_\_\_\_ 38

That Transport for NSW consult with heavy vehicle industry representative organisations when planning to upgrade existing roads and designing new roads.

Recommendation 14 \_\_\_\_\_ 39

That Transport for NSW implement a public campaign to educate light vehicle drivers about how to drive and navigate around heavy vehicles.

Recommendation 15 \_\_\_\_\_ 40

That Transport for NSW increase the number of rest areas, especially for heavy vehicle drivers, and ensure all rest areas are designed and maintained to a high standard of amenity and cleanliness.

# Chapter One – Current speed limits

## Road safety and young and inexperienced drivers

### Finding 1

**Driving to the speed limit and to the road conditions is an important part of keeping our roads safe, particularly for younger and inexperienced drivers.**

- 1.1 Between 2016 and 2020, 9 776 people were killed or seriously injured on NSW country roads.<sup>1</sup>
- 1.2 During the course of this inquiry, tragic road accidents, with multiple fatalities highlighted the ongoing need to promote road safety, especially on regional and rural roads. This is especially true for young and inexperienced drivers who do not have the skills and knowledge to drive on the various sealed, unsealed and narrow roads common across regional NSW.
- 1.3 The untimely loss of young people has a profound impact on their family and friends that mourn them. And in smaller tight knit regional and rural communities, their loss can have a long-lasting impact on the wider community.
- 1.4 In NSW, the estimated cost to the community of road trauma between 2016 and 2020 was around \$13.7 billion. This includes the costs of emergency services, hospital and health care and loss of work productivity. Due to the prevalence of road trauma, 'a combination of effective road safety measures is required to systematically reduce this risk.'<sup>2</sup>
- 1.5 The Committee acknowledges the ongoing work to reduce the number of fatalities on NSW roads. This report sets out recommendations the Committee hopes will help contribute to reducing that toll even further.

## Current speed limits on regional roads

### Summary

The current default speed limit of 100 kilometres per hour on regional roads may not be appropriate for all types of road conditions. Also, the inconsistency of speed limits, especially around regional towns and villages, can lead to confusion and frustration.

### Suitability of the current default speed limit

### Finding 2

**A default speed limit of 100 kilometres per hour on regional roads may not be appropriate given the varying road conditions across the vast network of regional roads in New South Wales.**

<sup>1</sup> [Submission 69](#), Transport for NSW, p [7](#).

<sup>2</sup> [Submission 69](#), Transport for NSW, p [7](#).

- 1.6 Evidence to this inquiry indicates that the default speed limit of 100 kilometres per hour on regional roads may not be appropriate in all instances. The variation in road environments, with sealed, unsealed roads, and roads that are narrow or have lots of bends can mean that the default limit is unsafe.
- 1.7 Speed limits are designed to help protect all roads users. Driving too fast is the single biggest cause of death and injury on NSW roads. Setting and adhering to safer speed limits can help reduce the number of crashes and allow vehicles and people to move safely around the road network. The NSW Government defines speeding as both travelling faster than the speed limit, and inappropriate speed or 'travelling faster than reasonable for prevailing conditions.'<sup>3</sup>
- 1.8 The review and installation of speed limits is set out in *NSW Speed Zoning Guidelines*. The guidelines 'provide a state-wide point of reference to ensure consistent application of speed limits throughout NSW'.<sup>4</sup>
- 1.9 The current guidelines follow the principle that the established speed limit for a specific stretch of road 'should reflect the road safety risk to the road users while maintaining mobility and amenity.' The guidelines date back to 1995 and were revised in 2004 and 2011.<sup>5</sup>
- 1.10 Over 80 per cent of the NSW rural road network is comprised of roads with a default speed limit of 100 kilometres per hour. Annually, around two-thirds of road fatalities happen in country areas, with 60 per cent of these occurring on high-speed roads with a limit of 100 kilometres or more per hour. On average, over 70 per cent of the fatalities on country roads are local country residents.<sup>6</sup>
- 1.11 The Committee heard that many speed zones in regional areas were set a long time ago when vehicles were not as fast as they are today. Ms Norma Toweel, Team Leader Assets and Transport, Wollondilly Shire Council, told the Committee that many of the roads within the Council's boundaries are rural in nature, narrow, have no road shoulder space, with limited delineation. She went on to state that many of the speed zones on these roads, where the default limit is 100 kilometres an hour, were set 'decades ago when vehicles were not as technologically advanced as they are today and not capable of driving the speeds that we can now drive comfortably in our vehicles.'<sup>7</sup>
- 1.12 Ms Toweel also noted that recent Centre for Road Safety statistics showed that 32 per cent of road casualties within Wollondilly Shire Council had speeding as a contributing factor, compared to the state average of 17 per cent. She went on to

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<sup>3</sup> NSW Government, [Towards Zero Collaboration Hub: Safe Systems in local communities: Safer speeds](#), viewed 27 October 2022; Transport for NSW, Centre for Road Safety, [Driving too fast](#), viewed 27 October 2022.

<sup>4</sup> [Submission 69](#), Transport for NSW, pp [18-19](#).

<sup>5</sup> [Submission 69](#), Transport for NSW, pp [18-19](#).

<sup>6</sup> Transport for NSW, [2026 Road Safety Action Plan: Toward zero trauma on NSW roads](#), NSW Government, pp [11, 16](#), viewed 1 November 2022.

<sup>7</sup> Ms Norma Toweel, Team Leader Assets and Transport, Wollondilly Shire Council, [Transcript of evidence](#), 8 September 2022, p [2](#).

- request that the 100 kilometres per hour speed zone in country areas be reviewed as 'for many of our roads, that kind of speed is just not applicable or appropriate.'<sup>8</sup>
- 1.13 Upper Hunter Shire Council told the Committee that lowering the default speed limit 'is probably our number one priority.'<sup>9</sup> Mr Jeff Bush, Manager Strategic Assets, Technical Services, Upper Hunter Shire Council, advised that the Council has '1100 k's of gravel road and 700 k's of sealed road.' Mr Bush outlined that a lower default speed limit could help improve road safety.<sup>10</sup>
- 1.14 Given the nature of rural and regional roads, which may be unsealed and lacking roadside and median treatments and safety features, driving at 100 kilometres per hour may be inappropriate. The Committee was advised that a lower default speed limit, between 70 to 80 kilometres per hour, would be a more appropriate and safer limit, with 70 kilometres per hour a safer option on unsealed roads.<sup>11</sup>
- 1.15 Mr Michael Nieuwesteeg, Road Safety and Design Program Manager, Austroads, referred to better performing countries in terms of their road safety and speed management. He outlined that in these countries, roads that are unmarked or unsealed, typically have a limit of 60 kilometres per hour. For regional roads, with better construction, the limit would be 80 kilometres per hour. He went on to advise that the limit can be 100 to 120 kilometres an hour where features, such as safety barriers and grade separation, are part of the road infrastructure.<sup>12</sup>
- 1.16 Mr Nieuwesteeg went on to explain that speed limits on roads, such as those in regional NSW, could be set at more than 80 kilometres per hour if measures are put in place that prevent accidents. This would include installing a barrier in the middle of the road to prevent oncoming traffic colliding with each other.<sup>13</sup>
- 1.17 Transport for NSW noted that separation of road users 'whether it be pedestrians and cyclists or cyclists and motor vehicles or heavy vehicles and other road users ... is like the ideal outcome' but the infrastructure costs are expensive.<sup>14</sup>
- 1.18 When discussing speed limits and road fatalities and injury, comparisons are often made with European countries where speed limits are higher. The Committee was told that such comparisons in terms of how speed is managed should be treated with caution.
- 1.19 Mr Nieuwesteeg told the Committee that those international jurisdictions also differ from NSW in the way they manage speed. He stated that speed limits should

<sup>8</sup> Ms Toweel, [Transcript of evidence](#), pp 2-3.

<sup>9</sup> Mr Jeff Bush, Manager Strategic Assets, Technical Services, Upper Hunter Shire Council, [Transcript of evidence](#), 8 September 2022, p 7.

<sup>10</sup> Mr Bush, [Transcript of evidence](#), p 7.

<sup>11</sup> Mr Richard Wheatley, Team Leader Transport, MidCoast Council, [Transcript of evidence](#), 8 September 2022, pp 3, 5; Mr Robert Scott, Director Infrastructure and Engineering Services, MidCoast Council, [Transcript of evidence](#), 8 September 2022, p 7; [Submission 32](#), Upper Hunter Shire Council (UHSC), p 3; [Submission 42](#), Australasian College of Road Safety (ACRS), p 7; [Submission 48](#), Centre for Accident Research and Road Safety-Queensland (CARRS-Q), p 2.

<sup>12</sup> Mr Michael Nieuwesteeg, Road Safety and Design Program Manager, Austroads, [Transcript of evidence](#), 8 September 2022, p 24.

<sup>13</sup> Mr Nieuwesteeg, [Transcript of evidence](#), p 24.

<sup>14</sup> Mr Bernard Carlon, Chief, Centres for Road Safety and Maritime Safety, Environment and Regulation, [Transcript of evidence](#), 8 September 2022, p 53.

be aligned with road design and vehicle technology. He went on to note that improved road infrastructure is needed if higher speed limits are to be implemented.<sup>15</sup> Further information about road infrastructure and speed limits is discussed in chapter two.

- 1.20 Professor Teresa Senserrick, Centre for Accident Research and Road Safety Queensland (CARRS-Q), noted that European statistics are often reported by population level, but when the rate of accidents per the number of vehicles is looked at, the statistics 'are not so great.' In this latter comparison, Australia 'performs very well.'<sup>16</sup>
- 1.21 Professor Senserrick went on to state that in Europe other forms of transport are also used. In comparison, Australia has a 'very high reliance' on the use of private vehicles.<sup>17</sup> This is particularly true in regional NSW where public transport is not widely available or convenient given the long distances that people may have to travel.<sup>18</sup>
- 1.22 In response to the concerns raised by inquiry stakeholders about the default speed limit on regional roads, Transport for NSW told the Committee that the 2026 Road Safety Action Plan will help address this issue. The Action Plan includes reviews of 'high-risk default speed zones of low quality, high-speed country roads'.<sup>19</sup>

#### *The 2026 Road Safety Action Plan*

- 1.23 The 2026 Road Safety Action Plan sets out the NSW Government's focus on enhancing education and local engagement to improve road safety and increase the availability of safety technology in vehicles. The Plan, which was launched in April 2022, includes specific action and targets to reduce road trauma by 2030, as part of the goal of zero road trauma by 2050.
- 1.24 Building on the Road Safety Action Plan 2021, the 2026 Plan aligns with the Government's Future Transport 2056 strategy to have safety 'designed into the transport network'. Actions in the Plan are delivered through the Community Road Safety Fund, which is funded by the money from road safety camera detected fines.<sup>20</sup>

#### **Inconsistent speed limits**

- 1.25 The inconsistency of speed limits was also highlighted as a concern. Mr Richard Wheatley, Team Leader Transport, MidCoast Council, outlined how there is a lot of variation in speed limits when entering a township. There can be low limits on sections of road with a rural land use and a higher limit along residential sections, especially when entering rural towns. Motorists can be confused about the

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<sup>15</sup> Mr Nieuwesteeg, [Transcript of evidence](#), pp 24-25.

<sup>16</sup> Professor Teresa Senserrick, Centre for Accident Research and Road Safety-Queensland (CARRS-Q), [Transcript of evidence](#), 8 September 2022, p 26.

<sup>17</sup> Professor Senserrick, [Transport of evidence](#), p 26.

<sup>18</sup> Ms Samantha Cecchini, Road Safety Officer, Mid-Western Regional Council, [Transcript of evidence](#), 8 September 2022, p 12.

<sup>19</sup> Ms Louise Higgins-Whitton, Director of Road Safety Policy, Transport for NSW, [Transcript of evidence](#), 8 September 2022, p 52.

<sup>20</sup> [2026 Road Safety Action Plan: Toward zero trauma on NSW roads](#), p 4, viewed 4 November 2022.

multiple variations in the limit, particularly if there is no clear or obvious reason for the varying limit.<sup>21</sup>

- 1.26 The Committee was advised by one regional stakeholder that the speed limit varies between 50, 70, 80 or 100 kilometres per hour in their local area.<sup>22</sup>
- 1.27 The Committee was informed that where speed limits are inconsistent, motorists may ignore the speed limit, especially in areas with a lower speed zone. Motorists may not understand the need for the different limits, as they do not understand the connection between the speed limit and land use. They may come to regard the different speed limits as being more about revenue raising rather than road safety.<sup>23</sup>
- 1.28 The need to enforce speed limits was also raised. The Committee was informed by Upper Hunter Shire Council that enforcing limits in their area is difficult. This concern was echoed by MidCoast Council. They advised that drivers may learn which sections of road are not policed and may drive at their own speed, knowing that they are not going to be caught for exceeding the speed limit.<sup>24</sup>
- 1.29 Mr Wheatley from MidCoast Council explained that the Council works with the local traffic police and highway patrol to enforce speed limits. Due to a lack of resources, police are not always able to enforce speed limits on some of the lesser used back roads and put most of their resources on the busier roads.<sup>25</sup>
- 1.30 Mr Nieuwesteeg from Austroads also spoke of the importance of enforcing speed limits. He told the Committee that his members are aware of the need for enforcement and that it should be random and unpredictable. Drivers need to be aware that there is high probability of them being caught.<sup>26</sup>
- 1.31 The Committee heard from Mr Bernard Carlon, Chief, Centres for Road Safety and Maritime Safety, Environment and Regulation, Transport for NSW that Transport recognises that the 'distribution of police is thinner in the regions than it is in the metro'.<sup>27</sup> Mr Carlon emphasised that the 2026 Road Safety Action Plan has a 'significant focus' on efforts to improve road safety in regional areas.<sup>28</sup>

## Requests to review speed limits

### Summary

Local council requests to review speed limits need to be completed in a timelier manner, and explanations for a change in the speed limit should be publicly communicated.

<sup>21</sup> [Submission 36](#), MidCoast Council, pp [8](#), [14](#); Mr Wheatley, [Transcript of evidence](#), p [3](#).

<sup>22</sup> [Submission 51](#), Mr Andy Carnahan, p [1](#).

<sup>23</sup> [Submission 36](#), MidCoast Council, pp [8](#), [14](#); Mr Wheatley, [Transcript of evidence](#), p [3](#).

<sup>24</sup> Mr Bush, [Transcript of evidence](#), p [8](#); Mr Scott, [Transcript of evidence](#), p [10](#).

<sup>25</sup> Mr Wheatley, [Transcript of evidence](#), p [10](#).

<sup>26</sup> Mr Nieuwesteeg, [Transcript of evidence](#), p [25](#).

<sup>27</sup> Mr Carlon, [Transcript of evidence](#), p [57](#).

<sup>28</sup> Mr Carlon, [Transcript of evidence](#), p [57](#).

## **Recommendation 1**

**That Transport for NSW be required by legislation or regulation to respond to all local council speed zone review requests within four months or provide a written explanation for the delay that includes an estimated timeframe for the completion of the review.**

## **Recommendation 2**

**That Transport for NSW publish on the Centre for Road Safety's website an explanation for why a speed limit may have been decreased on a regional road to enhance public understanding of and compliance with the new limit. Transport for NSW should also liaise with the relevant local council to publish the explanation on the council's website.**

### **Improve consultation with local councils**

- 1.32 Local councils have an important role to play in promoting road safety, especially in the review and setting of speed limits. Councils have greater knowledge about the road conditions within their area. They receive feedback direct from the public about the state of the roads and where measures should be implemented to improve safety. This local knowledge needs to be better appreciated and used when processing requests to review speed limits. This includes a timelier response from Transport for NSW to requests to review a speed limit, and public explanations setting out why a speed limit has been changed.
- 1.33 The Committee heard that local councils collect traffic and accident data that is not always recorded by the Centre for Road Safety. Councils are often the initial point of contact when residents raise concerns about road conditions. Cr Michael Kidd, Deputy Mayor, Leeton Shire Council, told the Committee that his council supported speed limits being set according to the 'unique circumstances of the location.'<sup>29</sup>
- 1.34 Wollondilly Shire Council advised that, as their area develops, they would like to see improvements to the process for reviewing speed limits. Ms Toweel advised that the process to have a speed limit reviewed is 'long and arduous.'<sup>30</sup>
- 1.35 MidCoast Council said that they are frustrated by the 'long-drawn-out review and decision-making process' when a request to review a speed limit is submitted. They stated that it can take years for Transport to respond to a request, or the department may not respond to repeated attempts for a progress update on a review. This delay in responding is also frustrating for concerned residents who may want a local speed limit reduced in order to improve road safety.<sup>31</sup>
- 1.36 Council went on to explain that new developments in their area are also impacted by the delays. They explained that 'it is best to design the road for the new speed

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<sup>29</sup> Cr Michael Kidd, Deputy Mayor, Leeton Shire Council, [Transcript of evidence](#), 8 September 2022, p 13.

<sup>30</sup> Ms Toweel, [Transcript of evidence](#), pp 2-3.

<sup>31</sup> [Submission 36](#), MidCoast Council, p 14.

limit after the development but it can be difficult to obtain confirmation of the new speed limit from Transport for NSW'.<sup>32</sup>

- 1.37 Leeton Shire Council also gave an example of a delayed response and lack of communication from Transport for NSW. They explained that where the review process is led by Transport for NSW, there is a lack of consultation and due process. Cr Kidd highlighted the recent roll out of reduced speed zones around railway level crossings. He told the Committee that Leeton Council was not made aware of the changes in their area until they received the work order to put signs in place.<sup>33</sup>
- 1.38 MidCoast Council also expressed their frustration with the delays in processing requests to review speed limits. Mr Wheatley explained that the Council can wait years for a response from Transport for NSW. He gave the example of five requests for 40 kilometres per hour speed zones that were submitted over 12 months ago and that Council is still waiting to receive a formal response from Transport for NSW.<sup>34</sup>
- 1.39 Cr Kidd told the Committee that local councils have the knowledge about the road network in their areas. This local knowledge helps them to identify the roads where changes to the speed limit should be made, and also set the priority for making those changes. He noted this local knowledge is a 'great asset' that could be of benefit to Transport for NSW and can help to detect issues that may not be identified by other means such as road counters and other traffic monitoring systems. Cr Kidd noted that 'appropriate speed zoning at a state level could easily be achieved through a conversation and that is all we are asking.'<sup>35</sup>
- 1.40 The Committee heard that the *NSW Speed Zoning Guidelines* should be updated to include consideration of current road conditions and infrastructure. Local Government NSW stated that speed limits should be set according to the road environment. This should include consideration of issues such as the road alignment, width and condition, the volume of traffic using the road, the mix of vehicles and other road users, and any roadside hazards. They went on to advise that this is most relevant when considering speed limits under 50 and over 100 kilometres per hour.<sup>36</sup>
- 1.41 Cr Darriea Turley, President, Local Government NSW told the Committee that a review of the speed zoning guidelines should also look at the complexity and delays that local councils experience when they submit a request to review a speed limit to Transport for NSW.<sup>37</sup>

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<sup>32</sup> [Submission 36](#), MidCoast Council, p 14.

<sup>33</sup> Cr Kidd, [Transcript of evidence](#), p 13.

<sup>34</sup> Mr Wheatley, [Transcript of evidence](#), p 3.

<sup>35</sup> Cr Kidd, [Transcript of evidence](#), pp 13, 17.

<sup>36</sup> [Submission 67](#), Local Government NSW, and Institute of Public Works Engineering Australasia - NSW & ACT (LGNSW and IPWEA), p 3; Cr Darriea Turley, President, Local Government NSW, [Transcript of evidence](#), 8 September 2022, p 19.

<sup>37</sup> Cr Turley, [Transcript of evidence](#), p 19.

### **Publicly explain change in speed limit**

- 1.42 Rather than contacting Transport for NSW when a speed limit is changed, residents are more likely to contact their local council for an explanation. This may also mean venting their frustration if they are unhappy with the change. Cr Kidd explained that if local councils are 'genuinely consulted' about changes to local traffic conditions they can help explain to their communities why a speed limit was altered.<sup>38</sup>
- 1.43 Mr Wheatley also said that he is aware of Transport for NSW putting up signs to say why they are reducing the speed limit from 110 to 100 kilometres per hour at locations where there may be grade intersections or poor road alignment. He went on to explain that doing this on other regional and local roads where a speed limit has been reduced could help the public understand the reasoning for the change.<sup>39</sup>

### *Transport for NSW speed limit review process*

- 1.44 Transport for NSW informed the Committee that its regional teams work closely with local councils when responding to requests for a review. Ms Louise Higgins-Whitton, Director of Road Safety Policy, Transport for NSW told the Committee that the physical traits of a road and the roadside, as well as crash history and land use are considered as part of the review process.<sup>40</sup>
- 1.45 Transport for NSW outlined that the current guidelines set out a 10-step process for speed limit reviews. It includes a technical assessment to determine the appropriate speed and looks at factors such as the design of the road, the road users, and the land usage around the road. The Committee was told that local information is considered as part of the decision-making process. The whole review process 'can be completed in a couple of months' but more complex reviews can take much longer.<sup>41</sup>
- 1.46 The Committee welcomes the acknowledgement by Transport for NSW that they recognise the concerns raised by local councils. Transport acknowledged the lack of consultation and delays in responding to the speed limit review requests and understands that there is room for improvement. Transport went on to advise that they are currently reviewing the Speed Zoning Guidelines and 'the processes within it.' The review will also ensure the guidelines 'reflect the latest research.'<sup>42</sup> The Committee looks forward to seeing improvements in this area.

### **Case-by-case basis for speed limit reviews**

- 1.47 In addition to improved consultation with local councils, the Committee was also told that speed limit reviews should be done on a case-by-case basis, in consultation with councils.
- 1.48 Ms Samantha Cecchini, Road Safety Officer, Mid-Western Regional Council told the Committee that reviewing speed limits on a case-by-case basis, particularly when

<sup>38</sup> Cr Kidd, [Transcript of evidence](#), p 13.

<sup>39</sup> Mr Wheatley, [Transcript of evidence](#), p 3.

<sup>40</sup> Ms Higgins-Whitton, [Transcript of evidence](#), p 52.

<sup>41</sup> Ms Higgins-Whitton, [Transcript of evidence](#), p 54.

<sup>42</sup> [Submission 69](#), Transport for NSW, p 19; Mr Carlon and Ms Higgins-Whitton, [Transcript of evidence](#), pp 53-54.

looking to increase the limit, was a 'wise approach'. She noted that the design and condition of each road means blanket decisions on speed limits was not advisable.<sup>43</sup>

1.49 Cr Kidd noted that 'local councils are local experts' who can provide context and explanations for specific locations and information about accidents and near misses that may not be recorded by the Centre for Road Safety.<sup>44</sup>

1.50 Case-by-case reviews were also supported by Local Government NSW. Cr Turley told the Committee that due to the various factors that influence speed limits, including road conditions and driver behaviour, requests for speed limit reviews should be on case-by-case basis. She also said that they should be done in consultation with local councils.<sup>45</sup>

### **Safe system and safe speeds**

1.51 Road safety management in NSW is based on the Safe System approach, which includes Safe Roads, Safe Vehicles, Safe People and Safe Speed. It is based on the principle that road infrastructure can reduce the chances of a driver or rider being seriously injured or killed if they make a mistake.<sup>46</sup>

1.52 This approach, adopted across Australia and internationally, was originally developed in Sweden and the Netherlands. It acknowledges that:

- The human body has physical limits to withstanding the impacts of a crash
- People sometimes make mistakes or break the rules – but this shouldn't cost anyone their lives
- Roads, roadsides, protective equipment and vehicles need to be designed to minimise crashes or reduce force if a crash happens
- Road safety is a shared responsibility – everyone needs to make decisions with safety in mind, from the design of roads and vehicles, use of protective equipment, investments, laws and education, to each road user acting safely every day.<sup>47</sup>

1.53 Transport for NSW advised that as part of ensuring road infrastructure aligns with the Safe System approach, 'infrastructure upgrades are the key road safety treatment.' When these upgrades are not possible, reducing speed limits is the next option to consider.<sup>48</sup> The issue of safer roads supporting higher speeds in certain circumstances is discussed in more detail in chapter two.

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<sup>43</sup> Ms Cecchini, [Transcript of evidence](#), p 15.

<sup>44</sup> Cr Kidd, [Transcript of evidence](#), p 13.

<sup>45</sup> Cr Turley, [Transcript of evidence](#), p 19.

<sup>46</sup> [Submission 69](#), Transport for NSW, pp 5, 29.

<sup>47</sup> [Submission 69](#), Transport for NSW, pp 5, 29.

<sup>48</sup> [Submission 69](#), Transport for NSW, p 29.

- 1.54 Safe speeds are also a major part of road safety. Transport for NSW explained that safe speed generally means driving to the speed appropriate for the area. It will vary depending on the road environment.<sup>49</sup>
- 1.55 Transport for NSW advised that safe speeds 'are critical to the safe movement of people in regional NSW'. People living in country NSW comprise a third of the NSW population, but deaths on country roads account for about two-thirds of the NSW road toll. Safe speeds give drivers more time to react when faced with a hazard or when trying to correct a mistake. This allows them to reduce the risk of serious injury or death.<sup>50</sup>
- 1.56 The 2026 Road Safety Action Plan includes a commitment from Transport for NSW to implement proven safety measures across regional areas. These measures include information and road safety advertising campaigns, mandatory road safety education from early childhood through schooling, the Enhanced Enforcement Program with the NSW Police Force, and vehicle and equipment research and safety testing.<sup>51</sup>
- 1.57 This emphasis on both road design, education and enforcement was supported by stakeholders such as Austroads. Mr Nieuwesteeg told the Committee that road safety targets cannot be met unless speed limits are aligned with road design and vehicle technology, and there is driver support through education campaigns, and also through enforcement.<sup>52</sup>
- 1.58 Ms Higgins-Whitton viewed that roads that have high standards and safety features 'may safely support higher speeds.' She went on to say that even with safety infrastructure, 'increasing speed limits beyond what has been assessed as safe for a length of road may result in the safety infrastructure providing little, if any, safety benefits.'<sup>53</sup>
- 1.59 The Committee was interested to know what action is needed to increase the speed on a particular stretch of road or highway. In response, Transport for NSW stated that even after a road has been upgraded it does not mean that a higher speed limit will be appropriate.
- 1.60 Ms Higgins-Whitton told the Committee that upgrading a road's infrastructure may just make it safer for the speed limit that is already in place rather than allowing for an increase to a higher limit. She explained that:

What the upgrades may enable is for the road to be safer—safe at that operating speed that was already in place before the upgrade. So, this may depend on the nature of the works that are done and whether they remedy those potential fundamental issues with the road design and enable ... a higher speed zone.<sup>54</sup>

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<sup>49</sup> Ms Higgins-Whitton, [Transcript of evidence](#), p 58.

<sup>50</sup> [Submission 69](#), Transport for NSW, p 4.

<sup>51</sup> [Submission 69](#), Transport for NSW, p 6.

<sup>52</sup> Mr Nieuwesteeg, [Transcript of evidence](#), p 24.

<sup>53</sup> Ms Higgins-Whitton, [Transcript of evidence](#), p 52.

<sup>54</sup> Ms Higgins-Whitton, [Transcript of evidence](#), p 55.

- 1.61 Mr Carlon also gave the example of the upgrading of the Pacific Highway which included features such as wider lanes, and barrier protections. Mr Carlon went on to say that these features are needed to help manage safety risks and allow for higher speeds.<sup>55</sup> Road infrastructure is discussed in more detail in chapter two.

## Feasibility of increasing speed limit above 110 kilometres per hour

### Summary

Subject to investigation, it may be possible to increase the speed limit above 110 kilometres per hour on roads with a high safety rating. However, it is a contested issue whether increasing speed limits means faster travel times or a reduction in driver fatigue.

### Recommendation 3

That Transport for NSW investigate the feasibility of increasing the speed limit on roads that have a 5-star safety rating.

### Capability to raise the speed limit

- 1.62 The Committee was also interested to know if Transport for NSW has done any research into the feasibility and cost of increasing the speed limit above 110 kilometres per hour. The Committee investigated whether sections of roads, such as the Barrier Highway, could have an increased limit without causing an increase in the safety risk to road users.
- 1.63 In response, Transport for NSW stated that the 110 kilometres per hour speed limit on the Barrier Highway is consistent with other regional highways in Western NSW. It went on to state that it has not done any work in regard to increasing the speed limit as the Speed Zoning Guidelines do not allow for speeds in excess of 110 kilometres per hour.<sup>56</sup>
- 1.64 The Committee accepts that the current guidelines restrict speeds on NSW roads to a maximum of 110 kilometres per hour. However, as investments in road design and infrastructure help improve road design and safety, the Committee recommends that Transport for NSW look at the feasibility of increasing the speed limit on roads that receive a five-star safety rating.
- 1.65 In making this recommendation, the Committee notes that 95 per cent of the rural and regional road network assessed, being approximately 15 500 kilometres of road, has been rated three stars or below under the Australian Road Assessment Program methodology.<sup>57</sup>
- 1.66 Mr Michael Lane, Media Liaison Officer, National Motorists Association Australia, observed that in the United Kingdom (UK) there have also been calls to raise the speed limit to 130 kilometres per hour. He stated that speed limits in the UK were

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<sup>55</sup> Mr Carlon, [Transcript of evidence](#), p 55.

<sup>56</sup> [Answers to questions on notice](#), Transport for NSW, 11 October 2022, p 3.

<sup>57</sup> [Answers to questions on notice](#), Transport for NSW, p 1.

set in the 1960s, and have not increased, despite arguments 'that they should be lifted to the ... European freeway standard of 130 k.'<sup>58</sup>

- 1.67 Mr Lane also told the Committee that 'everybody involved in road safety should try and drive a 1960s car and compare it with today's cars. They are so completely different.' He went on to state that limits should be increased to a speed that is 'reasonable for the majority of people.'<sup>59</sup>
- 1.68 The Committee also notes the comments from the National Motorists Association Australia regarding the Northern Territory experience of introducing a 130 kilometres per hour speed limit around 2007. The Association went on to state that following the introduction of this new speed limit, there was a large increase in the number of road fatalities. They also stated that after three years, the 'speed limit was removed and put back to normal, and ... fatalities went back to normal.'<sup>60</sup>

### Travel times and fatigue

#### *Increased speed limit to reduce travel time*

- 1.69 The Committee understands that there is a belief that increasing speed limits would decrease travel times, and therefore reduce driver fatigue. During the inquiry the Committee received mixed evidence on the impact of speed limits on travel time to reduce driver fatigue.
- 1.70 Driver fatigue is a major contributor to road crashes. Fatigue-related crashes account for around 67 fatalities and 645 serious injuries each year.<sup>61</sup> Some stakeholders advocated for increasing speed limits as a way to reduce travel times and driver fatigue.<sup>62</sup> Other stakeholders to the inquiry were opposed to this argument.<sup>63</sup>
- 1.71 Cr Kidd voiced his concern during the public hearing about the impact of travel times and fatigue on people in regional areas as they have to travel longer distances to access a range of services. Cr Kidd went on to advise that he supports

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<sup>58</sup> Mr Michael Lane, Media Liaison Officer, National Motorists Association Australia, [Transcript of evidence](#), 8 September 2022, p [34](#).

<sup>59</sup> Mr Lane, [Transcript of evidence](#), p [34](#).

<sup>60</sup> Mr Graham Pryor, National Liaison Officer, National Motorists Association Australia, [Transcript of evidence](#), 8 September 2022, p [31](#).

<sup>61</sup> Transport for NSW, Centre for Road Safety, [Fatigue](#), NSW Government, viewed 8 November 2022.

<sup>62</sup> [Submission 3](#), Ms Gemma Thomas, p [1](#); [Submission 6](#), Ms Alexandra Murray, p [1](#); [Submission 12](#), Mr Mark Curtis, p [1](#); [Submission 16](#), Mr Hamish Curtis, p [1](#); [Submission 18](#), Name suppressed, p [1](#); [Submission 28](#), Mr Jerome Bodiam, p [1](#); [Submission 38](#), Mr Rodney Blundell, p [1](#); [Submission 40](#), NSW Driver Trainers Association (NSWDTA), p [5](#); [Submission 44](#), National Motorists Association Australia (NMAA), pp [3-6](#).

<sup>63</sup> [Submission 10](#), Cobar Shire Council, p [1](#); [Submission 23](#), Strathfield Council, p [1](#); [Submission 27](#), Jarake Wildlife Sanctuary Ltd, p [1](#); [Submission 34](#), 30Please, pp [2-3](#); [Submission 41](#), Name suppressed, p [2](#); [Submission 42](#), ACRS, p [4](#); [Submission 48](#), CARRS-Q, pp [2, 3](#); [Submission 49](#), Wingecarribee Shire Council, p [3](#); [Submission 51](#), Mr Andy Carnahan, p [1](#); [Submission 53](#), Koala Koalition EcoNetwork Port Stephens, p [6](#); [Submission 57](#), Austroads, p [2](#); [Submission 58](#), Snowy Valleys Council, p [2](#); [Submission 60](#), Mid-Western Regional Council (MWRC), p [3](#); [Submission 62](#), Australian Institute of Health and Safety (AIHS), p [6](#); [Submission 63](#), Police Association of NSW (PANSW), p [2](#); [Submission 65](#), Orange City and Cabonne Shire Councils (OCCSC), p [1](#); [Submission 69](#), Transport for NSW, pp [4, 20-21, 37](#); [Submission 70](#), Vehicle Design and Research Pty Limited (VDRPL), p [1](#).

- increasing speed limits on roads that are safe and where it is appropriate to do so.<sup>64</sup>
- 1.72 NSW Driver Trainers Association stated that long distance travel increases the risk of fatigue-related crashes for learner and P1 drivers, and P2 drivers, who are restricted to 90 and 100 kilometres per hour respectively, if travelling in a 110 kilometres per hour zone.<sup>65</sup> The Association cited that young drivers perform better after a short trip (two to four hours of driving).<sup>66</sup>
- 1.73 The Committee also received evidence that an increase in speed limits does not necessarily equate to a decrease in travel time or may only result in a marginal decrease in travel time.<sup>67</sup>
- 1.74 Stakeholders argued that vehicles were unlikely to travel at the posted speed limit for the entire length of the journey. This is based on several factors including the road infrastructure and condition, geography, topography and the weather. Other factors include driver experience and capability and the presence of other vehicles on the road, such as heavy vehicles.<sup>68</sup>
- 1.75 For example, the Committee heard that a vehicle travelling at 110 kilometres per hour on a single-lane highway will likely meet with vehicles with speed restrictions such as heavy vehicles and learner drivers. In the absence of an overtaking lane, that vehicle would have to decrease its speed and travel to the speed of the vehicle in front.<sup>69</sup>
- 1.76 Transport for NSW argued that 'there is no evidence that increasing speed limits would reduce fatigue related crashes', and that other factors contributed to driver fatigue. These factors include lack of sleep, driving during normal hours of sleep (disrupted circadian rhythms), lack of rest breaks, and alcohol consumption.<sup>70</sup>

#### *Increased speed limit and cognitive behaviour*

- 1.77 Stakeholders also argued that increased speed limits impacted on the cognitive behaviour of drivers. However, there were mixed views on whether that impact was positive or negative.
- 1.78 Some stakeholders argued that increased speed limits decreased a driver's ability to react to hazards and avoid collision.<sup>71</sup> Professor Senserrick described this as 'cognitive fatigue':

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<sup>64</sup> Cr Kidd, [Transcript of evidence](#), p 14.

<sup>65</sup> [Submission 40](#), NSWDTA, p 5.

<sup>66</sup> [Submission 40](#), NSWDTA, p 5.

<sup>67</sup> [Submission 23](#), Strathfield Council, p 1; [Submission 41](#), Name suppressed, p 2; [Submission 42](#), ACRS, p 4; [Submission 48](#), CARRS-Q, p 3; [Submission 51](#), Mr Andy Carnahan, p 1; [Submission 57](#), Austroads, p 2; [Submission 69](#), Transport for NSW, p 20; [Submission 70](#), VDRPL, p 1.

<sup>68</sup> [Submission 23](#), Strathfield Council, p 1; [Submission 42](#), ACRS, p 4; [Submission 48](#), CARRS-Q, p 3; [Submission 58](#), Snowy Valleys Council, p 2; [Submission 60](#), MWRC, pp 3-4; [Submission 69](#), Transport for NSW, p 20.

<sup>69</sup> [Submission 42](#), ACRS, p 4.

<sup>70</sup> [Submission 69](#), Transport for NSW, p 21.

<sup>71</sup> [Submission 30](#), Kiama Municipal Council, p 1; [Submission 41](#), Name suppressed, p 2; [Submission 69](#), Transport for NSW, pp 4, 13-14; [Submission 70](#), VDRPL, p 1.

... the faster that you are travelling, the faster that you are having to cognitively process information. So, doing that for an extended period of time is also another type of fatigue that can make you distracted and inattentive. So, if you have those very long highway stretches, even though you are going faster and you think you will get there quicker, you might not be quite as alert or performing as well on that journey as you think you may.<sup>72</sup>

- 1.79 Further, increased speed limits and cognitive fatigue impact the severity of a crash which increase the risk of death or severe injury and road trauma.<sup>73</sup> Professor Senserrick also stated that many crashes occur within a low-level speed range that many drivers perceive as acceptable:

We know a lot of the crashes and the trauma that does occur can be only—well, I say only—within that 10k over the speed limit. There seems to be a sense that that is an acceptable threshold. Whereas a lot of the crashes and road trauma happen in that threshold. So, understanding that it is that complex—we cannot break the laws of physics. Those extra layers of speed mean the difference in being able to respond in time. I think hand in hand with generally, we are not good at leaving a safe enough distance from the cars in front.<sup>74</sup>

- 1.80 While the Police Association of NSW (PANSW) agreed that higher speed limits have negative impact on cognitive behaviour, they argued that that is also the case with lower speed limits. They advised that a 'blanket approach to reducing speed limits is not always the answer either.'<sup>75</sup>

- 1.81 The PANSW further argued that lower speed limits can lead to 'increased driver frustration and therefore risky behaviour, like overtaking in unsafe circumstances.'<sup>76</sup> This view was supported by other stakeholders.<sup>77</sup>

- 1.82 Heavy vehicle drivers can also be at greater risk due to their vehicles requiring longer braking distance, reduced visibility of smaller vehicles and fatigue due to the lack of rest facilities.<sup>78</sup> Discussion on the need for rest areas for heavy vehicle drivers is discussed in chapter three.

#### *Increase speed tolerance for overtaking*

- 1.83 The Committee also heard calls for a speed limit tolerance to allow drivers to safely overtake slower moving vehicles on stretches of road where overtaking is allowed. This issue is discussed in more detail in chapter two.

<sup>72</sup> Professor Senserrick, [Transcript of evidence](#), p 28.

<sup>73</sup> [Submission 30](#), Kiama Municipal Council, p 1; [Submission 34](#), 30Please, p 2; [Submission 41](#), Name suppressed, p 2; [Submission 48](#), CARRS-Q, p 3; [Submission 62](#), AIHS, p 6; [Submission 63](#), PANSW, p 2; [Submission 69](#), Transport for NSW, p 4; [Submission 70](#), VDRPL, p 1.

<sup>74</sup> Professor Senserrick, [Transcript of evidence](#), p 28.

<sup>75</sup> [Submission 63](#), PANSW, p 2.

<sup>76</sup> [Submission 63](#), PANSW, p 2.

<sup>77</sup> [Submission 5](#), Mr Peter Colwell, p 1; [Submission 38](#), Mr Rodney Blundell, p 1; [Submission 44](#), NMAA, p 6; [Submission 50](#), Motorcycle Council of NSW (MCC NSW), p 3; [Submission 55](#), National Road Transport Association (NatRoad), p 7; [Submission 56](#), Transurban, p 4; [Submission 64](#), School of Health Sciences, University of Sydney (Sydney University), pp 2-3; [Submission 66](#), NHVR, p 7; [Submission 67](#), LGNSW and IPWEA, p 5.

<sup>78</sup> [Submission 33](#), Transport Workers' Union of NSW (TWU), p 6; [Submission 64](#), Sydney University, p 3; [Submission 69](#), Transport for NSW, p 33.

## Increase use of variable speed limits

### Summary

Variable speed limits, properly signposted, can have a role in helping to improve road safety on regional roads.

### Recommendation 4

**That Transport for NSW consider expanding the use of variable speed limits in regional areas to help improve road safety.**

### Recommendation 5

**That Transport for NSW consider the use of dual signs that show the standard speed limit and the reduced speed limit for the conditions, such as when the road is wet or unsealed.**

#### Using variable speed limits to promote road safety

- 1.84 While they are currently not widely used on regional roads, the Committee supports greater use of variable speed limits as a way of promoting road safety across the network of regional roads.
- 1.85 Transport for NSW described variable speed limits as a means to 'achieve and maintain optimal network traffic conditions, with minimal delays and congestion to provide an appropriate balance between safety, mobility and amenity on public roads.'<sup>79</sup>
- 1.86 Mr Joshua Devitt, Manager Roads and Transport Directorate, Institute of Public Works Engineering Australasia, NSW and ACT, told the Committee that there is potential to use variable speed limits in regional areas.<sup>80</sup>
- 1.87 Warrumbungle Shire Council submitted that variable speed limits could be expanded as there are instances where the limits could change, subject to local conditions. Council gave the example of how a 70 kilometre per hour limit through a rural village could be changed to 100 kilometres per hour between the hours of 11:00pm and 5:00am when the roadside activity requiring the lower limit may not apply.<sup>81</sup>
- 1.88 BusNSW noted that variable speed limits could be used when weather conditions may require a reduction in speed or if there is a vehicle breakdown on the road ahead.<sup>82</sup>
- 1.89 Upper Hunter Shire Council also highlighted the use of variable speed limits during times of high traffic flow in work zones or during times of poor weather. Transurban and the Police Association of NSW also expressed support for variable speed limits. They argued that their use would help promote road safety by

<sup>79</sup> [Submission 69](#), Transport for NSW, p 32.

<sup>80</sup> Mr Joshua Devitt, Manager, Roads and Transport Directorate, Institute of Public Works Engineering Australasia (NSW and ACT), [Transcript of evidence](#), 8 September 2022, p 21; [Submission 67](#), LGNSW and IPWEA, pp 6-7.

<sup>81</sup> [Submission 68](#), Warrumbungle Shire Council, p 3.

<sup>82</sup> Mr Matt Threlkeld, Executive Director, BusNSW, [Transcript of evidence](#), 8 September 2022, p 50.

- reducing the potential for accidents and also providing motorists with warnings about road hazards and driving conditions due to poor weather.<sup>83</sup>
- 1.90 Regional Development Australia Southern Inland advised that there should be limited speed variance across short distances. They advised that frequent changes in speed can cause confusion and frustration. Drivers may choose to ignore areas with a reduced limit, especially if they can see no reason for the change. They also noted the importance of signage for variable speed limits, especially in cases where there may be an accident or driving conditions are dangerous due to ice on the road.<sup>84</sup>
- 1.91 Others, such as the Transport Workers' Union, argued that variable speed limits could be an issue for heavy vehicle drivers. They advised that slower speeds could impact drivers when planning their routes and rest times for managing fatigue. They went on to suggest that changes in speed limits be communicated through CB radio or an online database or app.<sup>85</sup>
- 1.92 The National Road Transport Association (NatRoad) also expressed concern about variable speed limits for heavy vehicles. They argued that it can lead to frustration from light vehicle drivers, leading to dangerous overtaking or inadvertent non-compliance by heavy vehicle drivers. It called for more large warning signs along freight routes to advise drivers of variable speed limits.<sup>86</sup>
- 1.93 MidCoast Council submitted that variable speed limits would be of little use on their road network. They argued that the speed limit should be set at the appropriate level for the road to provide certainty to motorists. They also argued that the technology needed to inform drivers about a variable speed limit is expensive to install and maintain.<sup>87</sup>
- 1.94 While supportive of using variable speed limits, Local Government NSW and the Roads Transport Directorate also expressed concern about the feasibility of installing the necessary infrastructure across the regional NSW network of roads. Concern was also expressed about how the signs would work in practice, especially in terms of the technology that might be needed and how the limits would be enforced.<sup>88</sup>
- 1.95 Mr Nieuwesteeg noted that when referring to variable speed limits, people imagine electronic signs like those used in metropolitan areas that display current road information. However, he went to advise that there are situations where two speed limits could be displayed on the one sign. Mr Nieuwesteeg gave the example of using this type of signage to advise of one speed limit during daylight hours and another limit for after dusk. While this type of signage is not widely used in Australia, he noted that it does inform drivers about the different levels of risk at

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<sup>83</sup> [Submission 32](#), UHSC, p 3; [Submission 56](#), Transurban, pp 5-6; [Submission 63](#), PANSW, p 5.

<sup>84</sup> [Submission 31](#), Regional Development Australia Southern Inland (RDASI), p 2.

<sup>85</sup> [Submission 33](#), TWU, pp 3-4.

<sup>86</sup> [Submission 55](#), NatRoad, pp 1, 6.

<sup>87</sup> [Submission 36](#), MidCoast Council, p 11.

<sup>88</sup> [Submission 44](#), NMAA, p 10; [Submission 67](#), LGNSW and IPWEA, pp 6-7; Mr Devitt, [Transcript of evidence](#), p 21.

different times of the day. Such signage could also be used to advise about the limit to use in other conditions, such as wet weather.<sup>89</sup>

- 1.96 The Committee was pleased to hear that Transport for NSW is aware that there are situations on regional roads where applying a variable speed limit may be appropriate. Ms Higgins-Whitton told the Committee that 'there is certainly no barrier on that occurring if it is appropriate.' She went to advise that it 'is certainly something that can be looked at in more detail as part of the review of the speed zoning guidelines.'<sup>90</sup>

#### *The 85<sup>th</sup> percentile*

- 1.97 The Committee was also interested in hearing about the 85<sup>th</sup> percentile speed. The National Motorists Association Australia explained that research from the 1960s showed that 'the least probability of a crash was when the vehicle was travelling at the 85<sup>th</sup> percentile speed i.e. the speed at which 85% of vehicles were driving at or under.'<sup>91</sup>
- 1.98 The Motorcycle Council of NSW also referred to the 85<sup>th</sup> percentile in their submission to the inquiry. They noted that drivers travel at the speed that they regard as appropriate for the road 'depending on comfort, their perceived risk of crashing and their knowledge of the road.' They went on to note that there will always be a percentage of drivers who will exceed the speed limit even when the limit is above the 85<sup>th</sup> percentile. They advised that setting the speed below the 85<sup>th</sup> percentile 'results in a greater speed differential between the slower and faster vehicles, resulting in more unsafe overtaking and other vehicle manoeuvres as drivers become frustrated' if they are unable to travel at the speed that they think is appropriate for the road.<sup>92</sup>

## Ensure crash data is accurate

### Summary

Further reporting and research into the issue of suicide by truck is needed, and efforts made to reduce it from happening.

### Recommendation 6

**That Transport for NSW investigate and report on the number of instances of truck by suicide and consider measures to reduce its occurrence.**

### Suicide by truck

- 1.99 During the inquiry the Committee became aware of the issue of "suicide by truck". The Committee learned that this is an increasing situation involving a driver of a light vehicle deliberately crashing into an oncoming truck.<sup>93</sup>

<sup>89</sup> Mr Nieuwesteeg, [Transcript of evidence](#), p 26.

<sup>90</sup> Ms Higgins-Whitton, [Transcript of evidence](#), p 59.

<sup>91</sup> [Submission 44](#), NMAA, p 4.

<sup>92</sup> [Submission 50](#), MCC NSW, p 3.

<sup>93</sup> [Submission 55](#), NatRoad, pp 7-8; Mr Richard Calver, Advisor, Compliance and Workplace Relations, National Road Transport Association, [Transcript of evidence](#), 8 September 2022, p 45.

- 1.100 NatRoad referred to research from 2017 that showed 37.5 per cent of fatal multi vehicle incidents (truck and car crashes) 'were indicated or strongly indicated to be suicides by the driver of the car.'<sup>94</sup>
- 1.101 They also told the Committee that when suicide by truck is identified, it is excluded from the road toll. In situations where there is doubt about the circumstances, it is included in the road toll.<sup>95</sup>
- 1.102 The Committee recognises the trauma that this particular type of incident has on heavy vehicle drivers, as well on the family of those killed. The Committee received only limited evidence on this issue. However, given the seriousness of the matter, the Committee considers that greater reporting on this issue will help establish its prevalence, and identify measures that may prevent it from occurring.

#### Potential underreporting of road accidents

- 1.103 The Committee heard that there may be an under reporting of crashes in rural areas. Mr Scott from MidCoast Council said that many accidents on rural roads go unreported. He advised that residents may not report a crash. Mr Scott went on to explain that this under reporting means information that could help inform policing and support the case for road improvements is not collected and used to improve road safety.<sup>96</sup>
- 1.104 Ms Carla Hoorweg, Chief Executive Officer, Australasian New Car Assessment Program (ANCAP), also recognised the need for better reporting of crashes. She told the Committee that this could help with understanding the factors involved in a crash, especially those crashes in regional and remote areas. She noted that New South Wales 'has pretty good data' but that ANCAP would like access to national data to improve its understanding of the factors involved in these crashes.<sup>97</sup>
- 1.105 In terms of its crash data, the Committee was interested to know if Transport for NSW distinguishes between accidents caused by driving at an inappropriate speed for the conditions and those caused by driving over the posted speed limit.
- 1.106 In response, Mr Carlon explained that detailed analysis is done of every crash that is reported to the police. Transport also matches hospital data where people were admitted to hospital following a serious injury crash. Mr Carlon gave the example of a driver failing to safely navigate a corner on the road that has a sign posted speed limit. He noted that in this scenario, a contributing factor for the accident was a driver travelling too fast for that section of road. Mr Carlon advised that:

Understanding the contribution of speeding which may be above the speed limit or may be too fast for the road conditions or for the vehicle type or the experience of

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<sup>94</sup> [Submission 55](#), NatRoad, pp 7-8.

<sup>95</sup> Mr Calver, [Transcript of evidence](#), p 45.

<sup>96</sup> Mr Scott, [Transcript of evidence](#), p 11.

<sup>97</sup> Ms Carla Hoorweg, Chief Executive Officer, Australasian New Car Assessment Program Safety, [Transcript of evidence](#), 8 September 2022, p 39.

the driver are critical factors in us actually designing a safe system and the mitigations that might lead to prevention of that crash in the future.<sup>98</sup>

- 1.107 Mr Carlon went on to say that Transport for NSW considers a range of factors, including whether a driver was driving too fast, either above the speed limit or for the road conditions, or the type of vehicle they were driving. Whether technology could have prevented the impact in the crash is also considered. He noted that crashes often involve multiple factors, including speed.<sup>99</sup>
- 1.108 The Committee will continue to monitor developments in the reporting of crash data.
- 1.109 The Committee also notes the comments from the National Motorists Association Australia that an emphasis on speed as a factor in accidents may result in the other causal factors not being considered. The Association's comments about improvements in vehicle technology also contributing to a decline in road fatalities are also noted.<sup>100</sup> The issue of vehicle technology is discussed in more detail in chapter two.

## Speed limits and road work zones

### Summary

Motorists can become frustrated when speed limits are imposed around road work zones where no obvious work is being carried out. This could lead to complacency and put the safety of road workers at risk.

### Recommendation 7

**That Transport for NSW and SafeWork NSW review their protocols to consider increasing speed limits when workers are not present at road work zones.**

### Use of work zone speed limits

- 1.110 The Committee heard that there is confusion and frustration in the community surrounding road work zones. Speed limits may be inconsistent with the type of work being done and limits are often in place when there is no visible sign of work taking place.<sup>101</sup>
- 1.111 Road work zones temporarily decrease speed limits where road construction or maintenance is being done. Temporary signage to indicate road works and speed limits are placed at the start of the road work zone, as well as signage at the end of the road work zone to indicate that normal speed limits can resume.<sup>102</sup>

<sup>98</sup> Mr Carlon, [Transcript of evidence](#), p 59.

<sup>99</sup> Mr Carlon, [Transcript of evidence](#), p 59.

<sup>100</sup> [Submission 44](#), NMAA, p 11; Mr Pryor, [Transcript of evidence](#), p 34.

<sup>101</sup> [Submission 8](#), Mr John Readford, p 1; [Submission 29a](#), Name suppressed, p 1; [Submission 31](#), RDASI, p 1; [Submission 36](#), MidCoast Council, pp 5, 7; [Submission 47](#), National Road Safety Partnership Program (NRSPP), p 2; [Submission 64](#), Sydney University, p 6.

<sup>102</sup> Transport for NSW, [Traffic control at work sites](#), Technical manual, Issue No 6.1, NSW Government, 4 November 2022, pp 58-71, viewed 7 November 2022.

- 1.112 The National Road Safety Partnership Program submitted that while speed reduction in road work zones is important to protect road workers, it is equally important to ensure that road work zones reverted to normal speed limits when not in use as it 'impacts community trust and willingness to modify speed behaviour.'<sup>103</sup>
- 1.113 This was echoed by Mr Wheatley who told the Committee that:
- We go through so many work sites where the work has finished for the day or on the weekend and the 40-kilometre speed limit is still there. The road pavement has not changed. There may be work on the road shoulder or beyond. I understand the lower speeds for the safety of the workers, but when they're not there—we are not saying that the speed should be increased back up to the original high speed but certainly increase it to at least 60. Give some relevance to motorists. You are reducing the safety to the workers if they do not believe the 40k is relevant.<sup>104</sup>
- 1.114 Transurban also submitted that compliance with speed limits in road work zones would increase if drivers believed the use of the zone was credible.<sup>105</sup>
- 1.115 However, Mr Scott suggested that there may be a reason for road work zones remaining in place after work activities finish:
- ... a lot of that reflects the concept that the work site is still in operation because the work has not been completed. So whatever element of work was trying to be repaired, that defect still exists, and the speed limit is applied consistently until that defect is rectified.<sup>106</sup>
- 1.116 Traffic management and safety at road work sites is set out in the *Traffic control at work sites* technical manual. It includes the criteria for road work speed zones.<sup>107</sup>
- 1.117 The manual states that 40 kilometres per hour road work zones should not be left in place for extended periods, such as weekends, where there are no active workers on site, advising that 'the extended use of 40 km/h road work zones when the work site is clear of active workers diminishes the credibility of work sites, leading to increased rates of non-compliance.'<sup>108</sup>
- 1.118 The MidCoast Council proposed a review of the manual to consider increasing speed limits in road work zones where work is not taking place and there are no workers on site.<sup>109</sup>
- 1.119 The Committee also acknowledges the work that Transport for NSW is doing to protect road workers. Transport informed the Committee that it launched its 'Slow down, road workers around' safety campaign in April 2022. The campaign focuses on motorists in regional areas by reminding them to slow down in road work zones

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<sup>103</sup> [Submission 47](#), NRSPP, p 2.

<sup>104</sup> Mr Wheatley, [Transcript of evidence](#), p 3.

<sup>105</sup> [Submission 56](#), Transurban, p 4.

<sup>106</sup> Mr Scott, [Transcript of evidence](#), p 4.

<sup>107</sup> [Submission 69](#), Transport for NSW, p 33.

<sup>108</sup> [Traffic control at work sites](#), p 59, viewed 7 November 2022.

<sup>109</sup> Mr Wheatley, [Transcript of evidence](#), pp 3-4; Mr Scott, [Transcript of evidence](#), p 4.

and 'aims to humanise road workers, the people who are making our roads safer.' Transport went on to advise that the campaign has had 'a positive impact'.<sup>110</sup>

- 1.120 The Committee welcomes the advice from Transport for NSW that, as part of the 2026 Road Safety Action Plan, it will look at ways to improve road safety in work zones.<sup>111</sup>

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<sup>110</sup> [Submission 69](#), Transport for NSW, p [23](#).

<sup>111</sup> [Submission 69](#), Transport for NSW, p [33](#).

# Chapter Two – Road infrastructure and vehicle technology

## Need to improve road infrastructure

### Summary

Road infrastructure in regional NSW needs to be improved. Road infrastructure improvements can help make regional roads safer and, in certain circumstances, may assist roads to support higher speed limits.

### Finding 3

**Painted line markings are an efficient infrastructure treatment which can enable the use of vehicle technology and help make regional roads safer.**

### Regional road infrastructure needs to be maintained and upgraded

- 2.1 The Committee is concerned by reports from inquiry participants that the road infrastructure and design in certain areas of regional NSW is deficient and needs to be better maintained and improved to make regional roads safer.
- 2.2 According to the Safe System approach to road safety, road infrastructure can significantly reduce the chance of a fatality or serious injury when a driver or rider makes a mistake. Transport for NSW advised that infrastructure upgrades are the main way of ensuring that road infrastructure aligns with this approach. Other options include implementing best practice road design and, where infrastructure is not installed, considering the appropriate speed limit and roadside conditions.<sup>112</sup>
- 2.3 Road infrastructure can also 'moderate speeds to safe levels in select road environments'. For example, by separating 'opposing directions of traffic' on straight sections of high-speed roads.<sup>113</sup>
- 2.4 Further, where roads are well designed and in good condition, they can increase the ability of regional communities and drivers on regional roads to respond to, and recover from, emergencies such as bushfires and floods.<sup>114</sup>
- 2.5 As previously noted, the majority of the rural and regional state road network has been rated three stars or below under the Australian Road Assessment Program methodology.<sup>115</sup>
- 2.6 Key infrastructure issues raised by inquiry participants include:

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<sup>112</sup> [Submission 69](#), Transport for NSW, p 29.

<sup>113</sup> [Submission 57](#), Austroads, p 3.

<sup>114</sup> Mr Scott, [Transcript of evidence](#), p 11; Mr Simon O'Hara, Chief Executive Officer, Road Freight NSW, [Transcript of evidence](#), 8 September 2022, pp 47, 50.

<sup>115</sup> [Answers to questions on notice](#), Transport for NSW, p 2.

- lack of overtaking opportunities<sup>116</sup> (about which the Committee makes recommendations below)
- lack of or deteriorating road delineation, including centre and edge lines<sup>117</sup>
- limited road shoulders and soft road shoulders<sup>118</sup>
- road surface conditions are poor and include potholes and crumbling road edges, which narrow the road. This is due to, among other things, recent rain events, fallen debris, heavy vehicle use and inadequate maintenance<sup>119</sup>
- existing road signs need to be replaced and maintained, and there is a need for additional signage including warning signs, advisory signs and speed limit signs<sup>120</sup>
- older and many unsealed roads were not designed to safely accommodate current vehicles and traffic requirements and have sharp corners with few warning signs and no curve advisory signs, no physical barrier protection or clear zone allowing for run off near corners, uncontrolled and concealed access points and poorer sight distances than new roads and highways<sup>121</sup>
- roads include blind crests and curves and can be narrow<sup>122</sup>
- lack of barrier protection<sup>123</sup>
- lack of turning lanes<sup>124</sup>
- more roadside hazards including trees and overgrown vegetation, which increase the severity of a crash on a curve and can make it difficult for drivers to see and prepare for collisions with oncoming traffic and wildlife<sup>125</sup>
- lack of communications infrastructure and inconsistent mobile phone coverage, which limits access to help in an emergency, impacts bus operators'

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<sup>116</sup> [Submission 32](#), UHSC, p 2; [Submission 63](#), PANSW, p 4; Mr Bush, [Transcript of evidence](#), p 11; Ms Toweel, [Transcript of evidence](#), p 11; Ms Cecchini, [Transcript of evidence](#), p 16; Mr O'Hara, [Transcript of evidence](#), pp 47, 51.

<sup>117</sup> [Submission 21](#), Mrs Lesley Lane, p 1; [Submission 22](#), Mrs Kathryn Gillespie, p 1; [Submission 42](#), ACRS, pp 5-6; [Submission 49](#), Wingecarribee Shire Council, p 1; Mr Wheatley, [Transcript of evidence](#), p 11; Mr Scott, [Transcript of evidence](#), p 11.

<sup>118</sup> [Submission 49](#), Wingecarribee Shire Council, p 1; Ms Toweel, [Transcript of evidence](#), p 6.

<sup>119</sup> [Submission 19](#), Ms Margarete Lethorn, p 1; [Submission 29a](#), Name suppressed, p 1; [Submission 31](#), RDASI, p 2; [Submission 34](#), 30Please, p 5; [Submission 41](#), Name suppressed, p 3; [Submission 49](#), Wingecarribee Shire Council, p 1; [Submission 60](#), MWRC, p 3; [Submission 63](#), PANSW, p 3.

<sup>120</sup> [Submission 32](#), UHSC, p 2; [Submission 67](#), LGNSW and IPWEA, p 4.

<sup>121</sup> [Submission 31](#), RDASI, p 2; [Submission 32](#), UHSC, p 2; [Submission 36](#), MidCoast Council, p 6; Mr Scott, [Transcript of evidence](#), p 6.

<sup>122</sup> [Submission 32](#), UHSC, p 2; [Submission 35](#), Wollondilly Shire Council, p 1 ; [Submission 49](#), Wingecarribee Shire Council, pp 1-2; [Submission 61](#), BusNSW, p 6.

<sup>123</sup> [Submission 32](#), UHSC, p 2.

<sup>124</sup> [Submission 4](#), Wally Bell, p 1; [Submission 29](#), Name suppressed, p 1; Cr Tony Ciccia, Councillor, Leeton Shire Council, [Transcript of evidence](#), 8 September 2022, p 15.

<sup>125</sup> [Submission 22](#), Mrs Kathryn Gillespie, p 1; [Submission 29](#), Name suppressed, p 1; [Submission 60](#), MWRC, p 3; [Submission 68](#), Warrumbungle Shire Council, p 1; [Submission 69](#), Transport for NSW, p 29.

- ability to manage bus operations and passenger safety and limits the uptake of technology including automatic crash notifications (eCall)<sup>126</sup>
- need for more and better maintained rest areas, which will be discussed in detail in chapter three.
- 2.7 Further, improvements made to the regional road network are not uniform, especially on routes located over multiple local government areas.<sup>127</sup>
- 2.8 The Committee was told that safety must be incorporated into road design and management to reduce fatal and serious injuries on our roads.<sup>128</sup> Transport for NSW provided that implementing proven safety infrastructure treatments could prevent or reduce harm in many of the crashes on high-speed country roads.<sup>129</sup>
- 2.9 However, implementing engineering solutions and infrastructure upgrades requires time, sufficient funding and careful planning. Austroads also advised that they 'can only be applied to a relatively small proportion of the road network' and other measures are required to manage speeds to reduce fatalities.<sup>130</sup>
- 2.10 The Committee is of the view that painted line markings are an efficient infrastructure treatment which can help make regional roads safer.
- 2.11 Inquiry evidence highlighted that low-cost infrastructure treatments could be implemented to help address safety risks. Professor Senserrick from CARRS-Q said:
- There are some low-cost infrastructure treatments that are very effective without needing a mass of materials and they are mostly relying on painted lines. So, even just having painted lines on the edges of the roads when ... you do not have the perfect sealed sides will be useful for vehicles to detect the edges, but also, they're useful for drivers. And having painted wide centre lines ... has been dramatically effective in preventing head-on crashes ...<sup>131</sup>
- 2.12 CARRS-Q also pointed to other measures to 'visually compel' drivers to reduce their speed due to a higher perceived risk, including to paint around a sharp bend to make it look narrow.<sup>132</sup>
- 2.13 Other road infrastructure treatments raised by inquiry participants included flexible roadside and median barriers, audio tactile lane markings, wide centreline treatment, widened and sealed road shoulders, motorcycle underrun protection, improved curve and warning signage, roundabouts at intersections, improved

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<sup>126</sup> [Submission 39](#), Australasian New Car Assessment Program Safety (ANCAP), p [22](#); [Submission 60](#), MWRC, p [5](#); [Submission 61](#), BusNSW, p [4](#); [Submission 68](#), Warrumbungle Shire Council, p [4](#); Ms Cecchini, [Transcript of evidence](#), p [16](#).

<sup>127</sup> [Submission 42](#), ACRS, p [5](#).

<sup>128</sup> [Submission 42](#), ACRS, p [6](#); Mr Nieuwesteeg, [Transcript of evidence](#), p [27](#).

<sup>129</sup> [Submission 69](#), Transport for NSW, p [29](#).

<sup>130</sup> [Submission 42](#), ACRS, p [6](#); [Submission 57](#), Austroads, p [3](#); Mr Nieuwesteeg, [Transcript of evidence](#), p [27](#).

<sup>131</sup> Professor Senserrick, [Transcript of evidence](#), p [27](#).

<sup>132</sup> [Submission 48](#), CARRS-Q, p [3](#); Professor Senserrick, [Transcript of evidence](#), p [27](#).

protections of hazards on curves, street lighting and steel boardings on the roadside.<sup>133</sup>

### **Safer roads can support higher speeds in certain circumstances**

- 2.14 Transport for NSW told the Committee:
- Safety infrastructure is fundamentally linked to safe speeds as the presence of this infrastructure can improve safety outcomes at the posted speed limit, or be implemented alongside a safer speed to significantly reduce trauma.<sup>134</sup>
- 2.15 As stated in chapter one, the Committee was advised that a "safe speed" for the road, being the appropriate speed for the area, accommodates the particular road environment. Safe speeds will therefore vary across the different type of road environments.<sup>135</sup>
- 2.16 The Committee considers that if the right infrastructure treatments and road design were implemented along with other elements of the Safe System approach, roads could safely sustain higher speeds. As such, making regional roads safer over time may allow speed limits to be increased on suitable roads.
- 2.17 As noted by Mr Michael Nieuwesteeg, Road Safety and Design Program Manager at Austroads:
- If you want to invest in that higher speed you've got to provide the infrastructure to go with it.<sup>136</sup>
- 2.18 Mr Bernard Carlon, Chief, Centres for Road Safety and Maritime Safety, Environment and Regulation, Transport for NSW, identified infrastructure attributes recommended to manage safety risks on higher speed roads. These include wider lanes, audio-tactile line markings, wide shoulders and barrier protection on either side of dual carriageways.<sup>137</sup> As previously noted, the Committee was also advised of the importance of median barriers in preventing interactions with oncoming traffic and head on collisions.<sup>138</sup>
- 2.19 However, Transport for NSW pointed out that road infrastructure improvements may only enable the road to be safely navigated at the prevailing speed limit rather than a higher limit, particularly if the upgrades were driven by a history of crashes on the road. Further, that the nature of the works, and whether those works remedy any road design issues, will determine whether the speed can be increased following improvements.<sup>139</sup>

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<sup>133</sup> [Submission 36](#), MidCoast Council, p 12; [Submission 55](#), NatRoad, pp 1-2; [Submission 57](#), Austroads, p 3; [Submission 58](#), Snowy Valleys Council, p 5; [Submission 63](#), PANSW, p 4; [Submission 68](#), Warrumbungle Shire Council, pp 1-2; [Submission 69](#), Transport for NSW, p 30.

<sup>134</sup> [Submission 69](#), Transport for NSW, p 29.

<sup>135</sup> Ms Higgins-Whitton, [Transcript of evidence](#), p 58.

<sup>136</sup> Mr Nieuwesteeg, [Transcript of evidence](#), p 25.

<sup>137</sup> Mr Carlon, [Transcript of evidence](#), p 55.

<sup>138</sup> [Submission 69](#), Transport for NSW, p 30; Mr Nieuwesteeg, [Transcript of evidence](#), p 24.

<sup>139</sup> Ms Higgins-Whitton, [Transcript of evidence](#), p 55.

- 2.20 Transport for NSW also said:
- Increasing speed limits beyond what has been identified as 'safe' for a particular length of road may result in safety critical infrastructure not providing safety benefits due to the impact forces going beyond their physical tolerances.<sup>140</sup>
- 2.21 MidCoast Council advised that the rehabilitation of poor road pavements to a new smooth surface can increase vehicle speeds, including so that drivers travel over the speed limit and are less attentive as they no longer need to carefully navigate rough, potholed and deformed roads. In the Council's experience, this is usually only a short to medium term issue, although they have had to increase enforcement and run media campaigns in certain cases to address this issue. The Council also stated that in their experience, speeds return to the speed limit 'but with higher average and 85% speeds'.<sup>141</sup>
- 2.22 The Committee also heard that any increase in speed limits must wait until appropriate infrastructure is widely implemented and its impact on accident rates is assessed.<sup>142</sup>

## Need for more overtaking lanes

### Summary

More overtaking lanes are needed to improve road safety and travel times in regional NSW. A speed tolerance when vehicles are overtaking may also be appropriate.

### Recommendation 8

That Transport for NSW construct more overtaking lanes and truck pull over areas on regional roads to help improve road safety and travel times.

### Recommendation 9

That Transport for NSW consider allowing a speed limit tolerance when vehicles are safely overtaking on stretches of road where overtaking is allowed.

### Increase ability to overtake

- 2.23 Based on the inquiry evidence, the Committee considers that road safety and travel times in regional NSW can be improved by the creation of more overtaking opportunities. Specifically, by constructing more overtaking lanes and truck pull over areas. Additionally, that a speed tolerance may be appropriate when overtaking in certain circumstances.
- 2.24 Inquiry participants raised the lack of overtaking opportunities on the regional road network as a significant issue. They called for more overtaking lanes to be developed, including on both single lane and two-lane highways. Installing other

<sup>140</sup> [Submission 69](#), Transport for NSW, p [29](#).

<sup>141</sup> [Submission 36](#), MidCoast Council, p [10](#); Mr Wheatley, [Transcript of evidence](#), p [10](#).

<sup>142</sup> [Submission 23](#), Strathfield Council, p [3](#).

- treatments to increase overtaking opportunities, such as truck pull over areas, was also suggested.<sup>143</sup>
- 2.25 It was said that limited overtaking opportunities can increase the likelihood of risk-taking behaviour, including when people need to get to work and are frustrated regarding travel times in regional NSW. Drivers may take risks when overtaking if they are frustrated when travelling behind slow moving vehicles or trucks.<sup>144</sup>
- 2.26 Further, some roads do not meet the criteria for the implementation of centre lines. This means motorists 'are missing one of the most important signals to indicate whether it is safe to attempt an overtake', being a broken centre line.<sup>145</sup>
- 2.27 It was also suggested that allowing a speed tolerance (above the posted speed limit) when motorists are overtaking would increase safety by minimising the time and distance a motorist spends on the wrong side of the road.<sup>146</sup>
- 2.28 To address the issues caused by the lack of overtaking opportunities, the Committee recommends that Transport for NSW:
- construct more overtaking lanes and truck pull over areas (as appropriate) on regional roads to help improve road safety and travel times
  - consider allowing a speed limit tolerance when vehicles are safely overtaking on stretches of road where overtaking is allowed.
- 2.29 The Committee also notes that education may be needed in relation to using overtaking infrastructure.<sup>147</sup>

## Education about driving to the conditions

### Summary

Education focussing on driving to the conditions of regional roads will improve drivers' ability to navigate the variable conditions and risks on the regional road network.

### Recommendation 10

That Transport for NSW undertake public campaigns focussed on educating metropolitan and regional drivers about the need to drive to the road conditions, rather than just focus on the speed limit.

### Recommendation 11

That Transport for NSW include more education about regional road conditions in its Graduated Licensing Scheme.

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<sup>143</sup> [Submission 32](#), UHSC, p 2; [Submission 55](#), NatRoad, pp 1-2; [Submission 60](#), MWRC, p 4; [Submission 63](#), PANSW, p 4; Mr Bush, [Transcript of evidence](#), p 11; Ms Toweel, [Transcript of evidence](#), p 11; Ms Cecchini, [Transcript of evidence](#), p 16; Mr Calver, [Transcript of evidence](#), p 44; Mr O'Hara, [Transcript of evidence](#), pp 47, 51.

<sup>144</sup> [Submission 32](#), UHSC, p 2; Mr Bush, [Transcript of evidence](#), p 11; Ms Toweel, [Transcript of evidence](#), p 11.

<sup>145</sup> Mr Scott, [Transcript of evidence](#), p 11.

<sup>146</sup> [Submission 44](#), NMAA, pp 5-6; [Submission 59](#), Mr Paul Maytom, p 1; Mr Lane, [Transcript of evidence](#), p 31.

<sup>147</sup> Mr Scott, [Transcript of evidence](#), p 11.

### Need to drive to road conditions

- 2.30 Inquiry participants called for better road safety education, particularly about driving to the conditions of regional roads. In response to this feedback, the Committee recommends that Transport for NSW:
- undertake public campaigns focussed on educating metropolitan and regional drivers about the need to drive to the road conditions, rather than just focus on the speed limit
  - include more education about regional road conditions in its Graduated Licensing Scheme.
- 2.31 As noted above, road improvements are not uniform across the regional road network. Further, the condition of regional roads and the risks to drivers can vary day-to-day.<sup>148</sup> Ms Samantha Cecchini, Road Safety Officer at Mid-Western Regional Council, explained:
- From day to day, you will not know how significant the potholes will be. You will not know if you turn the corner and there is going to be a big group of cyclists in the travel lane. Of course, there is always the risk of animal strikes and all sorts of other unpredictable hazards that even with the perfect road infrastructure and the perfect road condition, we are still at risk.<sup>149</sup>
- 2.32 Local Government NSW and the Roads and Transport Directorate jointly submitted that, due to the variance of the network infrastructure on regional roads, the NSW Government should introduce strategies to improve drivers' awareness about handling poorer road conditions and design, and this may include educating drivers to 'drive to the (road infrastructure) conditions'. It was said this should also address speeding, driver behaviour and changing environmental factors.<sup>150</sup>
- 2.33 MidCoast Council argued that campaigns generating understanding of the road conditions and risks, rather than simply focussing on speed limit compliance, could help drivers better assess risks and take responsibility to drive safely. The Council provided that such campaigns should be multi-level (from the state to local levels) and use advertising, training packages, community participation and signs. Further, that they should focus on risks from neighbouring road use including children in urban areas and wildlife, stock and large vehicles on rural roads.<sup>151</sup>
- 2.34 The National Road Safety Partnership Program highlighted that educating drivers on 'why' driving 'safe speeds' appropriate for the vehicle, driving conditions and type of road is often misunderstood or overlooked. It called for community education on safe speeds in regional areas.<sup>152</sup>
- 2.35 However, Snowy Valleys Council raised that messaging around driving at speeds suitable to the conditions can be interpreted differently by individual drivers:

<sup>148</sup> [Submission 42](#), ACRS, p 5; Mr Wheatley, [Transcript of evidence](#), p 5.

<sup>149</sup> Ms Cecchini, [Transcript of evidence](#), p 15.

<sup>150</sup> [Submission 67](#), LGNSW and IPWEA, p 2.

<sup>151</sup> [Submission 36](#), MidCoast Council, p 7; Mr Scott, [Transcript of evidence](#), pp 7, 9.

<sup>152</sup> [Submission 47](#), NRSPP, p 1.

- Driving at speeds suitable for the conditions is an ambiguous message open to interpretation of the drivers who are influenced by their experience of driving, exposure to road trauma, familiarity of the road environment and time pressures of life.<sup>153</sup>
- 2.36 Inquiry participants indicated that road safety education should be targeted both at people living in metropolitan areas, and locally in regional areas.
- 2.37 The Committee heard that education on driving to the conditions is paramount for metropolitan residents travelling or moving to regional NSW, as they are unfamiliar with default speed limits as well as the topography, design, condition and hazards present on the regional road network, including fatigue and night travel.<sup>154</sup>
- 2.38 Transport for NSW also emphasised the role of road safety education to address fatalities on country roads, in accordance with the Safe System approach. While driving to the conditions is in the 'vernacular' of many regional communities, the Committee was advised that 70 per cent of fatalities on these roads are local residents. The Committee notes that Transport for NSW has undertaken targeted regional-only road safety campaigns around safe speeds, fatigue and safe driving.<sup>155</sup>
- 2.39 At the hearing, the Committee heard that learner driver training has little discussion of rural and unsealed roads.<sup>156</sup> Professor Senserrick highlighted that young people undertaking learner driver training are most willing to learn new things, including concepts fundamental to safe driving, such as following distance and speed.<sup>157</sup>
- 2.40 The Committee considers that educating learner drivers on regional road conditions can help embed formative knowledge on how to safely navigate regional roads.

## Road safety improvements based on community need

### Summary

Funding opportunities for local councils to improve road safety may currently rely on accidents occurring rather than community need.

### Recommendation 12

**That Transport for NSW ensure funding for road safety improvements is based on community need and does not rely solely on the number of accidents to determine where improvements are to be made.**

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<sup>153</sup> [Submission 58](#), Snowy Valleys Council, p 4.

<sup>154</sup> [Submission 36](#), MidCoast Council, p 7; [Submission 60](#), MWRC, p 3; Mr Bush, [Transcript of evidence](#), p 7; Ms Toweel, [Transcript of evidence](#), p 8.

<sup>155</sup> [Submission 60](#), MWRC, p 3; [Submission 69](#), Transport for NSW, pp 21-22; Ms Cecchini, [Transcript of evidence](#), p 15; Ms Higgins-Whitton, [Transcript of evidence](#), p 57; Mr Carlon, [Transcript of evidence](#), pp 57, 60.

<sup>156</sup> Mr Wheatley, [Transcript of evidence](#), p 9.

<sup>157</sup> Professor Senserrick, [Transcript of evidence](#), p 28.

### Safety improvements based on community need

- 2.41 Noting the infrastructure issues reported by inquiry participants, the Committee considers that significant investment is needed for regional roads. The Committee also notes the concerns of local councils regarding funding opportunities. It agrees that funding should be available to implement measures which prevent accidents occurring. The Committee recommends that Transport for NSW ensure funding for road safety improvements is based on community need and does not rely solely on the number of accidents to determine where improvements are to be made.
- 2.42 The Committee also emphasises the findings and recommendations in its report on reducing trauma on local roads in NSW, in particular those about funding local road safety.<sup>158</sup>
- 2.43 The Committee heard evidence highlighting that local councils find it difficult to maintain, and fund road infrastructure improvements on, council-controlled roads. Councils are responsible for around 90 per cent of the road network, being 163 850 kilometres of roads, with an estimate value of \$65.7 billion. They are responsible for managing regional roads, with significant financial support from the NSW Government, and local roads. The 'vast majority' of roads in NSW are local roads.<sup>159</sup>
- 2.44 Wollondilly Shire Council explained:
- The large rural network under Council's care and control and the relatively low rate of income per km of road is a huge problem for council to be able to maintain the road network to the standards expected by today's motorists.<sup>160</sup>
- 2.45 Local Government NSW and the Roads and Transport Directorate advised that the current funding arrangements are inadequate for NSW councils 'to deliver safe, efficient and resilient infrastructure', including either specific or broader network-based improvements. The Roads and Transport Directorate estimated there is a \$350 million funding gap annually for local roads. It was also said that the funding committed in the NSW 2022-23 Budget falls short of what is needed to address local councils' concerns with local roads.<sup>161</sup>
- 2.46 The Committee was also told that grant funding available to councils to improve road safety should not rely on accidents occurring. Mr Richard Scott, Director Infrastructure and Engineering Services at MidCoast Council, said:
- ... a lot of the grant funding opportunities that are out there to improve road safety actually rely on accidents having happened in the first place. I think there fundamentally needs to be a shift in focus to that because we should not have people being injured, or worst-case scenario dying on our roads before there is a call to action

<sup>158</sup> Joint Standing Committee on Road Safety (Staysafe), [Reducing trauma on local roads in NSW](#), Report 1/57, Parliament of New South Wales, 16 July 2021, Findings and recommendations, pp vi-viii.

<sup>159</sup> [Submission 67](#), LGNSW and IPWEA, p 2; Ms Toweel, [Transcript of evidence](#), p 6; Mr Scott, [Transcript of evidence](#), pp 6-7; Cr Turley, [Transcript of evidence](#), p 19.

<sup>160</sup> [Submission 35](#), Wollondilly Shire Council, p 2.

<sup>161</sup> [Submission 67](#), LGNSW and IPWEA, p 2; Mr Devitt, [Transcript of evidence](#), p 19.

to do something about them. We actually have to make them safer to prevent those accidents in the first place.<sup>162</sup>

2.47 Warrumbungle Shire Council highlighted that evidence of crash history is often difficult to demonstrate because not all non-injury accidents are reported. It also said that not all NSW councils have access to a Road Safety Officer to run safety initiatives because 'it requires 50/50 funding'.<sup>163</sup>

2.48 However, Transport for NSW told the Committee that the NSW Government is committed to delivering the Towards Zero Safer Roads Program by 2030, which will invest in safety infrastructure and speed management. The majority of this investment will go towards the Saving Lives on Country Roads program. This is intended to deliver mass action engineering treatments and targeted location treatments to reduce crashes, including those relating to lane departure. It will achieve this by installing flexible safety barriers, audio-tactile line markings, wide centrelines, improve curve signage and widening and sealing road shoulders.<sup>164</sup>

2.49 Ms Higgins-Whitton further noted investment into the Towards Zero Safer Roads Program:

The Government has invested \$822 million in the Safer Roads program between 2018-19 and 2022-23, including \$640 million for saving lives on country roads. In August 2022, the Government announced a further \$186 million commitment to the toward zero safer roads program.<sup>165</sup>

2.50 The 2026 Road Safety Action Plan provides that, in delivering this program, Transport for NSW will aim to:

... upgrade the safety of country roads by installing full median and roadside safety barriers, mass action treatments such as rumble strips and wide centrelines...

...

complete risk assessments on all regional roads, increase risk assessments across the local road network, and publish all available NSW road risk ratings to help ensure high-risk roads are prioritised for treatment and maintenance.<sup>166</sup>

2.51 The Committee strongly supports the focus on infrastructure treatments in the Towards Zero Safer Roads Program, and its commitment of funding. It urges Transport for NSW to take on the feedback of inquiry participants and the recommendations of this report in its planning and implementation of infrastructure treatments.

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<sup>162</sup> Mr Scott, [Transcript of evidence](#), p 8.

<sup>163</sup> [Submission 68](#), Warrumbungle Shire Council, p 2.

<sup>164</sup> [Submission 69](#), Transport for NSW, pp 35-36; Ms Higgins-Whitton, [Transcript of evidence](#), p 52.

<sup>165</sup> Ms Higgins-Whitton, [Transcript of evidence](#), p 52.

<sup>166</sup> [2026 Road Safety Action Plan](#), pp 17-18, viewed 3 November 2022.

## Uptake of vehicle technology

### Summary

Newer vehicles incorporating new vehicle technologies are safer. However, in regional NSW the uptake of new vehicles is slow, and many vehicle technologies are not effective as the necessary road infrastructure is not present.

### Finding 4

**The development of vehicle technology is outpacing road infrastructure and technology uptake in regional New South Wales.**

#### Newer vehicles are safer

- 2.52 The Committee was told that new vehicle technologies need certain road infrastructure to be effectively used, and that it has an important role in reducing crash risk and trauma in a crash. The Committee therefore considers that it is vitally important to address the deficiencies in regional road infrastructure. It is of the view that painted line markings are an efficient infrastructure treatment which can enable the use of vehicle technology.
- 2.53 The Safe System approach to road safety acknowledges that vehicles need to be designed to minimise crashes or reduce forces if a crash occurs.<sup>167</sup>
- 2.54 Compared to older cars, newer cars with enhanced vehicle structure and new vehicle technologies are safer and lower the risk of death or serious injury in a crash.<sup>168</sup>
- 2.55 Some of the key new vehicle technologies include intelligent speed adaptation and advanced driver assistance systems (ADAS) including electronic stability control, autonomous emergency braking, adaptive cruise control and lane support systems. Lane support systems include lane departure warning, lane keep assist and emergency lane keeping.<sup>169</sup>
- 2.56 Connected and Autonomous Vehicles (CAV) technologies such as speed assist systems, adaptive cruise control and lane keep assist are available in many new vehicles and are designed to assist the driver and reduce the risk and severity of crashes. With the emergence of new technologies, it is expected vehicles will become increasingly automated and require less (or no) human input, and more connected with vehicle-to-vehicle, vehicle-to-infrastructure and/or vehicle-to-other communications.<sup>170</sup>
- 2.57 Ms Carla Hoorweg from ANCAP, provided that significant safety improvements have been seen as a result of autonomous emergency braking and lane support

<sup>167</sup> [Submission 69](#), Transport for NSW, p 5.

<sup>168</sup> [Submission 36](#), MidCoast Council, p 9; [Submission 39](#), ANCAP, pp 6-7; [Submission 69](#), Transport for NSW, p 25.

<sup>169</sup> [Submission 39](#), ANCAP, p 14; [Submission 48](#), CARRS-Q, p 4; [Submission 69](#), Transport for NSW, pp 26-27; Ms Hoorweg, [Transcript of evidence](#), p 37.

<sup>170</sup> [Submission 39](#), ANCAP, p 17.

systems. For the purpose of testing and evaluating lane support systems, ANCAP assesses the system to 'read' solid and broken lines and non-marked road edges.<sup>171</sup>

- 2.58 Transport for NSW said that Intelligent Speed Adaptation and ADAS 'have been proven to reduce crash risk'.<sup>172</sup>

#### **Vehicle technology is outpacing regional road infrastructure**

- 2.59 Many new vehicle technologies require certain road infrastructure to be effective. For example, ADAS and CAV technologies rely on lane markings and signposting. Emerging CAV technology also relies on digital infrastructure.<sup>173</sup>
- 2.60 As discussed above, many regional roads do not include this infrastructure and are in poor condition. As such, their effectiveness is limited on regional roads. In fact, Upper Hunter Shire Council told the Committee that automatic lane recognition technologies are 'virtually useless on rural and regional roads'.<sup>174</sup>
- 2.61 The limited effectiveness and therefore use of vehicle technology on regional roads limits our understanding of its impacts on road safety.<sup>175</sup>
- 2.62 Some inquiry participants called for speed limits to be increased on regional roads to account for the safety of modern vehicles, and also to counter driver fatigue.<sup>176</sup>
- 2.63 Although, Transport for NSW stated:
- While the safety of vehicles continues to improve, they must also still operate within physical boundaries. If the speed of a vehicle is inappropriate, or a vehicle is travelling on a road without key safety features such as line marking or road shoulders, this can reduce the effectiveness of various technologies, even in a new model vehicle equipped with advanced features.<sup>177</sup>
- 2.64 Mr Christopher Tola, Road Safety Officer at Upper Hunter Shire Council, said that vehicle technology is generally 'outpacing' the road infrastructure in regional NSW. The Committee also heard that the engineering of regional roads can limit which upgrades can be made to accommodate new vehicle technologies.<sup>178</sup>
- 2.65 Inquiry participants highlighted that regional roads need to be upgraded for new and enhanced vehicle technologies to be effectively utilised.<sup>179</sup>

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<sup>171</sup> [Submission 39](#), ANCAP, p 14; Ms Hoorweg, [Transcript of evidence](#), pp 37-38.

<sup>172</sup> [Submission 69](#), Transport for NSW, p 25.

<sup>173</sup> [Submission 39](#), ANCAP, pp 17-18; [Submission 42](#), ACRS, p 6; [Submission 67](#), LGNSW and IPWEA, p 6; Mr Christopher Tola, Road Safety Officer, Upper Hunter Shire Council, [Transcript of evidence](#), 8 September 2022, p 8; Mr Wheatley, [Transcript of evidence](#), p 8; Cr Kidd, [Transcript of evidence](#), p 17; Ms Hoorweg, [Transcript of evidence](#), p 39.

<sup>174</sup> [Submission 32](#), UHSC, p 3.

<sup>175</sup> [Submission 15](#), Cootamundra-Gundagai Regional Council, p 1.

<sup>176</sup> [Submission 6](#), Ms Alexandra Murray, p 1; [Submission 16](#), Mr Hamish Curtis, p 1; [Submission 18](#); Name suppressed, p 1.

<sup>177</sup> [Submission 69](#), Transport for NSW, p 25.

<sup>178</sup> Mr Tola, [Transcript of evidence](#), p 8; Ms Toweel, [Transcript of evidence](#), p 8.

<sup>179</sup> [Submission 39](#), ANCAP, pp 19-20; [Submission 67](#), LGNSW and IPWEA, p 6; Mr Tola, [Transcript of evidence](#), p 8; Mr Wheatley, [Transcript of evidence](#), p 8.

2.66 The Committee also notes that the 2026 Road Safety Action Plan, in delivering the Towards Zero Safer Roads Program by 2030, will aim to:

...increase delivery of safety infrastructure to support operation of vehicle safety features (e.g. line markings and speed zone signs to enable Intelligent Speed Assist to operate), particularly on the country road network.<sup>180</sup>

#### **Vehicle technology is outpacing uptake of new vehicles in regional NSW**

2.67 Technology is also outpacing the uptake of vehicles with improved technologies in regional communities.

2.68 The Committee was told that certain new vehicle technologies including lateral sensors alerting drivers to vehicles in their blind spots, lane departure warning and automated emergency braking are only found in vehicles manufactured in the past seven years.<sup>181</sup>

2.69 However, the average age of light vehicles in regional areas is 11 years, compared to nine years in metropolitan areas. With the current turnover rate, the Committee was told that it will take around 20 years until the fleet is completely replaced.<sup>182</sup>

2.70 Additionally, 31.7 per cent of registered light vehicles manufactured after the year 2000 have an ANCAP five-star rating, compared to 67.7 per cent in metropolitan areas. This means regional areas have a lower rate of uptake of ANCAP five-star rated vehicles.<sup>183</sup>

2.71 The Committee heard that the cost of new vehicles can be prohibitive for people living in regional NSW.<sup>184</sup> Mid-Western Regional Council noted that there 'might be merit in offering subsidies for safer vehicles'.<sup>185</sup>

2.72 Transport for NSW submitted that the slower rate of uptake in regional NSW means that:

... the benefits of new technologies, particularly those that are not yet mandated, are only slowly entering the fleet and contribute to reduction in road trauma. If speed limits are not appropriate, and fleets have fewer safety features, the risk of trauma greatly increases, highlighting the importance of safe speeds in regional NSW.<sup>186</sup>

2.73 ANCAP's submission highlighted that Australian Design Rules (ADRs) are required to mandate vehicle technologies in new vehicles. It advised that under ADR 98/01, autonomous emergency braking will be fitted to all new light vehicles in Australia by 2026. Additionally, while lane support systems and reversing aids are not currently mandated, the Australian Government has released Regulation Impact

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<sup>180</sup> [2026 Road Safety Action Plan](#), p 17, viewed 9 November 2022.

<sup>181</sup> [Submission 23](#), Strathfield Council, p 3.

<sup>182</sup> [Submission 69](#), Transport for NSW, p 25.

<sup>183</sup> [Submission 69](#), Transport for NSW, p 25.

<sup>184</sup> Ms Cecchini, [Transcript of evidence](#), p 17.

<sup>185</sup> [Submission 60](#), MWRC, p 4.

<sup>186</sup> [Submission 69](#), Transport for NSW, p 25.

Statements proposing to mandate Lane Keep Assist on all new light vehicles and reversing aids on all new passenger vehicles, buses and goods vehicles by 2026.<sup>187</sup>

- 2.74 The Committee was told that Intelligent Speed Assist 'is probably the single most effective new vehicle safety technology currently available in terms of its life-saving potential' and should be mandated.<sup>188</sup>
- 2.75 The 2026 Road Safety Action Plan provides that Transport for NSW will advocate for the mandatory introduction of certain vehicle technologies in all new light vehicles entering the Australian market by 2023. The Committee notes that this includes 'lane keep assist, back-over assist, blind spot monitoring, intelligent speed assistance and more advanced autonomous emergency braking systems'.<sup>189</sup>

*Other considerations*

- 2.76 Other significant issues raised by inquiry participants in relation to vehicle technology are set out below:
- it is hard for technology to be developed that recognises all types of roads and signs.<sup>190</sup>
  - many drivers, including fleet workers, do not understand the technology in their vehicle or how to use it. Recent research undertaken at CARRS-Q showed 'that trial and error is one of the most common methods used by drivers to learn about ADAS after purchase'. Inquiry participants raised the need for more education on the use and limitations of vehicle technology, including at point of sale.<sup>191</sup>
  - drivers on regional roads may need to leave lanes to avoid hazards such as road damage, potholes, fallen debris and wildlife. Any unnecessary warnings provided by vehicle technology may be 'quickly conditioned to be ignored'.<sup>192</sup>
  - drivers may have a false sense of their driving ability and security due to their over reliance on vehicle technology and modern vehicle features. This is particularly so for younger drivers. It can lead to drivers being less aware of their travel speed, and driving faster, particularly when entering a lower speed zone, or travelling faster than is suitable for the road.<sup>193</sup>
  - the NSW Government will need to plan for the assessment, maintenance and upgrade of Australia's physical and digital road infrastructure to effectively

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<sup>187</sup> [Submission 39](#), ANCAP, pp [13-16](#).

<sup>188</sup> [Submission 34](#), 30Please, p [6](#).

<sup>189</sup> [2026 Road Safety Action Plan](#), p [23](#), viewed 9 November 2022.

<sup>190</sup> Mr Tola, [Transcript of evidence](#), p [8](#); Ms Hoorweg, [Transcript of evidence](#), p [39](#).

<sup>191</sup> [Submission 36](#), MidCoast Council, p [10](#); [Submission 47](#), NRSPP, p [2](#); [Submission 48](#), CARRS-Q, p [4](#); Mr Pryor, [Transcript of evidence](#), p [35](#).

<sup>192</sup> [Submission 60](#), MWRC, p [4](#).

<sup>193</sup> [Submission 36](#), MidCoast Council, pp [9-10](#); [Submission 41](#), Name suppressed, p [2](#); [Submission 50](#), MCC NSW, p [3](#); Mr Wheatley, [Transcript of evidence](#), p [9](#).

accommodate CAVs. ANCAP noted that the Australian Government's Office of Future Transport Technology is coordinating work to prepare for CAVs.<sup>194</sup>

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<sup>194</sup> [Submission 39](#), ANCAP, pp [19-20](#).

# Chapter Three – Heavy vehicle industry

## Impact of new technology and road design

### Summary

The heavy vehicle industry is implementing new technologies and new, safer heavy vehicles to improve road safety.

### New technology and the heavy vehicle industry

- 3.1 The Committee welcomes the implementation of new technology in heavy vehicles. It heard that newer heavy vehicles, such as those with Performance Based Standards (PBS) and less than five years old, are safer due to new technologies.
- 3.2 These technologies include Road Speed Sign Recognition technology, dash cameras, vehicle tracking technology and Advanced Emergency Braking Systems which are being mandated in Australia and will be introduced on all new heavy vehicles from November 2023. Similarly, telematics, also known as In-Vehicle Monitoring Systems (IVMS) can be installed or retrofitted in a heavy vehicle after purchase to encourage a culture of driver safety. Transport for NSW is also supporting the mandatory introduction of Intelligent Speed Adaption.<sup>195</sup>
- 3.3 The Committee heard that PBS vehicles such as B-doubles are more productive and have a lower rate of accidents. These vehicles are longer, have a greater mass and can carry a larger load, resulting in fewer vehicles delivering goods on NSW roads.<sup>196</sup>
- 3.4 The National Heavy Vehicle Regulator (NHVR) administers the PBS Scheme and encourages the uptake of these vehicles to improve road safety as they are '60 per cent safer than their conventional equivalents and improve productivity outcomes by an average of 15 to 30 per cent'. It also encourages the uptake of safety and environmental technologies in the heavy vehicle fleet through its *Heavy Vehicle Safety and Environmental Technology Uptake Plan*.<sup>197</sup>
- 3.5 BusNSW told the Committee that they support incentives to fast track the implementation of new technologies in buses. It also submitted that Transport for NSW completed market research in 2021 to identify suppliers of products and initiatives that will improve children's safety around school buses.<sup>198</sup>

<sup>195</sup> [Submission 47](#), NRSPP, Appendix: National Road Safety Partnership Program Discussion Paper: In-Vehicle Monitoring Systems (IVMS): Safety through good practice telematics, p 2; [Submission 58](#), Snowy Valleys Council, p 2; [Submission 61](#), BusNSW, p 4; [Submission 66](#), NHVR, pp 8-9; [Submission 69](#), Transport for NSW, pp 26-27; Mr O'Hara, [Transcript of evidence](#), p 47.

<sup>196</sup> [Submission 52](#), Road Freight NSW, p 3; [Submission 66](#), NHVR, pp 2, 9, Appendix: Heavy Vehicle Safety Strategy 2021-2025, p 6; Mr Raymond Hassall, Executive Director, Statutory Compliance, National Heavy Vehicle Regulator, [Transcript of evidence](#), p 42; Mr Calver, [Transcript of evidence](#), p 42; Mr O'Hara, [Transcript of evidence](#), p 47.

<sup>197</sup> [Submission 66](#), NHVR, pp 2, 9, Appendix, p 6; Mr Calver, [Transcript of evidence](#), p 42.

<sup>198</sup> [Submission 61](#), BusNSW, pp 4, 5.

- 3.6 The Committee also understands that the NSW Government's *2026 Road Safety Action Plan* encourages the implementation of low-cost retrofitted technology that will 'increase vulnerable road user detection and warning on heavy vehicles and buses' and will explore options to include 'additional critical safety features ... in future TfNSW bus procurement specifications.' As part of the Plan, Transport for NSW is also working to deliver a new Heavy Vehicle Safety Strategy in partnership with the heavy vehicle and freight industry.<sup>199</sup>

## Consult heavy vehicle industry on road design

### Summary

The heavy vehicle industry has mixed input into the design of new roads and the upgrade of existing roads.

### Recommendation 13

That Transport for NSW consult with heavy vehicle industry representative organisations when planning to upgrade existing roads and designing new roads.

### Include heavy vehicle industry in road design process

- 3.7 Based on the evidence to this inquiry, the Committee considers that the heavy vehicle industry should be consulted and have greater input into the upgrade and design of existing and new roads.
- 3.8 The Committee heard that the heavy vehicle industry has had mixed involvement in the design and upgrade of roads. Stakeholders have had input into specific projects including the Pacific Highway upgrade, Mount Ousley and the Queensland Inland Freight Route. Beyond this input, consultation has varied.<sup>200</sup>
- 3.9 NatRoad indicated that it provides input into projects in quarterly meetings with Transport for NSW and, on occasion, has been consulted on the appropriate location of bypasses. Outside of this input, it is generally not consulted. Road Freight NSW informed the Committee that it provided feedback to Transport for NSW and building contractors through roundtable consultation about rest stops for heavy vehicles in regional and rural NSW.<sup>201</sup>
- 3.10 The NHVR's Strategic Local Government Asset Assessment Project provides engineering assessments to road managers to help them understand their on-road assets and make decisions about heavy vehicle access. Although, the NHVR does not have any responsibility or role in the construction and maintenance of the road network, it does provide advice on the quality and availability of facilities. It can also provide insight on 'strategic design, network planning and upgrades to support improved freight safety and productivity outcomes.'<sup>202</sup>

<sup>199</sup> [Submission 61](#), BusNSW, pp 4-5; [Submission 69](#), Transport for NSW, pp 5-6.

<sup>200</sup> Mr Calver, [Transcript of evidence](#), p 43; Mr O'Hara, [Transcript of evidence](#), p 49; [Answers to questions on notice](#), National Heavy Vehicle Regulator, 11 October 2022, p 1.

<sup>201</sup> Mr Calver, [Transcript of evidence](#), p 43; Mr O'Hara, [Transcript of evidence](#), p 49.

<sup>202</sup> [Submission 66](#), NHVR, p 11, Appendix, p 7; Mr Hassall, [Transcript of evidence](#), p 42; [Answers to questions on notice](#), NHVR, p 1.

- 3.11 BusNSW also shares this wish for further input into the design and upgrade of roads. Although the bus industry is not directly consulted in this process, BusNSW encourages greater consultation with bus operators on road planning, management and safety. It also encourages communities to have input into road policies and plans to advocate on safety matters.<sup>203</sup>

## Education on sharing the road with heavy vehicles

### Summary

To help improve road safety, light vehicle drivers need to be better educated about how to share the road with heavy vehicles.

### Recommendation 14

That Transport for NSW implement a public campaign to educate light vehicle drivers about how to drive and navigate around heavy vehicles.

### Interaction between light and heavy vehicles

- 3.12 The Committee is concerned by the driving behaviour of light vehicle drivers around heavy vehicles and the risks they may be taking. Further education targeted at light vehicle drivers can help improve their behaviour and general road safety.
- 3.13 The Committee heard about the importance of educating light vehicle drivers on how to safely drive around heavy vehicles and share the road with them. This is particularly relevant for young drivers who are less experienced.<sup>204</sup>
- 3.14 Stakeholders told the Committee that light vehicle drivers need to be more aware about the risks associated with driving around heavy vehicles. This is because light vehicles are predominately at fault in accidents with heavy vehicles, with cars at fault 78.3 per cent of the time in this type of accident.<sup>205</sup>
- 3.15 The Committee was told that light vehicle drivers must learn that heavy vehicles have a maximum speed limit of 100 kilometres per hour and take longer to slow down and stop due to their weight. This means it can be dangerous when light vehicle drivers overtake or cut in front of a heavy vehicle without sufficient space, particularly when it is travelling on a highway or turning. Risks are also present when light vehicles travel too closely behind a heavy vehicle when it is 'negotiating a steep hill ascent or descent'. Heavy vehicles also have field of vision limitations and can impede other drivers' line of sight.<sup>206</sup>
- 3.16 Through the *We Need Space* campaign, the NHVR, in partnership with Coles, displays safety messages on truck billboards to educate road users on how to share

<sup>203</sup> [Submission 61](#), BusNSW, pp [6-7](#); Mr Threlkeld, [Transcript of evidence](#), p [49](#).

<sup>204</sup> [Submission 55](#), NatRoad, pp [6-7](#); [Submission 61](#), BusNSW, p [3](#); [Submission 66](#), NHVR, pp [7-8](#); Mr Hassall, [Transcript of evidence](#), pp [41, 43](#); Mr Calver, [Transcript of evidence](#), pp [43, 44](#); Mr O'Hara, [Transcript of evidence](#), pp [47, 50, 51](#); Mr John King, President, BusNSW, [Transcript of evidence](#), 8 September 2022, p [49](#); Mr Threlkeld, [Transcript of evidence](#), p [49](#).

<sup>205</sup> [Submission 55](#), NatRoad, pp [1, 2](#); Mr Hassall, [Transcript of evidence](#), p [41](#); Mr Calver, [Transcript of evidence](#), p [43](#).

<sup>206</sup> [Submission 60](#), MWRC, p [4](#); [Submission 64](#), Sydney University, p [3](#); [Submission 66](#), NHVR, p [7](#); [Submission 69](#), Transport for NSW, p [33](#); Mr Calver, [Transcript of evidence](#), p [44](#); Mr O'Hara, [Transcript of evidence](#), pp [50, 51](#).

the road with heavy vehicles in a safe manner. Similarly, the *Don't #uck with a truck* campaign is targeted towards L and P licence holders to teach them the rules for when driving around trucks. The campaigns are promoted through targeted events and mainstream media.<sup>207</sup>

- 3.17 BusNSW said that drivers must also learn to safely share the road with buses as school bus routes represent 90 per cent of all bus routes in regional and rural areas. School buses often have to pick up and drop off children on roads with a 100 kilometres per hour speed limit, sometimes at informal bus stops.<sup>208</sup>
- 3.18 The Committee heard that the bus industry is increasingly concerned about driver behaviour around school buses and the lack of compliance with the 40 kilometre per hour speed limit when bus lights are flashing, signifying that children are being picked up or dropped off. This is particularly concerning as a 'child is most at risk just after getting off the bus.'<sup>209</sup>
- 3.19 To increase awareness, BusNSW supports various campaigns including *Bus Safety Week*, *Be Bus Aware* and the *Slow Down to 40 when Lights Flash*. However, it notes that the majority of road safety campaigns are focussed on cars. It also continues to encourage greater enforcement of the 40 kilometre speed limit.<sup>210</sup>

## Need for more rest areas

### Summary

More rest areas with better amenities and cleanliness are needed to allow heavy vehicle drivers to manage fatigue and adhere to fatigue management practices.

### Recommendation 15

That Transport for NSW increase the number of rest areas, especially for heavy vehicle drivers, and ensure all rest areas are designed and maintained to a high standard of amenity and cleanliness.

### More rest areas to manage driver fatigue

- 3.20 The Committee considers that an increase in the number of rest areas and an improvement in their amenity and cleanliness, will greatly assist heavy vehicle drivers to manage fatigue.
- 3.21 The Committee heard evidence for an increase in the number of new rest areas and for the improvement of existing rest areas for heavy vehicles on NSW roads.<sup>211</sup>

<sup>207</sup> [Submission 66](#), NHVR, pp 7-8; Mr Hassall, [Transcript of evidence](#), p 43.

<sup>208</sup> [Submission 61](#), BusNSW, p 3; Mr Threlkeld, [Transcript of evidence](#), pp 48, 49; Mr King, [Transcript of evidence](#), p 49.

<sup>209</sup> [Submission 61](#), BusNSW, pp 3, 6; Mr Threlkeld, [Transcript of evidence](#), p 48.

<sup>210</sup> [Submission 61](#), BusNSW, pp 1, 3.

<sup>211</sup> [Submission 33](#) TWU, p 6; [Submission 44](#), NMAA, p 12; [Submission 52](#), Road Freight NSW, p 2; [Submission 60](#), MWRC, pp 4, 5; [Submission 66](#), NHVR, p 7; [Submission 68](#), Warrumbungle Shire Council, p 4; Mr Calver, [Transcript of evidence](#), p 41; Mr Hassall, [Transcript of evidence](#), p 46; Mr O'Hara, [Transcript of evidence](#), p 47; Mr Carlon, [Transcript of evidence](#), p 56.

- 3.22 Stakeholders told the Committee that rest areas are important to allow drivers to take rest breaks and reduce fatigue-related accidents and risk-taking behaviours, such as speeding.<sup>212</sup> They also help assist heavy vehicle drivers adhere to the Heavy Vehicle National law to help drivers manage fatigue, defined by the Transport Workers' Union of NSW (TWU) as:
- Fatigue at work is the outcome of mental and/or physical exhaustion that reduces a worker's ability to perform their duties safely and effectively.<sup>213</sup>
- 3.23 The law requires heavy vehicle drivers to adhere to fatigue management practices which limit the number of driving hours and mandate minimum periods of rest determined by the number of work hours. Breaches of these legal rest requirements can result in severe penalties 'including fines ranging from \$6,910 to \$17,240 and 3-4 demerit points'.<sup>214</sup>
- 3.24 These requirements reflect that NSW roads are a workplace for heavy vehicle drivers with *Persons Conducting a Business or Undertaking* (PCBU) responsible for ensuring the health and safety of their workers under work health and safety laws. As such, the need for sufficient and adequate rest areas is crucial to allow drivers and employers to meet their legal requirements.<sup>215</sup>
- 3.25 However, the Committee heard that there are not enough rest areas. This can be a challenge when route planning or when drivers have to deal with unexpected delays. In addition, light vehicles including caravans sometimes occupy heavy vehicle parking spaces, reducing space for heavy vehicles.<sup>216</sup>
- 3.26 To increase the number of rest areas, NatRoad advocated for their construction to be government mandated on all new and upgraded roads throughout Australia. Similarly, Mr Simon O'Hara, Chief Executive Officer, Road Freight NSW, told the Committee that rest areas also need to be built in metro areas to allow drivers to rest after travelling long distances from regional and rural areas.<sup>217</sup>
- 3.27 Stakeholders also advised that existing rest areas are inadequate. As part of its submission to the inquiry, the TWU provided its 2020 report of its inspection and survey of heavy vehicle rest areas (HVRAs). In addition to the issues discussed above, the inspection found that neither heavy and light vehicles or noisy and regular freight are separated at HVRAs. There is also insufficient lighting, drinking water and other facilities.<sup>218</sup>
- 3.28 For example, toilet facilities are poorly maintained and cleaned and do not have sanitary or sharps bins. Mr Richard Calver, Advisor Compliance and Workplace Relations, National Road Transport Association, told the Committee that he

<sup>212</sup> [Submission 61](#), BusNSW, p 4; [Submission 66](#), NHVR, p 7, Appendix, p 7; Mr Carlon, [Transcript of evidence](#), p 56.

<sup>213</sup> [Submission 33](#), TWU, Appendix: TWU Heavy Vehicle Rest Area Inspection & Driver Survey, p 3.

<sup>214</sup> [Submission 33](#), TWU, pp 2-3.

<sup>215</sup> [Submission 33](#), TWU, Appendix, p 7; [Submission 62](#), AIHS, p 4.

<sup>216</sup> [Submission 33](#), TWU, pp 3, 4-6, Appendix, pp 11, 17-18, 25; Mr Calver, [Transcript of evidence](#), p 44.

<sup>217</sup> Mr Calver, [Transcript of evidence](#), p 41; Mr O'Hara, [Transcript of evidence](#), p 47.

<sup>218</sup> Mr Calver, [Transcript of evidence](#), p 41; Mr O'Hara, [Transcript of evidence](#), p 47.

<sup>218</sup> [Submission 33](#), TWU, pp 4-5, Appendix, pp 9-15, 17-21, 24; [Submission 44](#), NMAA, p 12; Mr Calver, [Transcript of evidence](#), p 44; Mr O'Hara, [Transcript of evidence](#), p 47.

supports the TWU's submission. He advised that this lack of proper toilet facilities impacts the recruitment of drivers, particularly female drivers. The TWU survey also found that some drivers drive for longer periods to avoid certain HVRA with poor facilities.<sup>219</sup>

- 3.29 As a result of insufficient, full or poor rest areas, the Committee heard that heavy vehicle drivers might have to pull over on the side of the highway to rest, or drive to the next rest area, potentially exceeding their legal working hours. In addition, penalties for breaching fatigue management practices might create 'a perverse incentive ... to speed' so that a driver can reach the next HVRA within their legal work hours.<sup>220</sup>
- 3.30 In addition, the TWU report found that road signs do not display the names of HVRA as listed on the Transport for NSW Heavy Vehicle Rest Area Map which was reported to be at times inaccurate and with insufficient information for drivers. As a result, the TWU wants a comprehensive state-wide strategy on HVRA to address its concerns with these areas.<sup>221</sup>

## Road infrastructure and speed limits for heavy vehicles

### Summary

Road infrastructure should aim to support the separation of heavy and light vehicles and allow for flexibility during natural disasters and emergencies.

### The separation of heavy and light vehicles

- 3.31 As discussed earlier, improvements to road infrastructure will help improve road safety. This includes the separation of light and heavy vehicles on NSW roads. Road improvements to achieve this include road widening, truck pull over areas, dedicated lanes and 'by-pass lane access routes' so that heavy vehicles can avoid school crossing zones and high-density areas.<sup>222</sup> For example, Mr O'Hara shared that the bypasses on Mount Ousley effectively provide dedicated lanes for light and heavy vehicles.<sup>223</sup>
- 3.32 Similarly, an increase in overtaking lanes on highways will give drivers more opportunities to safely overtake slower heavy vehicles.<sup>224</sup> The issue of overtaking lanes was discussed earlier in the report.
- 3.33 In its submission, NatRoad preferred improved road infrastructure over reduced speed limits as a way to improve road safety. It commended the upgrade of the Kings Highway, linking Canberra and Batemans Bay which 'focusses heavily on

<sup>219</sup> [Submission 33](#), TWU, pp 4-5, Appendix, pp 12-13, 18-20; Mr Calver, [Transcript of evidence](#), pp 41, 44.

<sup>220</sup> [Submission 33](#), TWU, pp 3, 5, 6, Appendix, pp 17-18, 25.

<sup>221</sup> [Submission 33](#), TWU, p 6, Appendix, pp 5-6, 12, 22, 24-25.

<sup>222</sup> [Submission 32](#), UHSC, p 2; [Submission 52](#), Road Freight NSW, p 2; [Submission 55](#), NatRoad, pp 1, 2; [Submission 66](#), NHVR, p 10; Mr O'Hara, [Transcript of evidence](#), p 51; Mr Bush, [Transcript of evidence](#), p 11; Mr Scott, [Transcript of evidence](#), p 11; Mr Carlon, [Transcript of evidence](#), pp 53, 54.

<sup>223</sup> Mr O'Hara, [Transcript of evidence](#), p 51.

<sup>224</sup> [Submission 32](#), UHSC, p 2; [Submission 41](#), Name Suppressed, p 3; [Submission 60](#), MWRC, p 4; [Submission 64](#), Sydney University, p 3; Mr Bush, [Transcript of evidence](#), p 11; Mr Hassall, [Transcript of evidence](#), p 43; Mr Calver, [Transcript of evidence](#), p 44; Mr O'Hara, [Transcript of evidence](#), p 51; Mr Carlon, [Transcript of evidence](#), p 54.

construction of overtaking lanes and the installation of safety treatments including widened centrelines, widened shoulders, roadside safety barriers, and audio-tactile line marking.<sup>225</sup>

- 3.34 NatRoad also advocated for the separation of vulnerable road users including pedestrians and cyclists from heavy vehicles due to heightened risk of fatalities. It suggested restricting or excluding cyclist access to certain highways including the Pacific Highway.<sup>226</sup>
- 3.35 As noted in chapter one, Transport for NSW recognises the benefit of separating light and heavy vehicles, but the cost of this type of infrastructure is significant.<sup>227</sup>

### Natural disasters and emergencies

- 3.36 Natural disasters and emergencies must also be considered when developing road infrastructure for heavy vehicles. The Committee heard that roads require repair and upgrade following recent bushfires, flooding, and neglect throughout the pandemic. The Police Association of NSW (PANSW) also noted the need to urgently review the standards of road construction and maintenance.<sup>228</sup>
- 3.37 Looking to the future, Mr O'Hara advised that as 100-year natural disaster events occur more often, roads need to be flexible in both design and construction. This would allow greater movement during times of emergency including to support cut off communities. The need for greater flexibility was evident during the 2019 bushfires when heavy vehicles were unable to turn around when advised by NSW Police due to a lack of turning areas that could accommodate a truck and trailer.<sup>229</sup>
- 3.38 This reflects the NHVR's evidence that the design and planning of infrastructure must consider modern, larger heavy vehicles to ensure that emergency and other heavy vehicles can access properties safely and effectively. For example, PANSW advised that 'widened double separation lines ... provides emergency services vehicles with greater visibility and access when attending road incidents.'<sup>230</sup>

### Signage for heavy vehicles

- 3.39 Support for increased signage for heavy vehicles was also expressed throughout the inquiry. Mr O'Hara indicated that road signage should be correct for 'the roads that are being driven on' and consistent, noting that they can sometimes be confusing in rural and regional areas or not as effective as they could be.<sup>231</sup> Similarly, infrastructure and warning signs, such as the yellow speed corner signs, could be improved and more accurate to help heavy vehicle drivers predict the appropriate speed for corners.<sup>232</sup>

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<sup>225</sup> [Submission 55](#), NatRoad, p 1.

<sup>226</sup> [Submission 55](#), NatRoad, pp 1, 3.

<sup>227</sup> Mr Carlon, [Transcript of evidence](#), p 53.

<sup>228</sup> [Submission 52](#), Road Freight NSW, p 3; [Submission 63](#), PANSW, p 3; Mr O'Hara, [Transcript of evidence](#), pp 47, 50.

<sup>229</sup> Mr O'Hara, [Transcript of evidence](#), pp 47, 50.

<sup>230</sup> [Submission 63](#), PANSW, p 4; [Submission 66](#), NHVR, p 10.

<sup>231</sup> [Submission 8](#), Mr John Readford, p 1; Mr O'Hara, [Transcript of evidence](#), pp 47, 50.

<sup>232</sup> [Submission 55](#), NatRoad, p 5.

- 3.40 BusNSW also emphasised the importance of signage for the bus industry and expressed the need for an increase in signage for school bus routes and stops. This is particularly relevant as students are picked up and set down in isolated areas. It advocated for urgent action to address 'the lack of basic bus stop infrastructure on regional roads, such as indented bus stopping areas, shelters, signage and access to and from bus stops (including wheelchair access)'.<sup>233</sup>

*Speed limits for heavy vehicles*

- 3.41 Throughout the inquiry, stakeholders highlighted different issues relating to speed limits for heavy vehicles. The Committee heard that safe scheduling practices and journey management that provide appropriate schedules ensure that drivers are not working to unrealistic timeframes or are encouraged to speed.<sup>234</sup>
- 3.42 NatRoad advocated for all heavy vehicles to travel at the same maximum speed limit to increase road safety outcomes. This is to avoid heavy vehicles overtaking road trains due to the 10 kilometre per hour difference between their lawful speed limits.<sup>235</sup>

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<sup>233</sup> [Submission 61](#), BusNSW, pp 2, 4; Mr Threlkeld, [Transcript of evidence](#), p 50.

<sup>234</sup> [Submission 47](#), NRSPP, p 1; Mr Hassall, [Transcript of evidence](#), p 46.

<sup>235</sup> [Submission 55](#), NatRoad, pp 1, 6, 7; Mr Calver, [Transcript of evidence](#), p 44.

## Appendix One – Terms of reference

The Committee will inquire into and report on speed limits and road safety in regional New South Wales, with reference to:

- a) The impact of speed limits and travel times on driver behaviour and safety
- b) The impact of improved vehicle technology and road infrastructure
- c) The use of variable speed limits
- d) Any other related matters.

## Appendix Two – Conduct of inquiry

On 31 May 2022, the Committee resolved to conduct an inquiry into speed limits and road safety in regional NSW. Written invitations were sent to selected stakeholders and a media release was issued calling for submission by 5 July 2022.

The Committee received 71 submissions from government agencies, local councils, research bodies and academics, industry peak bodies and individuals. The full list of submissions appears in **Appendix Three**.

A hearing was conducted at Parliament House on Thursday 8 September 2022. Witnesses for the hearing appeared in person and via videoconference.

The public gallery was open at limited capacity by appointment and the hearing was broadcast live on the Parliament's website.

Witnesses who provided evidence at the public hearings are listed in **Appendix Four**.

The transcript of the public hearing, together with submissions, answers to questions on notice and additional information, are available on the inquiry's [webpage](#).

## Appendix Three – Submissions

1 Ms Narelle Pilgrim

2 Mr Simon Smith

3 Ms Gemma Thomas

4 Wally Bell

5 Mr Peter Colwell

6 Alexandra Murray

7 Mr Justin Justin

8 Mr John Readford

9 Mr Adam Commons

10 Cobar Shire Council

11 Snowy Monaro Regional Council

12 Mr Mark Curtis

13 Miss Anne Dignam

14 Walgett Shire Council

15 Cootamundra-Gundagai Regional Council

16 Mr Hamish Curtis

17 Ms Vivien Panhuber

18 Name suppressed

19 Ms Margarete Lethorn

20 Mr Tom Dimec

21 Mrs Lesley Lane

22 Mrs Kathryn Gillespie

23 Strathfield Council

24 Safe Streets to School

25 Confidential

26 Confidential

27 Jarake Wildlife Sanctuary Ltd

28 Mr Jerone Bodiam

29 Name suppressed

29a Name suppressed

30 Kiama Municipal Council

31 Regional Development Australia Southern Inland

32 Upper Hunter Shire Council

33 Transport Workers' Union of NSW

34 30Please

35 Wollondilly Shire Council

36 MidCoast Council

37 Confidential

38 Mr Rodney Blundell

39 Australasian New Car Assessment Program (ANCAP) Safety

40 NSW Driver Trainers Association

41 Name suppressed

42 Australasian College of Road Safety

43 Leeton Shire Council

44 National Motorists Association Australia

45 Amy Gillett Foundation

46 Bicycle NSW

47 National Road Safety Partnership Program

48 Centre for Accident Research and Road Safety - Queensland

49 Wingecarribee Shire Council

50      **Motorcycle Council of NSW**

51      **Mr Andy Carnahan**

52      **Road Freight NSW**

53      **Koala Koalition EcoNetwork Port Stephens**

54      **Voice of Woodville & Wallalong Incorporating BHAS Action Group**

55      **National Road Transport Association**

56      **Transurban**

57      **Austroads**

58      **Snowy Valleys Council**

59      **Mr Paul Maytom**

60      **Mid-Western Regional Council**

61      **BusNSW**

62      **Australian Institute of Health and Safety**

63      **Police Association of NSW**

64      **School of Health Sciences, University of Sydney**

65      **Orange City and Cabonne Shire Councils**

66      **National Heavy Vehicle Regulator**

67      **Local Government NSW, and Institute of Public Works Engineering (NSW & ACT)**

68      **Warrumbungle Shire Council**

69      **Transport for NSW**

70      **Vehicle Design and Research Pty Limited**

71      **Cr Hugh Eriksson**

## Appendix Four – Witnesses

**8 September 2022, Room 814-815, Parliament House, Sydney**

<b>Witness &amp; Position</b>	<b>Organisation</b>
<b>Mr Jeff Bush</b> Manager Strategic Assets, Technical Services	Upper Hunter Shire Council
<b>Mr Chris Tola</b> Road Safety Officer	
<b>Ms Norma Toweel</b> Team Leader Assets & Transport	Wollondilly Shire Council
<b>Mr Robert Scott</b> Director Infrastructure and Engineering Services	MidCoast Council
<b>Mr Richard Wheatley</b> Team Leader Transport	
<b>Ms Samantha Cecchini</b> Road Safety Officer	Mid-Western Regional Council
<b>Cr Michael Kidd</b> Deputy Mayor	
<b>Cr Tony Ciccia</b> Councillor	Leeton Shire Council
<b>Cr Darriea Turley AM</b> President	Local Government NSW
<b>Mr Shaun McBride</b> Chief Economist	
<b>Mr Joshua Devitt</b> Manager, Roads and Transport Directorate	Institute of Public Works Engineering Australasia NSW & ACT
<b>Professor Teresa Senserrick</b> Professor	Centre for Accident Research and Road Safety – Queensland
<b>Dr Sherri-Anne Kaye</b> Senior Research Fellow	
<b>Mr Paul Davies</b> General Manager Programs	Austroads
<b>Mr Michael Nieuwesteeg</b> Road Safety & Design Program Manager	

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<b>Mr Michael Lane</b> Media Liaison Officer	National Motorists Association
<b>Mr Graham Pryor</b> National Liaison Officer	Australia
<b>Ms Carla Hoorweg</b> Chief Executive Officer	Australasian New Car Assessment Program (ANCAP) Safety
<b>Mr Raymond Hassall</b> Executive Director Statutory Compliance	National Heavy Vehicle Regulator
<b>Mr Richard Calver</b> Adviser, Compliance & Workplace Relations	National Road Transport Association
<b>Mr Simon O'Hara</b> Chief Executive Officer	Road Freight NSW
<b>Mr Matt Threlkeld</b> Executive Director	BusNSW
<b>Mr John King</b> President	
<b>Mr Bernard Carlton</b> Chief - Centres for Road Safety & Maritime Safety - Safety, Environment and Regulation	Transport for NSW
<b>Ms Louise Higgins-Whitton</b> Director, Road Safety Policy	

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# Appendix Five – Extracts from minutes

## **MINUTES OF MEETING 21**

Tuesday 31 May 2022, 10:32 am

Room 1254 and via videoconference

### **Members present**

Via videoconference: The Hon. Lou Amato MLC (Chair), Mr Nathaniel Smith MP (Deputy Chair), Mr Roy Butler MP, Mr Christopher Gulaptis MP

In person: Mr Nick Lalich MP, The Hon. Shaoquett Moselmane MLC

### **Officers present**

Sam Griffith, Kieran Lewis, Rima Dabliz, Francesca Arciuli-Matar, Abegail Turingan

### **Apologies**

Mr Stephen Bromhead MP, Mrs Shelley Hancock MP, Reverend the Hon. Fred Nile MLC

#### **1. Confirmation of minutes**

Resolved, on the motion of Mr Gulaptis, seconded by Mr Smith: That the minutes of the meeting of 13 May 2022 be confirmed.

#### **2. Proposed inquiry: Inquiry into speed limits and road safety in regional NSW**

• Resolved, on the motion of Mr Butler, seconded by Mr Lalich: That the Committee does not proceed with its inquiry into speed limits and road safety, previously adopted.

• Resolved, on the motion of Mr Butler, seconded by Mr Lalich: That the Committee conduct an inquiry into speed limits and road safety in regional NSW, in accordance with the following terms of reference:

The Committee will inquire into and report on speed limits and road safety in regional NSW, with reference to:

- a) The impact of speed limits and travel times on driver behaviour and safety.
  - b) The impact of improved vehicle technology and road infrastructure.
  - c) The use of variable speed limits.
  - d) Any other related matters.
- 
- Resolved, on the motion of Mr Butler, seconded by Mr Lalich: That the Committee call for submissions to be received by 5 July 2022 and write to the listed stakeholders.
  - Resolved, on the motion of Mr Butler, seconded by Mr Lalich: That the Committee conduct a public hearing in August/September 2022.

**3. \*\*\***

**4. Next Meeting**

The meeting adjourned at 10:36 am until a time and date to be determined.

**MINUTES OF MEETING 23**

Monday 8 August 2022, 2:03 pm

Room 814/815 and via videoconference

**Members present**

The Hon. Lou Amato MLC (Chair), Mr Nathaniel Smith MP (Deputy Chair), Mr Roy Butler MP, Mr Christopher Gulaptis MP, Mrs Shelley Hancock MP, Mr Nick Lalich MP, The Hon. Shaoquett Moselmane MLC, Reverend the Hon. Fred Nile MLC

**Officers present**

Sam Griffith, Kieran Lewis, Francesca Arciuli-Matar, Abegail Turingan

**Apologies**

Mr Stephen Bromhead MP

**1. Confirmation of minutes**

Resolved, on the motion of Reverend Nile, seconded by Mr Moselmane: That the minutes of the meeting of 29 June 2022 be confirmed.

**2. \*\*\***

**3. Inquiry into speed limits and road safety in regional NSW**

**3.1 Publication of submissions**

The Committee considered the publication of submissions 1 to 69.

Resolved, on the motion of Mr Lalich, seconded by Mr Gulaptis:

- a) That the Committee publish submissions numbered 1 to 17, 19 to 24, 27, 28, 30 to 36, 38 to 40, and 42 to 69 in full.
- b) That the Committee publish submissions numbered 18, 29, 29A, and 41 with the author's name suppressed.
- c) That submissions numbered 25, 26, and 37 remain confidential to the Committee and not be published.

**3.2 Witnesses for public hearing**

Resolved, on the motion of Mr Lalich, seconded by Reverend Nile: That the Committee invite the following witnesses to give evidence at a public hearing to be held on 8 September 2022:

- i. Upper Hunter Shire Council
- ii. Wollondilly Shire Council
- iii. Midcoast Council
- iv. Leeton Shire Council

- v. Mid-Western Regional Council
- vi. Local Government NSW, and Institute of Public Works Engineering Australasia (NSW & ACT)
- vii. National Motorists Association Australia
- viii. Centre for Accident Research and Road Safety – Queensland
- ix. Austroads
- x. Australasian New Car Assessment Program (ANCAP) Safety
- xi. Road Freight NSW
- xii. National Road Transport Association
- xiii. National Heavy Vehicle Regulator
- xiv. BusNSW
- xv. Transport for NSW

4. \*\*\*

5. \*\*\*

## 6. Next Meeting

The meeting adjourned at 3:07 pm until Thursday 8 September 2022 in Room 814/815, Parliament House.

## MINUTES OF MEETING 24

Thursday 8 September 2022, 9:11 am  
Room 814/815 and via videoconference

### Members present

The Hon. Lou Amato MLC (Chair), Mr Roy Butler MP, Mr Christopher Gulaptis MP, Mr Nick Lalich MP, The Hon. Shaoquett Moselmane MLC, Reverend the Hon. Fred Nile MLC

Via videoconference: Mrs Shelley Hancock MP

### Officers present

Sam Griffith, Kieran Lewis, Francesca Arciuli-Matar, Abegail Turingan, Mohini Mehta

### Apologies

Mr Nathaniel Smith MP (Deputy Chair), Mr Stephen Bromhead MP

#### 1. Confirmation of minutes

Resolved, on the motion of Mr Moselmane: That the minutes of the meeting of 8 August 2022 be confirmed.

#### 2. Inquiry into speed limits and road safety in regional NSW

##### 2.1 Publication of late submissions

a) The Committee considered submission number 70 for publication

Resolved, on the motion of Reverend Nile: That the Committee publish submission number 70 in full.

- b) The Committee considered the email from Cr Hugh Eriksson, dated 7 September 2022, which included a copy of his presentation to the National Road and Traffic Expo in May 2022.

Resolved, on the motion of Mr Butler: That the Committee accept the copy of Cr Hugh Eriksson's presentation to the National Road and Traffic Expo as a submission and publish it in full.

## **2.2 Publication orders**

Resolved, on the motion of Reverend Nile: That the Committee authorises the audio-visual recording, photography and broadcasting of the public hearing on 8 September 2022 in accordance with the NSW Legislative Assembly's guidelines for coverage of proceedings for parliamentary committees administered by the Legislative Assembly.

## **2.3 Questions taken on notice and supplementary questions**

Resolved, on the motion of Mr Moselmane: That witnesses be requested to return answers to questions taken on notice and supplementary questions within 7 days of the date on which the questions are forwarded, and that once received, answers be published on the Committee's website.

## **2.4 Election of Temporary Deputy Chair**

Resolved, on the motion of Mr Gulaptis: That Reverend Nile be appointed as the Temporary Deputy Chair for the duration of the public hearing on 8 September 2022.

## **2.5 Public hearing**

The Committee noted that the public hearing will start at 9.20am. The Committee also noted the hearing schedule and suggested questions for witnesses.

The Chair adjourned the deliberative meeting at 9:15 am.

### **Public hearing**

The Chair opened the public hearing at 9:18 am. Witnesses attended the public hearing in person and via videoconference. The Chair made a short opening statement.

The following witnesses were admitted:

- Mr Jeff Bush, Manager Strategic Assets, Technical Services, Upper Hunter Shire Council, appearing via videoconference, was sworn and examined
- Mr Chris Tola, Road Safety Officer, Upper Hunter Shire Council, appearing via videoconference, was affirmed and examined
- Ms Norma Toweel, Team Leader Assets and Transport, Wollondilly Shire Council, appearing via videoconference, was affirmed and examined
- Mr Robert Scott, Director Infrastructure and Engineering Services, MidCoast Council, appearing in person, was affirmed and examined
- Mr Richard Wheatley, Team Leader Transport, MidCoast Council, appearing in person, was affirmed and examined.

Evidence concluded; the witnesses withdrew.

The following witnesses were then admitted:

- Ms Samantha Cecchini, Road Safety Officer, Mid-Western Regional Council, appearing via videoconference, was sworn and examined
- Cr Michael Kidd, Deputy Mayor, Leeton Shire Council, appearing via videoconference, was sworn and examined
- Cr Tony Ciccia, Councillor, Leeton Shire Council, appearing via videoconference, was sworn and examined.

Evidence concluded; the witnesses withdrew.

Mr Lalich left the hearing at 11:00 am.

The following witnesses were then admitted:

- Cr Darriea Turley AM, President, Local Government NSW, appearing in person, was affirmed and examined
- Mr Shaun McBride, Chief Economist, Local Government NSW, appearing in person, was affirmed and examined
- Mr Joshua Devitt, Manager, Roads and Transport Directorate, Institute of Public Works Engineering Australasia NSW and ACT, appearing in person, was sworn and examined.

Evidence concluded; the witnesses withdrew.

The following witnesses were then admitted:

- Prof Teresa Senserrick, Professor, Centre for Accident Research and Road Safety – Queensland, appearing via videoconference, was affirmed and examined
- Dr Sherrie-Anne Kaye, Senior Research Fellow, Centre for Accident Research and Road Safety – Queensland, appearing via videoconference, was affirmed and examined
- Mr Paul Davies, General Manager Programs, Austroads, appearing in person, was affirmed and examined
- Mr Michael Nieuwesteeg, Road Safety and Design Program Manager, Austroads, appearing in person, was sworn and examined.

Evidence concluded; the witnesses withdrew.

The following witnesses were then admitted:

- Mr Michael Lane, Media Liaison Officer, National Motorists Association Australia, appearing in person, was affirmed and examined
- Mr Graham Pryor, National Liaison Officer, National Motorists Association Australia, appearing in person, was sworn and examined.

Evidence concluded; the witnesses withdrew.

Mrs Hancock joined the hearing at 2:00 pm.

The following witness was then admitted:

- Ms Carla Hoorweg, Chief Executive Officer, Australasian New Car Assessment Program (ANCAP) Safety, appearing via videoconference, was affirmed and examined.

Evidence concluded; the witness withdrew.

The following witnesses were then admitted:

- Mr Raymond Hassall, Executive Director Statutory Compliance, National Heavy Vehicle Regulator, appearing via videoconference, was affirmed and examined
- Mr Richard Calver, Adviser, Compliance and Workplace Relations, National Road Transport Association, appearing via videoconference, was affirmed and examined.

Evidence concluded; the witnesses withdrew.

The following witnesses were then admitted:

- Mr Simon O'Hara, Chief Executive Officer, Road Freight NSW, appearing in person, was sworn and examined
- Mr Matt Threlkeld, Executive Director, BusNSW, appearing via videoconference, was affirmed and examined
- Mr John King, President, BusNSW, appearing via videoconference, was affirmed and examined.

Evidence concluded; the witnesses withdrew.

The following witnesses were then admitted:

- Mr Bernard Carlon, Chief – Centres for Road Safety and Maritime Safety – Safety, Environment and Regulation, Transport for NSW, appearing in person, was sworn and examined
- Ms Louise Higgins-Whitton, Director, Road Safety Policy, Transport for NSW, appearing in person, was sworn and examined

Evidence concluded; the witnesses withdrew.

The Chair closed the public hearing at 4:46 pm.

### **3. Post hearing deliberative meeting**

The Chair opened the deliberative meeting at 4:47 pm.

#### **3.1 Transcript of evidence**

Resolved, on the motion of Mr Butler: That the corrected transcript of evidence given on 8 September 2022 be authorised for publication and uploaded on the Committee's website.

### **4. \*\*\***

### **5. Next meeting**

The meeting adjourned at 4:48 pm until a time and date to be determined.

## **UNCONFIRMED MINUTES OF MEETING 25**

Friday, 2 December 2022, 9:13 am  
Videoconference and teleconference

**Members present**

Via videoconference: The Hon. Lou Amato (Chair), Mr Nathaniel Smith MP (Deputy Chair), Mr Roy Butler MP

Via teleconference: The Hon. Shaoquett Moselmane MLC

**Officers present**

Sam Griffith, Kieran Lewis, Francesca Arciuli-Matar, Abegail Turingan, Nathalie Pinson

**Apologies**

Mr Stephen Bromhead MP, Mrs Shelley Hancock MP, Mr Nick Lalich MP, Mr Christopher Gulaptis MP, Reverend the Hon. Fred Nile MLC

**1. Confirmation of minutes**

Resolved, on the motion of Mr Butler, seconded by Mr Smith: That the minutes of the meeting of 8 September 2022 be confirmed.

**2. \*\*\***

**3. Recording of proceedings**

Resolved, on the motion of Mr Butler, seconded by Mr Smith: That the Committee agree to record the meeting for the purposes of the secretariat preparing the minutes and that the recording be deleted once the report has been tabled.

**4. Inquiry into speed limits and road safety in regional NSW**

**4.1 Consideration of Chair's draft report**

Resolved, on the motion of Mr Moselmane, seconded by Mr Butler: That the Committee consider the Chair's draft report in globo.

Mr Moselmane moved the following amendment to the Chair's draft report:

1. That Recommendation 1 be amended to include the words "be required by legislation or regulation to" after "That Transport for NSW".

The Committee agreed to the amendment.

Resolved, on the motion of Mr Butler, seconded by Mr Smith:

- That the draft report as amended be the report of the Committee and that it be signed by the Chair and presented to the House.
- That the Chair and committee staff be permitted to correct stylistic, typographical and grammatical errors.
- That, once tabled, the report be posted on the Committee's website.

**5. \*\*\***

**6. Next Meeting**

The meeting adjourned at 9:19 am until a time and date to be determined, if required.