## **REDUCING TRAUMA ON LOCAL ROADS IN NSW**

Organisation: NSW Government

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# **NSW Government Submission**

NSW Joint Committee on Road Safety (Staysafe) Inquiry into reducing road trauma on local roads in NSW

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# Abbreviations

AEB	Autonomous Emergency Braking
ANCAP	Australasian New Car Assessment Program
AVs	Automated Vehicles
CAVs	Connected and Automated Vehicles
CSP	Community Strategic Plan
DRIVES	NSW's Licencing and Registration database
ESC	Electronic Stability Control
FT2056	Future Transport 2056
IPRF	Integrated Planning and Reporting Framework
LKA	Lane Keep Assist
NSW	New South Wales
RSO	Council Road Safety Officer
RSP2021	Road Safety Plan 2021
SINSW	School Infrastructure NSW
TAA	Transport Administration Act 1988

# **1** Preface

On 13 November 2019, the Parliamentary Joint Standing Committee on Road Safety (Staysafe) issued its Terms of Reference in relation to its Inquiry into Reducing Trauma on Local Roads, with particular reference to:

- The role of local roads in road safety and trauma;
- The effectiveness of existing road safety planning requirements, including in other jurisdictions;
- Opportunities for improving road safety planning and management on local roads, including through the Local Government Road Safety Program and Community Strategic Planning;
- The role of local communities and their representatives in identifying and delivering road safety initiatives to reduce trauma on local roads; and
- Other relevant matters.

In developing this submission, Transport from NSW sought input from the following key road safety partners:

- Department of Education
- TAFE NSW
- Office of Local Government
- State Insurance Regulatory Authority
- NSW Office of Aboriginal Affairs
- Department of Planning, Industry and Environment

Submissions and/or feedback were received from:

- Office of Local Government
- Department of Education
- Department of Planning, Industry and Environment NSW Government Architect
- NSW Police Force

## 2 Executive Summary

Each year there are over 9,000 casualties from crashes on Local and Regional roads (i.e. roads under the control of Councils). These roads account for just over half (52 per cent) of all casualty crashes on New South Wales roads.

Similar to State roads, the majority of fatalities occur on country roads, whilst the majority of serious injuries occur on metropolitan roads. Vehicle occupants account for more than half (58 per cent) of fatalities.

The Councils with the highest number of serious casualties are those with the highest resident populations. Those involved in serious crashes are locals, with the majority of people killed and seriously injured living in the Council where the crash occurred.

Councils in New South Wales are required to operate within the overarching Integrated Planning and Reporting Framework. This includes a process for Councils to develop the community's vision and priorities and assign resources to achieve the vision while balancing aspirations and affordability across the range of Council responsibilities. The centrepiece of the Integrated Planning and Reporting Framework is the 10-year Community Strategic Plan.

As part of the Integrated Planning and Reporting Framework Councils can consider local road safety needs.

Future Transport 2056 and its supporting plans, especially the Road Safety Plan 2021, set the strategic directions for road safety on all roads in New South Wales. These acknowledge the role of Councils as a key partner in delivery. Through regular interaction with residents, businesses, schools and other local organisations, Councils are well placed to plan and deliver road safety initiatives in their communities. There are a range of resources available to Councils to assist them in improving road safety.

To support Staysafe in its inquiry into reducing road trauma on local roads, this submission provides information on:

- The national and New South Wales strategic context;
- Best practice approach to road safety Safe System;
- The road trauma issue and contributing factors;
- The role of Councils;
- Current planning requirements, funding streams, and road safety programs and reforms in relation to Councils; and
- Opportunities to leverage current funding, programs and reforms to improve road safety.

# 3 Strategic road safety context

Councils have responsibility for local roads and related infrastructure that links homes to schools, shops, arterial roads and national highways.

Councils also play a key role in developing and implementing road safety policies and projects.

Ensuring that communities have a robust road safety system in place requires ongoing initiative and management by Councils.

## 3.1 Local roads defined

For the purpose of this document, the discussion of road safety issues relating to local roads (unless otherwise specified) refers to roads managed by Councils. Approximately 90 per cent of the road network (160,000 km) is under the control of Councils in New South Wales (NSW). This covers roads that are administratively 'Local' and 'Regional' roads.

Local and Regional roads account for just more than half (52 per cent) of all casualty crashes on NSW roads.

Where issues relate specifically to a particular class of road under the control of Councils (e.g. Regional road funding), this is made clear in the submission.

## 3.2 NSW road safety context

### 3.2.1 Future Transport 2056

Future Transport 2056 (FT2056) sets the NSW Government's 40-year vision, directions, and outcomes framework for customer mobility in NSW, which will guide transport investment over the longer-term. In alignment with international best practice, based on a Safe System approach FT2056 sets a longer-term aspirational vision of zero transport-related trauma by 2056.

FT2056 is being delivered through a series of supporting plans. These include:

- Services and Infrastructure Plans which set the customer outcomes for greater Sydney and regional NSW for the movement of people and freight to meet customer needs and deliver responsive, innovative services. These plans define the network required to achieve the service outcomes; and
- The Road Safety Plan 2021 (RSP2021).

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FT2056 highlights the role of Councils in a number of key areas, including:

- As a key partner for delivery of the Greater Sydney Services and Infrastructure Plan. For initiatives related to cycling paths, local road upgrades and local footpaths, Councils will be essential for delivery;<sup>1</sup>
- The role of Councils in regional areas across a range of transport modes, including air, rail and road, and the localised planning to be undertaken with Councils, other state government agencies and other stakeholders;<sup>2</sup>

https://future.transport.nsw.gov.au/sites/default/files/media/documents/2018/Greater\_Sydney\_Services\_and\_Infrastruct ure\_Plan\_0.pdf

https://future.transport.nsw.gov.au/sites/default/files/media/documents/2018/Regional NSW Services and Infrastructu re Plan 1.pdf

- Delivering the Movement and Place Framework, which guides the specific corridor and place plans (discussed further in Chapter 6); and
- The role of Councils in delivering the RSP2021.

#### 3.2.1.1 The Road Safety Plan 2021 (RSP2021)

In February 2018, the NSW Government released the RSP2021 that sets a target of a 30 per cent reduction in road fatalities by 2021. It also includes the longer-term aspirational vision set by FT2056 of zero trauma by 2056.

RSP2021 features targeted and proven initiatives to address key trends, trauma risks and the types of crashes on NSW roads.

Funding to deliver RSP2021 was announced in June 2018. The NSW Government committed to spend a record \$1.9 billion over five years (from 2018-19) to reduce the number of people killed and seriously injured on our roads, with funding to be allocated across six priority areas:

- \$640 million to the Saving Lives on Country Roads initiative, which funds infrastructure safety upgrades;
- \$250 million for the Enhanced Enforcement program, which includes 50 additional highway patrol officers in regional areas, roadside alcohol testing and a doubling of mobile drug testing; and
- \$180 million to the Liveable and Safe Urban Communities program, which aims to increase liveability and safety in urban communities through infrastructure safety upgrades for pedestrians, cyclists and other road users.

Councils are a key partner in the delivery of RSP2021 actions, including the following programs:

- Road safety infrastructure under the Safer Roads Program Saving Lives on Country Roads and Liveable and Safe Urban Communities. Following the announcement by the NSW Government of a funding boost to support road safety in June 2018, the available allocation for Councils has increased from \$50 million between 2018-19 to 2022-23, to \$190 million over this time period;
- Expanding 40km/h in High Pedestrian Activity Areas and local areas to reduce crashes and protect pedestrians;
- Identifying high risk roads and, in consultation with the community, review travel speeds where there are limited road safety features protecting people if there is a crash;
- Partnerships with community groups and industry to support grassroots Towards Zero initiatives;
- Local Government Road Safety Program delivering road safety in local communities across the state through Council Road Safety Officers (RSOs);
- Increasing the uptake of safer new and used vehicles, particularly by younger and older road users, country residents and fleet managers through new public communications; and
- Adopting the highest safety standards in connected and automated vehicle trials and early uptake, and work to deliver supporting road and regulatory conditions for new technology.

As part of the RSP2021 priority area Building a Safe Future, Councils also have a role in:

- Enhancing the core safety feature requirements for road design and road network corridor planning for different road types (including Smart Motorways) based on the road function, its star rating and the vehicle mix – including the emerging needs of connected and automated vehicles;
- Reviewing and identifying enhancements to road maintenance programs to better include low cost safety features, such as enhanced line marking, wide medians, and audio tactile (rumble) line marking in ongoing programs;
- Increasing education and training on the Safe System approach and road safety requirements for state and local road authorities who are responsible for day to day management and maintenance of roads; and
- Reviewing international safety systems and standards that help road authorities and other organisations take a robust, Safe System approach to road safety.

The following Chapters call out progress and any challenges relating to implementation of these actions and the impacts on reducing trauma on Local and Regional roads.

## 3.3 The national road safety context

The Australian Government, States and Territories are signatories to the National Road Safety Strategy 2011-2020, which recognises that Councils are an important a partner for positive road safety outcomes.

In September 2017, the Australian Government announced an independent inquiry into the effectiveness of the National Road Safety Strategy 2011-2020 (National Inquiry). The final report of the National Inquiry was released in September 2018,<sup>3</sup> and in November 2018 the Transport Infrastructure Council approved that the Australian Government lead the delivery of recommendations in the final report, in collaboration with all jurisdictions.

Supporting safety on Local and Regional roads was a key theme in recommendations in the final report of the National Inquiry (see further discussion in Chapter 6).

## 3.4 Best practice Safe System approach to road safety

The Safe System approach to road safety was first developed through the Netherlands' Sustainable Safety Strategy in the 1990s and Sweden's Vision Zero strategy in 1997 before being adopted in-principle across Australia in 2003. This approach is underpinned by the following principles:

- The human body is fragile and not designed to tolerate the impact forces experienced in a road crash;
- People are human and sometimes break the rules and make mistakes this shouldn't cost anyone their life;
- Roads, roadsides, speeds and vehicles need to be designed to avoid crashes and reduce forces if a crash happens;
- Road safety is a shared responsibility everyone; including manufacturers, policy makers, road designers, employers and road users need to make decisions that prioritise road safety; and
- Initiatives that create safe roads, speeds, people and vehicles need to be implemented together so the road system not only keeps us moving, but safe and protected.

<sup>&</sup>lt;sup>3</sup> <u>https://www.aaa.asn.au/wp-content/uploads/2018/09/NRSS-Inquiry-Final-Report-September-2018.pdf</u>

By adopting the Safe System approach to road safety, countries like the United Kingdom, Sweden, and Norway have significantly reduced their road trauma, making their road transport systems the safest in the world.

FT2056 and the RSP2021 are based on the Safe System approach. It is important that measures designed to improve safety on Local and Regional roads similarly take a Safe System approach.



A key element of the Safe System is safe speeds. The speed travelled determines:

- The risk of a crash; and
- The level of injury if a crash occurs.

The following diagram summarises the increased probability of a fatality as speed increases, by different types of crashes.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Based on Wramborg curves which illustrate "survivable" thresholds against impact speeds <u>https://austroads.com.au/latest-news/towards-safe-system-infrastructure</u>



\*\*Based on vehicle 1 speed

A Safe System approach indicates that Local and Regional roads, where pedestrians, cyclists and motorised vehicles mix, require lower speeds if vulnerable road users are to survive a collision. This was evident from the evaluation of permanent 40 km/h zones in High Pedestrian Activity Areas,<sup>5</sup> local traffic areas, and, more broadly, 40 km/h zones. The evaluation found that when comparing five years before and five years after the introduction of permanent 40 km/h zones, between 2002 and 2015, there was:<sup>6</sup>

- 100 per cent reduction in fatal crashes in High Pedestrian Activity Areas; and
- 50 per cent reduction in in fatal crashes in other permanent 40 km/h zones.

Depending on the road user mix, traffic volumes and the available safety infrastructure in the road environment, speed limit setting is one of the available effective road safety options to reduce the likelihood and severity of fatal and serious injuries on Local and Regional roads.

<sup>&</sup>lt;sup>5</sup> High Pedestrian Activity Areas are traffic calming projects to create a 40 km/h speed environment in locations with more complex traffic issues to manage compared with a typical quiet residential precinct.

<sup>&</sup>lt;sup>6</sup> <u>https://roadsafety.transport.nsw.gov.au/downloads/40kmh-speed-limits-summary-report.pdf</u>

## 3.5 Councils as roads authorities

A three-tier hierarchy is in place with Transport for NSW managing State Roads and Councils being responsible for Local and Regional roads.

Transport for NSW has legislated responsibility for the control of traffic on all roads, and has delegated some responsibility for specific traffic management issues to Councils.

In collaboration with Transport for NSW, Councils apply safety standards on Local and Regional roads. NSW currently adopts the Australian Standard and the Austroads Guides for technical requirements on road design and delivery. These technical documents can be used by Councils to make road safety based decisions for their road network.<sup>7</sup> Transport for NSW also provides Councils with a range of supportive guidance to fulfil their roles. These include summaries of arrangements with Councils (e.g. apportionment of costs), available grants, technical documents (such as technical directions, guides and manuals for road design engineering, to support them in their road and traffic role), required committees and other relevant information. Information on these is available on the Transport for NSW website. <sup>8</sup> 9

### 3.5.1 Road Authorities

Section 7 of the Roads Act 1993<sup>10</sup>(Act) states that in NSW Roads authorities are:

(1) RMS<sup>11</sup> is the roads authority for all freeways.

(2) The Minister administering the <u>Crown Land Management Act 2016</u> is the roads authority for all Crown roads.

(3) The regulations may declare that a specified public authority is the roads authority for a specified public road, or for all public roads within a specified area, other than any freeway or Crown road.

(4) The council of a local government area is the roads authority for all public roads within the area, other than -

- (a) any freeway or Crown road, and
- (b) any public road for which some other public authority is declared by the regulations to be the roads authority.

(5) A roads authority has such functions as are conferred on it by or under this or any other Act or law.

#### 3.5.2 Road classification

#### 3.5.2.1 Legal class

The Act provides for roads to be classified as Freeways, Controlled Access Roads, Tollways, State Highways, Main Roads, Secondary Roads, Tourist Roads, Transitways and State Works. The classification of a road enables Transport for NSW to exercise broad authority over some, or all, aspects of legally classified roads and to provide financial assistance to Councils. The remaining roads are 'unclassified', and are under the control of Councils.

<sup>&</sup>lt;sup>7</sup> <u>https://www.rms.nsw.gov.au/business-industry/partners-suppliers/lgr/index.html</u>

 <sup>&</sup>lt;sup>8</sup> Local Government Relations - <u>https://www.rms.nsw.gov.au/business-industry/partners-suppliers/lgr/index.html</u>
 <sup>9</sup> Guide to Traffic Generating Developments (2002) - <u>www.rms.nsw.gov.au/business-industry/partners-</u>

suppliers/documents/guides-manuals/guide-to-generating-traffic-developments.pdf
 https://www.legislation.nsw.gov.au/#/view/act/1993/33/whole#/part1/sec7

<sup>&</sup>lt;sup>11</sup> The Act is yet to be updated to reference Transport for NSW

### 3.5.2.2 Administrative class

The NSW Government, through Transport for NSW funds and manages State roads and provides funding assistance to Councils towards their management of Regional roads. Local roads are the responsibility of Councils to fund,<sup>12</sup> determine priorities and carry out maintenance.

### 3.5.3 Delegated responsibility for the control of traffic

Transport for NSW (previously Roads and Maritime Services) is the legislated body responsible for the control of traffic on all roads in NSW, although delegates certain aspects of the control of traffic on Local and Regional roads to Councils.

Traffic is controlled by the installation of prescribed traffic control devices, such as regulatory signs or traffic islands, to direct or warn traffic on roads. Transport for NSW takes responsibility for managing the primary traffic function of State roads, while Local and Regional roads are the responsibility of Councils.

This is managed via a delegation of the control of traffic from Transport for NSW to Councils. However, the ability to delegate is limited. For example:

- Transport for NSW retains responsibility for speed zoning and traffic signals on all roads across NSW;
- Councils can only authorise the implementation of certain traffic control facilities / prescribed traffic control devices on roads and road related areas within their area of operations; and
- Councils are not empowered to authorise traffic control lights.

The 'Guide to the delegation to councils for the regulation of traffic (Including the operation of Local Traffic Committees)'<sup>13</sup> was developed to provide the policy framework for Councils to exercise the traffic functions delegated to them. It outlines the delegated functions, the limitations that apply to Councils when exercising their delegated functions, the responsibilities of the various parties involved in the process, and the roles of the Local and Regional Traffic Committees. (The role of the Local Traffic Committee is discussed further in Chapter 7).

#### 3.5.4 Transport for NSW engagement with Councils

Transport for NSW interacts daily with Councils through a range of mechanisms, which include (but are not limited to):

- Committees (e.g. Regional Consultative Committees, Local Government Liaison Committee, Local Traffic Committees);
- As part of delivery of funded activities such as grants programs<sup>14</sup> and Safer Roads Program. This includes for example workshops to assist Councils to understand the Safer Roads and Australian Black Spots Programs and how to apply for funding;
- Local Government Road Safety Program liaison between Council RSOs and Transport for NSW;
- Provision of technical documents and guidelines;<sup>15</sup> and
- Provision of crash data visualisations to support road safety decision making.

<sup>&</sup>lt;sup>12</sup> They may apply for funding assistance from the Australian Government and NSW Governments.

<sup>&</sup>lt;sup>13</sup> <u>https://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/technical-manuals/Itcguidev13\_i.pdf</u>

<sup>&</sup>lt;sup>14</sup> https://www.rms.nsw.gov.au/business-industry/partners-suppliers/lgr/grant-programs/index.html
<sup>15</sup> https://www.rms.nsw.gov.au/business-industry/partners-suppliers/lgr/drattechnical.decuments/index.html

<sup>&</sup>lt;sup>15</sup> <u>https://www.rms.nsw.gov.au/business-industry/partners-suppliers/lgr/technical-documents/index.html</u>

A range of teams within Transport for NSW liaise regularly with Councils with regard to road, traffic and road safety related issues. These teams include (but are not limited to):

- Transport for NSW Local Government Coordination teams in each region engage with Councils on both an operational and strategic level in relation to:
  - o Administration of a range of local government grants;
  - Monthly reporting for all funded projects. This may include working with the Council to resolve issues; and
  - o Ad hoc engagement to assist in meeting their outcomes.
- Transport for NSW Road User Safety teams, which provide behavioural road safety advice to all Councils, including in relation to RSO activities and projects funded under the Local Government Road Safety Program. More detail is provided in Chapter 6.
- Transport for NSW Network and Safety teams, which:
  - Attend Local Traffic Committee meetings, assisting and advising on the appropriate regulatory traffic control devices for specific locations in response to identified traffic safety and efficiency issues;
  - Assisting Councils with advice on development applications including impacts on Local and Regional roads, pedestrian safety, speed zone assessment and consultation, signage and delineation improvement advice, customer liaison and general road safety advice;
  - Assisting Councils to apply the Safe System approach, providing crash data, statistics and resources;
  - Providing support with the compilation of quality projects for nomination and submission under the Safer Roads and Fatal Crash Response funding streams; and
  - Responding to and actioning customer enquiries both to Transport for NSW and Council to provide a positive outcome for each request.
- The Transport for NSW Centre for Road Safety, which provides:
  - Support and advice on funded programs;
  - Road safety crash data and support;
  - Consultation on strategic directions and reforms; and
  - Ad hoc advice and support as required.

## 3.6 Enforcement

The crash data presented in the following Chapter indicates that fatal crashes on Local and Regional roads are more likely to involve risky behaviour such as drink driving and speeding.

Enforcement is a known key factor in the Safe System approach, and can deter the unsafe behaviours that are contributing to these crashes. A challenge to safety on roads under the control of Councils is effectively deterring the unsafe behaviour.

#### 3.6.1 Police enforcement

The NSW Police Force enforces the road rules on all roads in NSW. The NSW Traffic and Highway Patrol Command play a key role in the development and dissemination of advice on all matters relating to traffic policy, development, enforcement, education and road trauma. Transport for NSW funds the Enhanced Enforcement Program, which provides funding for additional high visibility enforcement to target behaviours known to contribute to road trauma.

The NSW Police Force do not base enforcement activities on who is responsible for the road (i.e. Council versus Transport for NSW), however, their enforcement activities are based on a range of criteria which include crash history and traffic volumes. In this way it delivers high visibility enforcement, which is a proven way to deter unsafe behaviour. The NSW Police Force has the capability to conduct enforcement on all road categories and their presence is designed so that road users cannot predict enforcement activity.

## 3.6.2 Speed and red light cameras

The NSW Government operates fixed, red-light, mobile and average speed cameras at locations that meet the criteria in the NSW Speed Camera Strategy, with a focus on crash risk.<sup>16</sup> While the majority of speed and red light camera enforcement is on State roads, a significant proportion is on Local and Regional roads.

### 3.6.3 Mobile phone detection cameras

The NSW Government's Mobile Phone Detection Camera Program commenced in December 2019 and is being implemented progressively over four years, including both fixed and trailer mounted transportable cameras.

Trailer mounted transportable cameras are moved regularly across a network of approved sites that may be on all road types. As the program expands, this will include sites on Local and Regional roads, provided that the site meets selection criteria and the trailer can be safely deployed at the roadside.

## 3.6.4 Council authorised officers

In NSW, Councils can appoint authorised officers<sup>17</sup> who are able to enforce a limited number of Penalty Notice Offences under the NSW Road Rules 2014 and NSW Road Traffic (General) Regulation 2013. These include (but are not limited to):

- No Parking rules;
- T-Ways;
- Level crossings;
- Stopping on a freeway;
- Insecure or overhanging loads;
- Affixing 'do not overtake' signs to vehicles;
- Concealing a traffic control device;
- Over mass offences, driving a vehicle without a view of the road, not carrying documents in the driving compartment; and
- Exceeding the specified mass of a bridge, road or ferry.

## 3.7 Network infrastructure risk and safety

A way in which the comparative safety of roads can be assessed is by a system of star rating roads. Five star roads are the safest while one star roads are the least safe.<sup>18</sup>

<sup>&</sup>lt;sup>16</sup> <u>https://roadsafety.transport.nsw.gov.au/downloads/nsw\_speed\_camera\_strategy.pdf</u>

<sup>&</sup>lt;sup>17</sup> https://www.legislation.nsw.gov.au/#/view/regulation/2013/367/sch4

<sup>&</sup>lt;sup>18</sup> For example see <u>https://www.irap.org/how-we-can-help/?et\_open\_tab=et\_pb\_tab\_0#mytabs]0</u>

Importantly, star ratings can be used in the absence of crash data to identify the risk of the road network.

AusRAP star ratings are based on road inspection data and provide an objective measure of the level of safety 'built-in' to the road for different road user types: vehicle occupants; motorcyclists; pedestrians; and bicyclists.

The star rating assessment process uses road surveys to code the existing road design features for every 100 metres of road. Over 70 road features are analysed using an internationally accepted and evidence-based algorithm, which then determines a Safety Risk Score (SRS) for the segment of road. SRS are distributed into star rating bands.

In NSW, star rating assessments were completed for the NSW State government owned road network (approximately 20,000 kms of road) in 2014-15.

Council roads represent a further 160,000 kms of road in NSW which have not generally had a star rating assessment.

## 3.8 Road safety challenges

A 2010 Austroads report on Road Safety and Local Government Roads<sup>19</sup> noted that Councils face a number of challenges to achieve safety on roads under their management. These challenges include:

- Dealing with problems peculiar to the length and characteristics of the local network, such as extensive networks that carry low volumes of traffic, and unsealed roads;
- Flow of information and cooperation between organisations on data, such as best practice guidance in road construction and maintenance, crash data,<sup>20</sup> road condition and exposure data;
- Resource constraints, exacerbated by the age of the network and lack of funding for upgrades; and
- High rates of development and changing travel patterns creating stress on the network through increased traffic volumes.

#### 3.8.1 Country versus metropolitan roads

One-third of fatalities on Local and Regional roads happen in metropolitan areas,<sup>21</sup> and two-thirds in country areas.

Country and metropolitan Councils have the same responsibilities in regard to supporting road safety outcomes, but may face differing challenges. As well as those highlighted by Austroads report outlined above, these may also include:

- For country Councils:
  - The lower traffic volumes (which may mean fewer infrastructure safety features), is combined with the 100 km/h default rural speed limit for non-built up areas. This is reflected in fatal and serious injury crashes, with 100 km/h zones being the largest category in country areas;
  - Higher rates of speeding, drink driving and non-seat belt use in fatal crashes on Local and Regional roads in country areas;

<sup>&</sup>lt;sup>19</sup> Turner, B. Pyta, V, Woolley, J. Zhang, S *Road Safety on Local Government Roads: Final Report,* Austroads Publication AP–R359/10

Note: In NSW Transport for NSW provides extensive crash data to Councils through on line data visualisations. This however requires someone in Council to understand and use the data available to them for planning purposes, which likely varies across Councils.

<sup>&</sup>lt;sup>21</sup> Sydney metropolitan, Newcastle metropolitan and Wollongong metropolitan area.

- Resourcing challenges (both in terms of funding and staffing) for Councils covering large geographical areas and competing funding priorities;
- Level crossings (trains);
- Unsealed roads; and
- Aboriginal rural and remote communities and their road infrastructure and other road safety needs.
- For metropolitan Councils:
  - High traffic volumes;
  - High population growth leading to greater number of road users and increasing exposure to road safety risk;
  - A large number of intersections without specific safety features such as traffic light controlled right turns or roundabouts;
  - Speed limits at levels where certain crashes (e.g. pedestrian) result in severity above survivable levels; and
  - Land use that result in a mix of road user types on the same roads (trucks, pedestrians, cars), and a lack of separation of vulnerable road users from other vehicles or traffic calming features.

# 4 The role of local roads in road safety and trauma

## 4.1 Data definition

The road trauma data presented in this Chapter covers trauma on those roads with a Road Classification – Administrative variable 'Local Roads' and 'Regional Roads'.<sup>22</sup> The 2019 data is preliminary at the time of this report.

## 4.2 Summary of road trauma on Local and Regional roads

Each year there are over 9,000 casualties from crashes on Local and Regional roads.

Local and Regional roads account for more than half (52 per cent) of all casualty crashes on NSW roads, with around:

- Two-thirds of these casualty crashes being on Local roads; and
- One-third on Regional roads.

Between 2014-15 and 2018-19p there was a 25 per cent decrease in casualties on Local and Regional roads, and a similar reduction in casualties for all roads in NSW (25 per cent decrease) over the same period.

For Local and Regional roads overall:

- The majority of fatalities occur on country roads, whilst the majority of serious injuries occur on metropolitan roads;
- Vehicle occupants account for more than half (58 per cent) of fatalities;
- Most fatalities and those seriously injured are local to the Council where the crash occurred; and
- Councils with the highest number of serious casualties are those with the highest resident populations.

For Local and Regional roads compared to State roads:

- Off path on straight / curve serious casualty crashes and pedestrian serious casualty crashes are over-represented;
- The proportion of fatalities where excessive or inappropriate speed<sup>23</sup>, illegal alcohol, restraint non-usage and motorcyclist helmet non-usage is involved are over-represented; and

(b) The vehicle was performing a manoeuvre characteristic of excessive speed, that is:

<sup>&</sup>lt;sup>22</sup> This variable was added to the crash data collection in August/September 2013 and as such the 2013-14 data are under-enumerated by around 25 per cent. Six financial years 2013-14 to 2018-19p of data was used in the trend analysis.

<sup>&</sup>lt;sup>23</sup> Speeding is considered to have been a contributing factor to a road crash if that crash involved at least one speeding motor vehicle. A motor vehicle is assessed as having been speeding if it satisfies the conditions described below under (a) or (b) or both.

<sup>(</sup>a) The vehicle was described by police as travelling at excessive speed; or

The stated speed of the vehicle was in excess of that permitted for the vehicle controller's licence class or the vehicle weight (introduced 1 January 2010); or
 The stated speed of the vehicle was in excess of the speed limit.

o While on a curve the vehicle jack-knifed, skidded, slid or the controller lost control; or

The vehicle ran off the road while negotiating a bend or turning a corner and the controller was not distracted by something or disadvantaged by drowsiness or sudden illness and was not swerving to avoid another vehicle, animal or object and the vehicle did not suffer equipment failure.

• Heavy vehicle crashes are under-represented in serious casualty crashes.

Notable difference between country and metropolitan Local and Regional roads include:

- On country Local and Regional roads:
  - The majority of serious casualty crashes occur on roads with a posted speed limit of 100 km/h;
  - Around 13 per cent of serious casualty crashes on Local and Regional roads occurred on unsealed roads;
  - The leading crash type for serious casualty crashes is off path on straight / curve crashes;
  - Single vehicle serious casualty crashes are over- represented compared with State roads; and
  - All behavioural factors (e.g. inappropriate or excessive speed, drink driving) are higher than metropolitan Local and Regional roads, except for motorcycle rider helmet non-usage.
- On metropolitan Local and Regional roads:
  - The majority of serious casualty crashes occur on roads with a posted speed limit of 50 km/h or less (default urban speed limit in built up areas);
  - $\circ\;$  The leading crash type is pedestrian crashes, ahead of off path on straight crashes; and
  - Vehicle pedestrian serious casualty crashes are over-represented compared with State roads.

## 4.3 Overall trends

#### 4.3.1 Casualty crashes

Local and Regional roads account for more than half (52 per cent) of all casualty crashes on NSW roads. This includes half of all fatalities, and more than half (55 per cent) of all serious injury crashes in NSW.

Casualty Crashes in NSW, 201	3/14 to 2018/	/19p			
Road Classification, Degree o	f Crash				
		Serious	Moderate	Other / Unk	
Road classification (admin)	Fatal Crash	Injury Crash	Injury	Injury	Total
Local	611	10170	14176	7635	32592
Regional	368	5437	7544	5140	18489
State	995	12960	19416	14658	48029
Total	1974	28567	41136	27433	99110

When comparing Local versus Regional roads, around two-thirds of casualty crashes occurred on Local roads and the remainder on Regional roads.

#### 4.3.2 Casualties

Between 2014-15 and 2018-19p there was a 25 per cent decrease in casualties on Local and Regional roads, and a similar reduction in casualties for all roads in NSW (25 per cent decrease) over the same period.



## 4.3.3 Country versus metropolitan Local and Regional roads

Two-thirds of all fatalities (68 per cent) on Local and Regional roads occurred on country roads.

Fatalities on Local and Reg								
Country Areas Only								
Urbanisation	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19p	Total	
Country urban	56	52	54	59	61	63	345	
Country non-urban	62	50	69	54	63	60	358	
Metropolitan	118	102	123	113	124	123	703	

Fatalities on Local and Reg	atalities on Local and Regional Roads, 2013/14 to 2018/19p									
Metropolitan Areas Only	Vietropolitan Areas Only									
Urbanisation	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19p	Total			
Sydney metro. area	45	42	53	40	46	42	268			
Newcastle met. area	5	4	9	8	10	4	40			
Wollongong met. area	2	3	0	7	2	3	17			
Metropolitan	52	49	62	55	58	49	325			

In comparison, more than half of all serious injuries (56 per cent) on Local and Regional roads occurred on Metropolitan roads.

Serious Injuries on Local and Regi	onal Roads, 2013/	.9p					
Metropolitan Areas Only							
Urbanisation	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19p	Total
Sydney metro. area	1182	1477	1416	1425	1408	1262	8170
Newcastle met. area	112	136	124	121	137	100	730
Wollongong met. area	105	117	112	98	104	117	653
Metropolitan	1399	1730	1652	1644	1649	1479	9553

Serious Injuries on Local and Re	gional Roads, 2013/	.9p					
Country Areas Only							
Urbanisation	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19p	Total
Country urban	603	790	904	931	923	822	4973
Country non-urban	466	524	450	431	411	373	2655
Metropolitan	1069	1314	1354	1362	1334	1195	7628

## 4.4 Road users

## 4.4.1 Type of road user

Vehicle occupants account for more than half (58 per cent) of fatalities on Local and Regional roads.

Drivers account for the largest category for fatalities (43.9 per cent) on Local and Regional roads, followed by significant contributions from vulnerable road users such as motorcyclists (19.5 per cent), pedestrians (18.6 per cent) and pedal cyclists (3.6 per cent).

Fatalities on Local and Reg	gional Road	ls, 2013/14	to 2018/19	р		
Road User Class, Gender						
	Ger	nder		% of Total		
Road user class	Male	Female	Total	Male	Female	Total
Driver	343	108	451	33.4%	10.5%	43.9%
Passenger	86	63	149	8.4%	6.1%	14.5%
Motorcyclist	192	8	200	18.7%	0.8%	19.5%
Pedestrian	117	74	191	11.4%	7.2%	18.6%
Pedal Cyclist	34	3	37	3.3%	0.3%	3.6%
Total	772	256	1028	75.1%	24.9%	100.0%

In comparison with State roads, fatalities on Local and Regional roads are higher among vulnerable road users - motorcyclists (19.5 per cent versus 15.7 per cent), pedestrians (18.6 per cent versus 14.2 per cent) and pedal cyclists (3.6 per cent versus 1.5 per cent).

Males accounted for the over-representation for motorcyclist and pedal cyclist fatalities, and females for the over-representation for pedestrian fatalities.

## 4.4.2 Age and gender

In comparison with the age group and gender of fatalities on State roads, fatalities on Local and Regional roads are more likely to be male (75.1 per cent versus 70.2 per cent), particularly for males aged under 30 years (25.5 per cent versus 18.9 per cent).

Fatalities on Local and Re	gional Roads	s, 2013/14 t	o 2018/19	р		
Age Group, Gender						
	Gen	der		% of	Total	
Age Group	Male	Female	Total	Male	Female	Total
0-4	10	3	13	1.0%	0.3%	1.3%
5-16	32	13	45	3.1%	1.3%	4.4%
17-20	80	30	110	7.8%	2.9%	10.7%
21-25	88	16	104	8.6%	1.6%	10.1%
26-29	52	9	61	5.1%	0.9%	5.9%
30-39	97	24	121	9.4%	2.3%	11.8%
40-49	107	22	129	10.4%	2.1%	12.5%
50-59	100	33	133	9.7%	3.2%	12.9%
60-69	79	36	115	7.7%	3.5%	11.2%
70-79	58	28	86	5.6%	2.7%	8.4%
80+	68	42	110	6.6%	4.1%	10.7%
Unknown	1	0	1	0.1%	0.0%	0.1%
Total	772	256	1028	75.1%	24.9%	100.0%

#### 4.4.3 Local road users

Almost two-thirds (64 per cent) of all serious casualties on Local and Regional roads across NSW resided in the same Council as the crash. For some road user groups, pedestrians (71 per cent) and pedal cyclists (70 per cent), the percentage was even higher.

In contrast, only 41 per cent of serious casualties on State roads were residents of the Council area where the crash occurred.

## 4.5 Comparison of Council areas

A list of all Councils and the number of serious casualties since 2013-14 to 2018-19p can be found at Appendix A. Councils with the highest rankings are the larger urban Councils with the highest resident populations.

For example, Canterbury-Bankstown had 941 serious casualties between 2013-14 and 2018-19p which includes 23 fatalities.

The lowest level of casualties over the period was Balranald (2 serious injuries), followed by Berrigan with 5 serious casualties (3 fatalities and 2 serious injuries).

## 4.6 Factors contributing to crashes and/or crash outcomes

Taking a Safe System approach to understanding the factors that contribute to crashes and crash outcome, the following section examines known vehicle, road user, road, and speed factors.

#### 4.6.1 Vehicles

#### 4.6.1.1 Age of passenger vehicles

Older vehicles are more likely to lack the latest safety avoidance technologies.

Vehicles registered in country areas are on average 2 years older than those in metropolitan areas. Since June 2013 the average age of vehicles in country NSW has been largely unchanged whilst there has seen a slight reduction in metropolitan NSW.

Details of the average age of the car / light truck vehicle fleet in NSW by urbanisation over the period June 2013 to June 2019 are in the table below.

Mean Vehicle Age	e: Country vs Metrop	olitan	
for Cars and Light	Trucks		
	Mean Vehicle Age	e as at	
	End of Quarter		
End of Quarter	COUNTRY	METROPOLITAN	
30 June 2013	10.6	9.0	
30 June 2014	10.7	8.9	
30 June 2015	10.7	8.9	
30 June 2016	10.7	8.8	
30 June 2017	10.6	8.8	
30 June 2018	10.6	8.7	
30 June 2019	10.7	8.8	
* Country and Me	tropolitan are based	on urbanisation	
* Vehicles restrict	ed to those where		
- nominated cor	nfiguration is blank (i	e light vehicles with G	VM<4.5T); and
- DRIVES vehicle	e type is Sedan, Panel	Van or Rigid Truck	

## 4.6.1.2 *Types of vehicles*

The majority of vehicles involved in serious casualty crashes on Local and Regional roads were cars / car derivatives, followed by light trucks.

Drivers and Riders Involv	ed in Serious C	asualty Crashe	s on Local and	Regional Roads	s, 2013/14 to 20	)18/19p			
Degree of Crash, Urbani	sation, Traffic U	nit Type							
		Metropolitan			Country			All NSW	
		Serious			Serious			Serious	
TU type group	Fatal Crash	Injury Crash	Total	Fatal Crash	Injury Crash	Total	Fatal Crash	Injury Crash	Total
Car/car derivative	252	457	9316	4862	9568	5319	5114	10025	14635
Light truck	32	165	1121	1277	1153	1442	1309	1318	2563
Heavy rigid truck	20	35	149	125	169	160	145	204	309
Articulated truck	3	17	41	100	44	117	103	61	158
Bus	15	5	138	49	153	54	64	158	192
Other motor vehicle	7	14	197	119	204	133	126	218	330
Motorcycle	52	153	1837	1868	1889	2021	1920	2042	3858
Total	381	846	12799	8400	13180	9246	8781	14026	22045

The incidence of heavy vehicle<sup>24</sup> involved crashes on Local and Regional roads is low compared with the incidence of heavy vehicle crashes on State roads. For example, 4 per cent of serious casualty crashes on Local and Regional roads across the State involve a heavy vehicle compared with 12 per cent of serious casualty crashes on State roads.

Incidence of Heavy Vehicle	cidence of Heavy Vehicle Serious Casualty Crashes, 2013/14 to 2018/19p										
Degree of Crash, Urbanisation											
		Metropolitan		Country			All NSW				
		Serious			Serious			Serious			
Type of Road	Fatal Crash	Injury Crash	Total	Fatal Crash	Injury Crash	Total	Fatal Crash	Injury Crash	Total		
Local And Regional Roads	13%	4%	4%	8%	4%	4%	10%	4%	4%		
State Roads	27%	10%	10%	26%	13%	15%	26%	11%	12%		

Where a heavy vehicle is involved in a serious casualty crash it is more likely to be a fatal crash. On Local and Regional roads in metropolitan areas 13 per cent of fatal crashes involved a heavy vehicle, and 8 per cent in country areas (see table below), compared to 4 per cent of serious injury crashes.

The majority of heavy vehicle crashes involve a heavy truck.

Serious Casualty Crashes on	Local and Reg	gional Roads, 2	2013/14 to 20	18/19p					
Degree of Crash, Urbanisation									
	Metropolitan		Metropolitan		Country				
		Serious			Serious			Serious	
Heavy Vehicle Crash?	Fatal Crash	Injury Crash	Total	Fatal Crash	Injury Crash	Total	Fatal Crash	Injury Crash	Total
Yes	42	347	389	56	269	325	98	616	714
Yes %	13%	4%	4%	8%	4%	4%	10%	4%	4%
No	270	8542	8812	611	6449	7060	881	14991	15872
Total	312	8889	9201	667	6718	7385	979	15607	16586

## 4.6.2 Roads

#### 4.6.2.1 Intersections

A slight majority of serious casualty crashes on Local and Regional roads in the metropolitan areas occur at intersections whilst a significant majority of serious casualty crashes on Local and Regional roads in the country areas occur at non-intersection locations.

<sup>&</sup>lt;sup>24</sup> A heavy vehicle crash is a crash which involves at least one heavy rigid truck, articulated truck or a heavy bus.

Serious Casualty Cra	shes on Local and	<b>Regional Roads</b>	, 2013/14 to 201	8/19p					
Degree of Crash, Urbanisation, Location Type									
	Metropolitan				Country			All NSW	
		Serious Injury			Serious Injury			Serious Injury	
Location Type	Fatal Crash	Crash	Total	Fatal Crash	Crash	Total	Fatal Crash	Crash	Total
Intersection	117	4562	4679	69	1590	1659	186	6152	633
Non-intersection	195	4327	4522	598	5128	5726	793	9455	1024
Total	312	8889	9201	667	6718	7385	979	15607	1658

These results are also generally reflected in serious casualty crashes on State roads.

#### 4.6.2.2 Unsealed roads

The overwhelming majority of serious casualty crashes on Local and Regional roads (94 per cent) occur on sealed roads. However in country areas around 13 per cent of serious casualty crashes on Local and Regional roads occurred on unsealed roads.

Serious Casualty Crash	es on Local and	Regional Roads	, 2013/14 to 201	8/19p						
Degree of Crash, Urbanisation, Road Surface										
		Metropolitan			Country		All NSW			
		Serious Injury			Serious Injury			Serious Injury		
Road Surface	Fatal Crash	Crash	Total	Fatal Crash	Crash	Total	Fatal Crash	Crash	Total	
Sealed	312	8837	9149	582	5858	6440	894	14695	15589	
Unsealed	0	50	50	85	858	943	85	908	993	
Unknown	0	2	2	0	2	2	0	4	4	
Total	312	8889	9201	667	6718	7385	979	15607	16586	

#### 4.6.2.3 Crash type – 'road user movement'

Across the whole of the State 'off path on straight / curve' crashes account for almost half (49 per cent) of fatal crashes and 42 per cent of serious injury crashes on Local and Regional roads, followed by pedestrian crashes (19 per cent of fatal crashes and 14 per cent of crashes).

However, there are variations by degree of crash and urbanisation.

For example, the leading crash type in metropolitan fatal crashes is pedestrian crashes (40 per cent). The high number of pedestrian crashes reflects the high number and mix of pedestrians and other vehicles on metropolitan Local and Regional roads. (Note: Road features such as High Pedestrian Activity Area treatments, for example, can reduce the incidence and severity of these types of crashes).

In contrast, on country Local and Regional roads, off path on straight / curve crashes account for the majority (60 per cent) of serious casualty crashes. Another one in six (16 per cent) of fatal crashes on Local and Regional roads in country NSW involve a head on (not overtaking) road user movement. (Note: Barrier protection, for example, can reduce the severity of outcomes from these types of crashes).

Serious Casualty Crashes on Lo	cal and Regio	nal Roads, 20	13/14 to 2018	/19p					
Degree of Crash, Urbanisation	, Road User N	lovement							
		Metropolitan			Country			All NSW	
		Serious			Serious			Serious	
RUM group (detailed)	Fatal Crash	Injury Crash	Total	Fatal Crash	Injury Crash	Total	Fatal Crash	Injury Crash	Total
Pedestrian	126	1788	1914	56	438	494	182	2226	2408
Cross Traffic	9	775	784	12	361	373	21	1136	1157
Other Turning Adjacent	3	579	582	8	178	186	11	757	768
Head On (Not O'Taking)	27	373	400	108	464	572	135	837	972
Other Turning Opposite	9	838	847	13	173	186	22	1011	1033
Rear End	15	576	591	11	256	267	26	832	858
Lane Side Swipe / Change	2	129	131	1	48	49	3	177	180
Other Turn Side Swipe	2	103	105	4	29	33	6	132	138
Manoeuvring	15	806	821	12	303	315	27	1109	1136
Overtaking	4	92	96	13	87	100	17	179	196
On Path	8	187	195	18	271	289	26	458	484
Off Path, on Straight	52	1691	1743	165	1624	1789	217	3315	3532
Off Path, on Curve or Turning	36	860	896	233	2399	2632	269	3259	3528
Miscellaneous / Unknown	4	92	96	13	87	100	17	179	196
Total	312	8889	9201	667	6718	7385	979	15607	16586

The following table details first impact crash type for serious casualty crashes on Local and Regional roads in NSW.

The table shows that multi vehicle serious casualty crashes are more prominent in the metropolitan areas whilst single vehicle serious casualty crashes are more prominent in the country areas. Vehicle – pedestrian fatal crashes account for 40 per cent of fatal crashes in the metropolitan areas.

Serious Casualty Crashes on L	erious Casualty Crashes on Local and Regional Roads, 2013/14 to 2018/19p										
Degree of Crash, Urbanisation	, First Impact	Туре									
		Metropolitan			Country			All NSW			
		Serious			Serious			Serious			
First Impact Type	Fatal Crash	Injury Crash	Total	Fatal Crash	Injury Crash	Total	Fatal Crash	Injury Crash	Total		
Single-vehicle	84	1871	1955	406	3896	4302	490	5767	6257		
Multi-vehicle	97	5119	5216	184	2085	2269	281	7204	7485		
Vehicle-pedestrian	126	1788	1914	56	438	494	182	2226	2408		
All others	4	99	103	20	278	298	24	377	401		
Unknown	1	12	13	1	21	22	2	33	35		
Total	312	8889	9201	667	6718	7385	979	15607	16586		

Compared with the incidence of serious casualty crashes on State roads, vehicle pedestrian serious casualty crashes in the metropolitan areas (21 per cent versus 13 per cent) and single vehicle serious casualty crashes in the country areas (58 per cent versus 51 per cent) are over- represented on Local and Regional roads.

#### 4.6.3 Speeds

#### 4.6.3.1 Speed zones

The speed zone category with the most fatal and serious injury crashes for Local and Regional roads in country areas is 100 km/h roads (with 137 fatal crashes and 2062 serious injury crashes over the period). Note: 100 km/h is the default rural speed limit for non-built up areas (e.g. rural undivided roads with sealed pavement).

For metropolitan Local and Regional roads, the majority of serious casualty crashes occur on roads with a posted speed limit of 50 km/h or less. Compared with State roads, the incidence of serious casualty crashes on Local and Regional roads with a posted speed limit of 50 km/h or less is over-represented (54 per cent versus 9 per cent). This is a reflection of the greater prevalence of low speed zones on Local and Regional roads (where the default urban speed limit is 50 km/h).

Serious Casualty Cra	ashes on Local and	Regional Roads	, 2013/14 to 201	8/19p					
Degree of Crash, Urbanisation, Speed Limit									
		Metropolitan			Country			All NSW	
		Serious Injury			Serious Injury			Serious Injury	
Speed Limit	Fatal Crash	Crash	Total	Fatal Crash	Crash	Total	Fatal Crash	Crash	Total
40 and Under	22	694	716	9	145	154	31	839	870
50	177	5642	5819	126	2163	2289	303	7805	8108
60	85	2211	2296	46	821	867	131	3032	3163
70	14	179	193	15	140	155	29	319	348
80	12	133	145	137	1223	1360	149	1356	1505
90	1	14	15	21	141	162	22	155	177
100	1	15	16	309	2062	2371	310	2077	2387
110	0	0	0	4	18	22	4	18	22
Unknown	0	1	1	0	5	5	0	6	6
Total	312	8889	9201	667	6718	7385	979	15607	16586

#### 4.6.3.2 Speeds travelled

Excessive or inappropriate speed is a factor in 44 per cent of fatalities on Local and Regional roads. This is higher than for fatalities on State roads (37 per cent).

The incidence is higher for country Local and Regional Roads (50.5 per cent) than for metropolitan Local and Regional Roads (31 per cent) of excessive or inappropriate speed.

#### 4.6.4 People

#### 4.6.4.1 *Licence Status*

The majority of drivers and riders involved in serious casualty crashes on Local and Regional roads are standard licence holders (64 per cent across all NSW).

However, when compared with the distribution of drivers and riders involved in serious casualty crashes on State roads, it is the less experienced licence holders (learner and provisional – 17 per cent versus 14 per cent) and unauthorised licence holders (5 per cent versus 3 per cent) who are over-represented. Unauthorised drivers and riders also have an elevated presence in serious casualty crashes on Local and Regional roads in the country areas of NSW and fatal crashes

<b>Drivers and Riders Ir</b>	nvolved in Seriou	s Casualty Cras	hes on Local a	nd Regional R	oads, <b>2013/14</b> t	to 2018/19p			
Degree of Crash, Url	banisation, Licen	ce Status							
		Metropolitan			Country			All NSW	
		Serious			Serious			Serious	
Licence status	Fatal Crash	Injury Crash	Total	Fatal Crash	Injury Crash	Total	Fatal Crash	Injury Crash	Total
Learner	12	332	344	15	314	329	27	646	673
Provisional P1	26	813	839	55	645	700	81	1458	1539
Provisional P2	24	976	1000	46	571	617	70	1547	1617
Standard	246	8385	8631	544	5067	5611	790	13452	14242
Unauthorised	28	518	546	73	539	612	101	1057	1158
Other or Police	0	17	17	1	8	9	1	25	26
Unknown	45	1758	1803	112	1256	1368	157	3014	3171
Total	381	12799	13180	846	8400	9246	1227	21199	22426

#### 4.6.4.2 Behaviour

Compared with State roads, fatalities on Local and Regional roads are over-represented for:

- Excessive or inappropriate speed (44 per cent versus 37 per cent);
- Illegal alcohol (21 per cent versus 10 per cent);
- Restraint non-usage (22 per cent versus 8 per cent); and
- Motorcyclist helmet non-usage (11 per cent versus 1 per cent).

All behavioural factors for fatalities are higher on country compared to metropolitan Local and Regional roads, except for motorcycle helmet non-usage. That is:

- Excessive or inappropriate speed (50.5 per cent on country versus 31 per cent on metropolitan Local and Regional roads);
- Fatigue (19 per cent versus 8 per cent);
- Illegal alcohol (26 per cent versus 11 per cent);
- Illicit drug (presence) (21.5 per cent versus 11 per cent);
- Restraint non-usage (24 per cent versus 14 per cent);
- Motorcyclist helmet non-usage (11 per cent versus 12 per cent); and
- Pedal cyclist helmet non-usage (14 per cent versus 13 per cent).

Fatalities on Local and Regional Roads, 2013/14 to 2018/19p								
Behavioural Factor								
Behavioural Factor	Number	%						
Excessive or inappropriate speed	456	44.4%						
Fatigue	161	15.7%						
Illegal Alcohol	215	20.9%						
Illicit Drug (Presence)	187	18.2%						
All Fatalities	1028							
Veh Occup Restraint Non Usage#	130	21.7%						
Helmet Non Usage (Motorcyclists)#	22	11.0%						
Helmet Non Usage (Pedal Cyclists)#	5	13.5%						
# Note: percentage calculated on total fataliti	es for road	user class						

## 4.7 Cost of road trauma on Local and Regional roads

Over the last five financial years 2014-15 to 2018-19p the total average cost of casualties in NSW was estimated to be around \$8.8 billion per annum.

Around 30 per cent of this average cost per annum (\$2.6 billion) was from serious injuries (hospitalisations) not matched to a police crash report, therefore it cannot be determined if these occurred on Local and Regional roads.

Of the \$6.2 billion cost where the type of road is known, Local and Regional roads represent at least \$3.1 billion in road trauma costs per annum in NSW. The majority of this (\$1.7 billion) is in country areas, and the remainder (\$1.5 billion) in metropolitan areas.<sup>25 26</sup>

<sup>&</sup>lt;sup>25</sup> Crashes where the location and road classification is known represent 70 per cent of crashes.

<sup>&</sup>lt;sup>26</sup> Estimated costs of trauma are calculated from published Transport for NSW economic parameters and these costs have been rounded. Values are expressed in June 2019 dollars



# 5 The effectiveness of existing road safety planning requirements, including in other jurisdictions

## 5.1 Overarching planning requirements

Councils in NSW are required to operate within the overarching Integrated Planning and Reporting Framework (IPRF). This includes a process for Councils to develop the community's vision and priorities and assign resources to achieve the vision while balancing aspirations and affordability across the range of Council responsibilities.

The Figure below illustrates the IPRF.



The IPRF assists Councils to effectively plan for the financial, asset and workforce resources they will need to deliver the communities aspirations and the Council's strategic priorities, as well those identified in state and local strategic plans.

The centrepiece of the IPRF is the 10-year Community Strategic Plan (CSP) which is the highest level of strategic planning undertaken by a Council and contains the community's vision, strategic directions and measurable outcomes.

The CSP is used to develop Council's four-year Delivery Program and 12-month Operational Plan. It is important to note that activities in the Delivery Program and Operational Plan must come from strategic directions outlined in the CSP. Preparation of the CSP is required to consider all relevant state and local strategic plans, and Councils are encouraged to engage with state agencies in the development of the CSP to ensure that state priorities are considered. Councils will be looking to commence the development/review of their CSPs from mid-2020, and will look for opportunities to engage with state agencies in the development of their vision and priorities for the future.

## 5.2 Road safety specific planning

As part of the IPRF, Councils can undertake integrated local road safety planning. This provides an opportunity to integrate road safety objectives and actions into the broader framework of the Council's Community Strategic Plan.

Integrated local road safety planning is important for effective and systematic allocation of funds to address local road safety problems and to allow evaluation of progress towards well-defined goals.

Responding effectively to local road safety issues requires Council planners and practitioners to have a thorough understanding of the Safe System approach, the interconnectedness of the Safe System pillars and the range of road safety interventions available under them.

## 5.3 Funding sources

Road safety related funding for Councils is primarily provided by:

- The Australian Government, through: the identified Council component of Financial Assistance Grants; the Roads to Recovery grants program; the Australian Government Black Spot Programme, and; the Heavy Vehicle Safety and Productivity Program;
- The NSW Government through the: Safer Roads Program; and Local Government Road Safety Program; Block Grants for Regional roads, and; special purpose grants for Local and Regional roads; and
- A Council's own funding streams.

In terms of planning and delivering road safety benefits, it is important to note that only specific funding streams have explicit road safety criteria or require explicit road safety benefits realisation.

That is, funding programs such as the NSW Safer Roads Program and Australian Government Black Spot Programme prioritise projects for funding based on estimated road safety benefits, which include the number of fatal and serious injuries saved per project.

## 5.3.1 Australian Government funding

#### 5.3.1.1 Financial Assistance Grants

The Financial Assistance Grant<sup>27</sup> program consists of two components:

- A general purpose component which is distributed between the states and territories according to population (i.e. on a per capita basis); and
- An identified local road component which is distributed between the states and territories according to fixed historical shares.

In NSW the Local Government Grants Commission allocates these funds. Although there are two separately identified grant components, the total funds are paid to Councils as

<sup>&</sup>lt;sup>27</sup> National principles for the allocation of grants under the Local Government (Financial Assistance) Act 1995

unconditional grants. The Council therefore has autonomy in deciding how the funds should be spent.<sup>28</sup>

#### 5.3.1.2 Local and State Government Road Safety Package

The Australian Government as part of the 2019-20 budget packaged a number of grants and announced an additional \$2.2 billion for a Road Safety Package of funding for Local and State Government. <sup>29,30</sup> Whilst being important funding, currently road safety outcomes are not a requirement for these programs apart from the Australian Government Black Spot program.

The funding programs under the Road Safety Package of funding for Local and State Government are:

- Black Spot Program.<sup>31</sup> The Black Spot Program is a road safety program. Funding is mainly available for the treatment of Black Spot sites, or road lengths, with a proven history of crashes. All NSW bids and therefore Australian Government blackspot funding in NSW has been allocated to Council projects since 2017-18. This means that the allocation Councils receive from the Australian Government has significantly increased. In total, this has resulted in \$71 million in Council projects under the Australian Government Black Spot Program between 2017-18 to 2019-20 (to date);
- Roads to Recovery.<sup>32</sup> This funding supports the maintenance of local road infrastructure. The Program's 2017 Statement of Expectations<sup>33</sup> 'encouraged' Councils to give greater priority to road safety projects, and asked them to provide additional information on the benefits and outcomes of each project. Information on the impact of the Statement of Expectations on road safety priorities is not currently publicly available;
- Bridges Renewal Program.<sup>34</sup> Round four funding was provided to Councils for projects that 'would enhance access for local communities and facilitate higher productivity vehicle access.' The Program does not currently require measurable road safety benefits realisation; and
- Heavy Vehicle Safety and Productivity Program.<sup>35</sup> This funds infrastructure projects that improve the productivity and safety outcomes of heavy vehicle operations across Australia. The Program also does not currently require measurable road safety benefits realisation.

#### 5.3.2 NSW Government funding for local road safety

There are a number of funding streams available to Councils that can be used to improve road safety on Local and Regional roads.

The main programs that directly fund road safety outcomes through Councils are the Safer Roads Program, and the Local Government Road Safety program.

<sup>&</sup>lt;sup>28</sup> <u>https://www.olg.nsw.gov.au/node/714</u>

<sup>&</sup>lt;sup>29</sup> www.budget.gov.au/2019-20/content/community.htm

<sup>&</sup>lt;sup>30</sup> www.investment.infrastructure.gov.au/key\_projects/initiatives/local-and-state-government-roadsafety-package.aspx

<sup>&</sup>lt;sup>31</sup> <u>https://investment.infrastructure.gov.au/infrastructure\_investment/black\_spot/index.aspx</u>

 <sup>&</sup>lt;sup>32</sup> www.investment.infrastructure.gov.au/infrastructure\_investment/roads\_to\_recovery/index.aspx
 <sup>33</sup> https://investment.infrastructure.gov.au/infrastructure\_investment/roads\_to\_recovery/roads-to-

recovery-statement-expectations.aspx

https://investment.infrastructure.gov.au/infrastructure\_investment/bridges\_renewal.aspx
 https://investment.infrastructure.gov.au/infrastructure\_investment/bridges\_renewal.aspx

https://investment.infrastructure.gov.au/infrastructure\_investment/heavy\_vehicle\_safety\_and\_pr oductivity.aspx

#### 5.3.2.1 Safer Roads Program

The Safer Roads Program prioritises funding to develop and deliver road safety infrastructure projects across NSW.

The Safer Roads Program identifies roads and roadsides with a higher risk or incidence of high-severity crashes, or crashes involving vulnerable road users. Targeted infrastructure projects at these locations use engineering treatments to reduce the occurrence and severity of crashes.

In June 2018, the NSW Government announced a record funding boost to deliver the RSP2021, including:

- \$640 million to Saving Lives on Country Roads, which delivers infrastructure safety upgrades; and
- \$180 million to the Liveable Safer Urban Communities, which delivers infrastructure safety upgrades for pedestrians, cyclists and other road users.

This increased the available allocation for Councils from \$50 million between 2018-19 to 2022-23, to \$190 million over this time period. This includes:

- \$148 million for Safer Roads Saving Lives on Country Roads; and
- \$42 million for Safer Roads Liveable Safe Urban Communities.

#### 5.3.2.2 Local Government Road Safety Program

The RSP2021 recognises the critical role Councils play in reducing road trauma and includes a commitment to continue delivering and refining the Local Government Road Safety Program.

Funding is available for approved Councils to:

- Employ an RSO whose tasks will include applying for road safety project funding; and
- Support road safety projects to address identified local road safety issues.

Opportunities from the Local Government Road Safety Program are discussed in Chapter 6.

#### 5.3.2.3 Road infrastructure funding

There are also a number of NSW Government programs that provide Councils with funding to improve road infrastructure. These funding streams include, but are not limited to:

- Stronger Communities Fund.<sup>36</sup> This is for new and upgraded community facilities including roads. Current grants<sup>37</sup> include for actions such as bitumen sealing of roads;
- Fixing Country Roads.<sup>38</sup> The funding is for projects on Council managed roads and bridges that provide benefits to the movement of freight. The assessment criteria include access, productivity and safety benefits, growth and economic benefits, strategic alignment and deliverability and affordability;

<sup>&</sup>lt;sup>36</sup> <u>https://www.olg.nsw.gov.au/content/funding-nsw</u>

<sup>&</sup>lt;sup>37</sup> https://www.olg.nsw.gov.au/sites/default/files/Council%20Major%20Grants.pdf

<sup>&</sup>lt;sup>38</sup> <u>https://www.transport.nsw.gov.au/projects/programs/fixing-country-roads</u>

- Regional Road Block Grants.<sup>39</sup> These are Transport for NSW grants to Councils as a contribution towards the cost of works on Regional Roads, under the terms of the Block Grant Agreement. Every Council has entitlement to an annual block grant;
- Regional Road REPAIR program.<sup>40</sup> The REPAIR program provides additional funds for high merit projects to supplement block grants; and
- Fixing Local Roads and Fixing Country Bridges. The funding guidelines<sup>41</sup> highlight safety as one of the benefits of the program. The assessment criteria and weighting includes safety; however, higher weighting is given to 'Local road importance; Typical Daily Traffic Volumes, Heavy vehicles per day, and the condition of the road.'

## 5.4 Speed management

As outlined earlier, safe speeds are a key element of the Safe System, and a key determinant of crash outcomes. Transport for NSW sets speed limits in NSW. That is, while Transport for NSW has delegated the installation of certain prescribed traffic control devices to Councils it has not delegated to Councils the installation of speed limits, speed zone signs or traffic control signals on NSW roads.<sup>42</sup>

The NSW Speed Zoning Guidelines provide a state-wide point of reference to ensure consistent application of speed limits throughout NSW and make the roads and the roadside environment safer for all road users.<sup>43</sup>

A number of Councils identified reducing speed limits in local areas as an area of focus as part of their planning. Councils can request that Transport for NSW make changes to speed zones on roads in their area.

The RSP2021 recognises the importance of appropriate speeds by setting a priority action of 'Partnering with local government to expand 40km/h in high pedestrian activity and local areas to reduce crashes and protect pedestrians.'

## 5.5 A best practice international example

The Safer City Streets<sup>44</sup> program has been implemented in a number of countries, and is based on the Proactive Partnership Strategy (PPS) methodology, developed by the Global Road Safety Partnership in 2002. The PPS was created specifically for use in the local communities and it is based on sustainable partnerships between Government, Business and Civil Society in the local communities.

The PPS is a process methodology focusing on partnership building and good practice delivery and helps communities improve the wellbeing of the community.

The implementation of Safer City Streets is based on 4 prerequisites:

• A political environment where the Community leader (e.g. Mayor) and the key stakeholders (Traffic and Transport, Education, Police, Health and Emergency Services departments) acknowledge the connection between road safety and the

<sup>&</sup>lt;sup>39</sup> <u>https://www.rms.nsw.gov.au/business-industry/partners-suppliers/lgr/grant-programs/regional-road-block-grant.html</u>

<sup>&</sup>lt;sup>40</sup> https://www.rms.nsw.gov.au/business-industry/partners-suppliers/lgr/grant-programs/regionalroads-repair-program.html

<sup>&</sup>lt;sup>41</sup> <u>https://www.rms.nsw.gov.au/documents/business-industry/partners-and-suppliers/lgr/grant-programs/fixing-local-roads-program-guidelines.pdf</u>

<sup>&</sup>lt;sup>42</sup> www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/technicalmanuals/ltcguidev13\_i.pdf Page 16

<sup>43</sup> https://roadsafety.transport.nsw.gov.au/downloads/nsw\_sza.pdf

<sup>&</sup>lt;sup>44</sup> <u>https://www.itf-oecd.org/safer-city-streets</u>

quality of life for those in the community and are prepared to commit publicly to improving it;

- A robust local level government structure that has the infrastructure and capacity to enable appropriate changes to the road infrastructure, laws and enforcement, and education that result in a decrease in the number and severity of road crashes;
- An acknowledgement of all parties that the road safety problem can be most effectively addressed through partnerships between government sectors, business and civil society; and
- A social context where the people are connected to the decision making process and are empowered to participate in a process to bring about change.

The local investment in road safety is based on a process that identifies the local road safety problem (through the collection and use of data), related crash classification, subsequent analysis and targeted actions that are implemented immediately in a public–private partnership.

The PPS is recognised world-wide for its feasibility and resource savings (using existing setups and resources), generating best practices. The successful implementation tends to build momentum in the community; as people become more informed and more involved, they become more in control and more accountable, resulting in a strong community partnership.

# 6 Opportunities for improving road safety planning and management on local roads, including through the Local Government Road Safety Program and Community Strategic Planning

## 6.1 The National Inquiry into the National Road Safety Strategy 2011-2020

The National Inquiry into the National Road Safety Strategy 2011-2020 identified considerable capacity and resource issues that are hindering the ability for Councils to pursue the desired transformative approach to road safety. The National Inquiry noted that:

- 'These challenges are compounded by the fact that the total trauma burden is spread across a vast local road network;
- Given the size of the trauma problem and the challenges that municipalities face in addressing it, the National Inquiry stated that a national road safety entity will play a key role in providing stimulus funding to improve road safety in this context and in coordination with Councils; and
- Coordination across Councils and other levels of government is challenging, and continued work is needed to enable effective, systematic delivery of optimal Safe System treatments onto local roads more directly. Ongoing coordination is needed to maintain the safety focus of funding allocations, resources and Safe System understanding, which will improve consistency in how road safety is managed across Councils.'

In response to the National Inquiry, the Australian Government has committed to a number of reforms and, in line with the recommendations, establishment of an Office of Road Safety. The Office of Road Safety commenced on 1 July 2019 within the Surface Transport Policy Division of the Department of Infrastructure, Transport, Cities and Regional Development.<sup>45</sup>

## 6.2 Supporting Council integrated local road safety planning

As noted in earlier, integrated local road safety planning is important for effective delivery of road safety outcomes by Councils. Opportunities to enhance integrated local road safety planning include through appropriate guidance, data and other support for Councils.

## 6.2.1 Guidance for Councils

Austroads has developed a Guide to Road Safety – Part 2: Road Safety Strategy and Evaluation (Austroads 2006a), which provides detailed information on the process of developing a road safety strategy.

The Guide to Road Safety – Part 4: Local Government and Community Road Safety (Austroads 2009) highlights the key concepts of particular relevance for Councils.<sup>46</sup>

In addition, to help Councils consider road safety as part of their overall planning, Transport for NSW has recently partnered with the Institute of Public works Engineering Australia NSW (IPWEA) to update A Guide to Developing Council Road Safety Strategic Plans' (Guide). It is designed to assist Councils to develop road safety strategic plans and

<sup>&</sup>lt;sup>45</sup> <u>https://www.infrastructure.gov.au/roads/safety/</u>

<sup>&</sup>lt;sup>46</sup> Turner et.al; Austroads 2010
integrate them into the IPRF. The Guide is based on 'best practice' methodology developed through systematic investigation, consultation and feedback on the experiences of a number of NSW Councils.

#### 6.2.2 Crash information available to Councils

NSW has one of the most comprehensive crash data information resources in the world. It draws on a range of sources including NSW Police Force crash reports, licensing and infringements, vehicle registration, NSW Health hospital data and drug and alcohol test results, NSW Ambulance Services data, State Insurance Regulatory Authority (SIRA) Compulsory Third Party claims information, Lifetime Care and Support cases, vehicle safety features dataset and road conditions.

Data visualisations, using this data set, have been made available to Councils in NSW since 2015 to support and encourage evidence based road safety planning.

#### 6.2.3 Understanding of the Safe System

Transport for NSW runs workshops with Councils to assist them in understanding how to apply for Safer Roads Program and Australian Black Spot Program funding. This includes an explanation of how to apply the Safe System approach and local examples. It also provides a Safe System Project Checklist which allows practitioners to gauge if a project follows the core Safe System principles. This is a useful tool to ensure that the best road safety outcome is achieved.

Transport for NSW has also supported Safe System training to Councils in conjunction with Austroads. This is targeted as an introduction to Safe System and the completion of a 'Safe Systems Assessment Framework' to maximise outcomes across a range of projects. Several workshops have been rolled out targeting road practitioners working in Regional Maintenance and Delivery, Network and Safety, Assets, media and other teams across former Roads and Maritime Services' regions.

The understanding and application of the Safe System approach to road safety varies from Council to Council. There is therefore an opportunity to realise a consistent understanding across Councils' Traffic Engineers and RSOs.

## 6.2.4 Towards Zero Community Partnership

The RSP2021 includes an action as part of the 'Saving Lives on Country Roads' and 'Building a Safer Community Culture' priorities areas, to develop a Towards Zero community partnership with Councils, institutions and business to improve local road safety across NSW. The aim of the Towards Zero Community Partnerships is to establish road safety as a shared responsibility through Council and community partnerships that help to integrate road safety into local planning, build a safety culture and accelerate innovative local road safety solutions.

Transport for NSW is working with a range of partners in 2019-20 to develop a Towards Zero Community Partnership Framework that:

- Enables Councils, organisations and individuals to better connect with each other to effectively plan and deliver road safety initiatives in local communities by adopting a Safe System approach;
- Establishes road safety as a shared responsibility through Councils and community partnerships;
- Strengthens understanding among all Council planners and practitioners of the Safe System approach and facilitates the integration of road safety into local planning processes; and

• Builds a safety culture and accelerates innovative local road safety solutions.

The Towards Zero Community Partnership Framework will help reduce road trauma in across NSW by:

- Making it easier for businesses, non-government groups and road safety advocates in communities of all sizes to access valuable resources and guidance to help them in building Towards Zero community partnerships that work to address local road safety issues;
- Providing support for Councils to plan for and implement Towards Zero Community Partnerships within their local communities that leverage the skills and resources that are already available across their Community Partnerships; and
- Supporting Councils to strengthen their capacity to proactively identify and address local road safety issues with their communities and partners.

# 6.3 NSW Council examples of integrated local road safety planning

Some examples of integrated local road safety planning in NSW are set out below.

#### 6.3.1 Waverly Council's People, Movement and Places

Waverley Council's People, Movement and Places<sup>47</sup> document is a transport plan that aims to make it easier for people to move around by improving the quality of streetscapes and public places. Waverley Council's Community Plan and Environmental Action Plan set out the community's aspirations, strategies and targets for achieving a better environment, community and economy. People, Movement and Places outlines priority actions to address transport needs and meet the changing demands of the future. A key element of People, Movement and Places is improving safety, and particularly highlights the role of safe speeds. Key actions include:

- Reduce road speeds throughout the local government area (page 19); and
- Reduce road speeds throughout Bondi Junction to 30 km/h, and add shared space 10 km/h zones (page 27).

#### 6.3.2 City of Ryde Integrated Transport Strategy 2016 - 2031 Regionally Connected - Locally Accessible

The City of Ryde's Integrated Transport Strategy 2016-2031 Regionally Connected - Locally Accessible<sup>48</sup> stated aim is to shape an integrated transport system for the city by maximising on the opportunity to:

- Increase public transport, walking and cycling use;
- Improve local traffic access and parking;
- Reduce the length of trips on the transport system; and
- Look into new transport technology and trends.

A key focus is promoting safety. It includes priorities such as providing safe cycling routes within one kilometre of all public schools, 40 km/h High Pedestrian Activity Areas , and traffic signals to improve safety for drivers and pedestrians.

<sup>&</sup>lt;sup>47</sup> <u>http://waverley.nsw.gov.au/?a=30149</u>

<sup>&</sup>lt;sup>48</sup> <u>https://www.ryde.nsw.gov.au/files/assets/public/publications/integrated-transport-and-land-use-strategy/cor-integrated-transport-strategy-its-2016-2031.pdf</u>

#### 6.3.3 Inner West Council

The Inner West Council is currently developing Going Places – An Integrated Transport Strategy for Inner West (Strategy),<sup>49</sup> with a draft Strategy available for consultation. The draft Strategy highlights road safety, and states 'Addressing vehicle speeds, crossing opportunities for pedestrians, road layout, intersection design and operation and road user awareness will improve safety and reduce the likelihood and severity of future crashes.'

The draft Strategy outlines what the Council can do itself and what it will influence. Stated road safety areas it will do itself include preparing a Road Safety Action Plan using the Safe System approach. Areas it will seek to influence include advocating for a local government area wide 40 km/h zone, and investigate 30 km/h zones in areas of demonstrated high pedestrian flow or pedestrian/cyclist crash clusters.

# 6.4 The NSW Local Government Road Safety Program

As noted earlier, the Local Government Road Safety Program is a partnership between Transport for NSW and participating Councils. It commenced in 1992, and provides funding and support to encourage Councils to give priority to road safety in their planning and services to the community.

Participating Councils support state-wide road safety initiatives and deliver local road safety initiatives to improve road safety for their residents.

Participating Councils develop a three-year action plan outlining all the programs, projects and activities they will deliver to address local road safety issues.

Most participating Councils receive 50-50 funding for a RSO, as well as funding for local road safety projects. Under the revised program (2014-2017), several Councils have chosen to receive funding for projects only.

Local projects are developed to target problems identified by Councils through crash data, Police information, Council staff, community groups, businesses, schools and other road safety advocates.

Local Government Road Safety Program guidelines assist RSOs to develop road safety action plans based on a Safe System approach and deliver key road safety initiatives. <sup>50</sup>

The current development of the Towards Zero Community Partnership Framework will support and enhance the Local Government Road Safety Program and the role of RSOs as it will:

- Provide greater access to resources and guidance to help build Towards Zero community partnerships that work to address local road safety issues;
- Provide support for Councils to plan and implement Towards Zero Community Partnerships; and
- Support Councils to strengthen their capacity to proactively identify and address local road safety issues.
- Transport for NSW Road User Safety teams:
  - Oversee the delivery of projects by providing support and advice, reviewing all media and marketing materials, attending steering committee meetings, and monitoring the budget to ensure value for money;

<sup>&</sup>lt;sup>49</sup> <u>https://yoursay.innerwest.nsw.gov.au/46985/documents/108265/download</u>

<sup>&</sup>lt;sup>50</sup> https://www.rms.nsw.gov.au/business-industry/partners-suppliers/lgr/documents/local-gov-roadsafety-program.pdf

- Communicate daily with the RSOs to ensure projects are delivered on time and on budget, to foster productive relationships with other stakeholders including NSW Police Force, and to help address schools safety issues; and
- Provide input and support for funding applications, provide crash data analysis assistance, provide information for Local Traffic Committee meetings, and facilitates network meetings.

There are currently 76 full time RSO positions in NSW (as at 1 January 2020). Not all Councils have an RSO, and some regional Councils share an RSO. Currently, 48 Councils in NSW do not have any RSO, while 80 have an RSO (full or part time).

# 6.5 Infrastructure funding

#### 6.5.1 National Partnership Agreement on Land Transport Infrastructure Projects

In response to the National Inquiry, the Transport Industry Council in its 2 August 2019 Communique committed to a number of changes to better deliver roads safety, including that 'All investments in road infrastructure planning, design and construction will require application of Safe System principles and inclusion of safety treatments that align with these principles.'<sup>51</sup>

The Australian Government has reflected this in the current National Partnership Agreement on Land Transport Infrastructure Projects, which states that 'The Commonwealth and States' combined investments under this Agreement... aims to provide a land transport network that...is safer and more secure for users, by having regard for safe system principles and treatments for road infrastructure investment proposals and aligning with any agreed national road safety strategy.' <sup>52</sup>

It is Transport for NSW's understanding that the Australian Government is yet to indicate how compliance with Safe System principles and treatments' will be assessed.

There is therefore an opportunity for the Australian Government to indicate what guidance should be used to ensure Safe System principles and treatments are appropriately applied, and how safety benefits realisation will be assessed.

#### 6.5.2 NSW Road Classification

The process of classifying roads is a mechanism used to assist in the effective allocation of State Government road funds, and the allocation of road management responsibility between State and Council jurisdictions. It identifies which roads are to be managed and funded by the State authority because of their state arterial significance, and which Council managed roads are of sufficient regional significance to be eligible to receive state funding assistance grants towards their management.<sup>53</sup>

A key initiative for investigation under FT2056<sup>54</sup> is a road classification review. A review and subsequent implementation is committed for delivery in the 0-10 year timeframe and

54

<sup>51</sup> 

https://www.transportinfrastructurecouncil.gov.au/sites/default/files/11th\_Council\_Communique\_2\_August\_2019.pdf

<sup>&</sup>lt;sup>52</sup> www.federalfinancialrelations.gov.au/content/npa/infrastructure/nationalpartnership/FINAL Land Transport Infrastructure .pdf

<sup>&</sup>lt;sup>53</sup> www.rms.nsw.gov.au/business-industry/partners-suppliers/lgr/documents/classificationreview/information\_paper\_040608.pdf

https://future.transport.nsw.gov.au/sites/default/files/media/documents/2018/Regional\_NSW\_Se rvices\_and\_Infrastructure\_Plan\_1.pdf

seeks to address the large amount of feedback from Councils about the classification of roads within their jurisdictions.

A review provides an opportunity to make adjustments to the classification process and ensure an up to date network that meets the social and economic needs of the community and industry.

The NSW Government has announced that up to 15,000 kilometres of regional roads will be under consideration for transfer to the State. The transfer of these regional roads will form part of the full review of the road classifications.

## 6.6 Alignment with movement and place principles

Under FT2056, the Movement and Place Framework provides a framework for planning, designing and operating the road network to account for different uses. The aim is that transport networks reflect the needs of surrounding land uses, enabling efficient and reliable movement of people and goods as well as creating places for people.

There are opportunities for Transport for NSW to engage further with Councils to provide support to fully integrate the Movement and Place Framework into local planning frameworks and plans through:

- Development of a Movement and Place Practitioner's Guide for those planning, designing, procuring, and operating transport networks and their adjacent land uses;
- Developing specific guidance for practitioners in aligning movement and place and Safe System, including identifying measures in constrained environments that deliver positive safety and movement and place outcomes;
- Developing a movement and place toolkit to further assist practitioners to deliver positive customer and community outcomes, including for pedestrians and cyclists; and
- Investigating future mechanisms to embed movement and place into the planning, design and operational systems within NSW.



Cross-government engagement led by the Government Architect NSW for Movement and Place is currently considering opportunities to embed the Movement and Place approach.

# 7 The role of local communities and their representatives in identifying and delivering road safety initiatives to reduce trauma on local roads

Councils have a detailed knowledge of their Local and Regional roads, traffic, and crash history. Through regular interaction with residents, businesses, schools and other local organisations, Councils are well placed to plan, implement and deliver road safety initiatives to their local communities.

Local communities and their representatives currently participate in and direct road safety action through a number of mechanisms.

# 7.1 Role of Local and Regional roads in the community

#### 7.1.1 Commercial versus private use of Local and Regional roads

Local and Regional roads are used for a range of reasons, both by local residents and local businesses, as well as those not residing in the local government area who use the Local and Regional roads as either a temporary destination (e.g. for deliveries), or to travel through.

This mix of uses can present challenges to Councils as they juggle the needs of locals and others and seek to ensure safety.

#### 7.1.2 Heavy vehicle access

As part of the implementation of the NSW Freight and Ports Plan, Transport for NSW has released the NSW Heavy Vehicle Access Policy Framework to encourage the development of a 'network approach' to regional transport planning and the granting of heavy vehicle road access.<sup>55</sup>

The condition of some Local and Regional roads restricts access by heavy vehicles, as their size and or weight represent a safety risk with the existing road infrastructure.

# 7.2 Local Traffic Committees

Local Traffic Committees are an existing mechanism for local consideration of traffic issues. <sup>56</sup> Local Traffic Committees are primarily a technical review and advisory committee, and generally deal with issues such as traffic and parking. The Local Traffic Committee considers the technical merits of proposals, ensuring that current technical guidelines are considered, and provides recommendations to Council for decision. The Council must refer all traffic related matters to the Local Traffic Committee prior to exercising its delegated functions.

Local Traffic Committees are required to be made up of four formal members:

- One representative of Council (any Councillor or Council officer);
- One representative of the NSW Police Force;
- One representative of Transport for NSW; and
- The local State Member of Parliament (MP) or their nominee.

<sup>&</sup>lt;sup>55</sup> www.transport.nsw.gov.au/operations/freight-hub/heavy-vehicle-access-policy-framework

<sup>&</sup>lt;sup>56</sup> <u>https://www.rms.nsw.gov.au/about/what-we-do/committees/traffic-committees.html</u>

As existing governance bodies the Local Traffic Committee role could be examined to assess any benefits of broadening its role and/or membership.

# 7.3 Community Road Safety Grants

The NSW Government delivers the Community Road Safety Grants Program to provide community groups across NSW with the opportunity to implement small-scale, local road safety programs within their communities.

Funded community groups often work closely with Councils, in particular those with RSOs, to implement their projects. For example, the Little Blue Dinosaur Foundation has received several Community Road Safety Grants to support the implementation of its Holiday Time: Hold My Hand campaign. This campaign uses the strategic distribution of posters, banners, noticeboard insets and other signage at key tourist hot spots and thoroughfares to raise driver and pedestrian awareness to keep young children safe on and near roads. Council support is vital for the successful implementation of the campaign and at least 17 Councils are currently partnering with the Little Blue Dinosaur Foundation in its work.

Since the Community Road Safety Grants Program began in 2015-16, five rounds of funding have been rolled out with 137 projects allocated a total of \$1,654,270 in grants. The focus of funded projects is on encouraging safer road user behaviour in response to identified local road safety issues. The Community Road Safety Grants Program funds a range of projects, including for example, projects supporting road safety for refugees, migrants and other culturally and linguistically diverse groups. Since 2015-16, the Community Road Safety Grants Program has provided financial support for 21 projects led by community groups across NSW to improve the road safety knowledge and skills of refugees, migrants and other culturally and linguistically diverse groups. The projects have been awarded more than \$240,000 in funding.

## 7.4 Council role in local community road user behaviour

#### 7.4.1 Local road safety behavioural programs

Transport for NSW funds a Road Safety Behavioural Program, which delivers behavioural-focused road safety initiatives at a regional and local level to reduce the incidence and severity of crashes. The program delivers a range of sub-programs targeting key road safety behavioural issues and at-risk road user groups with a focus on engagement and education. These include:

- Programs targeting key behavioural issues i.e. speeding, drink and drug driving, distraction, fatigue, restraint use;
- Programs targeting key road user groups i.e. motorcyclists, young drivers, heavy vehicle drivers, bicyclists, pedestrians and older road users;
- Support to the Enhanced Enforcement Program; and
- Program management of the Local Government Road Safety Program.

Councils are a key partner in ensuring that behavioural programs are embedded in the community, and take the lead in partnering with stakeholders.

State-wide road safety behavioural campaigns and information are also available for Councils to leverage. This includes initiatives targeting road safety within culturally and linguistically diverse sections of the community. For example, driver licensing information and the NSW Road User Handbook is available in 11 languages, and road safety campaigns such as the Don't Trust Your Tired Self fatigue campaign are targeted to four of the largest community language groups in NSW: Arabic, Chinese, Indigenous and Vietnamese.

#### 7.4.2 Road Safety Advertising

Transport for NSW has a significant road safety advertising program. In 2019-20, the program comprises seven road safety campaigns and a dedicated budget to address road safety program initiatives and emerging trends contributing to fatalities and serious injuries on NSW roads, including Local and Regional roads.

Transport for NSW works with RSOs to deliver road safety communications in local areas across NSW. This communication is locally-focussed but supports the state-wide road safety strategies and campaigns.

This localised communication plays a critical role in raising the profile and importance of road safety. Local community activity has the ability to be more targeted and reach a variety of local road user groups that mass media cannot typically access. It can facilitate strong connections with local community groups and foster two-way communication that strengthens community engagement with road safety messages.

This is achieved through a range of measures, including:

- Social media, which is used to maximise reach in distributing road safety information and messages at a local level;
- Presence at local events (e.g. fetes, localised agricultural shows, car expos, child restraint workshops, festivals, community events) to connect with people face-to-face and distribute effective road safety information; and
- Local partners (e.g. businesses, schools, Councils, libraries) where opportunities exist to share information across their community channels.

In 2019, Transport for NSW developed a Road Safety Marketing Toolkit containing campaign information, and localised campaign assets, to effectively and efficiently guide the delivery of road safety communications by Councils across NSW.

## 7.5 Local businesses

Almost 30 per cent of workplace fatalities are a result of road crashes, which is why the RSP2021 highlights the need to work with employers. Road Safety and Your Work: A Guide for Employers was released in October 2018 to help employers and industry embed a road safety culture for safe work-related travel. The guide supports organisations with vehicle fleets to establish internal policies and guidelines for safe work-related travel. It provides information about the ways employers can help their workers reach their destination safely and improve road safety culture.

In 2019, Transport for NSW further expanded the Road Safety in Your Workplace project in partnership with SIRA. Training workshops with Transport for NSW staff and Council RSOs were held across NSW to develop expertise in a suite of resources that have been developed to support and enable them to directly engage with local employers and industry.

Councils therefore can play a role as both an employer, and as community leader, to improve road safety in local workplaces.

#### 7.6 Local schools

While there are a number of schools located in and around State roads, the majority of NSW schools are located on Local and Regional roads. Schools are key part of the local community, and a key road safety partner.

#### 7.6.1 Road safety education

Road safety is taught in NSW schools as part of the Personal Development, Health and Physical Education curriculum. This is a mandatory subject for students from Kindergarten to Year 10. The focus is on the development of knowledge, values, attitudes and behaviours to enable students to make informed decisions as safer road users.

To ensure students receive developmentally appropriate, curriculum-based road safety education, Transport for NSW funds and co-ordinates the Road Safety Education Program. This program has been conducted in partnership with the Department of Education, Catholic Schools NSW, The Association of Independent Schools of NSW and the Kids and Traffic, Early Childhood Road Safety Education Program (Macquarie University) since 1986.

#### 7.6.2 Safety infrastructure

The NSW Government has implemented a Safe System within NSW school zones, where a 40km/h speed limit applies and high visibility safety treatments like signage, road markings and flashing lights are in place.

Every school in NSW has at least one set of school zone flashing lights. There are over 6,000 flashing lights across NSW to warn motorists when they enter a 40km/h school zone. Higher fines and demerit points also apply within school zones, and the speed advisor app is available to alert drivers when they enter an active school zone.

	Safe Roads		Safe People		
<ul> <li>Traffic calming treatments</li> <li>Enhanced visibility:         <ul> <li>Flashing lights</li> <li>Dragon's teeth</li> <li>Signage</li> </ul> </li> <li>Pedestrian crossings</li> <li>Fencing</li> <li>Pedestrian bridges</li> <li>Protected bus stops</li> <li>Kiss and drop zones</li> <li>Consistent look and feel</li> </ul>		-	Increased penalties o Speeding o Double parking o U-turns School Crossing Supervisors School education programs Safety campaigns Safety resources (e.g. bike helmets) Policies for managing dedicated access points Staggered school start times Police & council enforcement		
-	Safe Speeds 40km/h (8-9:30am & 2:30- 4pm) Police enforcement 50 x school zone speed cameras	-	Safe Vehicles Speed advisor smartphone app o 'Entering active school zone' announcements		

#### NSW Safe System in School Zones

School zones are now one of the safest areas of the NSW road network. For example:

- A prior review of child pedestrian casualties pre and post implementation of school zones found that child pedestrian casualties (where a child is killed or injured) decreased from more than 50 per annum prior to 2001 to around 30 per annum between 2005 and 2009.
- More recent data indicates that child pedestrian casualties have continued to fall, and there are now approximately 20 child pedestrian casualties in active school zones each year.



<u>Note</u>: Data from 1998-2010 is from a prior study, derived by overlaying crash data and speed zones for a sample of NSW school zones. More recently, NSW injury data has been coded within school zones from 2014.

#### 7.6.3 Working with Councils to implement road safety treatments

Transport for NSW works closely with Councils to implement road safety treatments within NSW school zones. For example, Transport for NSW has recently completed a \$5 million school zone safety infrastructure program, in which Transport for NSW jointly funded 140 projects with Councils.

Works including new fencing, footpath improvements, raised crossings, kerb extensions, pedestrian refuges, new signs and splitter islands at roundabouts were delivered on roads around schools across NSW.



Schools treated within the NSW Government's School Zone Safety Infrastructure Program

#### 7.6.4 School crossing supervisors

The School Crossing Supervisor Program is a key aspect of a Safe System approach around NSW schools. Within the program, school crossing supervisors help students use identified pedestrian and/or children's crossings within school zones.

In recent years, Transport for NSW has provided approximately 1,200 school crossing supervisors at around 800 crossings, predominantly on Local and Regional roads across the State. In 2019 the NSW Government announced an \$18.5 million commitment to provide 300 additional school crossing supervisors over this term of government. Under previous requirements, a school crossing had to be used by 300 cars per hour in the morning and afternoon as well as at least 50 students to be eligible for a supervisor. New requirements enable more schools to qualify for a crossing supervisor as they now only need to meet one of these criteria.<sup>57</sup>



#### 7.6.5 Department of Education's School Infrastructure NSW

The Department of Education's School Infrastructure NSW (SINSW) works with Councils to develop and upgrade school and road safety infrastructure, and to deliver infrastructure to allow for a range of student options in travelling safely to and from school.

The SINSW School Transport Plan process plans for how students can walk to school, particularly those that live close to school and don't qualify for a school travel pass (i.e. 2.3 km for primary school students and 2.9 km for high school students). This takes in more holistic transport planning for the school catchment to encourage more students to safely walk to school.

<sup>57</sup> 

https://roadsafety.transport.nsw.gov.au/stayingsafe/schools/schoolcrossingsupervisorprogram.h tml

# 8 Other relevant matters

# 8.1 Heavy vehicle freight

#### 8.1.1 NSW Freight and Ports Plan 2018-2023 - heavy vehicle safety

As outlined in the NSW Freight and Ports Plan 2018-2023, the NSW Government will trial a new approach to telematics using an innovative co-design approach with industry and other stakeholders. The development of this telematics technology provides an opportunity to gain better data on the cumulative impact of heavy vehicle movements on infrastructure and interaction with other vehicles.

The developing use of de-identified aggregated information on truck movements, including time of day, enables a better understanding of when these vehicles are using Local and Regional roads and their potential impacts on infrastructure and any safety issues. It also provides the opportunity to better evaluate options for improving both road safety and also the efficiency of freight movements without adverse increase impacts on infrastructure. Councils can participate in and enable this and other emerging opportunities for technology to improve safety on their local road networks.

#### 8.1.2 National Heavy Vehicle Road Reforms

The Australian Government's National Heavy Vehicle Road Reforms aim to create a market for heavy vehicle road access that links operator needs with the level of service they receive, the charges they pay, and increasing the share of those charges invested back into road services. National Heavy Vehicle Road Reforms may therefore provide future funding opportunities for Council managed road networks more closely aligned with heavy vehicle use and freight needs.<sup>58</sup>

#### 8.2 Supporting vehicle safety technologies

Advances in vehicle safety technology have proven to be a major contributor to reducing road trauma. Research has shown the benefits of specific vehicle safety systems. For example, electronic stability control (ESC) is shown to reduce roll-over crashes by over 32 per cent; autonomous emergency braking (AEB) can reduce rear-end crashes by up to 50 per cent; lane keep assistance (LKA) can reduce head-on crashes by 50 per cent; and reversing technology can reduce reversing crashes by 40 per cent. More and more vehicles are being fitted with these life-saving technologies – the number of cars registered in NSW manufactured after 2000 fitted with AEB increased from 0.3 per cent in 2015 to 7.3 per cent in 2018 and with lane assist from 1.3 per cent to 6.3 per cent.

Many of the technologies being fitted to vehicles that help reduce the risk of a crash are programmed to interpret the driven vehicle's dynamics and how it relates to the road (e.g. ESC). Others rely on reading the road environment by responding to other vehicles (AEB) or data emitted by transponders fitted to infrastructure, accurate GPS information (speed assist), or simply the road signs (speed assist) and markings (LKA).

Should a crash occur the local network must be able to support automatic crash notification systems that are being introduced into vehicles (e-alert).

Since the RSP2021 was introduced, two new standards for heavy vehicle safety have been agreed; stability control and AEB. Work is currently underway to investigate ways to introduce the multiple safety features that will be introduced into Europe from 6 July 2022.<sup>59</sup>

<sup>&</sup>lt;sup>58</sup> www.transportinfrastructurecouncil.gov.au/publications/heavy\_vehicle\_road\_reform\_phase\_one

<sup>&</sup>lt;sup>59</sup> EU Regulation 2019/2144

For the road safety benefits from vehicle safety features to be realised, Local and Regional roads must be capable of supporting the technologies. That is, to support and optimise the effectiveness of these technologies in vehicles using Local and Regional roads:

- Roads must have appropriate lane markings that vehicles can detect to determine their positon in a lane (noting that some Local and Regional roads may currently not be wide enough for road markings), and have signs that accurately identify speed limits;
- Appropriate transponders must be provided (and maintained) at key locations, such as junctions, to ensure the vehicles can determine traffic and road conditions;
- GPS must accurately identify features, such as roads and speed zones, and be available throughout local regions; and
- Other systems, such as mobile phone coverage, must be available to support e-alert.

#### 8.3 Connected and Automated Vehicles

NSW has developed a significant program of work to set the strategic vision for Connected and Automated Vehicles (CAVs) and prepare to unlock their wider scale benefits by developing trials that encourage innovation and create a pathway to mass deployment.

Transport for NSW has been working with the Australian Government, which is responsible for setting mandatory safety standards for vehicles supplied to the Australian market, to reduce the time taken to mandate new technologies already introduced in Europe and regions.

NSW has established a legal framework for the safe testing of conditionally, highly and fully automated vehicle trials (levels 3, 4 and 5) on NSW roads, including driverless vehicles. In August 2017, the NSW Government passed legislation to allow trials of highly automated vehicles on NSW roads.

In January 2019, the NSW Government launched the Connected and Automated Vehicles Plan that sets directions and actions for the next five years to prepare for and maximise community benefits from these vehicles.

The Connected and Automated Vehicles Plan key priorities and actions include establishing appropriate legislative, safety and policy frameworks to initiate and deploy safe trials and operations of CAVs; promoting wider uptake of latest safety technologies; and preparing for more highly automated vehicles on NSW roads through participation in national reform initiatives led by the National Transport Commission and Austroads to prepare Australia for the commercial deployment of CAVs.

NSW is working with the Australian Government, the National Transport Commission and other States and Territories to put in place a harmonised national regulatory framework for CAVs to assure their initial and ongoing safety. Work is underway to develop a national safety assurance system for automated vehicles, based on mandatory self-certification to demonstrate how safety risks will be managed before an automated driving system can be supplied in the Australian market. Work is also underway on the approach for institutional and regulatory arrangements to support the safe operation of automated vehicles on Australian roads once they are in-service. This will support the uptake and safe operation of automated vehicles on Australian roads and unlock their broader safety benefits.

# 9 Appendix A - Serious casualties on Local and Regional roads

The following listing details the number of serious casualties (fatalities and serious injuries) on Local and Regional roads for each Council for the study period, ranked by highest number of serious casualties.

# Serious Casualties on Local and Regional Roads, 2013/14 to 2018/19p

Degree of Casualty, by Council

(Ranked by Highest Number of Serious Casualties)

	Council	Fatalities	Serious Injuries	Serious Casualties
1	Canterbury-Bankstown	23	918	941
2	Central Coast	54	726	780
3	Cumberland	23	644	667
4	Sydney	14	625	639
5	Fairfield	27	575	602
6	Wollongong	11	569	580
7	Blacktown	23	545	568
8	Liverpool	16	458	474
9	Parramatta	14	412	426
10	Newcastle	16	376	392
11	Penrith	14	368	382
12	Lake Macquarie	24	354	378
13	Mid-Coast	37	335	372
14	Tweed	27	334	361
15	Northern Beaches	10	344	354
16	Randwick	8	321	329
17	Inner West	7	311	318
18	Shoalhaven	33	259	292
19	Sutherland	13	259	272
20	Coffs Harbour	13	251	264
21	Campbelltown	7	257	264
22	Lismore	15	237	252
23	Bayside	13	231	244
24	Wollondilly	22	220	242
25	Georges River	4	230	234
26	The Hills	7	226	233
27	Clarence Valley	23	209	232
28	Cessnock	16	216	232
29	Ku-ring-gai	4	223	227
30	Port Stephens	20	194	214
31	Port Macquarie-Hastings	11	201	212

				1
32	Hawkesbury	12	182	194
33	Wagga Wagga	8	181	189
34	Tamworth Regional	16	164	180
35	Ryde	6	158	164
36	Willoughby	5	150	155
37	Dubbo Regional	9	145	154
38	Wingecarribee	12	140	152
39	Hornsby	10	137	147
40	Ballina	8	134	142
41	Waverley	3	134	137
42	Maitland	8	128	136
43	Kempsey	14	121	135
44	Mid-Western Regional	13	116	129
45	Richmond Valley	10	116	126
46	Byron	9	112	121
47	North Sydney	5	112	117
48	Bega Valley	16	97	113
49	Albury	5	107	112
50	Camden	4	105	109
51	Bathurst Regional	9	95	104
52	Lithgow	4	93	97
53	Kiama	5	91	96
54	Canada Bay	1	93	94
55	Orange	7	86	93
56	Shellharbour	6	84	90
57	Blue Mountains	0	89	89
58	Inverell	8	76	84
59	Armidale Regional	4	80	84
60	Goulburn Mulwaree	9	73	82
61	Burwood	2	79	81
62	Woollahra	2	79	81
63	Griffith	7	73	80
64	Kyogle	3	75	78
65	Eurobodalla	5	72	77
66	Cabonne	4	72	76
67	Dungog	4	70	74
68	Nambucca	6	67	73
69	Hilltops	12	58	70
70	Cootamundra-Gundagai	9	56	65
71	Snowy Valleys	8	54	62
72	Warrumbungle	9	50	59
73	Narrabri	11	47	58

74	Oberon	8	50	58
75	Singleton	6	52	58
76	Greater Hume	8	47	55
77	Lachlan	5	49	54
78	Bellingen	3	49	52
79	Muswellbrook	5	46	51
80	Lane Cove	1	50	51
81	Snowy Monaro Regional	8	41	49
82	Strathfield	0	49	49
83	Upper Lachlan	6	40	46
84	Walgett	5	41	46
85	Mosman	1	44	45
	Queanbeyan-Palerang			
86	Regional	3	39	42
87	Forbes	5	35	40
88	Tenterfield	3	35	38
89	Upper Hunter	1	37	38
90	Glen Innes Severn	4	33	37
91	Blayney	1	36	37
92	Federation	6	30	36
93	Walcha	3	33	36
94	Leeton	4	30	34
95	Hunters Hill	1	33	34
96	Junee	5	26	31
97	Parkes	5	26	31
98	Central Darling	1	30	31
99	Narromine	7	23	30
100	Liverpool Plains	4	25	29
101	Cobar	3	26	29
102	Moree Plains	1	27	28
103	Yass Valley	7	20	27
104	Gwydir	4	23	27
105	Gunnedah	0	27	27
106	Cowra	3	23	26
107	Uralla	3	23	26
108	Bland	2	24	26
109	Broken Hill	0	26	26
110	Unincorporated	5	18	23
111	Bourke	3	19	22
112	Coolamon	2	18	20
113	Warren	2	18	20
114	Carrathool	4	15	19

115	Narrandera	1	18	19
116	Murray River	3	15	18
117	Murrumbidgee	2	16	18
118	Weddin	0	18	18
119	Coonamble	2	15	17
120	Edward River	0	16	16
121	Temora	1	13	14
122	Brewarrina	2	10	12
123	Bogan	1	11	12
124	Lockhart	1	10	11
125	Нау	0	9	9
126	Wentworth	5	2	7
127	Gilgandra	2	4	6
128	Berrigan	3	2	5
	Lord Howe Island	0	5	5
129	Balranald	0	2	2
	Total	1028	17181	18209