

DRAFT

CENTRAL WEST & ORANA

Regional Transport Plan





Macquarie river in Dubbo

NSW Common Planning Assumptions

Common Planning Assumptions are used across agencies to ensure alignment and understanding of the relevant data, policies and assumptions to underpin planning decisions and policy analysis for government strategies and investment decisions. This supports consistency in the advice provided to Government and the community.

The Common Planning Assumptions represent a consistent baseline or a starting point, and are developed based on current and past trends and agreed policies and plans. They are not targets or scenarios.

This Plan and supporting analysis is based on the agreed Common Planning Assumptions as at April 2021. Details of the Common Planning Assumptions used are set out in the Common Planning Assumptions Book version 5.1.

Acknowledgement of Country

The Central West and Orana region is home Country to the Wiradjuri, Gamilaraay, Wangaaypuwan and Wayliwan peoples.

Aboriginal people continue to call these regions home and have historically travelled, and continue to travel, both within, and beyond these regions.

Many of the transport routes we use today – from rail lines, to roads and water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples have followed for tens of thousands of years.

In preparing this Plan we acknowledge this heritage, as well as acknowledging the First Nations peoples who are traditional custodians of the Central West & Orana region and their ongoing cultural connection to the region.



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Executive Summary

By 2041, an additional 20,000 people are projected to settle in the Central West and Orana. Major infrastructure initiatives like Inland Rail, the Parkes Special Activation Precinct and the Great Western Highway Upgrade Program will be operational, considerably improving the movement of people and goods to and from the key Global Gateways of Greater Sydney, Port of Melbourne and Port of Brisbane. The regional cities of Bathurst, Dubbo and Orange will continue to grow, particularly as the uplift of 'working from home' and 'flexible' working arrangements allow more people to work remotely and take advantage of the lifestyle choices on offer across the region. It is vital that as the region grows and evolves, connectivity within and beyond the region is efficient, reliable and safe.

Given the vast expanse of the Central West and Orana, much of which is considered outer regional or remote, private vehicles are currently the preferred choice to travel within and beyond the region. Without a private vehicle or sufficient access to public transport, disadvantaged groups face isolation and transport inequity. The provision of more attractive alternatives to private vehicle transport, both within and beyond the region, such as day-return services, will deliver greater modal choice for people and provide improved connectivity between remote communities and their nearest regional centre.

Innovations in technology will create a better experience for customers. Through the implementation of a digital ticketing system and the Transport Connected Bus program, it will be easier to plan journeys, while Live Traffic will deliver 'real time' transport information to customers and support more informed travel planning both before and during regional trips. Innovation in future aviation technologies has the potential to provide fast, sustainable and affordable air travel to many regional communities and businesses in order to better connect with major regional centres and capital cities.

Finally, with electric vehicles forecast to reach upfront price parity with traditional combustion engine vehicles in Australia from 2024, the need to effectively plan and support the regional transition of the transport network and associated fleet towards a low emissions future must be addressed.



A supporting plan of Future Transport 2056, the Draft Central West and Orana Regional Transport Plan provides a blueprint for how Transport for NSW will proactively respond to the transport needs of the region, as well as address the key trends that will necessitate a transport-related response into the future. The Plan presents a transport vision for the Central West and Orana and responds to the land use vision outlined in the Department of Planning, Industry and Environment's (DPIE) Draft Central West and Orana Regional Plan 2041. The Plan also identifies the key infrastructure, services and policy interventions which will be needed to achieve the vision at a local level. Key goals of the vision include:

- ▶ About one in every five trips will be made by walking, cycling or public transport across the region
- ▶ A higher proportion of the region's population will have access to day return services to their nearest regionally significant centre
- ▶ Improved multi-modal connectivity between the region, Greater Sydney, Newcastle and Canberra
- ▶ Crash rates are reduced in-line with the 'Towards Zero' goal of zero fatalities and serious injuries on our roads by 2056
- ▶ Increased access for High Productivity Vehicles (HPVs) across the region to support the principle of 'moving more with less'
- ▶ Greater use of technology to support safer, more efficient and accessible transport network

The Plan has identified 66 initiatives that in combination will support the 2041 regional transport vision for the Central West and Orana.



06

CHAPTER

1

Introduction

1.1 What does this Plan do?

A supporting plan of Future Transport 2056, the Draft Central West and Orana Regional Transport Plan ('the Plan') provides a blueprint for transforming the way people and goods travel within, to and through the Central West and Orana region over the next 20 years.

The Plan presents the strategic framework for how Transport for NSW will proactively respond to anticipated changes in land use, population and travel demand across the region.

The Plan seeks to make walking, cycling and public transport an attractive alternative to the private vehicle for more people, more often across the Central West and Orana regardless of age, ability and income. It also identifies a suite of treatments to deliver a safer, more efficient, and more accessible transport network to better support the continued growth and financial viability of local communities, businesses, and industries that rely on transport to connect.

Furthermore, the Plan highlights the necessary transport infrastructure, services and policy interventions required to support the successful transition to a low carbon future.

1.2 Stakeholder Engagement

Development of this Plan has been guided by formal engagement and workshops with key stakeholders to inform the transport vision, as well as identify key priorities for transport in the Central West and Orana.

Stakeholders engaged during development of this Draft Plan included representatives from all 19 Councils across the Central West and Orana, relevant State Agencies and both the Central NSW and Orana Joint Organisations.

1.3 Implementing the Plan

Establishing a transport vision for the Central West and Orana, and identifying supporting initiatives to deliver the vision is just the first step in planning for the future of transport across the region.

Transport for NSW will be responsible for the implementation and ongoing management of the Plan, with collaborative partnerships established for those initiatives that require support and input from key stakeholders like industry, local government and the Department of Planning, Industry and Environment (DPIE).

1.4 Funding and delivery

Transport for NSW is committed to ensuring the transport system is financially sustainable and meets the needs of customers, enabled through policy and investment in services and infrastructure.

This Plan comprises a total of 66 initiatives. While some initiatives are already in the delivery or planning phases, new initiatives will require further investigation to determine feasibility, as well as ensure new initiatives that are progressed for funding are aligned with the regional transport vision and deliver value for money for the people of NSW.

1.5 Reporting on progress

The Plan will be a 'living' document to be continually updated as the area changes, technology evolves, legislation adjusts, and new opportunities emerge. Transport for NSW will provide status updates on our deliverables every 12 months, and undertake a refresh of the Regional Transport Plan every five years.



Wind farm near Carcoar NSW

2

The Transport Challenge

2.1 Why is this Plan needed?

This Plan articulates how Transport for NSW intends to respond to the following five trends that will shape the transport needs of the Central West and Orana over the next 20 years.

2.1.1 A Changing Population

Home to the Wiradjuri, Gamilaraay, Wangaaypuwan and Wayliwan peoples, the Central West and Orana is currently home to about 285,000 people, making the region the fifth most populous in Regional NSW. By 2041, the region's population is projected to grow by 7 per cent to approximately 306,000 people. The majority of growth is expected to take place in the Bathurst Regional, Orange City, Dubbo Regional and Mid-Western Regional local government Areas (LGA), with population growth of 21 per cent, 16 per cent, 13 per cent and 9 per cent anticipated respectively.

From a demographics perspective, the average age of the region's population is expected to increase over the next 20 years, with the proportion of people aged over 65 years expected to increase by almost 50 per cent between 2016 and 2041. This will mean around 25,000 extra people aged over 65 living in the region. During this same period, the proportion of residents aged under 20 years of age, and between 20 and 65 years of age is projected to decline. Public transport and flexible transport services such as on demand or community transport will be important to the wellbeing of older residents by ensuring they have safe and reliable access to health services, shops and recreation, allowing them to age in place.

Areas outside of the regional cities of Bathurst, Dubbo and Orange are projected to see a stable or declining population across the region. With younger people anticipated to relocate from smaller communities to the larger regional cities within the region or beyond the region altogether for greater employment and education opportunities, smaller communities across the Central West and Orana are projected to have even higher proportions of older people over the next 20 years.

The region has a large Aboriginal¹ population, with approximately 9 per cent of the population identifying as Aboriginal and/or Torres Strait Islander, compared to 3.4 per cent across NSW. This varies across the region from 3 per cent of the population in Weddin LGA up to 30 per cent of the population in Coonamble LGA. The proportion of people identifying as Aboriginal and/or Torres Strait Islander is generally higher in the northern and western parts of the region, which may require a bespoke transport response to meet the needs of these residents.

In combination, the anticipated population growth in key regional cities, along with the changing demographics of the wider region's population, will necessitate an adaptable transport response that will satisfy the needs of our customers both now and into the future.

¹ Inclusive of Aboriginal and Torres Strait Islander populations

Figure 1: Projected population growth and demographic change between 2016 and 2041

		2016		2041	
Population					
Abercrombie - Mid-Western	Bathurst	42,244		50,032	
	Lithgow	21,484		20,811	
	Mid-Western	24,546		26,924	
	Oberon	5,349		5,402	
Orana	Bogan	2,764		2,952	
	Coonamble	4,051		3,442	
	Dubbo	51,404		58,777	
	Gilgandra	4,298		3,322	
	Narromine	6,617		5,121	
	Warren	2,797		2,449	
	Warrumbungle	9,562		7,333	
Orange-Cowra	Blayney	7,343		7,455	
	Cabonne	13,577		13,833	
	Cowra	12,659		12,797	
	Orange	41,210		51,977	
Mid-Lachlan	Forbes	9,817		10,304	
	Lachlan	6,356		5,679	
	Parkes	14,924		14,533	
	Weddin	3,677		2,870	
Total		284,679		306,013	
Age bands					
	2016	%	2041	%	
0-19	76,479	27%	70,798	23%	
20-64	155,874	55%	157,640	52%	
65+	52,326	18%	77,573	25%	
Total	284,679		306,011		

Source: NSW 2019 Population Projections

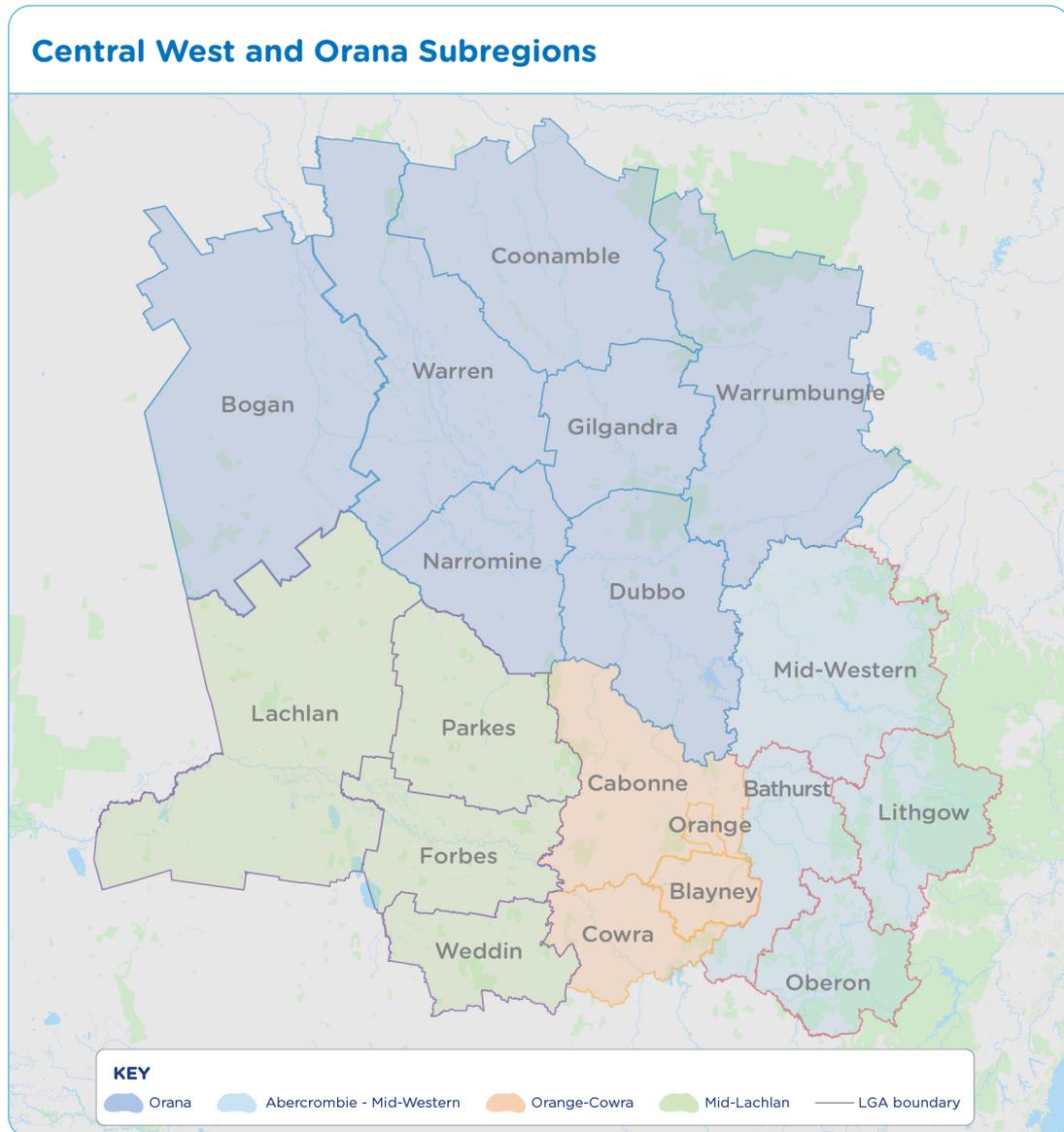
2.1.2 Growing Regional Centres

The majority of population growth projected for the region is expected to be predominantly concentrated within the key regional centres of Bathurst, Dubbo and Orange. In combination, the local government Areas of Bathurst, Dubbo and Orange account for 47 per cent of the region's population, with this growing to 53 per cent by 2041. These centres will experience different transport challenges to smaller surrounding centres. Centres in close proximity to major centres such as those in the Blayney, Cabonne and Oberon LGAs will also experience a small uplift in population. Providing and promoting additional multi-modal transport choices will be necessary to support these centres into the future, particularly to support day-to-day activities, employment, and education.

The four sub-regions within the Central West and Orana, identified as Abercrombie-Mid-Western, Mid-Lachlan, Orange-Cowra and Orana, are based around key centres of Bathurst, Parkes, Orange and Dubbo respectively. As these centres grow, they will become more important for surrounding communities within each sub-region seeking to access essential services. Providing day return transport options to these centres, accessible regardless of age, ability or income, will support communities right across the region.



Figure 2: Central West and Orana sub-regions



2.1.3 Supportive Transport Services and Infrastructure

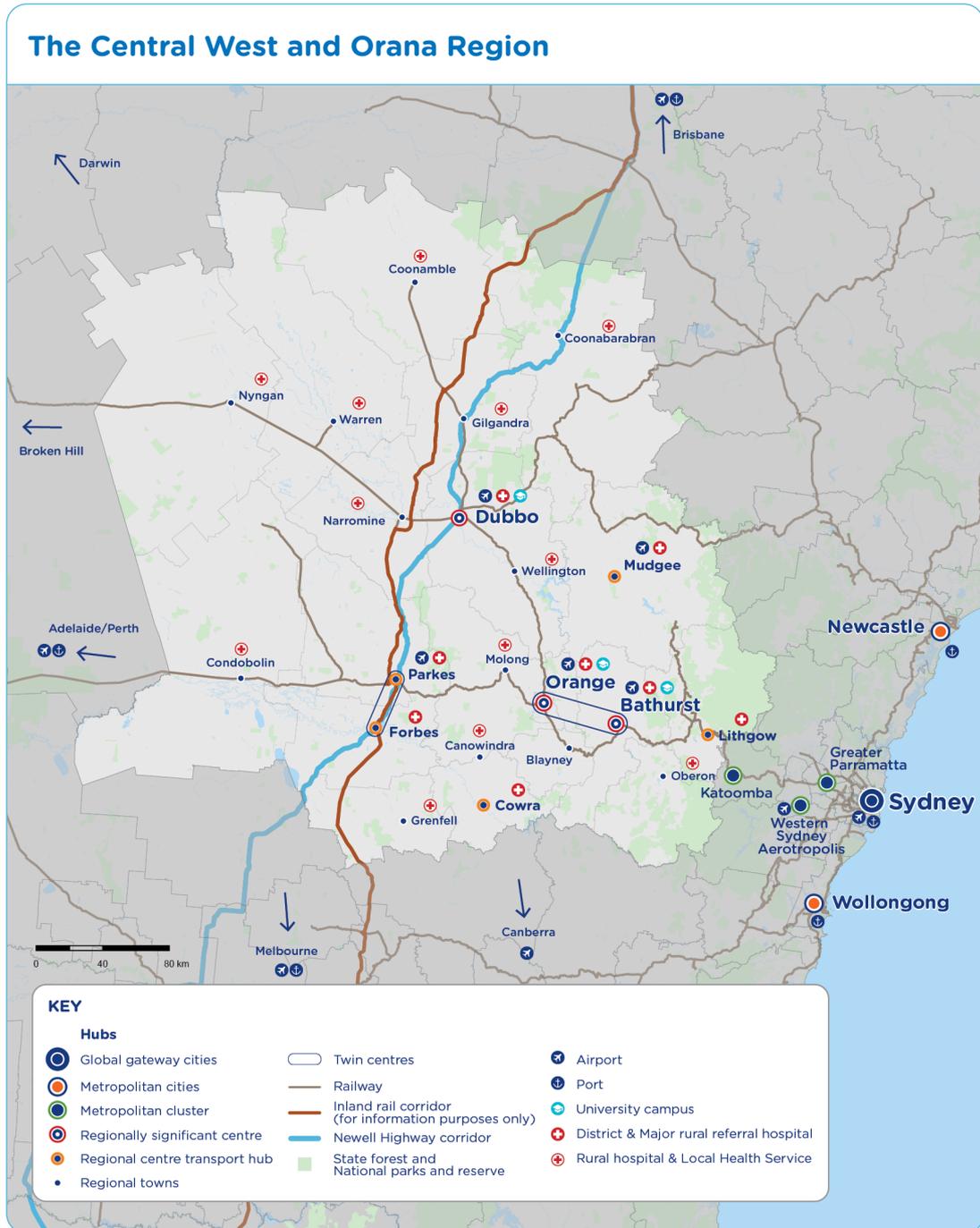
The Central West and Orana is well placed at the heart of NSW. Transport-related initiatives which are underway or committed seek to exploit this advantageous position. Moreover, the level of investment in projects both within and just beyond the region have the scale and scope to considerably change the way people and goods move into the future.

Investment in Inland Rail, and the continual improvement of the Newell Highway, will further strengthen the north-south spine through the region and enable improved connectivity between the Central West and Orana and key destinations beyond the region including Brisbane and Melbourne.

Parkes, already an important intermodal facility on the east-west rail line, will be further strengthened by Inland Rail and development of the Parkes Special Activation Precinct (SAP). A number of east-west road corridors are identified for continued improvement into the future, including the committed upgrade of the Great Western Highway between Katoomba and Lithgow. This improved connectivity to Greater Sydney will also benefit local residents and businesses accessing the Western Sydney International (Nancy-Bird Walton) Airport when it opens in 2026.

Additional recent investment in services, such as the second daily Bathurst Bullet, the 16 Cities Bus Services Improvement Program and bus service trials for isolated communities have gone some way to improving modal choice. However, long distances and often infrequent alternative services can make connections beyond the region challenging, particularly for those without a private vehicle.

Figure 3: The Central West and Orana Region



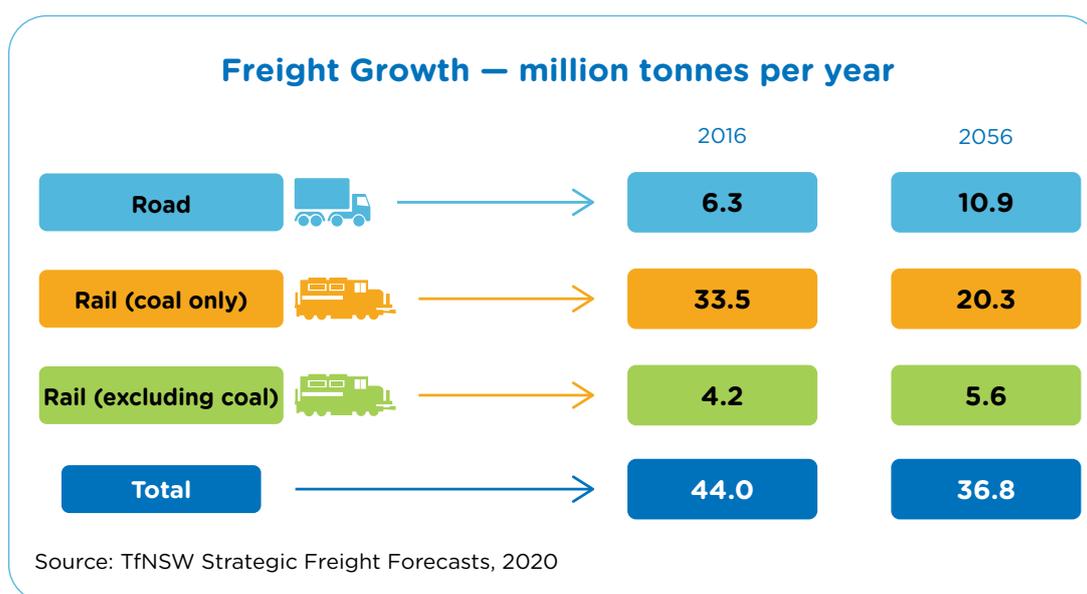
2.1.4 An Evolving Freight Task

With more than 43 million tonnes of freight moving to and from the region in 2016, freight is a significant part of the regional transport task. Key commodities for the Central West and Orana include coal, agricultural commodities, construction materials and forestry. Greater Sydney is currently the primary destination for road freight whereas the Illawarra-Shoalhaven and the Hunter are the primary destinations for rail freight. Fuel is the largest inbound freight commodity.

In 2016, the movement of coal accounted for about 75 per cent of all freight trips across the region. With the volume of coal movements expected to decrease from 33 million tonnes in 2016 to about 20 million tonnes in 2056, the volume of freight moving from the region will decrease. As coal demand drops, we'll need an agile freight network that can easily transition to the needs of new commodities being transported to and from the region. Excluding coal, freight movements will grow from about 10 million tonnes in 2016 to 17 million tonnes in 2056. This growth of freight, as outlined in Figure 4, will need to be accommodated and moved efficiently on our road, rail and aviation networks.

The Central West and Orana plays a key strategic role in inter-regional connections to major Australian ports and markets including Sydney, Melbourne, Brisbane, Canberra and west to Adelaide and Perth. Improvements to the Newell Highway and the development of the Inland Rail corridor will provide stronger connections to Brisbane and Melbourne, opening up new export pathways for goods produced in the region and alternative markets to Sydney. This will place a stronger importance on the Parkes Special Activation Precinct as a logistics hub, which is within 12 hours of 80 per cent of Australia's population². It is likely that the amount of freight moving through the region will continue to grow as a result of these projects. Additional rail freight may come from new freight tasks, such as those associated with Parkes SAP.

Figure 4: Freight forecasts for the Central West and Orana



² Department of Planning, Industry and Environment 2016, Central West and Orana Regional Plan

Planning is underway for improvements to the Great Western Highway between Katoomba and Lithgow which will improve connections to and from Greater Sydney for freight vehicles. Notwithstanding, connections to Greater Sydney remain a challenge with network constraints in Sydney as well as topographic constraints across the Blue Mountains.

Additionally, first and last mile access for freight vehicles can be challenging, particularly as the use of High Productivity Vehicles (HPVs) continues to expand. With the planned bypass of Parkes facilitating access for PBS Level 3A vehicles along the entire length of the Newell Highway and the expanded access for vehicles along the Great Western Highway, barriers along the State Road network will continue to be addressed in the future. Partnering across all levels of government to address access issues will be important to maximise the benefit of these upgrades.



Canola fields near the Weddin Mountains

2.1.5 A Low Emissions Future

The impacts of climate change are becoming increasingly evident in the frequency and magnitude of extreme weather events and natural disasters. Higher temperature days and major intense storm and rainfall events place considerable strain on the transport network, impacting operational reliability and customer safety, as well as long-term asset resilience.

In 2017, the transport sector was the second largest contributor to greenhouse gas emissions in NSW.³ Transport for NSW supports the NSW Government's goal to reach net zero emissions by 2050 and acknowledges that the transport sector will need to play a key role in the transition towards a low emissions future.

A Renewable Energy Zone (REZ) pilot is set to be established in the Orana, in the vicinity of Dubbo, Wellington, Gilgandra and surrounds. The REZ combines renewable energy generation, such as wind and solar, with batteries and improved transmission infrastructure in the same location to leverage economies of scale. With electric vehicles forecast to reach upfront price parity with traditional combustion engine vehicles in Australia from 2024⁴, the region's transport network and transport fleet will need to evolve. The REZ may provide a catalyst for local change and could allow the region to see some of the benefits from the REZ realised in the transport sector.

³ NSW Government 2020, Net Zero Plan Stage 1: 2020-2030, p. 11

⁴ NSW Government 2020, Net Zero Plan Stage 1: 2020-2030, p. 17



2.2 Why not business as usual?

Across the Central West and Orana, the car is the dominant method of travel, accounting for 91 per cent of all trips to work (see Figure 5). This is due to the ease of vehicle travel in regional centres where congestion is limited and parking freely available.

As regional centres grow and the population changes, attractive alternatives to private vehicle transport will become increasingly important, particularly for those customers without access to a car. Around six per cent of households across the region do not own a private vehicle. Greater modal choice across the region will improve access to essential services like employment, education and health and address transport disadvantage. With the Central West and Orana experiencing an ageing population, multi-modal travel options will also help to support older people to age in place.

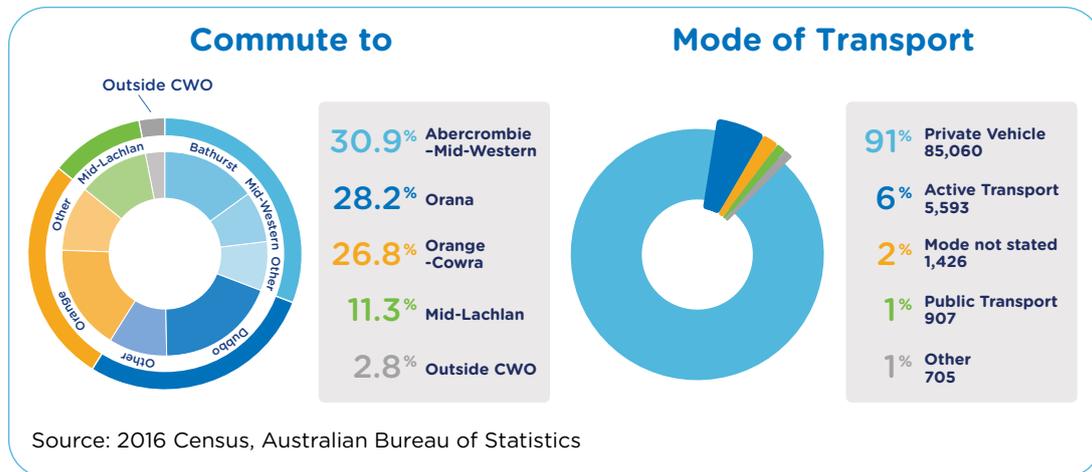
Transport for NSW will work with local government to seek opportunities to enhance multi-modal connectivity both within and between villages, towns and regional centres. This includes walking, cycling, rail, local bus and point-to-point transport.



Herding sheep, Central West NSW

Herding sheep near Greenethorpe

Figure 5: 2016 'Place of Work' and 'Journey-to-Work Mode Share' for the Central West and Orana



Furthermore, with the release of the NSW Government's Net Zero Plan Stage 1: 2020-2030, there is a pressing need for the transport sector to embrace low emission technologies, initiatives and interventions, and support the successful transition to net zero emissions by 2050.

To facilitate a more sustainable, multi-modal and safer transport network for the Central West and Orana, that proactively responds to anticipated changes in land use, population and travel demand, and delivers improved travel choices for more people regardless of age, ability and income, this Plan will adopt a 'vision and validate' approach.

The 'vision and validate' approach recognises that continuing to accept current travel behaviours, and in particular high levels of private car use, is ultimately unsustainable and unlikely to achieve the regional transport vision. The approach assumes that existing travel behaviours and trends can and will change over time, and therefore should not dictate future need. In addition, opportunities to electrify the private vehicle fleet and de-carbonise freight movements will allow customers and industry to move within and beyond the region where other alternative modes may not be available, whilst still supporting a net zero future.

Based on this approach, this Plan identifies the infrastructure, services, technology and policy mechanisms required to achieve the vision, while responding to the anticipated future growth in population, travel demand and changing land use patterns.

CHAPTER

3

The Transport
Opportunity

3.1 A Transport Vision for the Central West and Orana

By 2041, the Central West and Orana will be different from the region we see today. Regionally significant transport initiatives like Inland Rail and the upgrade of the Great Western Highway between Katoomba and Lithgow will be operational, considerably improving connectivity both within and beyond the region, as well as delivering a safer, more reliable transport network for the region and its people.

Almost one in every five (18 per cent) trips will be made by walking, cycling or public transport across the region, more than doubling the combined mode share from the 2016 Census. Key regional cities like Bathurst, Orange and Dubbo will be places that support a more urban lifestyle where people regularly choose to walk and cycle to shops, services, schools or work.

Through a continued focus on improving road safety outcomes, the Central West and Orana will be safer with Fatal and Serious Injury (FSI) crashes trending down in-line with the NSW-wide 'Towards Zero' goal of zero fatalities and serious injuries on our roads by 2056.

Innovation and advances in technology will continue to deliver improved safety, greater network resilience and freight efficiencies. The wider distribution of 'real-time' information to support informed decision-making and rollout of digital ticketing by 2024⁵ will see improved customer outcomes by enabling new and more personalised mobility solutions. Furthermore, the initial deployment of electric vertical take-off and landing (eVTOL) aircraft has the potential to deliver improved transport and health services for regional communities and businesses.

A higher proportion of the region's population will have access to day return services to their nearest regionally significant centre, making public transport an attractive alternative to the private vehicle for more trips, more often.

On-demand transport, point-to-point services and the evolving micro-mobility transport sector will complement traditional, timetabled public transport services to provide customers with more travel choices and at times of their choosing within key regional centres like Cowra, Forbes, Lithgow, Mudgee and Parkes.

Multi-modal connectivity between the Central West and Orana and Greater Sydney will be more efficient, reliable, comfortable and safe, whilst connectivity to the global gateways of Canberra and Newcastle will be improved through the application of the 'hub and spoke' approach to transport planning.

With the aid of Inland Rail and associated improvements to intermodal facilities located within the Parkes Special Activation Precinct (SAP), commodities will flow seamlessly both within and beyond the region. Supporting road and rail networks will be enhanced to accommodate more efficient vehicle combinations, embrace technology-driven solutions, and address first mile/last mile limitations through collaborative partnerships between all levels of Government and industry representatives. Connectivity to key regional airports will also be important going forward.

⁵ Transport for NSW 2021, Future Transport Technology Roadmap 2021-2024, p. 7

Through the Central West-Orana Renewable Energy Zone (REZ), the region will be well on the way to achieving a low emissions future. With the roll-out of zero emissions buses across NSW, public transport services will be both cleaner and more accessible, and the take up of electric vehicles will be supported by a comprehensive, local fast charging network underpinning the electric evolution of the vehicle fleet. Advances in hydrogen fuel cell technology will also address range anxiety for long haul transport.

Finally, management strategies which can adapt to changing circumstances will be in place that build resilience into the transport network, maintain emergency access along key routes, and bring the network back on-line quickly following planned and unplanned disruptions.



3.2 Achieving the Vision

The transport vision for the Central West and Orana will be achieved through the implementation of 18 key objectives and their supporting initiatives. The objectives are categorised under the following six broad themes, with supporting initiatives staged over multiple time periods and in order of importance.

- ▶ **Connected** – a transport network that facilitates seamless, multi-modal connectivity between where people live, work and play
- ▶ **Safe** – a transport network that delivers a safer future for the Central West and Orana
- ▶ **Liveable** – a transport network that supports vibrant places while enabling the successful movement of people to access jobs, services and social opportunities regardless of age, ability and income
- ▶ **Adaptive and Sustainable** – a transport network that both contributes to, and supports, a seamless transition to a low emissions future
- ▶ **Productive** – a transport network that supports the efficient, safe and sustainable movement of freight through the principle of ‘moving more with less’
- ▶ **Resilient** – a transport network that is resilient to major disruptions associated with natural disasters, climate change and planned and unplanned events

The themes, objectives and initiatives combine to articulate the realisation of the regional transport vision at a local level, as well as address the unique characteristics of the Central West and Orana.



3.2.1 Connected

From a connectivity perspective, one of the key themes that is promoted in both Future Transport 2056 and the Regional NSW Services and Infrastructure Plan for Regional NSW is the concept of 'hub and spoke'.

The 'hub and spoke' approach is the most effective way of delivering improved transport outcomes to more potential customers as it considers all transport links ('spokes') – be they by road, rail, footpath, cycleway or air – radiating out from regional cities, towns and villages ('hubs') and how they interact with each other.

The 'hub and spoke' network for the Central West and Orana focuses on transport connections radiating from the catchment areas of key regional cities and centres which serve as hubs for employment, education, health and retail services. The focus for smaller communities within each catchment will be improving multi-modal connectivity to their nearest major hub.

This Plan nominates the following objectives to help improve connectivity across the Central West and Orana.

- › **Objective 1** – Improve multi-modal connectivity within centres
- › **Objective 2** – Improve multi-modal connectivity within the region
- › **Objective 3** – Improve multi-modal connectivity beyond the region

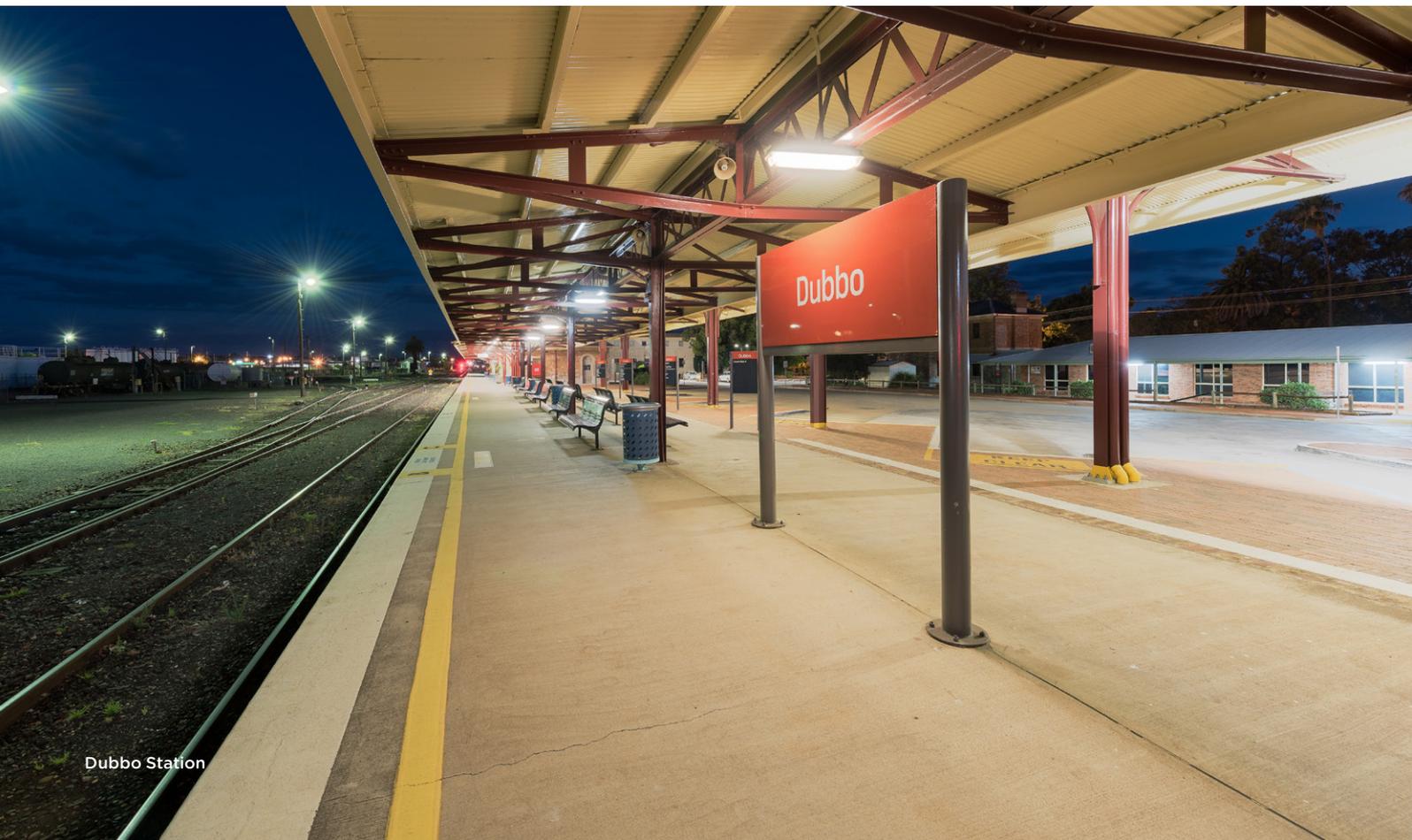
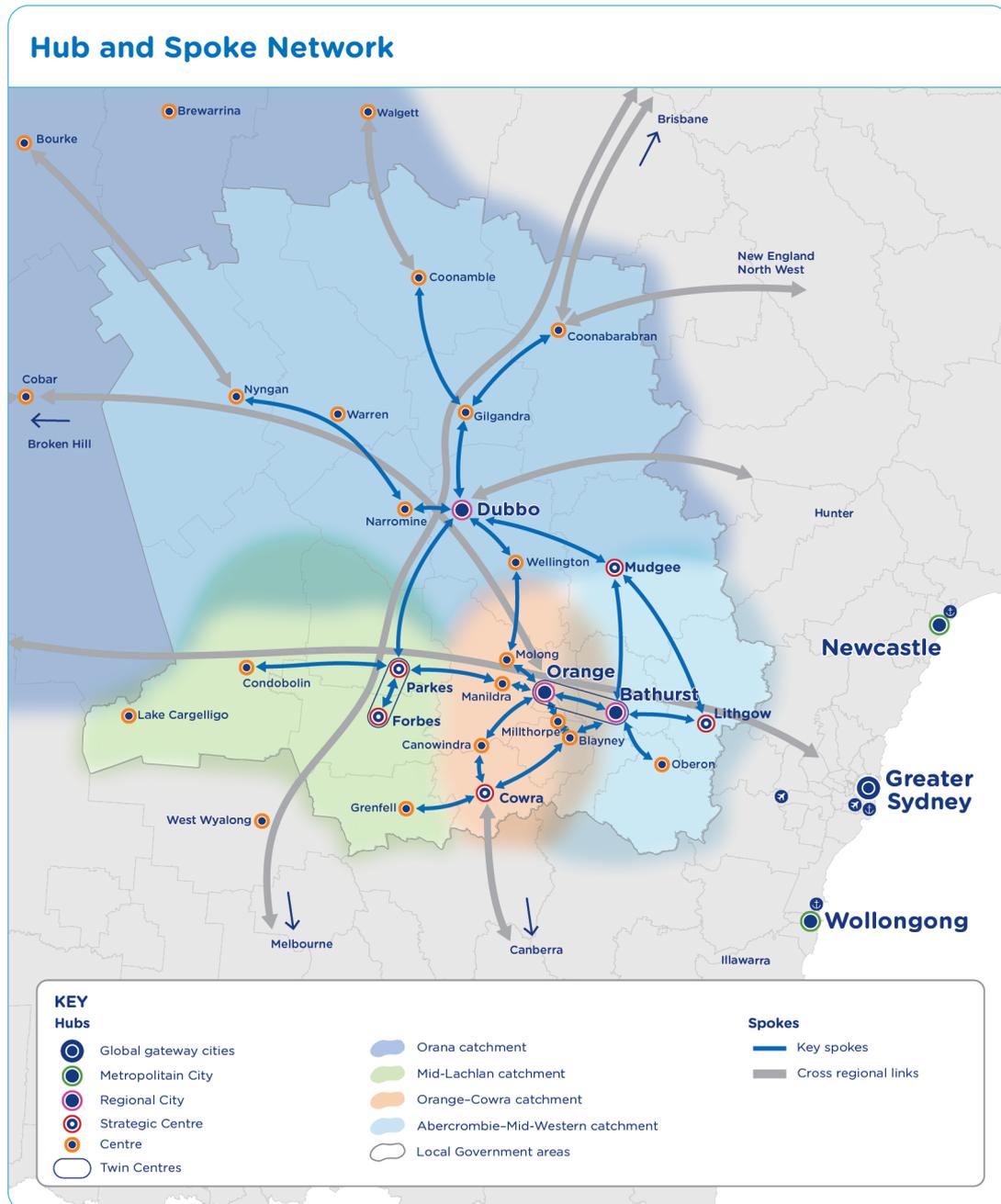


Figure 6: Hub and Spoke Network for the Central West and Orana



Objective 1 – Improve multi-modal connectivity within centres

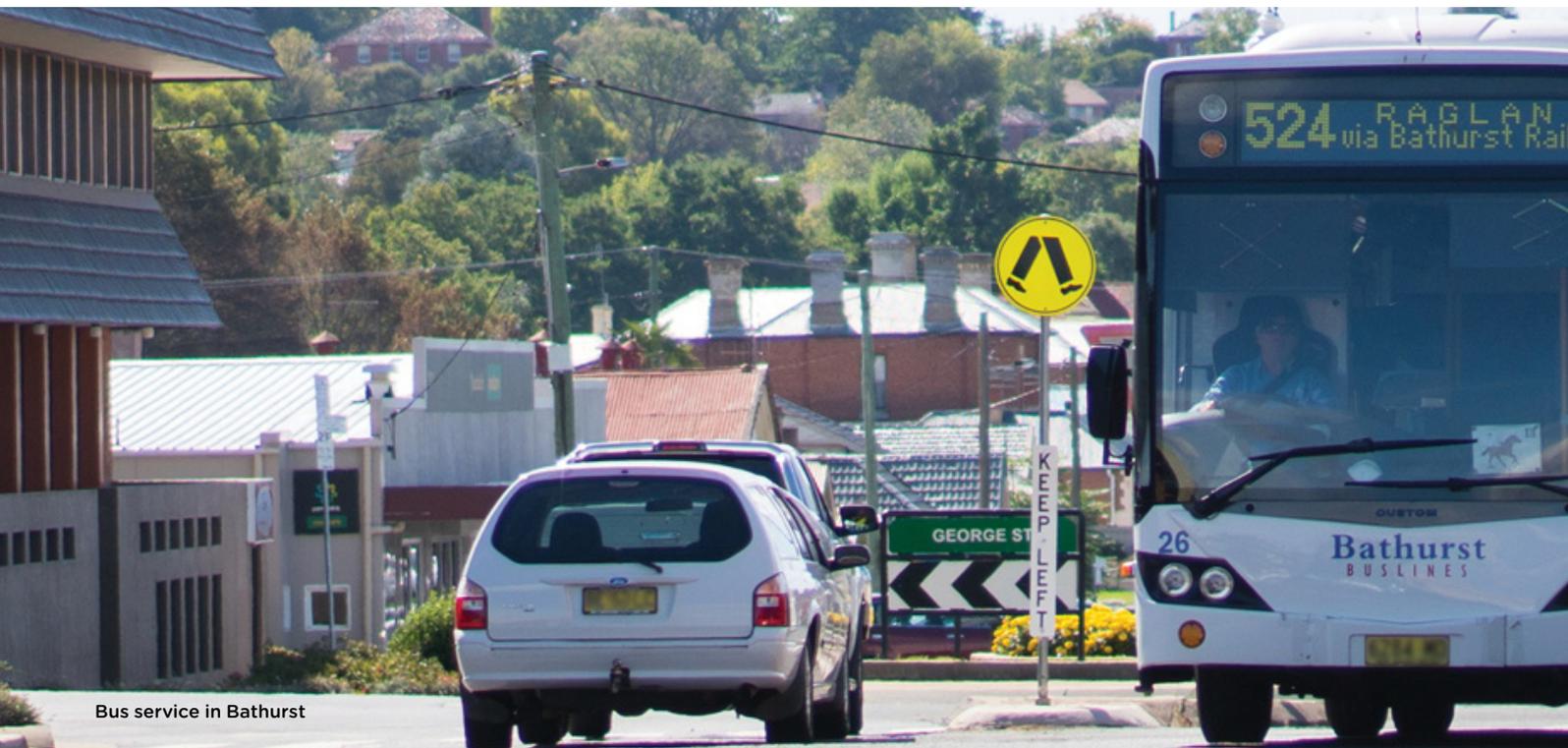
Improving multi-modal connectivity across the Central West and Orana will be key to making walking, cycling and public transport attractive alternatives to the private vehicle for more trips, more often. Private vehicle transport is the most dominant mode of transport across the region, accounting for 91 per cent of all journey-to-work trips, with walking (five per cent), public transport (one per cent) and cycling (one per cent) accounting for seven per cent of JTW trips.

The Regional NSW Services and Infrastructure Plan, a supporting plan of Future Transport 2056, seeks to increase the mode share for walking, cycling and public transport trips across Regional NSW to eight, five and five per cent respectively. This Plan will adopt similar modal targets for the Central West and Orana to deliver greater modal choice for more customers, more often and enable the regional transport network to better respond to the changing needs of the population throughout all stages of life.

The 16 Regional Cities Bus Services Improvement Program is a NSW Government commitment to improve bus services that support key regional transport hubs. The Program will deliver improved transport connectivity between where customers live, work and play through enhancements to existing services, as well as the identification of new services, to better support local connectivity.

Through the Program, Transport for NSW is currently planning improvements to bus services in Bathurst, Dubbo, Orange and Parkes. The service improvements are anticipated for completion by late 2023.

With the focus on regional cities in the short-term, in the medium-term Transport for NSW will also investigate opportunities to enhance public transport catchments around the strategic centres of Cowra, Forbes, Lithgow and Mudgee. In smaller centres across the region, community transport or on-demand style services may have a role to play in providing connectivity to key services.



Bus service in Bathurst

Across the region, approximately three in every four local people live within two kilometres of their nearest urban centre, making active transport an attractive alternative for the population. Active transport delivers significant health, environmental and economic benefits, creates communities that are resilient, and enables our communities to be more equitable, inclusive and liveable for everyone. Expanding the active transport network in the regional cities, centres, towns and villages will encourage more trips by walking and cycling across the Central West and Orana.

Finally, the evolving micro-mobility transport sector, characterised by electric bikes and shared e-bike services, offer alternatives for first and last mile travel between where people live and key destinations within regional cities, centres, towns and villages. Analysis undertaken by the National Association of City Transportation Officials (NACTO) showed that 136 million trips were undertaken on shared bikes and scooters across the United States in 2019, with an average trip length of between 1.5 to 2.5 kilometres.⁶

Many of these micro-mobility trips replaced private vehicle trips, provided access that was previously time-consuming by foot, or difficult on public transport by making it easier to reach that 'first mile'. Given micro-mobility could deliver a similar positive impact across the Central West and Orana, we will investigate how these devices can be safely accommodated into the transport network to provide customers with more choice and greater flexibility.

⁶ National Association of City Transport Officials, 2020



Objective 2 – Improve multi-modal connectivity within the region

Regional cities act as hubs for employment, retail, health, education and cultural activities for their surrounding catchment areas. Transport for NSW recognises the critical role that transport plays in connecting smaller towns and villages to their nearest centre, and the need to improve modal choice for our regional customers. The ‘hub and spoke’ approach has been developed to better respond to the travel needs of those living in smaller towns and villages.

Under existing conditions, private vehicle transport is often the only way for people living in smaller towns and villages to access their nearest centre or beyond the region. For those residents without access to a private vehicle or unable to drive, having no transport alternatives limits connectivity to the essential goods and services available in larger regional hubs or beyond the region, and can lead to social isolationism and disadvantage.

Transport for NSW proposes to improve multi-modal connectivity across the Central West and Orana by adopting the following approaches:

- ▶ Improve the safety and reliability of existing road and rail corridors;
- ▶ Enhance existing day return services across the region and investigate opportunities to expand the services offered and connections available; and
- ▶ Investigate opportunities for more frequent public transport services between key regional cities and centres.

To improve road connectivity between key regional cities and centres across the Central West and Orana, Transport for NSW is currently delivering, and planning for, safety and reliability improvements on the Great Western, Mitchell and Newell Highways. We will also investigate similar improvements on the Barrier, Castlereagh, Golden and Mid-Western, Henry Parkes Way, Lachlan Valley Way and The Escort Way.

From a rail perspective, with fleet being updated for regional rail services, a more comfortable and safe journey is anticipated in the future between regional centres. Transport for NSW will also investigate improvements to the Main West Rail Line to improve travel time reliability for both passenger and freight services. In the medium term, we will also work collaboratively with the Australian Rail and Track Corporation (ARTC) to investigate opportunities for passenger services to complement freight services on the Inland Rail alignment once operational.

Transport for NSW acknowledges that there is no ‘one-size-fits-all’ approach in connecting people from smaller towns and villages to their nearest regional city or centre by public transport. On-demand transport is a flexible transport service not fixed to a formal route or timetable that can pick passengers up from a convenient location and take them to where they need to go.

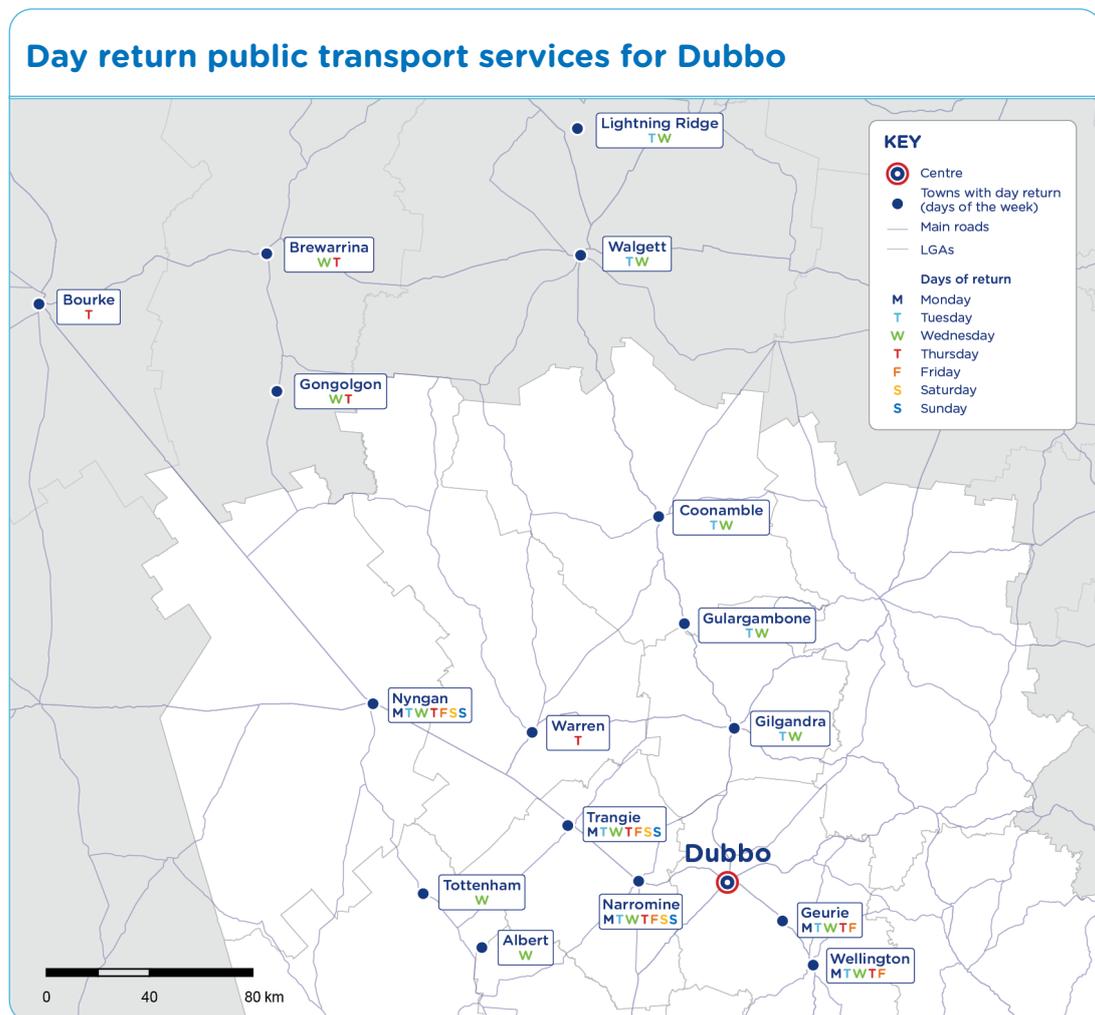
Transport for NSW has been trialling on-demand and weekly return coach services to better understand customer needs within smaller communities. These services, such as the trial from Wyangala to Canberra via Cowra, provide more rural and remote customers with greater access to essential health, education, employment and retail services that are not readily available in their current locality. The success of a trial service connecting Tottenham to Dubbo via Albert and Narromine led to the implementation of the service as a permanent public transport option. Transport for NSW will take learnings from these current and former trials and continue to

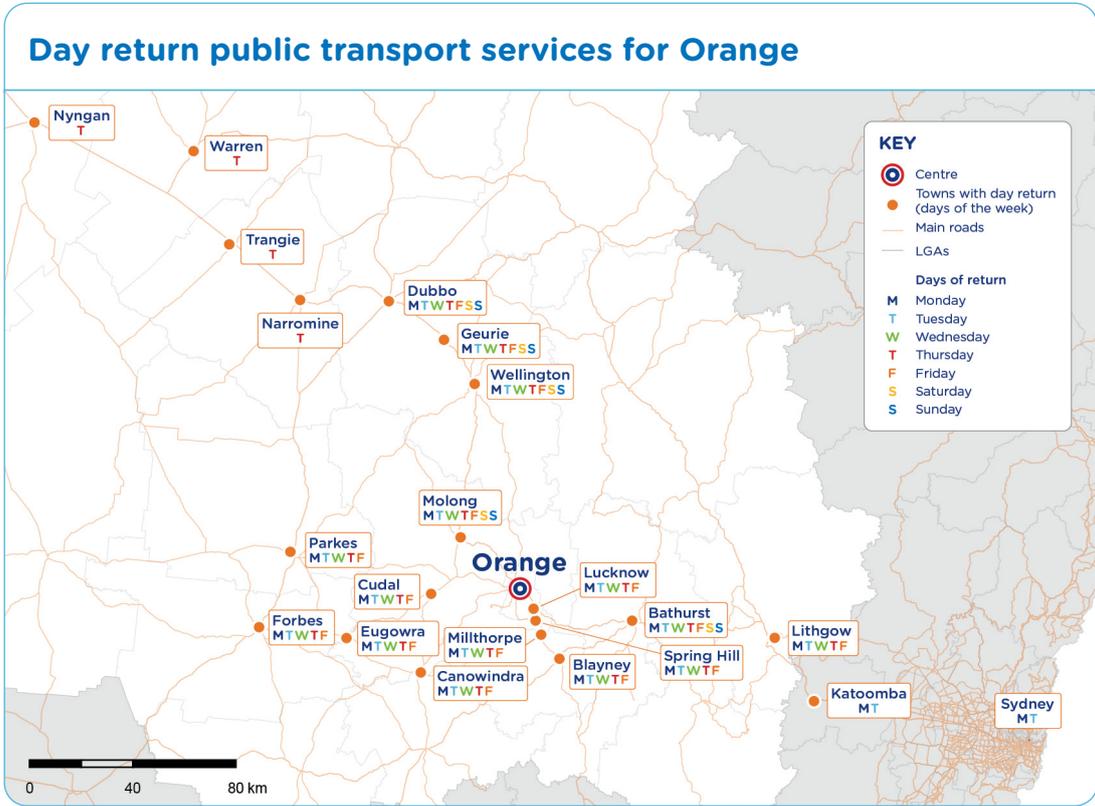
investigate opportunities for new flexible services across the region into the future. Additionally, we will be working collaboratively with community transport operators to identify opportunities for community transport to complement traditional timetabled bus services. For local Aboriginal communities, Transport for NSW will need to continue to work directly with these communities to identify culturally appropriate transport services.

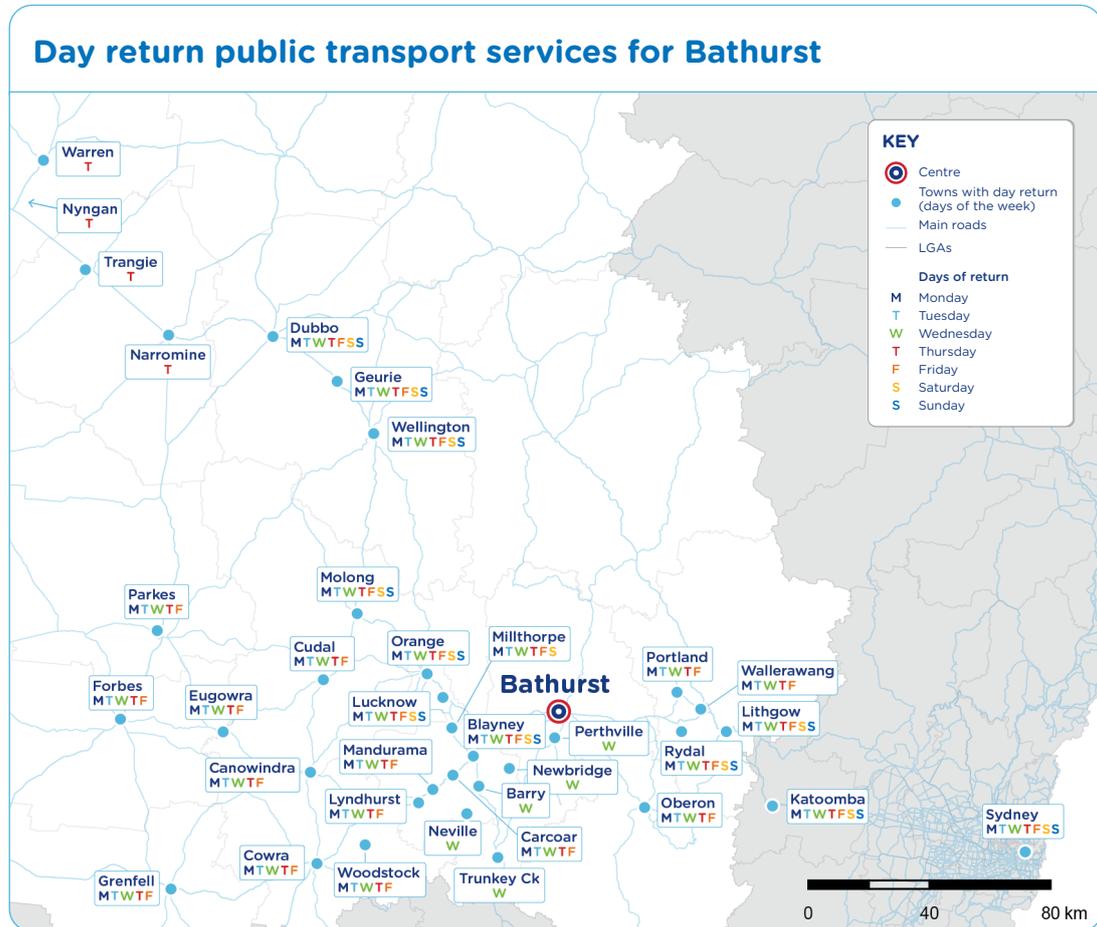
Day return services offer options for same-day connectivity to the nearest regional centre by public transport. These services support the transition towards increased 'hub and spoke' connectivity. Figure 7 shows the availability of current day-return services connecting more rural and remote customers with the regional cities of Bathurst, Dubbo and Orange.

Transport for NSW will investigate further opportunities to improve the frequency and timing of existing day return services across the Central West and Orana, as well as investigating new flexible connections for smaller communities to their nearest hub. We will also consider the appropriateness of the fleet to ensure it effectively meets the transport needs of the customer, as well as delivers a level of comfort that is cognisant of the trip length.

Figure 7: Existing day return service availability to Dubbo, Orange and Bathurst







Finally, for trips between key regional cities and centres, Transport for NSW will investigate opportunities to introduce more frequent public transport services to provide an attractive alternative to private vehicle transport. This will not only enhance the existing ‘hub and spoke’ networks of Bathurst, Dubbo and Orange, it will also deliver greater modal choice for more customers, more often. Routes for consideration could include Bathurst and Orange, Lithgow and Bathurst, Cowra and Orange, Parkes and Forbes, Dubbo and Wellington, and Mudgee and Gulhong.

Objective 3 – Improve multi-modal connectivity beyond the region

Facilitating improved multi-modal connectivity between the Central West and Orana and strategic global gateways like Greater Sydney, Greater Newcastle and Canberra will be integral to the long-term economic prosperity of the region, as well as effectively meet the needs of a growing, and more mobile, population.

Regional connectivity is being improved through major projects such as Inland Rail and the Great Western Highway Upgrade Program. The Great Western Highway upgrade, between Katoomba and Lithgow, will help provide improved safety and reliability for people travelling between Greater Sydney and the Central West and Orana. The upgrade will also support greater connectivity between regional centres, towns and villages in the Central West in particular.

Furthermore, progressive upgrades of major road corridors such as the Newell and Golden Highways will also improve safety and reliability for those customers travelling beyond the region.

From a rail perspective, the Bathurst Bullet now delivers a twice daily connection between Bathurst and Greater Sydney. This service is complemented with a daily service between Dubbo and Sydney Terminal, and more frequent intercity services between Lithgow and Sydney Terminal via the Blue Mountains Rail Line. As the Western Parkland City continues to evolve into the future, improved rail connectivity between the Central West and Orana with Western Sydney, including the new Western Sydney International (Nancy-Bird Walton) Airport, is anticipated to increase in importance.

To enhance the customer experience for people travelling by rail across the Central West and Orana, through the Regional Rail Project Transport for NSW will replace ageing XPT, XPLOER and Endeavour trains with new rolling stock. The new trains will provide:

- ▶ improved accessibility including accessible toilets on every train, wider doors, single-deck carriages, priority seating and accessible help points;
- ▶ improved customer information through digital information screens and announcements, and CCTV throughout the train; and
- ▶ Comfortable directional seating with aeroplane-style overhead luggage storage, seat pockets, charging ports for mobile devices and tray tables suitable for laptops.

The first new trains are expected to be running from 2023, with the full fleet coming into service progressively.

As part of the Regional Rail Project, a new purpose-built maintenance centre, named Mindyarra is being built in Dubbo to support the new fleet, stimulate the regional economy and help create sustainable job opportunities and skills for people of the Central West and Orana.

While acknowledging the strategic importance of the connection between the Central West and Orana and Greater Sydney, connectivity with the global gateways of Greater Newcastle and Canberra are also important for the region, particularly for the eastern Orana and more southern Central West communities respectively.

To further enhance these connections, Transport for NSW will investigate multi-modal improvements between the Central West and Orana and both Greater Newcastle and Canberra. This includes an investigation of safety and reliability improvements for the Lachlan Valley Way to improve connectivity between the region, Canberra and the South East and Tablelands. Similarly, we will also investigate passenger rail services between Dubbo and Greater Newcastle.

With the completion of Inland Rail in 2026, Transport for NSW will work collaboratively with the Australian Rail Track Corporation (ARTC) to investigate opportunities this corridor may deliver for passenger rail services across NSW, including through the Central West and Orana. In addition, beyond identified public transport service improvements, Transport for NSW will also investigate improved public transport connections, including coach services to regionally significant centres in neighbouring regions.

Accessibility to air travel helps improve the liveability of the region. Regular passenger air services are currently available from Bathurst, Dubbo, Orange, Parkes and Mudgee Airports which provide connectivity to various destinations beyond the region including Greater Sydney. Connecting airports in key regional cities to neighbouring towns through improved public transport and point-to-point services (and potentially eVTOL aircraft) will expand the population catchment with access to inter-regional air services. The NSW Government, partnering with local government and Industry, is testing eVTOL technology at Narromine Aviation Technology Park to understand the potential benefits for Regional NSW.

Finally, the NSW Government is currently finalising the Fast Rail Network Strategy. The Strategy will outline the economic and social benefits of fast rail in New South Wales and present a blueprint for the delivery of a fast rail network. Four routes are being investigated to improve connectivity in Regional NSW, including a western corridor between Greater Sydney, Lithgow, Bathurst, Orange and Parkes. These investigations are considering opportunities to grow regional economies and improve access to employment, health, education and services for regional customers and communities.

Figure 8: Artist impression of the New Regional Rail Fleet



3.2.2 Safe

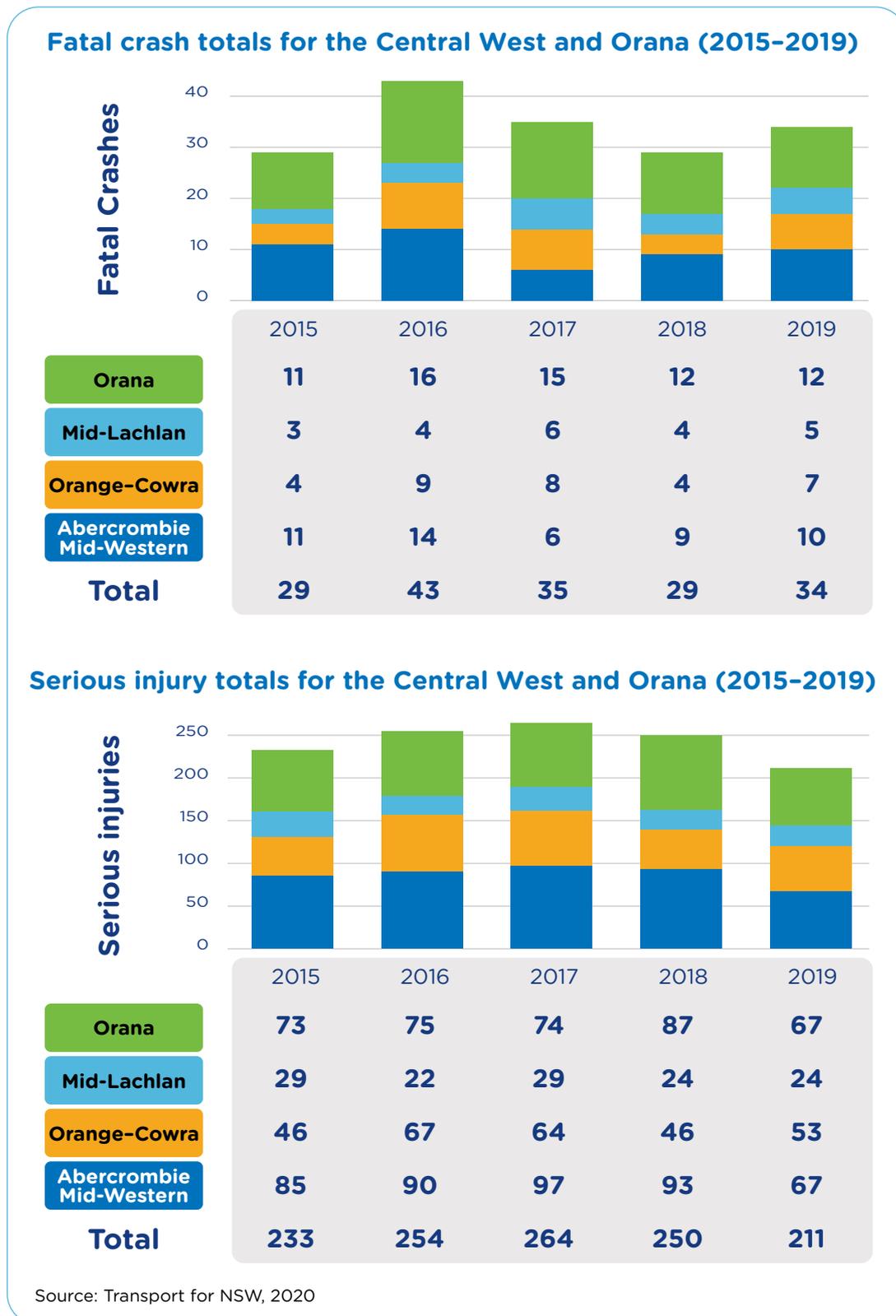
The Road Safety Plan 2021, a key supporting plan of Future Transport 2056, highlights the priority areas, actions and initiatives required to help NSW achieve the ambitious 'Towards Zero' goal of zero fatalities and serious injuries on our roads by 2056. This is particularly relevant for Regional NSW with the fatality rate on country roads four times the comparative metropolitan rate, and more than 70 per cent of people who die on country roads are local.

Figure 9 shows that the number of serious injury crashes across the Central West and Orana has reduced year-on-year since 2017, however the number of fatal crashes continues to fluctuate.

Through the following objectives and their corresponding initiatives and interventions, this Plan seeks to deliver a safer transport network for the Central West and Orana that proactively reduces fatal and serious injury crashes in-line with 'Towards Zero' goal.

- ▶ **Objective 4** – Proactively address road safety issues across the Central West and Orana
- ▶ **Objective 5** – Speed zones support improved safety outcomes for all customers
- ▶ **Objective 6** – Utilise technology to improve safety outcomes

Figure 9: Fatal and Serious Injury (FSI) Crash totals for the Central West and Orana 2015-2019



Objective 4 – Proactively address road safety issues across the Central West and Orana

Across the Central West and Orana, Transport for NSW will apply the Safe System approach when managing the transport network. The approach recognises that people do make mistakes and aims to ensure that when a crash occurs, the energy levels transmitted to a person are below what would cause a fatal or serious injury. The approach is underpinned by the following principles:

- ▶ people are fallible and make mistakes;
- ▶ roads, roadsides and vehicles need to be designed to minimise the likelihood of a crash occurring or reduce the force if a crash does happen; and
- ▶ road safety is a shared responsibility.

Figure 10: The Safe System Approach



In addition, Transport for NSW will continue to utilise the Saving Lives on Country Roads (SLCR) initiative to proactively support a safer road network across the Central West and Orana. The initiative is designed to address two key contributors to road fatalities and serious injuries on country roads – high-risk curves and driver fatigue.

Under the SLCR initiative, Transport for NSW is delivering safety improvements on the Castlereagh, Newell and Olympic Highways, as well as the Great Western Highway and Mitchell Highway corridor between Lithgow and Orange. A complete list of our current projects both in delivery and in planning can be found at towardszero.nsw.gov.au/safesystem/safe-roads.

A number of behavioural factors can be attributed to fatal and serious injury crashes. Across NSW, speeding is a factor in 42 per cent of fatalities, followed by tiredness and fatigue in 18 per cent of fatalities. Transport for NSW currently has a number of projects and campaigns underway or planned across the region to address behavioural issues as part of the 'Towards Zero' goal. The local government Road Safety Program (LGRSP) is one such initiative that proactively funds educational and behavioural initiatives to address local road safety priority issues such as drink and drug driving, fatigue, speeding and pedestrian safety.

To mitigate the severity of run-off road and head-on crashes, Transport for NSW is rolling out safety barriers and audio tactile line marking (ATLM) on major road corridors across the Central West and Orana. Safety barriers can reduce the severity of crashes by up to 95 per cent while audio tactile line marking provides a noise (audio) and vibratory (tactile) warning to motorists who may stray from the carriageway due to fatigue or poor visibility. ATLM is currently being installed on targeted sections of the Newell Highway.

To support safe driving behaviour, Transport for NSW will identify where additional rest stop facilities are required to ensure formal rest facilities are provided at appropriate intervals consistent with the Austroads Guidelines for the Provision of Heavy Vehicle Rest Area Facilities (Austroads, 2019) for all State Roads across the Central West and Orana. This will also include the identification of facilities for adult disabled amenities and change rooms.

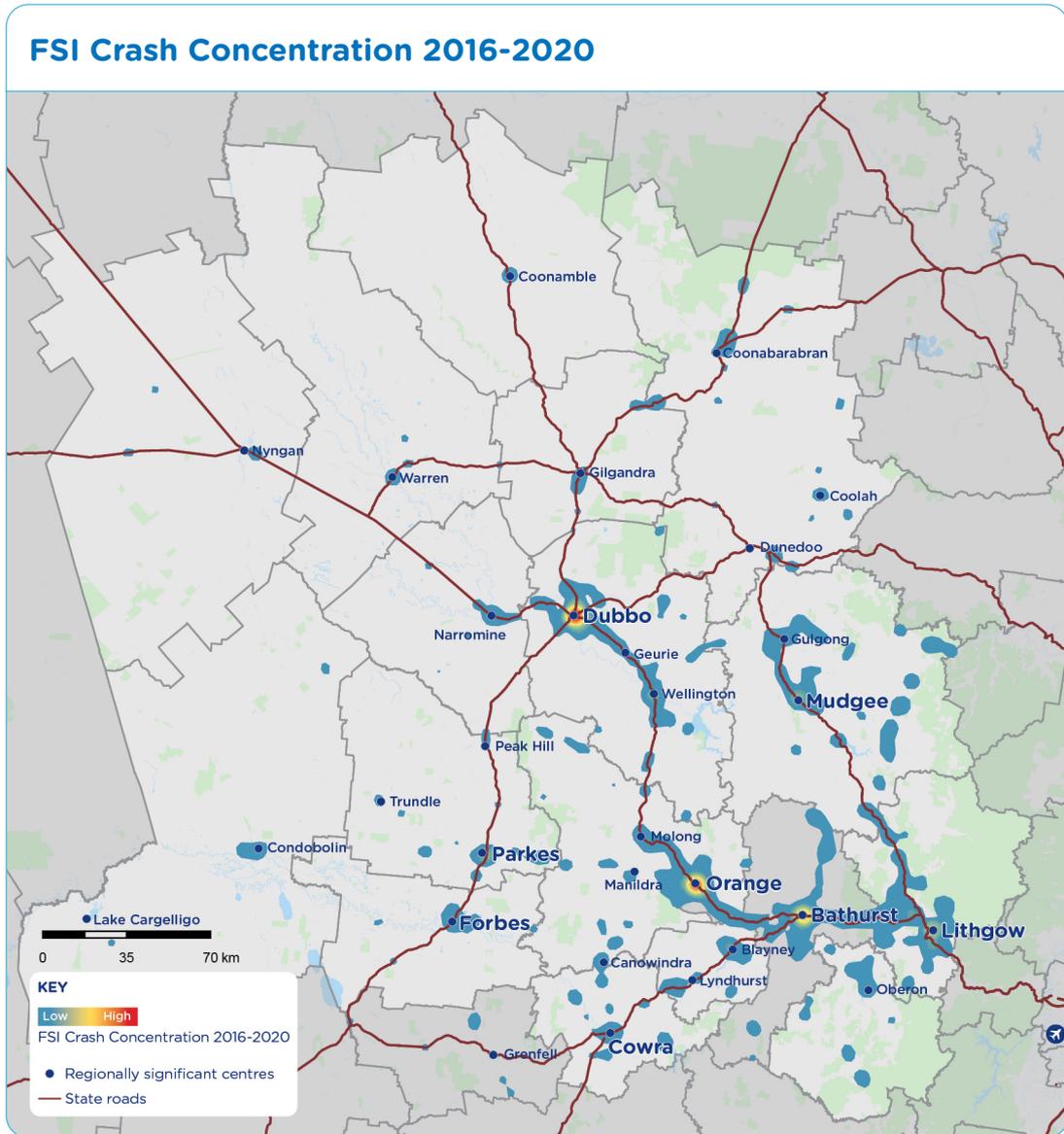
To improve safety at rail level crossings, Transport for NSW is working to implement a maximum speed limit of 80km/h in the vicinity of actively-controlled rail level crossings – crossings that use lights and boom gates to warn motorists. We have also committed to upgrade 18 level crossings across the region by mid-2023, including 12 level crossings that will be upgraded from passive controls – crossings that only use warning signs to notify motorists – to active controls.

While Transport for NSW will continue to take a proactive approach to road safety where possible, there will still be an ongoing need to resolve crash clusters and priority sites across the region. For the Central West and Orana, Figure 11 shows that the highest concentration of fatal and serious injury crashes recorded between 2015 and 2019 occurred:

- ▶ in the vicinity of the Bathurst, Dubbo, Orange and Lithgow;
- ▶ the Great Western Highway between Lithgow and Bathurst;
- ▶ the Mitchell Highway between Bathurst and Orange and Dubbo and Wellington; and
- ▶ the Castlereagh Highway between Mudgee and Gulgong.

Through the Safer Roads Program, Transport for NSW will continue to work with local government to resolve crash clusters and priority sites across the Central West and Orana to deliver sustainable and long-term reductions in road trauma.

Figure 11: Fatal and Serious Injury Crash Concentration 2016-2020



Objective 5 - Speed zones support improved safety outcomes for all customers

Speed limits are set so vehicles are able to safely respond to potential risks in the road environment. Additionally, speed limits need to be cognisant of place, considering both activities and land use beyond the pavement. Generally, where there are more people walking and cycling, lower speed limits are used to reduce the risk of crashes and people being seriously injured.

To support this position, analysis undertaken by Transport for NSW identified a 33 per cent reduction in crashes causing serious injuries and deaths in 40km/h high pedestrian activity areas across NSW between 2005 and 2015.

To ensure speed zones improve safety outcomes for all customers, Transport for NSW will commission speed zone reviews across the Central West and Orana to determine the appropriateness of existing posted speed limits.

Where it is established that the speed zone is not appropriate for the local environment, speed limits will be adjusted accordingly. Recent local examples of where speed zones have been reviewed include the speed limit reduction from 50km/h to 40km/h within the Forbes CBD, and the proposed reduction to 40km/h in the Orange CBD to better reflect local conditions and support improved safety outcomes.

Finally, Transport for NSW will work collaboratively with local government to investigate areas that could be suitable for the introduction of a 30km/h speed zone to provide a safer environment in areas of high pedestrian and cycling activity.



Objective 6 – Utilise technology to improve safety outcomes

The Central West and Orana has long been a testing ground for new safety-focused technologies that have benefited customers far beyond the region.

A new five-star vehicle safety testing facility has been established by Transport for NSW at a disused airport in Cudal to test future safety-focused technologies. Complementing the existing CrashLab in Western Sydney, the Cudal site will be able to test emerging technologies like Autonomous Emergency Braking and Lane Keep Assist in a controlled rural road environment.

Transport for NSW, in partnership with industry and Dubbo Regional Council, has announced a world first driverless ute trial that will connect key locations within Dubbo, whilst also focusing on how driverless vehicles handle movements of native wildlife. The ‘Smart ute’ will be a crew cab retrofitted with automation technology and will operate between Dubbo CBD, Dubbo Regional Airport and Taronga Western Plains Zoo.

Finally, apps such as Speed Adviser can assist drivers throughout the region, particularly on longer drives or where speed limits fluctuate. The free smartphone app was developed by Transport for NSW and is designed to reduce speeding by notifying the driver in real-time when the speed limit has been breached. The app also provides over-speed alerts for every active school zone in the Central West and Orana.



3.2.3 Liveable

Future Transport 2056 acknowledges the vital role transport plays in land use, tourism, and the economic development of villages, towns and cities. It also focuses on the role of transport in supporting the character of the places and communities we want in the future.

Through the following objectives, this Plan sets out how transport will positively contribute to the liveability of the region, and identify the initiatives required to eliminate barriers to travel at all stages of life and regardless of age, ability and income.

- › **Objective 7** – A transport network that both supports and enables vibrant places
- › **Objective 8** – A transport network accessible to all customers, regardless of age, ability and income
- › **Objective 9** – Improved access to travel information and legibility for all customers

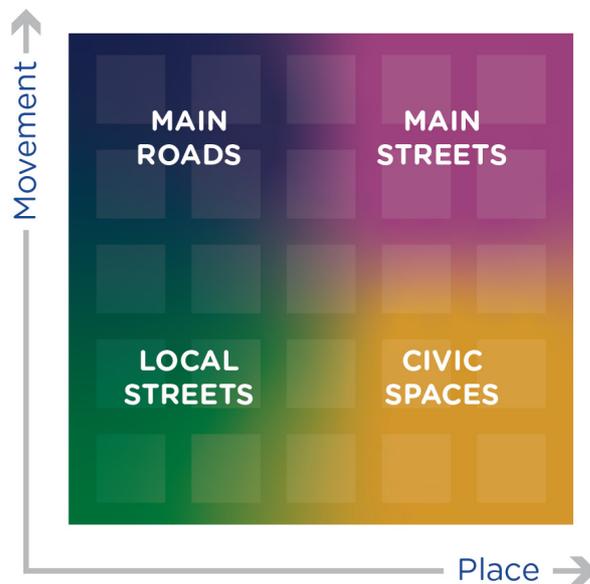


Objective 7 – A transport network that both supports and enables vibrant places

Movement and Place is a cross-government framework for planning and managing our roads and streets across NSW. The framework delivers on NSW policy and strategy directions to create successful streets and roads by balancing the movement of people and goods with the amenity and quality of places.

The framework considers the whole street including footpaths, from property line to property line and takes into account the needs of customers both moving through, and spending time, in a place. The framework will be a key tool to facilitate collaboration with stakeholders and deliver improved liveability for key 'places' across the region.

Figure 12: The four street environments that underpin the 'Movement and Place' framework



Transport for NSW will utilise the framework to inform improvements proposed for the Mitchell Highway (Summer Street) through Orange, the Newell Highway through Dubbo and Parkes, and the collaborative work being undertaken with Jenolan Caves Reserve Trust on Jenolan Caves Road.

In addition, Transport for NSW will utilise the framework to inform development of Place-based Transport Plans for the regional cities of Bathurst, Dubbo and Orange. Co-designed in collaboration with local government and relevant State Agencies, Place-based Transport Plans will provide a clear cross-Government vision for transport, infrastructure and land use and support shared accountability for the initiatives identified to achieve the vision.

Finally, through the NSW Government's Streets as Shared Spaces Program, funding has been announced for activation projects in Bathurst, Coonabarabran, Gilgandra and Lithgow. The Program provides funding to local government for temporary activation projects in the public domain to test ideas for more permanent improvements to local streets, paths and outdoor spaces.

Objective 8 – A transport network accessible to all customers, regardless of age, ability and income

The transport network plays a major role in connecting people with key services no matter where they are located in the region. To fulfil this role, Transport for NSW, together with local government, needs to provide a combination of services and infrastructure that facilitates multi-modal transport options for all customers, regardless of age, ability and income.

First announced in 2012, the NSW Government has invested \$1 billion to improve accessibility to transport facilities through the Transport Access Program (TAP). Through ongoing investment in the Program, Transport for NSW will continue to deliver a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure. The Program aims to deliver:

- ▶ stations that are accessible to people with a disability, limited mobility and parents with prams
- ▶ modern buildings and facilities for all modes that meet the needs of a growing population
- ▶ modern interchanges that support an integrated network and allow seamless transfers between all modes for all customers

Within the Central West and Orana, planning is underway for a TAP upgrade at Dubbo Station, whilst both Blayney and Parkes Stations have been upgraded through the Program over the past 12 months.



Artist's impression of Parkes Station Upgrade

The Country Passenger Transport Infrastructure Grants Scheme (CPTIGS) provides subsidies to support the construction or upgrade of bus stop infrastructure across Regional NSW. To date, a number of new bus stop shelters and Disability Discrimination Act (DDA) (Commonwealth of Australia, 1992) compliance upgrades have been funded by the program, including 17 new shelters and seven upgrades to existing stops across the Central West and Orana.

Point-to-point transport options like taxis, hire cars, tourist services and rideshare have delivered flexible, convenient options for customers at a time of their choosing, via the route they prefer, and maintain accessibility for people without access to a private vehicle or in areas where public transport services are limited. On-demand trials provide a flexible approach to investigating new transport services across the region.

Reforms introduced in community transport also provide options to travel to medical appointments for disadvantaged groups in the community. Bathurst Community Transport, with assistance from the private sector, run a service from Bathurst to Orange Base Hospital for patients who need to access the Department of Radiation Oncology. Transport for NSW will work with NSW Health and industry representatives to identify additional transport opportunities to connect patients with critical medical appointments across the region.

The NSW Government is also trialling a travel card for eligible seniors who live in regional, rural and remote areas of NSW to help reduce travel costs associated with living outside of major cities. The Regional Seniors Travel Card is a prepaid card with \$250 to spend on travel-related expenses such as pre-booked NSW TrainLink train and coach services, fuel and taxi services.

Finally, following recommendations by the Independent Pricing and Regulatory Tribunal (IPART), bus fares in Regional NSW were reduced from January 2021, including the introduction of adult daily tickets capped at \$5 for short trips. More affordable fares provide equity across NSW, eliminate barriers to travel and encourage greater social inclusion.



Objective 9 – Improved access to travel information and legibility for all customers

Transport for NSW will aim to provide comprehensive, accurate information to deliver a more positive customer experience for more people, more often and empower greater real-time journey planning.

The NSW Regional Rail Fleet Project will see XPT, XPLOER and Endeavour trains replaced with a new regional train fleet that will considerably improve safety, accessibility, amenities and reliability for customers who travel between Regional NSW and Greater Sydney. The first trains will be progressively introduced from 2023.

The Transport Connected Bus (TCB) Program is delivering the technology platform for the tracking and automatic passenger counting of Transport for NSW-contracted buses in Regional NSW, enabling customers to be informed with trip information in real-time and services to be assessed through reporting and analytics.

After successful trials of real-time tracking and passenger occupancy information for buses in Dubbo, Coffs Harbour and Bega Valley, the Program is being rolled out to other regional cities including Bathurst, Orange and Parkes. Technology improvements such as the TCB Program support improved real-time journey planning for our Regional NSW customers.

Finally, through the recently-released Future Transport Technology Roadmap 2021-2024, Transport for NSW will investigate the rollout of Opal Contactless ticketing into Regional NSW to provide convenient frictionless ticketing on all public transport services across NSW, with cash and paper tickets maintained where needed. This will deliver greater flexibility and seamless journeys for our customers.



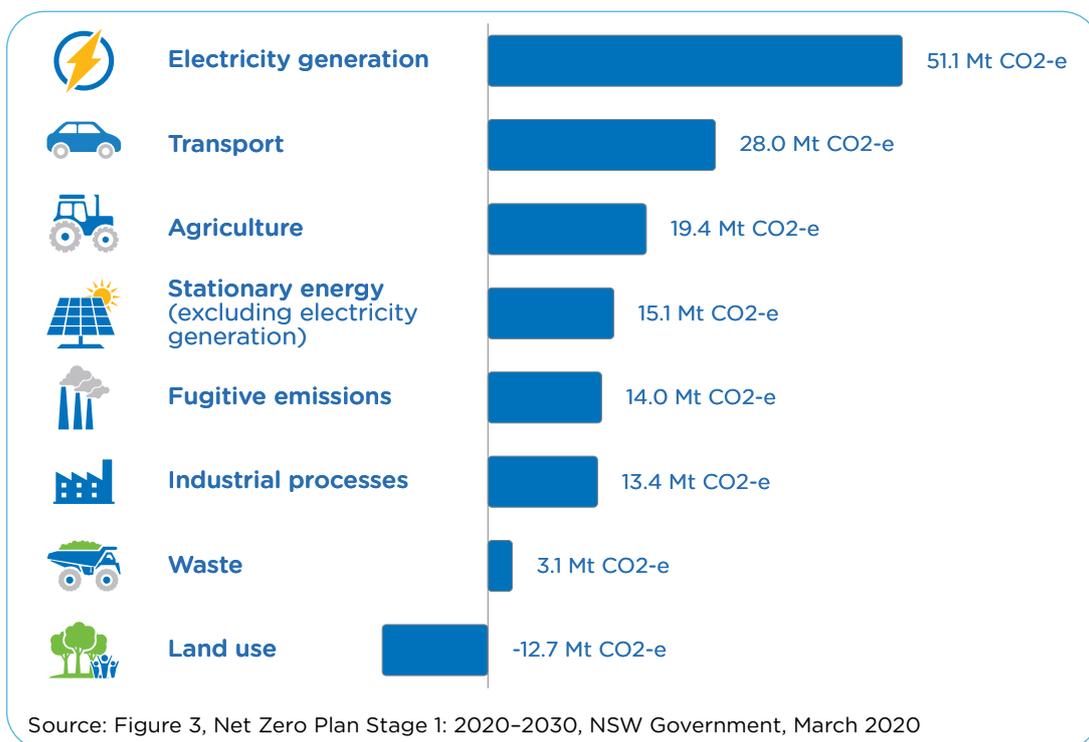
3.2.4 Adaptive and Sustainable

In March 2020, the NSW Government released the Net Zero Plan Stage 1: 2020-2030. The Plan is the foundation for NSW's goal to reach net zero emissions by 2050, and presents a framework for how NSW will achieve a 50 per cent cut in emissions by 2030 compared to 2005 levels.⁷

From a NSW-wide perspective, the transport sector was the second largest contributor to greenhouse gas emissions in 2017.

Transport for NSW supports the NSW Government's goal to reach net zero emissions by 2050 and acknowledges that the transport sector will need to play a key role in the transition towards a low emissions future. Through a combination of infrastructure improvements, policy interventions and behavioural change, the transport sector will need to adapt over the next 20 years to meet both the interim 2030 target, as well as drive the regional transition to a low emissions future.

Figure 13: NSW emissions by sector in 2017



For the Central West and Orana, Transport for NSW has nominated the following three objectives to transition the transport sector towards a low emissions future:

- › **Objective 10** – Embrace technology to reduce the need for travel
- › **Objective 11** – Increase the number of trips made by walking, cycling and public transport across the Central West and Orana

⁷ SW Government, 2021, Net Zero Plan Stage 1: 2020-2030 Implementation Update, p. 4

- › **Objective 12** – Facilitate the fleet transition to emissions-free technology

Objective 10 – Embrace technology to reduce the need for travel

The COVID-19 pandemic has seen major changes in our way of life. What was once thought impossible has, over the space of several months, become not only possible but in many ways the ‘new normal’. The rapid expansion of working from home opportunities, as well as increased reliance on telehealth services and online shopping, have combined to reduce the need to travel during the pandemic.

The common thread between these behavioural trends is technology. The continued embrace of technology-led solutions beyond the pandemic will provide opportunity for people to travel less, reducing peak demand on the transport network and contribute to greater sustainable behaviour overall.

The NSW Government’s 20 Year Economic Vision for Regional NSW identifies the need for affordable, reliable and fast mobile and internet connectivity to support people and businesses. Transport for NSW will continue to work with and support other NSW Government agencies to ensure strong digital connectivity across our transport network into the future.

Over the next 20 years, Transport for NSW will ensure that both the transport network, and transport services, across the Central West and Orana are well positioned to embrace the new opportunities and policies that will emerge from this technology-led future.



Objective 11 – Increase the number of trips made by walking, cycling and public transport across the Central West and Orana

Trips made on foot or by bicycle are in essence, emissions free. Similarly, while public transport may be predominantly powered by fossil fuels today, with Transport for NSW committed to the transition of the NSW bus fleet to Zero Emissions Buses (ZEB), combined with the ongoing transition of the electricity grid to renewables, public transport also has the potential to operate emissions free in the foreseeable future.

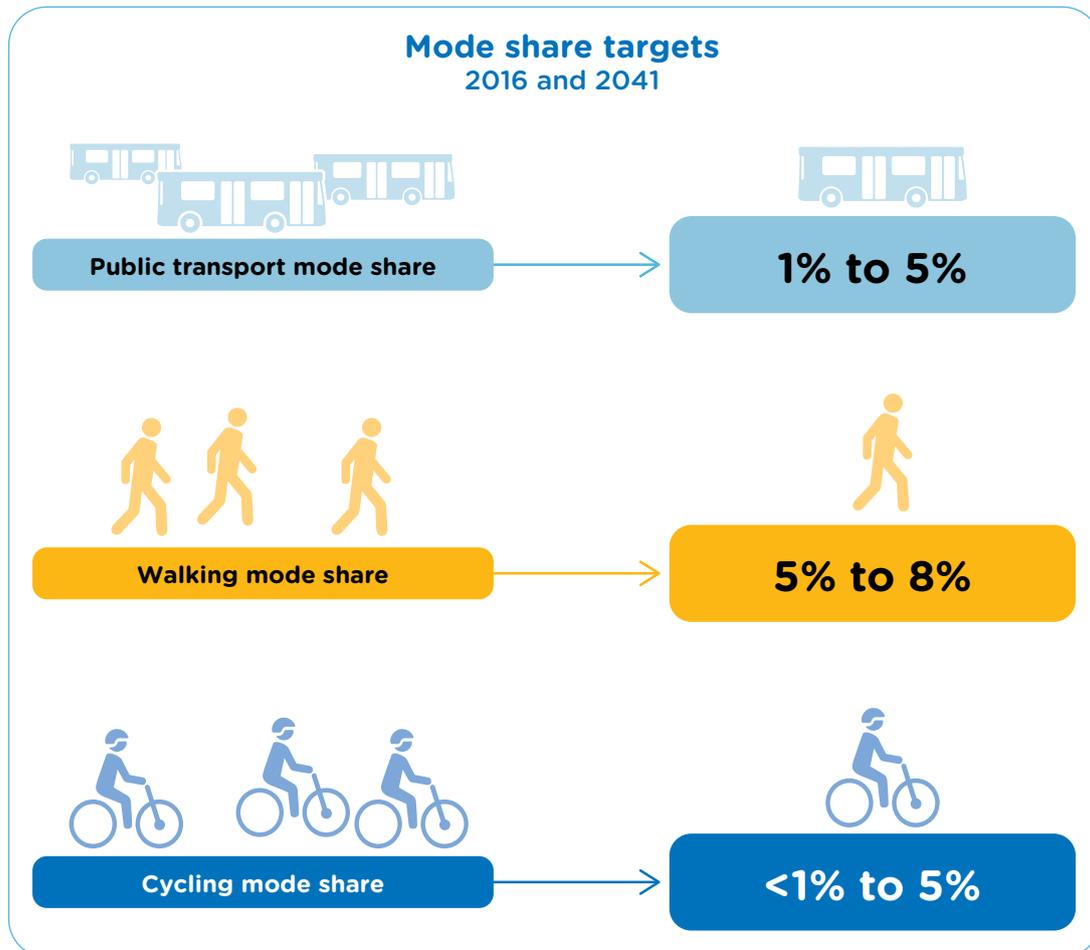
Encouraging more people across the Central West and Orana to walk, cycle and catch public transport over the next 20 years will play a key role in meeting NSW's goal to reach net zero emissions by 2050.

Data compiled from the 2016 Census shows that for the Central West and Orana, private vehicle transport was the dominant mode of choice for journey-to-work trips at 91 per cent, followed by active transport (walking and cycling combined) at six per cent and public transport at one per cent.

By 2041, we want to see almost one in every five (18 per cent) trips made by walking, cycling or public transport across the Central West and Orana (see Figure 14). This step change in regional travel behaviour will require collaborative coordination between local government, State Agencies, industry partners, and local communities, and be underpinned by a comprehensive suite of infrastructure and service improvements, and complementary education campaigns.

To support this step change, our Providing for Walking and Cycling in Transport Projects Policy necessitates that every transport project funded by Transport for NSW must include provision for walking and cycling within the core scope of the project. In order to deliver the best outcomes for our customers in line with Future Transport 2056, walking and cycling components of a project must be incorporated from the outset.

Figure 14: 2041 Mode share targets for the Central West and Orana



Through the NSW Government's Walking and Cycling Program, Transport for NSW will work collaboratively with local government to address barriers to walking and cycling across the transport network, and ensure active transport is the most convenient option for short trips regardless of the asset owner. This includes working with Bathurst, Dubbo and Orange LGAs to investigate expanded cycling networks across these three cities.

Similarly, Transport for NSW will work collaboratively with the NSW Department of Education, Catholic Schools NSW and local government to address barriers to walking and cycling to schools across the Central West and Orana. In the 1970's, three out of every four school children walked or cycled to school in Australia.⁸ Today on average, only one in every four school children walk or cycle to school, with the majority now being driven.

For new residential estates and urban renewal precincts, Transport for NSW will work with local government, DPIE and industry partners to ensure new neighbourhoods are walking and cycle-friendly, support seamless integration with established active transport networks, and are supplemented with complementary infrastructure that prioritises walking and cycling. Similarly, we will also work with these stakeholders to better design places for people to support vibrant places and effectively balance movement and place.

Transport for NSW will also encourage local government to necessitate the provision of secure bicycle parking and end-of-trip facilities – change room facilities, showers, personal storage space (lockers) – for all new developments to further support the shift towards more sustainable travel behaviour across the Central West and Orana.

Building on the public transport initiatives highlighted earlier – 16 Regional Cities Services Improvement Program, enhanced day return services, investigation of more frequent services between key regional cities and centres – Transport for NSW will investigate opportunities to complement traditional, timetabled services with both on-demand transport and community transport services.

Finally, following the successful repurposing of the Tumbarumba to Rosewood Rail Line as a rail trail, Transport for NSW work with relevant stakeholders to investigate opportunities across the Central West and Orana to repurpose redundant road and rail assets for active transport use.

⁸ Heart Foundation, 2018



Cycling event in Bathurst NSW

Objective 12 – Facilitate the fleet transition to emissions-free technology

Electric vehicles forecast to reach upfront price parity with traditional combustion engine vehicles in Australia from 2024.⁹ Combined with the NSW Government’s aspirational target for hydrogen to make up 10 per cent of the total gas network by 2030, there is both the need and the opportunity for a transition towards a future where both electric and hydrogen fuel cell vehicles become the norm rather than the exception.

The transition to a cleaner, greener transport future will require both leadership and collaboration between State Agencies, local government and industry to deliver the required infrastructure and services that will both enable, and encourage, the change to occur.

Under existing conditions, charging options for electric vehicles across the Central West and Orana are relatively limited, while refuelling opportunities for hydrogen fuel cell vehicles do not yet exist.

To address this issue, Transport for NSW is working collaboratively with DPIE to support the development of a comprehensive Electric Vehicle Charging Station Network across Regional NSW. Furthermore, the NSW Government is currently partnered with the NRMA to deliver at least 20 additional electric vehicle fast chargers along the State’s major highways in Regional NSW, including the Barrier, Mitchell and Castlereagh Highways.

Transport for NSW’s Future Energy Strategy and Future Energy Action Plan focus on the actions that we are taking to achieve net zero by 2050. Headline actions to be delivered by 2025 include:

- ▶ transitioning all operational electricity for public transport to net zero energy;
- ▶ 70 per cent of TfNSW passenger fleet will be low emissions vehicles; and
- ▶ 20 per cent of TfNSW passenger fleet will be battery-electric or hydrogen fuel cell.

In line with these targets, Transport for NSW has committed to transition the entire NSW fleet of over 8,000 mainly diesel buses to clean and quiet zero-emissions buses. Over 50 electric buses have already been ordered and plans are underway to expand the transition across metropolitan and regional areas.

In addition, the new Regional Rail fleet will utilise bi-mode technology to enable these new trains to run on overhead power when operating on the electrified network and use on-board diesel generators when operating outside the electrified network. Operating the trains in a bi-mode configuration is expected to reduce annual carbon emissions by around 540 tonnes.

Over the next three years, Transport for NSW will also commence the transition of our passenger fleet in the Central West and Orana, and work with local government to encourage a similar transition in their respective fleets. By working together, the combined purchasing power of the public sector can help provide the market with confidence to supply more affordable, low emissions products and services to the wider market.

⁹ NSW Government 2020, Net Zero Plan Stage 1: 2020-2030, p. 17

To boost the commercialisation of low emissions hydrogen production and applications, the NSW Government has set an aspirational target for injecting 10 per cent hydrogen into the gas network by 2030. This commitment is likely to have associated benefits for the transport sector, and could open up opportunities for hydrogen fuel cell vehicles across New South Wales.

Like electric vehicles, hydrogen fuel cell vehicles are also emissions free, converting compressed hydrogen into electricity to power an electric motor. They offer the advantages of longer operating ranges, lighter weight and rapid refuelling capability, which may suit long distance freight operations.

The 'Central-West Orana Pilot Renewable Energy Zone' (REZ)

The NSW Government is planning the first Renewable Energy Zone (REZ) for NSW in the Central West and Orana. A REZ combined renewable energy generation such as wind and solar, storage such as batteries, and high-voltage poles and wires to deliver energy to customers. By connecting multiple generators and storage in the same location, REZs capitalise on economies of scale to deliver cheap, reliable and clean electricity for homes and businesses in NSW. Proposed for land in the vicinity of Dubbo and Wellington, the REZ is expected to be shovel-ready by the end of 2022 and unlock up to 3,000 megawatts (MW) of new electricity capacity by the mid-2020s.

The REZ will not only help meet the needs for electricity generation for NSW, but offers opportunities for investigation for the transport sector to take advantage of cheap and readily accessible clean energy from the REZ. This could include sourcing clean energy for charging electric buses, or proactively using electric vehicles as a 'solar sponge' by charging vehicles at times where the electricity generated is greater than demand.



Electric vehicle charging station

3.2.5 Productive

The freight task for the Central West and Orana is anticipated to evolve considerably over the next 20 years. While the transportation of coal is forecast to decline, the transportation of other key commodities like grain and quarry materials by road and rail are estimated to increase up to 2041 and beyond.

With this anticipated growth, it is vital the supporting freight network remains fit-for-purpose, is agile to changing demands and future need, uses technology to drive innovation and deliver safe, efficient and sustainable outcomes, and encourages the greater use of high productivity vehicles and trains to facilitate ‘moving more with less’.

Furthermore, with the variety of commodities transported from the Central West and Orana, future freight planning also needs to be tailored to suit the commodity rather than a ‘one size fits all’ approach.

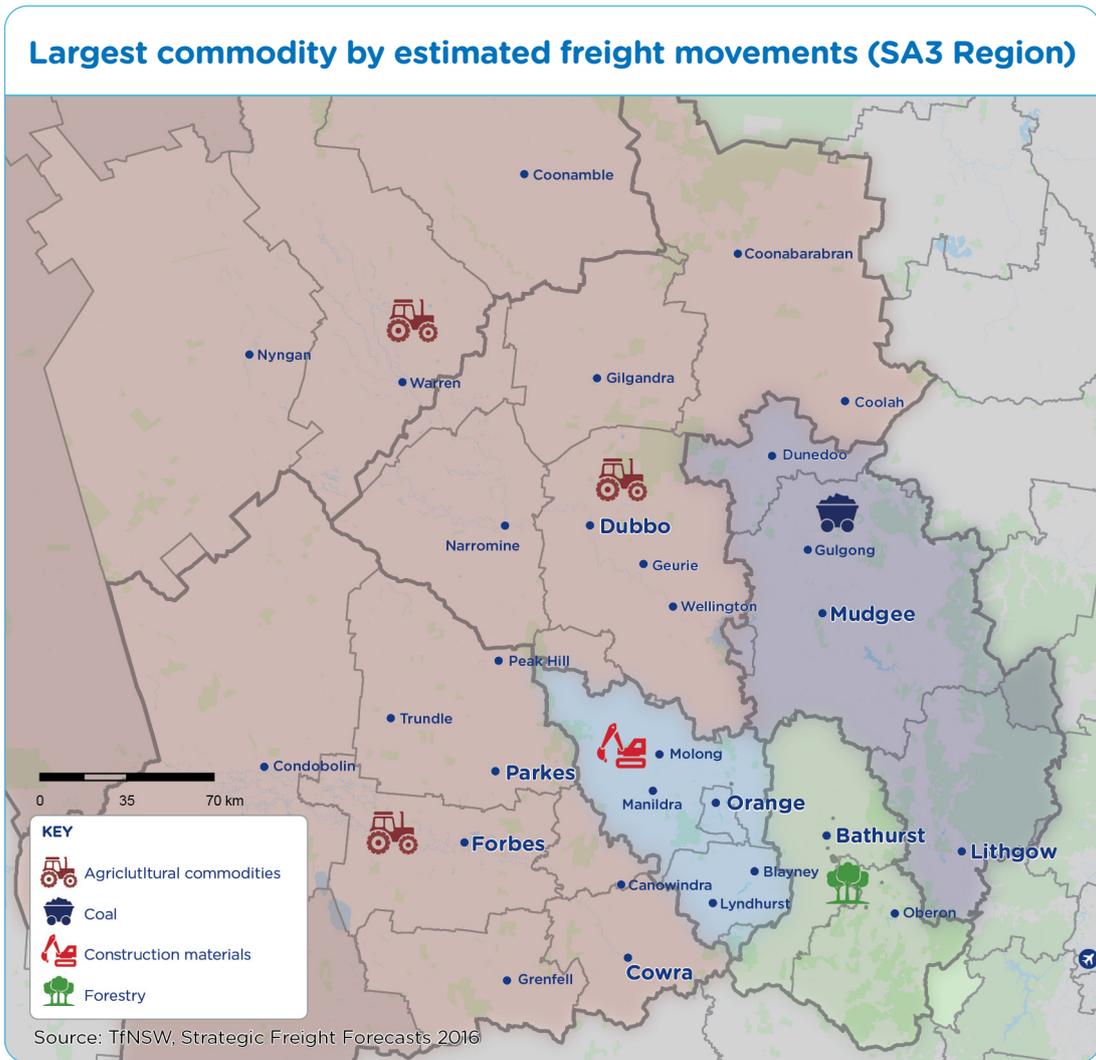
Through the following objectives, this Plan will deliver a safer, more efficient, and technologically-advanced freight network for the Central West and Orana both now and into the future:

- ▶ Objective 13 - Enable appropriate freight connections to Inland Rail, Special Activation Precincts and major freight hubs
- ▶ Objective 14 - Expand the High Productivity Vehicle (HPV) Network across the Central West and Orana
- ▶ Objective 15 - Strengthen connections to major freight destinations beyond the region
- ▶ Objective 16 - First-and-last mile barriers and land use conflicts are resolved to support successful places

Figure 15: Freight movement forecasts to and from the Central West and Orana



Figure 16: Major freight commodities across the Central West and Orana



Freight train near Warren NSW

Objective 13 – Enable appropriate freight connections to Inland Rail, Special Activation Precincts and major freight hubs

Under existing operations, the majority of commodities originating from the Central West and Orana are transported east by road and rail bound for destinations in Greater Sydney, the Hunter and Illawarra-Shoalhaven. However, with major infrastructure projects like Inland Rail and the Parkes Special Activation Precinct (SAP) scheduled to be operational within the next decade, the way commodities are transported both through and beyond the region is expected to change with improved access to new markets.

The Parkes SAP, which sits at the intersection of the Main West Rail Line and the Inland Rail route, positions the Central West and Orana as a strategic location for the distribution of freight between Australia’s five largest cities. Parkes, being within 12 hours of 80 per cent of Australia’s population, has a unique position which the SAP is seeking to exploit. Transport for NSW will investigate existing road and rail connections to Inland Rail and the Parkes SAP to ensure there is appropriate freight access from the wider Central West and Orana region.

Many existing Central West and Orana intermodal facilities already handle significant freight volumes. Intermodal facilities play a key role in the consolidation, storage and transfer of containerised freight between rail and road. They occupy a critical position in the rail-based supply chain and are essential to increasing the movement of commodities by rail.

Intermodal facilities, as well as bulk grain receiving sites, are significant freight generators across the region. Even with the inclusion of Inland Rail and the Parkes SAP, the movement of commodities from the Central West and Orana towards the east coast is anticipated to continue over the next 20 years and beyond. To sustain these important freight connections into the future, Transport for NSW will work collaboratively with all levels of government to address known road and rail freight constraints both within and beyond the Central West and Orana, as well as continue to plan for improved access to key freight facilities where appropriate.

Finally, Transport for NSW is undertaking a number of upgrades on rail lines across the region to improve capacity and productivity for rail freight. This includes new crossing loops recently completed or under construction on the Main West and Broken Hill Rail Lines.



Figure 17: Intermodal facilities in the Central West and Orana



Objective 14 - Expand the High Productivity Vehicle (HPV) Network across the Central West and Orana

Appropriate connections to major corridors are necessary for a productive journey. Under existing conditions, a number of key freight routes within the Central West and Orana cannot currently support the use of High Productivity Vehicles (HPVs). HPVs are vehicles that can carry more freight more efficiently, with improved safety and environmental performance.

Transport for NSW is delivering, and has committed to, a number of projects across the Central West and Orana that encourage freight operators to expand the use HPVs.

On the Newell Highway corridor, the Parkes Bypass will improve access for HPVs, as well as improve connectivity and safety for local and interstate customers. Once the project is complete, a key constraint for HPVs will be removed from the State Road network and vehicle combinations up to a PBS Level 3A vehicle will be able to utilise the full length of the Newell Highway from the Victorian Border in the south to the Queensland Border in the north.

From an east-west perspective, the proposed upgrade of the **Great Western Highway between Katoomba and Lithgow**, which the Australian and NSW Governments have already committed \$4.5 billion, will deliver improved access for HPVs between the Central West and Orana and Greater Sydney.

Transport for NSW has also been progressively gazetting routes west of the Newell Highway to support the expanded use of HPVs across the region. Gazettal of freight routes for HPVs reduces the need for operators of HPV fleets to obtain permits on a case-by-case basis.

Finally, to continue the efficient transportation of freight across the Central West and Orana, Transport for NSW will work with local government and industry partners to develop a Freight Blueprint for the region. This will include investigating opportunities to expand the HPV network across the region, and working collaboratively to address conflict between heavy vehicles and local communities in urban centres.

Objective 15 – Strengthen connections to major freight destinations beyond the region

The Central West and Orana is located at the junction of key north-south and east-west transport corridors. As outlined in Objective 13, the Inland Rail corridor and the Main West/ Broken Hill Rail Line, intersect at Parkes. Investment in Inland Rail will not only allow for a more direct rail freight connection between Melbourne and Brisbane, but also has the potential to change how freight moves through and beyond the region.

Current growth estimates indicate that as a result of Inland Rail, the rail market share of Melbourne to Brisbane inter-capital freight will increase from 26 per cent to 62 per cent by 2050¹⁰. Furthermore, the anticipated mode shift to rail has the potential to improve road safety outcomes along the entire length of the corridor, with up to 15 fewer serious injury crashes per year.¹¹

Inland Rail alone may not induce additional freight demand from producers in the region, however, coupled with the proposed rail and intermodal improvements, producers and industry within the region will see improved connections to major ports and population centres in the coming years.

The Newell Highway provides a similar north-south function between Brisbane and Melbourne. It intersects with a number of east-west corridors in the region including the Great Western and Golden Highways, providing access to the east coast across the Great Dividing Range.

Improved access across the Great Dividing Range is important. This is true not only from a freight perspective, but also in improving access for people when travelling to and from the region. Transport for NSW is planning for the upgrade of the Great Western Highway between Katoomba and Lithgow, which will improve safety and access for freight vehicles to and from the region. This will complement investment in the Golden Highway and existing investigations into improved access to Greater Sydney, the Hunter and Illawarra-Shoalhaven.

Improving access on the Great Western Highway may also open up opportunities for freight access to Western Sydney International (Nancy-Bird Walton) Airport. The new airport site is located on the western edge of Greater Sydney, making it more accessible to the Central West and Orana. Coupled with the proposed curfew free, 24 hour a day operations, the new airport may open up new opportunities for exports when it opens in 2026. Transport for NSW will also investigate improved connections from the region to Canberra, where freight producers can access Canberra Airport which similarly operates without curfew.

¹⁰ Australian Rail Track Corporation 2019, The Case for Inland Rail, <https://inlandrail.artc.com.au/the-case-for-inland-rail/>

¹¹ Australian Rail Track Corporation 2019, The Case for Inland Rail, <https://inlandrail.artc.com.au/the-case-for-inland-rail/>

Transport for NSW will also draw on insight and information from initiatives such as the Great Western Highway upgrade and the NSW Fast Rail Strategy in investigating improved freight connections within and beyond the region. Additionally, investigations will be informed by feasibility studies into the potential reactivation of rail corridors such as Blayney to Demondrille, Kandos to Gulgong and Gulgong to Maryvale Rail Lines to provide a multi-modal solution for all customers.

Finally, Transport for NSW will also investigate a fuel pipeline between the Port of Newcastle and the Central West and Orana via the Hunter. This project could provide a cost-effective, safe and reliable fuel supply alternative to road transport for important agricultural and mining industries, and regional customers. It could also be used to supply alternative fuels in the future.



Rail viaduct near Lithgow NSW

Objective 16 – First-and-last mile barriers and land use conflicts are resolved to support successful places

First-and-last-mile access for freight on the local road network is vital to support the economic viability of communities and businesses across the Central West and Orana. Network access and servicing constraints are often barriers that inhibit freight productivity and can impact the sustained success of regional centres, towns and villages. Transport for NSW will work collaboratively with DPIE and local government to ensure that existing and future significant places are supported with appropriate first-and-last-mile solutions to maximise freight connectivity.

Finally, Transport for NSW will work collaboratively with DPIE and local government to ensure key road and rail freight corridors across the Central West and Orana are protected from incompatible land uses.



3.2.6 Resilient

Disruption of the transport network impacts connectivity and generates associated social and economic issues for regional communities and businesses. Network disruption takes many forms whether it be a planned disruption like a special event or network maintenance, or an unplanned disruption like an emergency, incident or extreme weather event.

While planned disruptions are anticipated and prepared for in advance of the event, unplanned disruptions require a dynamic response that happens in real-time. By building more resilience into the transport network, it becomes better equipped to successfully manage disruptions and minimises the impact on regional communities and businesses.

Through the following objectives, this Plan will seek to improve the resilience of the network to planned and unplanned disruptions:

- ▶ **Objective 17** – Deliver a resilient transport network that effectively responds to the unique challenges of the region
- ▶ **Objective 18** – Utilise technology to deliver real-time information to our customers



Objective 17 – Deliver a resilient transport network that effectively responds to the unique challenges of the region

The Central West and Orana experiences a high degree of weather variability. Under existing conditions, parts of the transport network annually experience both high and low temperatures (including snow and ice).

Extreme temperature events can place transport assets under considerable stress. With longer periods of extreme temperatures likely in the future due to climate change, all transport assets will need to accommodate resilience to extreme weather events in order to limit delays to the network.

Damage to transport infrastructure results in the isolation of communities who rely on connectivity with larger towns for essential services. The flooding of the Newell Highway between West Wyalong and Forbes in 2016 resulted in the closure of the highway for six weeks as well as damage and disruption to the transport system. Upgrades to the Newell Highway are currently being undertaken to improve flood immunity along the corridor. It is critical that transport infrastructure and services are able to withstand and respond to future extreme weather events.

Although more predictable, seasonal demands can also be disruptive to the transport network. Across the Central West and Orana, seasonal disruption is usually driven by visitation during long weekends, school holidays and major events like the Bathurst 1000.

Understanding when these disruptions are likely to occur enables us to plan ahead to minimise the disruption to local businesses and communities, while giving visitors a better travel experience.

Transport for NSW will continue to implement lessons learnt from past events and disruptions to enhance network resilience, and support improved customer outcomes.



Objective 18 - Utilise technology to deliver real-time information to our customers

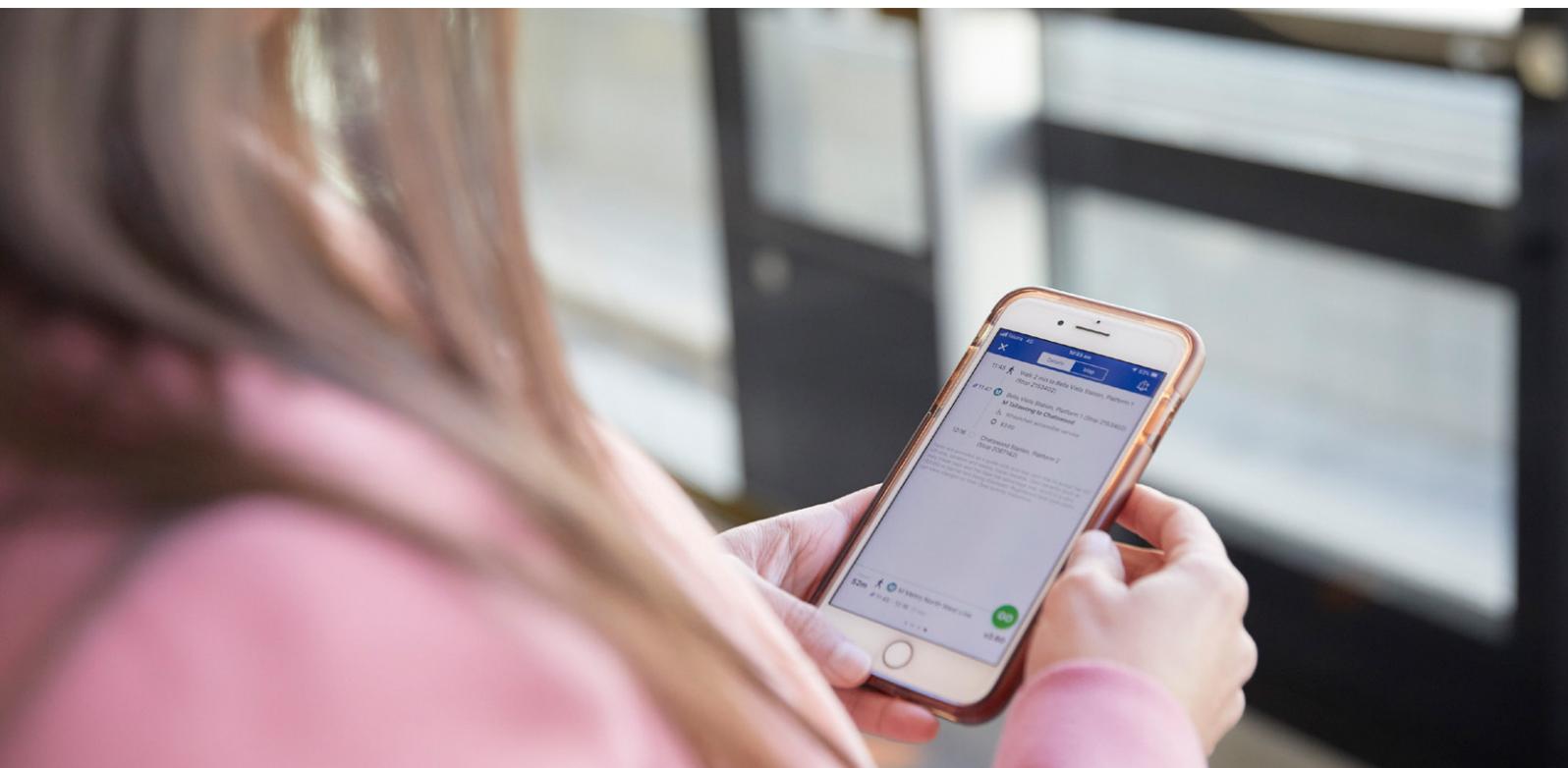
Innovation and new technologies have the potential to provide new tools and opportunities to benefit responders, decision-makers and the community in understanding and responding to network disruptions.

Early communication can help to keep the community safe, reduce risk to life and property and reduce the likelihood of conflict with emergency responders. For natural disasters like bushfires and floods, early communication can provide customers the opportunity to evacuate to safety before being cut-off or isolated.

In the Central West and Orana, this could include initiatives like using intelligent sensors and video analytics to provide road incident alerts and inform our customers of changes to their journeys as they happen in real time. For network and service managers, intelligent sensors deliver real-time operational insights to inform planning, operation and management. Transport for NSW will also look to further expand the network of variable message signs in the region to increase opportunities for 'real-time' messaging.

Monitoring network assets using drones and CCTV can also improve situational awareness for daily operations and management, minimise disruption impacts and deliver more reliable journeys.

Over the next 20 years, Transport for NSW will continue to investigate new ways in which technology can be used to enable customers to make informed decisions in real time, and respond to planned and unplanned events.



CHAPTER

4

Initiatives

Initiatives

This Plan identifies 66 initiatives required to deliver the regional transport vision for the Central West and Orana over the next 20 years. While some initiatives are already in the delivery or planning phases, new initiatives will require further investigation to determine feasibility, as well as ensure what is progressed for funding is aligned with the regional transport vision and delivers value for money for the people of NSW.

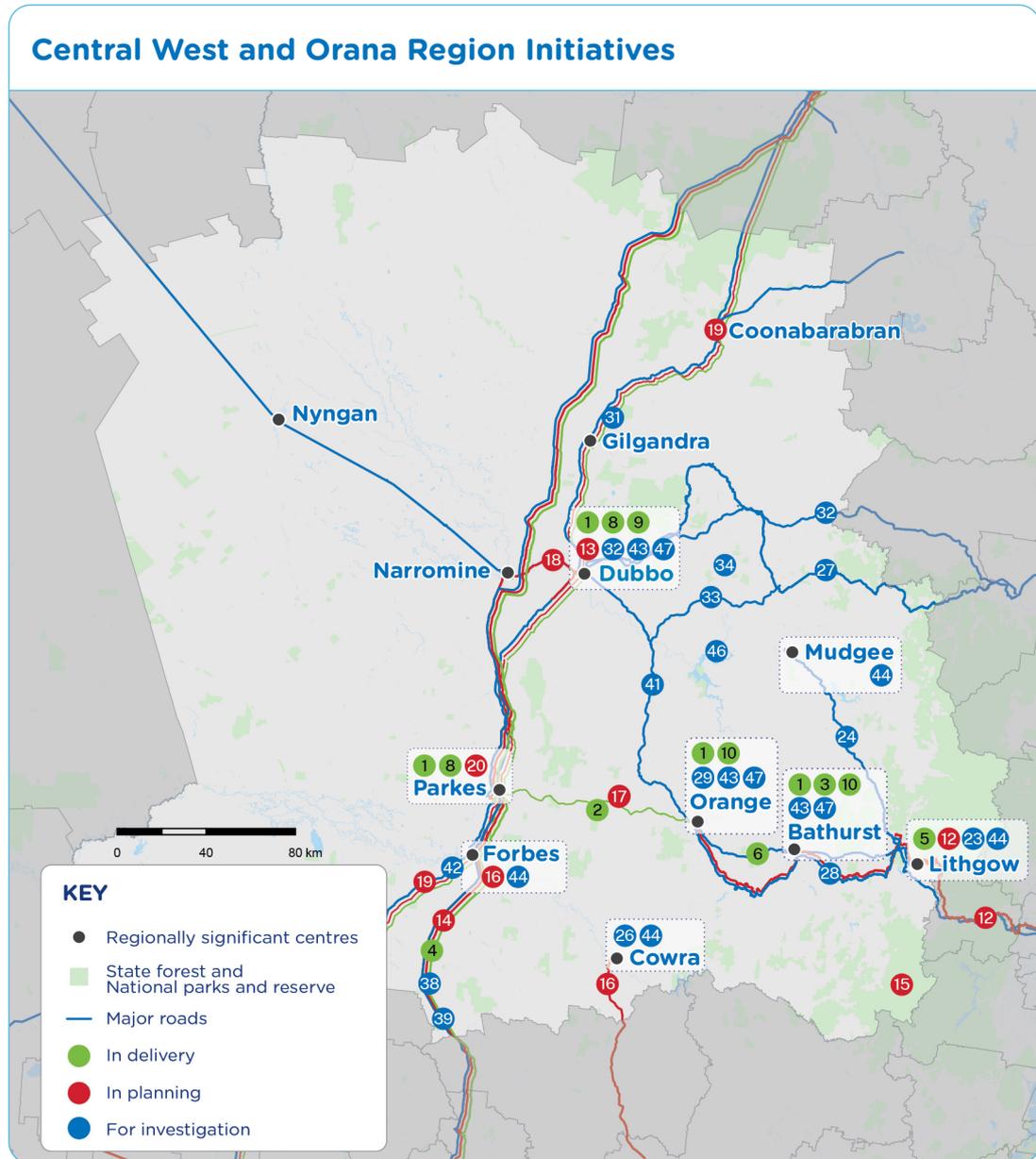
Transport for NSW will aim to commence investigations for all new initiatives listed in this Plan within the next 10 years to ensure that essential services and infrastructure are proactively delivered to meet anticipated changes in land use, population and travel demand across the region.

Transport for NSW has split the identified initiatives into three distinct categories – own, collaborate and influence. Initiatives that fall into the ‘own’ category are those that will be led by Transport for NSW while initiatives that fall into the ‘collaborate’ category acknowledge the need for a partnership with other State Agencies, local government, industry and/or community to commence the initiative. Finally, initiatives that fall into the ‘influence’ category, although not led by Transport for NSW, provide an opportunity to support delivery of the regional transport vision through influencing the outcome.

The following sections summarise the key initiatives by project phase (i.e. in delivery, in planning, for investigation) and by responsibility.



Figure 18: Central West and Orana Region Initiatives



4.1 In Delivery

Timeframe	Item	Initiative	Vision Theme	Responsibility
	1	16 Regional Cities Bus Services Improvement Program - Bathurst, Orange, Dubbo and Parkes	Connected, Adaptive and Sustainable	Own
	2	Escort Way and Henry Parkes Way - Safety Improvements between Parkes and Orange	Connected, Productive, Safe	Own
	3	Great Western Highway - Kelso to Raglan Upgrade	Connected, Productive, Safe	Own
	4	Inland Rail (Federal)	Productive	Collaborate
	5	Mariyung New Intercity Fleet (Lithgow to Sydney)	Connected, Liveable	Own
	6	Mitchell Highway - Corridor Improvements between Bathurst and Orange	Connected, Productive, Safe	Own
	7	New Regional Rail Fleet	Connected, Liveable	Own
	8	Newell Highway Upgrades: <ul style="list-style-type: none"> › Overtaking Lanes › Parkes Bypass › Audio tactile line marking › New Dubbo Bridge and Newell Highway/Mitchell Highway Intersection 	Productive, Safe	Own
	9	Regional Rail Mindyarra Maintenance Facility - Dubbo	Liveable	Own
	10	Transport Connected Bus Program - Phase 2 <ul style="list-style-type: none"> › Bathurst › Orange 	Liveable	Own
	11	Upgrade to Main West (rail) Line	Productive	Own

4.2 In Planning

Timeframe	Item	Initiative	Vision Theme	Responsibility
Delivery to commence in 0-3 years	12	Great Western Highway Upgrade Program - Katoomba to Lithgow	Connected, Productive, Safe	Own
	13	Transport Access Program (TAP) upgrades - Dubbo Railway Station	Liveable	Own
Delivery yet to be determined	14	Inland Rail - Grade Separating Road Interfaces	Productive, Safe	Collaborate
	15	Jenolan Caves Precinct Plan	Liveable, Resilient, Safe	Collaborate
	16	Lachlan Valley Way: <ul style="list-style-type: none"> › Improvements through Forbes including Forbes Iron Bridge › safety and resilience improvements between Cowra and the Hume Highway 	Connected, Productive, Safe	Own
	17	Mandagery Creek Bridge, Manildra replacement	Connected, Productive, Safe	Own
	18	Mitchell Highway widening and overtaking lanes - Dubbo to Narromine	Connected, Productive, Safe	Own
	19	Newell Highway Upgrades: <ul style="list-style-type: none"> › Coonabarabran Bypass › Flood Immunity Works West Wyalong to Forbes 	Productive, Safe, Liveable, Resilient	Own
	20	Parkes Special Activation Precinct Enabling Works	Productive, Liveable	Influence

4.3 For Investigation

Timeframe	Item	Initiative	Vision Theme	Responsibility
0-10 years	21	Additional opportunities for 'request stop' rail stations	Connected, Liveable	Own
	22	Aviation services to support hub and spoke connectivity (including public transport access to airports)	Connected	Influence
	23	Bells Line of Road overtaking lanes and safety improvement works	Connected, Productive, Safe	Own
	24	Castlereagh Highway - Mudgee to Lithgow safety and resilience improvements	Connected, Productive, Safe	Own
	25	Central West and Orana Regional Freight Blueprint	Productive	Collaborate
	26	Cowra Lines (Blayney to Demondrille) concept design and investigation works	Productive	Own
	27	Dubbo to Newcastle passenger rail connection	Connected, Adaptive and Sustainable	Own
	28	Electrification of the rail corridor between Lithgow and Bathurst	Adaptive and Sustainable	Own
	29	Extending Bathurst Bullet to Orange	Connected, Adaptive and Sustainable	Own
	30	Fast Rail Improvements - Sydney to Central West	Connected, Liveable	Own
	31	Gilgandra Heavy Vehicle Bypass	Productive, Safe	Collaborate

Timeframe	Item	Initiative	Vision Theme	Responsibility
	32	Golden Highway safety and reliability improvements	Connected, Productive, Safe	Own
	33	Gulgong to Maryvale Rail Line	Productive, Connected	Own
	34	Hunter Orana Fuel Pipeline	Productive, Adaptive and Sustainable	Own
	35	Identify opportunities to implement 30km/h Speed Zones	Liveable, Safe	Collaborate
	36	Identify opportunities to repurpose redundant road and rail assets	Liveable	Collaborate
	37	Identify opportunities to support tourism within the region	Liveable	Collaborate
	38	Inland Rail - Additional or Improved Intermodal Facilities	Productive	Collaborate
	39	Inland Rail passenger rail opportunities	Connected	Own
	40	Improved multimodal connectivity to the Global Gateways of Greater Sydney, Greater Newcastle and Canberra	Connected, Liveable, Safe	Collaborate
	41	Mitchell Highway improvements west of Orange	Connected, Productive, Safe	Own
	42	Newell Highway: <ul style="list-style-type: none"> › additional improvements to support Inland Rail › additional flood immunity 	Connected, Productive, Safe	Collaborate

Timeframe	Item	Initiative	Vision Theme	Responsibility
	43	Place-based Transport Plans for Bathurst, Orange and Dubbo	Liveable	Collaborate
	44	Public transport service improvements within Cowra, Mudgee, Lithgow and Forbes	Adaptive and Sustainable, Connected, Liveable	Own
	45	Public transport services improvements to and between regional hubs: <ul style="list-style-type: none"> › day return services for towns and villages to their nearest hub › commuter style services between hubs (e.g. Parkes/Forbes; Lithgow/Bathurst/Orange) 	Adaptive and Sustainable, Connected, Liveable	Own
	46	Road corridor improvements between Mudgee and Dubbo	Connected, Safe, Productive	Collaborate
	47	Work with local government to expand cycling networks for Bathurst, Dubbo and Orange	Adaptive and Sustainable, Connected, Liveable	Collaborate

4.4 For Investigation: Cross-Regional

Timeframe	Item	Initiative	Vision Theme	Responsibility
0-10 years	48	Encourage local government to necessitate all new developments include provision of secure bicycle parking and end-of-trip facilities	Adaptive and Sustainable, Liveable	Influence
	49	Encourage local government to transition their fleet to electric or hybrid passenger vehicles	Adaptive and Sustainable	Influence
	50	Expand access to 'real-time' network information to support informed decision making for our customers	Liveable	Collaborate
	51	Ensure rest stops are provided at intervals consistent with Austroads Guidelines across the region	Productive, Safe	Own
	52	Identify opportunities for drone usage for last mile parcel delivery	Productive, Adaptive and Sustainable	Collaborate
	53	Identify opportunities for eVTOL usage for intra region passenger connectivity	Connected, Liveable	Collaborate
	54	Identify opportunities for where technology can support improved network resilience	Resilient	Own
	55	Identify opportunities to safely accommodate micro-mobility options	Adaptive and Sustainable, Liveable, Safe	Own

Timeframe	Item	Initiative	Vision Theme	Responsibility
	56	Transition Transport for NSW passenger fleet to 70% low emission vehicles and 20% battery electric or hydrogen fuel cell vehicles by 2025	Adaptive and Sustainable	Own
	57	Transition Transport for NSW bus fleet to 100% zero emission buses (ZEB)	Adaptive and Sustainable	Own
	58	Work with community transport service providers to identify opportunities for integration with timetabled services	Adaptive, Connected, Liveable	Own
	59	Work with DPIE and industry to develop an EV Fast Charging Network	Adaptive and Sustainable	Collaborate
	60	Work with local government and DPIE to protect key freight corridors from incompatible land uses	Liveable, Productive	Influence
	61	Work with local government and industry to support provision of appropriate off-street loading facilities	Liveable, Productive	Influence
	62	Work with local government, DPIE and industry to ensure regionally significant growth areas supporting walking and cycle-friendly neighbourhoods	Connected, Adaptive and Sustainable, Safe	Collaborate
	63	Work with local government, DPIE and industry to ensure significant places are supported with appropriate first and last mile freight solutions	Liveable, Productive	Collaborate

Timeframe	Item	Initiative	Vision Theme	Responsibility
	64	Work with major event organisers to facilitate public transport services to, from and between events	Connected, Liveable, Adaptive and Sustainable	Collaborate
	65	Work with NSW Department of Education, Catholic Schools NSW and local government to address barriers to walking and cycling to school	Adaptive and Sustainable, Safe	Collaborate
	66	Work with NSW Health to identify opportunities to improve transport for medical services	Connected, Liveable	Collaborate





Central West and Orana Regional Transport Plan

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