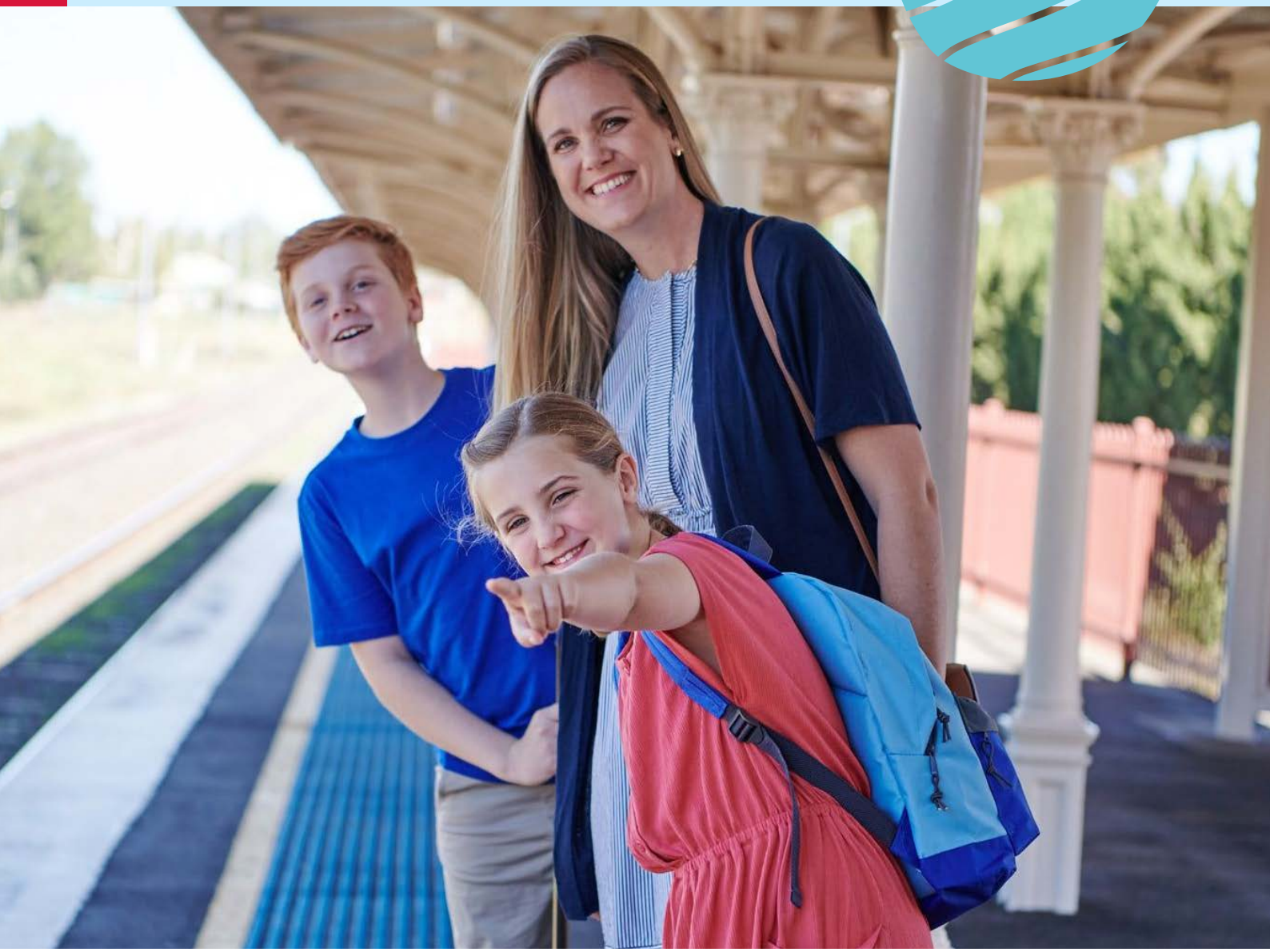
Transport for NSW

Draft Central West and Orana

Strategic Regional Integrated Transport Plan



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Acknowledgement of Country

Transport for NSW acknowledges the Wiradjuri, Wongaibon, Wailwan (also known as Weilwan and Wayilwan), Kamilaroi (also known as Gamilaraay and Gamilaroi), Ngiyampaa, Dharug and Gundungurra peoples.

As the Traditional Custodians of the land, these communities have deep-rooted connections to the region with unique laws, customs and cultural practices that continue to influence the landscape today.

Many of the transport pathways we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial pathways of Country that Aboriginal people have followed for tens of thousands of years. As noted in Transport's vision for reconciliation, 'Our transport system is a living, breathing network that connects us with each other, and which carries our stories across cultural border lines.' These pathways continue to endure while new layers of movement networks and places are laid down as the Central West and Orana continues to grow.

In preparing the Draft Plan, Transport recognises Aboriginal people have a continuous deep connection through their ceremonial pathways, connections with their lands, languages and stories, and pays respect to the cultural values of all Aboriginal communities and their families.

Lake Burrendong, Mumbil © Destination NSW

Cover: Mother with children waiting for train on the platform at Orange Station

Minister's foreword

I am pleased to present the Central West and Orana Strategic Regional Integrated Transport Plan and its vision for a connected, equitable, safe and sustainable transport network that works to serve the people and communities of the Central West and Orana.

Country to the Wiradjuri, Wongaibon, Wailwan (also known as Weilwan and Wayilwan), Kamilaroi (also known as Gamilaraay and Gamilaroi), Ngiyampaa, Dharug and Gundungurra peoples, the Central West and Orana region is located at the heart of NSW. Its regional lifestyle offerings, community feel, natural beauty and diverse economy make the Central West and Orana a liveable and attractive region and this will continue to drive growth. The increase in housing demand, and supporting industries and services, means the region is evolving. However, we need to ensure that as the region grows, and many thrive, our most vulnerable are not left behind.

Creating a transport system that works for all our people and communities is a core pillar for the Government. For people in the regions, particularly those with disabilities, senior citizens and the young, access to public transport and travel times are often a barrier to the very things that will improve their lives. This needs to change.

Our Strategic Regional Integrated Transport Plan for the Central West and Orana is a blueprint for this change. Focused on short to medium-term deliverables while maintaining an eye on a long-term vision, the Draft Plan is outcome-focused and designed to acknowledge the diversity of communities across the Central West and Orana and effectively address changing transport needs.

As the Central West and Orana population grows and changes, Transport for NSW will support the delivery of well-located homes and work hand in glove with the Department of Planning, Housing and Infrastructure to deliver more homes and support future land uses in the Central West and Orana.

We will support sustainable growth and housing by expanding active and public transport networks and services to improve access to local and regional services and destinations, and improve transport choices, fostering a vibrant and liveable Central West and Orana region.

The Central West and Orana economy will be strengthened by improved services to enable transport choices for people travelling to and from work locally and regionally, while accommodating freight needs to and from, through and within the region. Better linking visitor economy employees and visitors to major destinations is not just good for our people, it's good for our economy.

Safety will continue to underpin everything we do.

The Government continues its commitment to achieving zero trauma on the road network by 2050 and zero trauma on waterways by 2056. But we cannot shy away from the challenges of meeting this commitment. It is easy to look at the road toll and simply see a number. Sadly however, that number represents people, many of whom reside in the Central West and Orana. They could be a person you work with, your neighbour or a member of your family. The impact of our road toll is felt far and wide, and it is a number that will only be acceptable when it reaches zero.

We will continue to improve transport choices for our people, so they can safely travel on public transport or use active transport and leave the car at home.

We will work with councils to identify locations of 'crash clusters' and improve safety infrastructure in these locations.

We will improve and increase the number of heavy vehicle rest stops as part of major highway upgrades.

Our transport infrastructure will also continue to benefit from our focus on resilience. The Central West and Orana region has experienced many natural disasters over recent years, with climate modelling suggesting instances of these events are only expected to increase. We need to build more resilience into our existing network and plan for future shocks and stresses so we can minimise the impacts of natural disasters on our transport network and services.

The saying 'prior preparation prevents poor performance' rings true. We will better maintain and improve our ageing transport assets; new assets will have climate and hazard resilience built into them and improved technologies will enable management strategies to respond to emergencies efficiently and effectively in real time.

I have met with and listened to the people and communities of the Central West and Orana and understand the complex challenges the region faces. Talking to residents, councils, Local Aboriginal Land Councils and community groups, Transport heard about the lack of travel options for people needing to access health and education services; the role transport can play in supporting housing in the Central West and Orana; the need for a better transport system better connecting homes and local jobs; and the need to improve our network resilience to better respond to stress and shocks. It's clear there is much we need to do.

This Draft Plan has been developed through an early engagement approach and has encouraged people to share their ideas, hopes and aspirations for improved connections to build a better community in the Central West and Orana.

As the Central West and Orana region continues to grow and change, a strategic and integrated approach to transport planning is vital to ensuring we realise our vision, and the people and communities of this beautiful and diverse region are well-connected by a safe, sustainable and integrated transport network.

The Hon. Jenny Aitchison, MP
NSW Minister for Roads and
Minister for Regional Transport

Aerial view of freight truck on Millthorpe Road parallel to rail track north-west of Blayney

To the reader of this Draft Plan

Strategic Regional Integrated Transport Plans (SRITP) represent the NSW Government's commitment to delivering tailored regional transport plans that contextualise the State's objectives and outlines a targeted program of initiatives for each region's unique needs.

The Draft Central West and Orana Strategic Regional Integrated Transport Plan (Draft Plan) replaces the previous Draft Central West and Orana Regional Transport Plan 2023. It is more focused on outcomes and aligns closely with the Government's priorities.

Over a four-year period, plans will be delivered for each of the nine Department of Planning, Housing and Infrastructure (DPHI) regions across NSW. This will ensure enhanced integration across the plans and their invisible boundaries, and provide a streamlined connection between statewide planning and its context within a regional application.

In developing the Draft Plan, there has been a focus on ensuring we have challenges, opportunities and initiatives, directly informed by insights and evidence gathered from data and stakeholder engagement, ensuring a clear connection between feedback, analysis and action.

This Draft Plan has been built on previous work completed including the Central West and Orana Regional Transport Plan (2022–2023) and other strategies, plans and programs being delivered by Transport including the public-facing Active Transport Strategy, as well as internal plans. The Draft Plan was informed by the data and insights, such as the common planning assumptions and what we heard through early engagement and our Have Your Say website. This informed our vision, outcomes and initiatives within this Draft Plan. The proposed initiatives list towards the end of this document is not intended as a prioritised list.

The Draft Plan is more than just a single document, it's a collection of resources that reflect the inputs and outputs that went into the development of the Draft Plan.

- the Draft Plan
- the Early Engagement Report
- a StoryMap
- engagement resources.

We are now checking we got it right

We are currently seeking to validate the Draft Plan before we finalise it. Your feedback is essential to helping us do this. You can access the Early Engagement Report which outlines who we talked to and what we heard.

We have also developed a StoryMap to share accessible data and insights that has been used to understand current and future transport requirements. You can share your feedback at https://www.haveyoursay.nsw.gov.au/sritp/central-west-and-orana

Contents

Executive summary

The Draft Central West and Orana Strategic Regional Integrated Transport Plan sets out a clear, practical agenda to deliver a safer, more inclusive and resilient transport network – one that supports the wellbeing of people of all ages and abilities, connects communities to essential services such as health and education, unlocking opportunity, while strengthening the region's economic productivity and environmental future.

To realise the vision and meet the objectives, the Plan proposes:

- **Inclusive and flexible transport services**, co-designed with communities and delivered in partnership with councils and public and on-demand providers, to improve access for Aboriginal communities, older residents, people with disability and those without private vehicles.
- **Better connected and better planned places**, through strategic walking, cycling and public transport links that unlock well-located housing and urban renewal. This includes leveraging Transport assets, supporting infill development with services from day one, improving greenfield – town centre access, and designing safer, more vibrant main streets.
- **A safer, more resilient and productive transport network**, with increased road repair support, smarter disaster recovery, and stronger freight links via Inland Rail and ARTC corridors that reduce reliance on vulnerable road and rail assets.
- **Enhanced digital and emergency communication capabilities**, using Transport owned land and technology to improve safety, service visibility and coordination during disruptions.
- **Smarter investment in freight infrastructure**, ensuring key corridors and intermodal hubs like the Parkes Special Activation Precinct can support economic growth, rail freight and vehicles and seasonal agricultural demands.

These priorities reflect what Transport for NSW heard across extensive engagement with the region's councils, communities, businesses and Aboriginal organisations. Feedback highlighted the urgent need for more reliable and accessible public transport, especially bus and rail services between key centres. Stakeholders called for transport solutions that reflect the realities of rural and remote living, where long distances, fewer alternatives, and limited mobility options create barriers to participation and wellbeing.

Cowra Rail Bridge over the Lachlan River

We heard the Central West and Orana community's desire for better timed and more frequent rail services within the region and to Sydney. Transport is investigating a new stabling yard to enable trains to be parked in Orange overnight. Stabling trains in Orange creates an opportunity to increase the frequency and provide a more even spread of rail services linking Dubbo, Orange, Bathurst, Lithgow, and Sydney. This would provide customers with greater choice of when they choose to travel including more day-return trips within the region and to Sydney.

Resilience emerged as a strong theme, with bushfires, floods and storms underscoring the vulnerability of major roads and regional links. Councils, freight operators and emergency services alike called for smarter planning, faster repair, and more transparent communication.

Freight operators also emphasised the critical role of the Newell Highway, Inland Rail and intermodal terminals in connecting regional producers to markets. Ensuring these freight corridors are maintained and future-proofed is central to regional competitiveness.

The Central West and Orana region is home to nearly 290,000 people across 19 local government areas and 22 Local Aboriginal Land Councils, making it the fifth most populous in Regional NSW. Spanning the fertile tablelands of Bathurst and Orange to the vast plains of Dubbo and Coonamble, the region is an economic powerhouse of agriculture, logistics, health, mining and tourism – now bolstered by the emerging Central-West Orana Renewable Energy Zone.

But its demographics are shifting. By 2041, the region will see a 50 per cent increase in residents aged over 65, while the working-age and youth population is expected to decline. This shift intensifies demand for on-demand and community transport to enable older residents to stay connected to services, shops and social life – and to age safely in place.

Ultimately, the Plan reflects the NSW Government's broader vision – as set out in the Central West and Orana Regional Plan 2041 – for 'a healthy, connected and resilient region, with a prosperous economy.' Transport is not just infrastructure; it is a foundation for equity, opportunity and liveability. This Plan responds to the region's realities with ambition and accountability, and invites collaboration to deliver the transport system its communities deserve.

Passenger on platform at Bathurst Train Station

The future of transport in the Central West and Orana region

Our vision is for a safe, connected, healthy, and prosperous Central West and Orana, supported by a transport network that efficiently connects people to local, regional, and metropolitan destinations and services, while boosting freight efficiency. It will offer residents, workers, and visitors reliable, frequent, and sustainable transport choices, particularly for accessing jobs, health care, education, social and recreational precincts – reducing reliance on private vehicles and supporting a thriving, liveable region.

While protecting the natural environment, the network will be more resilient to disruptions from shocks and stresses. Continued investment is essential to foster economic development across the region.

Nationally significant road and rail corridors will continue to support freight and passenger movements in, out and through the region and to international gateways in Sydney, Newcastle, Brisbane, Melbourne, and Perth.

Our vision is for a safe, connected, healthy, and prosperous Central West and Orana.

Challenges for the Central West and Orana region

This Draft Plan responds to key challenges identified through community engagement and analysis:

- barriers to health, education, and social service access, particularly for Aboriginal communities, impacting social and economic self-determination
- limited active and public transport choices, making it hard to reach essential services without a car
- population growth in centres and nearby greenfield areas, increasing travel demand and straining roads, especially where main streets must serve local, regional and place-based functions
- opportunities to leverage the region's central location, Inland Rail, and ARTC connections to boost rail freight and improve access to international markets
- high rates of road trauma, particularly on state roads in town centres and highways
- vulnerable infrastructure links – such as the Newell and Great Western highways – affecting reliability
- the need for major shifts in policy, infrastructure, and behaviour to transition to net zero emissions.

Key Directions

The key directions for the Draft Central West and Orana Strategic Regional Integrated Transport Plan that will realise the vision and meet the objectives shown below.

1. Improve access for Aboriginal communities

a. Co-design flexible transport services with Aboriginal communities to enhance access to health, social, civic, and economic opportunities, especially in discrete settlements.

2. Enhance access to local, regional and metropolitan destinations

a. Upgrade local transport infrastructure to encourage walking, cycling, and bus use within towns

b. Improve coach and rail services between regional centres and Dubbo, Orange, and Bathurst

c. Enhance access to metropolitan areas by progressing targeted upgrades to the Bells Line of Road and Great Western Highway, and investigating increased Blue Mountains Intercity Line frequencies and future aviation integration.

3. Support well-located development

a. Align transport investment with well-planned development, and mitigate the effects of poorly located growth on established communities.

4. Drive economic growth and diversification

a. Maintain and enhance the role of main streets in towns and villages as hubs of community and economic life, including through tourism

b. Improve regional connections to metropolitan cities and international gateways to support the visitor economy.

5. Move freight more efficiently

a. Explore short-term opportunities to connect Inland Rail Stage 1 to the east coast network via existing ARTC infrastructure

b. Strengthen freight links between producers, logistics hubs, and intermodals – especially around Parkes Special Activation Precinct

c. Identify and implement opportunities to support the safe and efficient movement of higher productivity heavy vehicles across the Blue Mountains

d. Plan for the safe and sustainable movement of oversized wind turbine components from Port of Newcastle to the Central-West Orana Renewable Energy Zone.

6. Create a safer road network

a. Introduce safer speeds and road environments in population centres to reduce trauma, especially among vulnerable road users

b. Investigate bypass use to divert through traffic and heavy vehicles from main streets

c. Improve safety on peri-urban roads and state networks with new or upgraded rest stops.

7. Build a more resilient network

a. Upgrade routes and enhance alternate connections to ensure continuity during disruptions, particularly natural disasters

b. Develop sustainable council funding models for road maintenance and upgrades

c. Improve communication between Transport, emergency services, and communities about disruptions and hazards.

Implementation

This Draft Plan has detailed the steps necessary to turn the identified opportunities into tangible initiatives. Broken down by timeframes, the Draft Plan prioritises the initiatives that are most critical to the Central West and Orana, while demonstrating who is responsible and accountable. The Draft Plan will help to manage risks, track progress and ensure that Transport, Central West and Orana councils, state agencies, industry and other partners are aligned, leading to the successful delivery of the outcomes.

The final list of initiatives will be refined to ensure they can be delivered in the timeframes we are working towards.

New insights and ideas could arise during public consultation that may lead to additional initiatives being added or existing initiatives being modified to better reflect the needs of the community.

Open Streets Light up the night, Weddin Shire Council © Geagle Productions

Definitions

Term	Definition
Active transport	Includes walking, using a wheelchair or mobility aid, cycling and micromobility
ARTC	Australian Rail Track Corporation
DPHI Region	DPHI administrative boundary comprising the Central Coast, Central West and Orana, Hunter, South East and Tablelands, Far West, Illawarra Shoalhaven, New England North West, North Coast, and Riverina Murray.
DPHI's Central West and Orana Regional Plan 2041	Central West and Orana Regional Plan 2041 was developed by the Department of Planning, Housing and Infrastructure. Central West and Orana Regional Plan 2041 sets a 20-year framework, vision and direction for strategic planning and land use to ensure the region has the facilities it needs to continue to be a vibrant place for people to live, work and visit. For more information go to https://www.planning.nsw.gov.au/plans-for-your-area/regional-plans/central-west-and-orana-regional-plan-2041
Discrete Aboriginal Community	A discrete community is a geographic location, bounded by physical or legal boundaries, which is inhabited or intended to be inhabited predominantly (i.e. greater than 50 per cent of usual residents) by Aboriginal or Torres Strait Islander peoples, with housing or infrastructure (power, water, sewerage) that is managed on a community basis. Discrete communities have populations of (but not limited to) 50 or more Aboriginal and Torres Strait Islander people. Services such as schools, health clinics, shops and council depots are usually present.
EV	Electric vehicle
Freight	Goods or cargo transported by heavy vehicles, light commercial vehicles (such as vans and utes), bike rider couriers, rail, aircraft or ship.
FSI	Fatal and serious injury
Gross value added	the value of gross output minus intermediate consumption
HPV	High productivity vehicles
HVCN	The Hunter Valley Coal Network is a major coal transportation system that moves coal from the mines in the Hunter Valley region to the Port of Newcastle for export and to domestic power stations.
ICE	Internal combustion engine
Joint organisation	Joint organisations (JO) are local government entities formed under the Local Government Act 1993 for a defined area. JOs establish strategic regional priorities, provide regional leadership and identify and take up opportunities for inter-governmental cooperation on matters relating to the joint organisation area
IMT	Intermodal terminal is an area of land used to transfer freight between at least two modes of transport. It is typically used to describe the transfer of international shipping containers from road to rail and vice versa.

Term	Definition
LALC	Local Aboriginal Land Council
LGA	Local government area
Lower-impact travel modes	Transport modes that inherently reduce the cost of negative transport externalities. e.g. slow-speed walking movements cause limited injuries/ trauma, human powered modes generate limited greenhouse gases, active modes improve health and reduce longer-term Medicare costs.
Micromobility	Devices similar in size and speed to bicycles with or without a motor like a scooter or skateboard
National Land Transport Network	The National Land Transport Network (NLTN) is a network of nationally important road and rail infrastructure links and their intermodal connections. The NLTN is determined under the National Land Transport Act 2014.
OSOM	An oversize and/or overmass (OSOM) vehicle is a heavy vehicle that is carrying or specifically designed to carry a large indivisible item.
PBS	Performance Based Standards – a scheme that allows heavy vehicle operators to use innovative vehicle designs to achieve greater productivity, improve road safety and sustainability, without requiring significant changes in road infrastructure.
Peri-urban area	For the Draft Plan, peri-urban is considered to be the area within an eight-kilometre buffer of population centres.
Population centre	Regional cities, strategic centres and centres, as defined by DPHI
Regional access measure (RAM)	Combined metric showing 15 minute walking and 30 minute public transport access to local and more regionally important job, health, education, recreation, and social destinations.
REZ	Renewable energy zones (REZ) are locations in NSW defined by NSW EnergyCo where major generation of wind and solar power can be efficiently stored and transmitted across NSW.
Risk compensating behaviour	Behaviours resulting in a re-balancing of risk resulting in a return to individually established risk levels of comfort, such as driving faster due to anti-lock braking.
Special Activation Precinct	Special Activation Precincts bring together planning and investment support services to deliver industrial and commercial infrastructure in six dedicated areas of regional NSW.
SRITP	Strategic Regional Integrated Transport Plans will be delivered for each of the nine DPHI Regions of regional NSW to support integrated land use and transport planning in regional NSW for the next 20 years.
ZEB	Zero emission buses (ZEB) use electric or hydrogen technology and do not release carbon emissions or pollutants at the tailpipe.

01 Starting with Country

1.1 Connection with Country

Aboriginal peoples in the Central West and Orana have a rich history of living with and shaping their environment. This connection remains visible in the cultural landscape, including ceremonial sites, trade routes and knowledge of land management techniques such as firestick farming. These practices reflect a profound understanding of Country, contributing to its biodiversity and resilience.

Across the Central West and Orana, significant places such as the Macquarie Marshes, the Greater Blue Mountains World Heritage Area and more than 149,000 hectares of national parks, including Warrumbungle National Park hold profound spiritual, cultural, and environmental significance. These landmark features are not just physical spaces but living systems supporting culture and community; sacred landscapes that embody the First Nations peoples' stories, knowledge, and traditions.

Transport routes in the region, often mirror the traditional travel and trade routes used by Aboriginal peoples for thousands of years. In planning and delivering transport infrastructure and services, Transport is committed to integrating Aboriginal knowledge and perspectives to ensure a deeper understanding of social, environmental, and cultural impacts on Country.

The ancient pathways contain many layers of stories. They were physical, and they were spoken and sung too while travelling along the Songline routes. Cultural practice through songs, dance and story revitalised the land of ancestral spirit families, as the very sound of nature itself, from the wind, rain, trees, water and all creatures, is believed to strengthen the connection to be whole or as one with everything in life itself.

Movement across the landscape contains evidence of these events, rituals and customs. We are always on Aboriginal land, still following some of these Songlines today, still moving resources, still meeting family and community and still doing business.

Aboriginal people continue to maintain a strong sense of place and connection with Country and believe that if we care for Country, it will care for us. This requires Country to be planned for throughout the process of design and development while planning with Country is another important entity to be considered when designing plans that interact with Country, place and people.

The Blue Mountains © Destination NSW

Providing a space for genuine planning approaches for the Central West and Orana can build capacity and pathways for knowledge sharing between Aboriginal and non-Aboriginal communities, helping to connect people to Country and Country to people, bringing the whole of community along on the journey while integrating historical information for us all to travel safer and learn.

1.2 Aboriginal outcomes

The NSW Government is committed to the National Agreement on Closing the Gap, which is underpinned by the belief that when Aboriginal people have a genuine say in the design and delivery of policies, programs and services that affect them, there are better life outcomes for Aboriginal people through five reform areas:

1. Formal partnership and shared decision making
2. Building the community-controlled sector
3. Transforming government organisations
4. Shared access to data and information at a regional level
5. Employment, business growth and economic prosperity.

Transport for NSW's Reconciliation Action Plan 2022–2025 acknowledges in the creation of our transport infrastructure and networks, we recognise and value the importance of connecting to Country which we will monitor and report progress against as part of developing the Aboriginal Outcomes Framework. There are four key areas for transport outcomes:

- Aboriginal people are connected safely to the economy and socially, through transport solutions.
- Our community and Country are healthy and strong through transport planning and place making.
- Aboriginal economic independence is supported by Transport.
- Transport drives transformative action to deliver systemic change.

Aboriginal people have been saying for a long time that there is a need for change in the way governments work with them to improve their lives. Transport values the input from Elders and other traditional knowledge holders who possess this information about Country so that it can inform strategic transport planning, while sensitively working in partnership with Aboriginal people. This is supported by the community-led OCHRE plan, which stands for 'opportunity, choice, healing, responsibility and empowerment'. We acknowledge that, at different times, organisations may not have the resources to participate actively.

This Draft SRITP was informed by formal engagement and workshops with Aboriginal representatives from across the Central West and Orana. Early collaboration with Aboriginal people is vital to the planning, procurement, design and delivery phases. Figure 1 provides a pathway to equip our practitioners with the cultural competency and tools to engage and advocate for ways that they can respond to changes and new directions in planning policy to deliver better outcomes for our Aboriginal communities across NSW through a set of guidelines with five principles.

The circular journey of connection through each of the equally valued **5 Principles of Success**, shared through the collaboration, demonstrates the combined strength and resilience of community and Country and their reliance on each other for success.

Figure 1. The woven representation of Planning with Country
© Feather Flower Creative (design by Natalia Baechtold).

02

About the Draft Plan

2.1 What is a Strategic Regional Integrated Transport Plan?

2.1.1 Purpose

The Draft Plan evaluates transport needs of Central West and Orana's distinctive local government areas to support the specific needs of communities across the region.

Social determinants, such as income levels, education, employment and housing, are key considerations when planning for the transport needs of region. These factors can influence a person's access to and ability to use different transport options. This can be particularly challenging in more rural areas of the region. For people on lower incomes, the cost of buying and maintaining a vehicle may prove prohibitive, potentially limiting their ability to access services and employment opportunities. In almost all cases, the cost of buying and maintain a vehicle or a second vehicle will almost always impact a person's ability to afford other goods and services, impacting quality of life. This can be compounded if the community has no or limited transport alternatives. Consequently, transport barriers may entrench or create social disadvantage.

The Draft Plan aims to address these disparities by improving access for the people and communities of the region to accessible, reliable and affordable transport options. Integrating social determinants into transport planning promotes not only mobility but also social inclusion, economic opportunity and community wellbeing.

Improving safety outcomes for all people across all modes of transport in the region is a key objective of the Draft Plan. The Draft Plan includes initiatives to create a safe network to ensure residents, workers and visitors can continue to use the transport network safely.

The Draft Plan provides a 20-year vision for transport in the region. The Draft Plan has seven objectives and proposes a suite of initiatives to respond to the identified challenges to realising each objective. The initiatives have staged timings for the planning of government-led services and infrastructure. The Draft Plan will guide the delivery of Transport's services and infrastructure delivery program in alignment with government priorities.

Transport has engaged with LALCs, councils, joint organisations and community groups across the region, leveraging their insights to inform the development the Draft Plan.

To complement and support the Draft Plan, Transport has developed an interactive StoryMap for the Central West and Orana region. This data-rich tool offers valuable data and insights that inform the vision, challenges and opportunities within the Central West and Orana region.

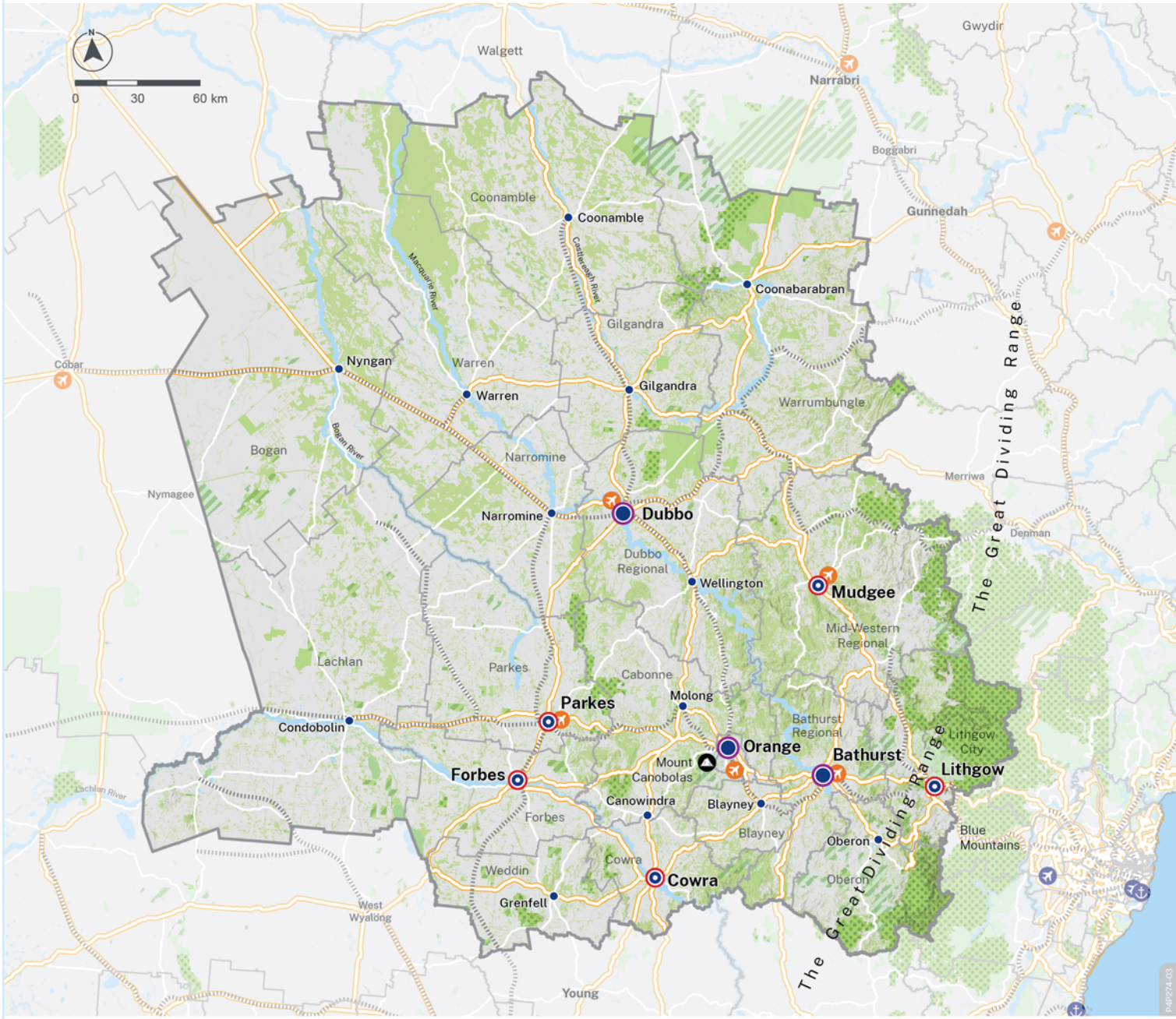
2.1.2 Extent

The Central West and Orana is located in the heart of NSW, bordering Greater Sydney and the Hunter in the east, Riverina Murray and South East and Tablelands in the south, the Far West in the west and New England North West to the north. The region is one of the largest in NSW at almost 13 million hectares. The region consists of two sub-regions – the Central West and the Orana – with the communities of each sub-region having distinct transport needs and challenges.

The region is characterised by a diverse topography of fertile plains, rolling hills, mountain ranges and wide valleys. The Great Dividing Range to the east transitions into the Central Tablelands and is home to notable peaks such as Mount Canobolas. The region is crisscrossed by several important waterways, including the Lachlan and Macquarie rivers, which play a crucial role in town water supply, agriculture, recreation and biodiversity. The landscape is punctuated by national parks like the Warrumbungle National Park, which showcases unique geological formations and diverse ecosystems.

Learn more on our Central West and Orana StoryMap

Bus going through regional Bathurst area

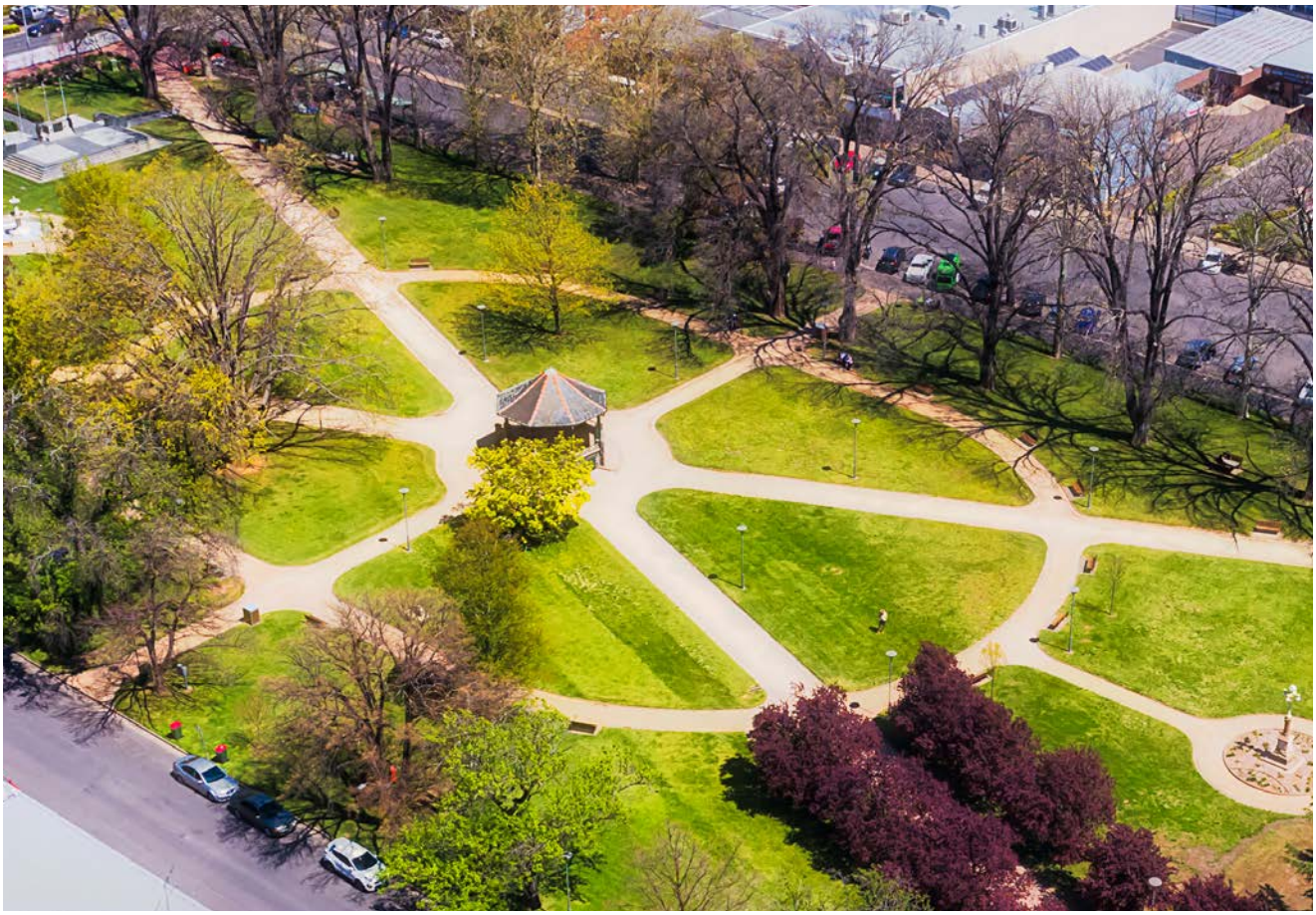


KEY

- Regional city
- Strategic centre
- Centre
- Mountain
- Regional airport
- Regional boundary
- Local government area
- State roads
- Regional roads
- Railway line
- High Environmental Value*
- National parks
- State forests

* Includes NSW NPWS Estate. HEV dataset © State Government of NSW and NSW Department of Climate Change, Energy, the Environment and Water 2016.

Figure 2. Central West and Orana geography



Robertson Park in the centre of Orange © Shutterstock

2.2 Strategic context

Legislation governs the value chain under which strategic policies, including strategic transport plans, inform other plans such as metropolitan plans, region plans, precinct plans and individual rezonings. NSW state agencies and local government develop plans and strategies that set priorities and strategic direction to inform planning for the future. These plans and strategies set the direction for the transport system. This includes improving connectivity, enabling multimodal mobility, providing equitable access and supporting safer journeys.

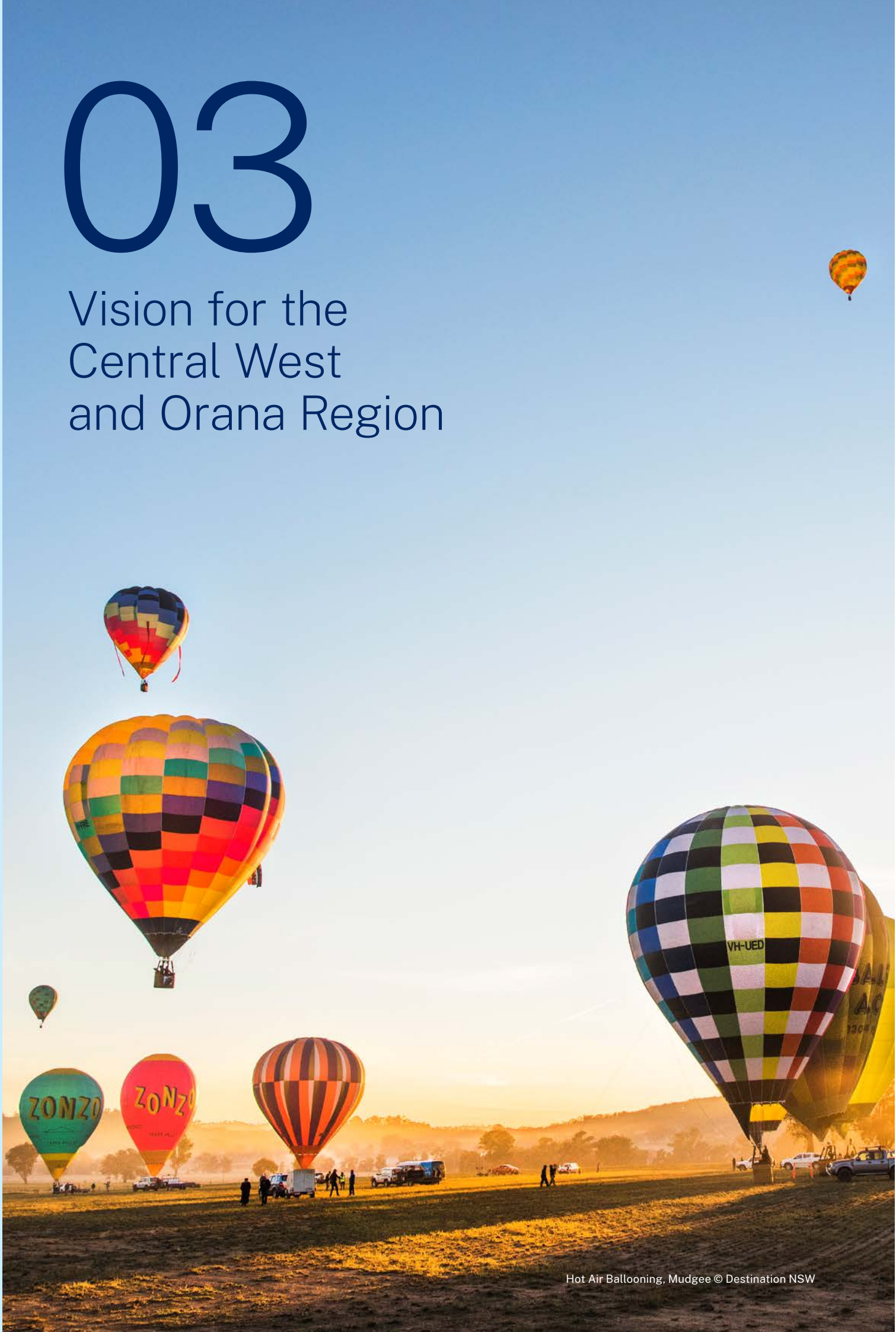
Table 1. Land use and transport legislation, strategies and plans

Planning scale	Land use	Transport
State and Federal	*Environmental Planning and Assessment Act 1979* *Local Government Act 1993* *Heritage Act 1977* *Environment Protection and Biodiversity Conservation Act 1999* Federal Native Title Act 1993 *Native Title (New South Wales) Act 1994 No. 45* *Crown Land Management Act 2016* National Agreement on Closing the Gap 2020 Low and Mid-Rise Housing Policy 2024 *Protection of the Environment Operations Act 1997* (PEOE Act) State environmental planning policies *Climate Change (Net Zero Future) Act 2023*	*Transport Administration Act 1988* *Passenger Transport Act 1990* *Roads Act 1993* 2026 Road Safety Action Plan Future Transport Strategy Net Zero and Climate Change Policy 2023 Active Transport Strategy Towards Net Zero Emissions Freight Policy NSW Electric Vehicle Strategy Biodiversity Policy Planning for Culture NSW Public Spaces Charter Movement and Place Framework Healthy Streets Framework Design of Roads and Streets Manual Road User Space Allocation Policy Providing for Walking and Cycling in Transport Projects Policy 2021 Walking Space Guide 2020 Cycleway Design Toolbox 2020 Network Planning in Precincts Guide 2022 Safe Systems Approach Guide to Traffic Impact Assessment 2024 State Infrastructure Strategy 2022
Region	Central West and Orana Regional Plan 2041 Central NSW Joint Organisation Strategic Plan 2022–2025	Draft Strategic Regional Integrated Transport Plan
Local or precinct	Bathurst Local Strategic Planning Statement Place strategies Structure plans	Local Integrated transport plans Transport management and accessibility plans

Scenic country road winding through Cudgegong near Lake Windamere © Destination NSW

03

Vision for the Central West and Orana Region



Hot Air Ballooning, Mudgee © Destination NSW

3.1 Transport vision

Central West and Orana's transport networks will play a critical role in improving the wellbeing, health and productivity of residents and visitors to the region.

The region will become a more desirable place to live, work and visit, with attractive main streets providing the backbone for growth in the service and visitor economy. Demand for housing in the region's 21 population centres will increase as the regional economy grows and faster connections between regional centres, regional cities and metropolitan cities are introduced.

Reducing trauma on the region's road network is critical to improving short and long-term health outcomes. Increasing opportunities for active travel will directly improve individual health and drive down the long-term costs of sedentary lifestyle illnesses. Supporting increased rates of walking, cycling, public and shared transport use will also help to reduce local particulate pollution, improving local environments, benefitting individual health and productivity.

Local transport networks will prioritise improved place and local movement outcomes that facilitate human interaction, helping to instil a sense of community cohesion and improving social wellbeing. Personal security will be prioritised, ensuring freedom from crime on Central West and Orana's roads and streets as well as public transport, particularly for women, children and the elderly.

Promoting walking, cycling, public and shared transport for local trips and public transport and aviation for longer intra and inter-regional trips will help to reduce lifecycle greenhouse gas emissions, increasing the sustainability of the transport network.

For Aboriginal people, customised and flexible travel options will support increased access to and participation in social and civic activities that will help to close the gap and ensure the needs of Country are considered during the development of the transport network.

For primary industry, reducing the number of longer road-based heavy vehicle trips and instead facilitating access to intermodal terminals and increasing the capacity, flexibility and reliability of the region's rail freight network, particularly connections that bypass complex metropolitan city networks, will help to optimise the use of existing network resources and help to drive down the cost of transporting goods to and from the region. This will place downward pressure on prices for consumers and make the Central West and Orana's mining, farming and forestry products more competitive on the world stage.

The transport vision for the Central West and Orana embodies the Plan's objectives, which were developed through a rigorous top-down, bottom-up approach to identifying and collating state, regional and local planning priorities. It is further refined through stakeholder and community consultation. The vision was developed to help facilitate a more integrated approach to land use and transport planning in the region, in close collaboration with our stakeholders and influenced by engagement on previous work including the Draft Central West and Orana Regional Transport Plan, which we received public feedback on in 2022–23. It is detailed and specifically defined for the Central West and Orana. It is consistent with Australian Government land use and transport policies, NSW Government strategies and local government plans.

The vision was subsequently mapped back to the outcomes and directions of the Central West and Orana Regional Plan, Transport's Outcomes Framework and NSW Government priorities, including housing, sustainability and resilience.

This Draft Plan sets out future travel needs against existing transport network and service capacity, identifying the behavioural and policy change necessary to support growth consistent with the vision. The approach identifies the transport networks and services to support the future demand within the context of behavioural and policy change. In this way the Plan recognises and prepares for growth to meet the vision. The vision is validated by identifying future transport networks and services that respond to land use change, are consistent with the Plan vision, and meet future demand.

This approach recognises that continuing to accept current mode share, high car reliance and resulting transport inequity, particularly in population centres, will not realise the vision. Rather, it will lead to increased road congestion and reduced access for residents, workers and visitors.

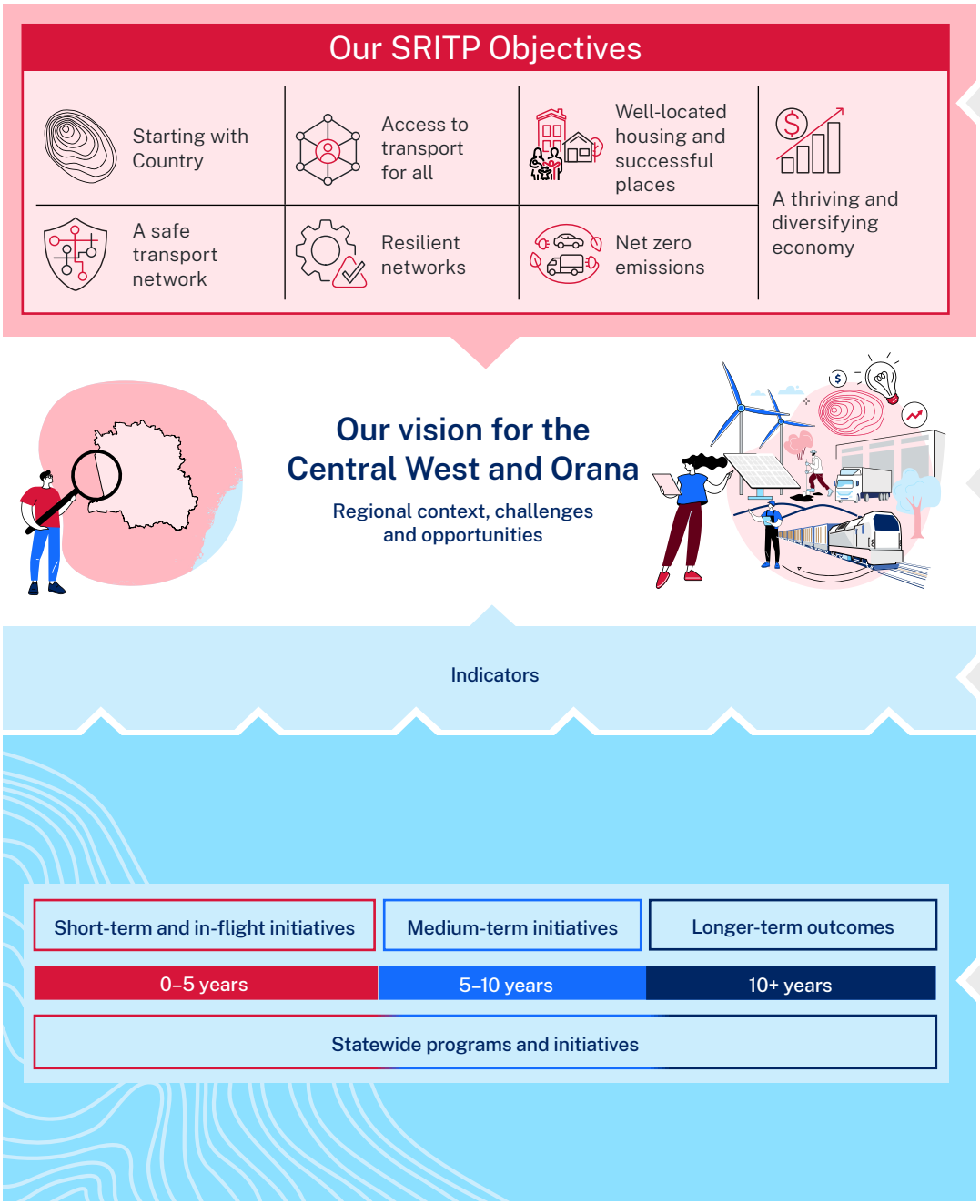
3.2 Objectives and outcomes

The objectives are key concerns fundamental to strategic transport planning. When met, they articulate the realisation of the vision at the regional and local level. The objectives are relatively consistent across all regions, but the outcomes are unique and describe what we want to see in the future in specific places or across the region.

A suite of indicators has been developed. These inform how initiatives are chosen based on how they perform against an objective and realise the long-term vision. A full list of indictors is included in the Appendix.

The challenges and opportunities, identified through engagement with our broad range of stakeholders as well as by data and analysis, are the validation for our priorities for action. A series of initiatives are identified for the short term and medium term, and outcomes for the longer term. This will enable the program of initiatives to be actioned after the final release of each plan. Implementation of this program over time will be tracked and reported to the community.

Vehicles on the road in Dubbo town centre



Objectives
Across all nine SRITPs, Transport has seven universal objectives. Each objective will have a regional context to inform our vision for the future.

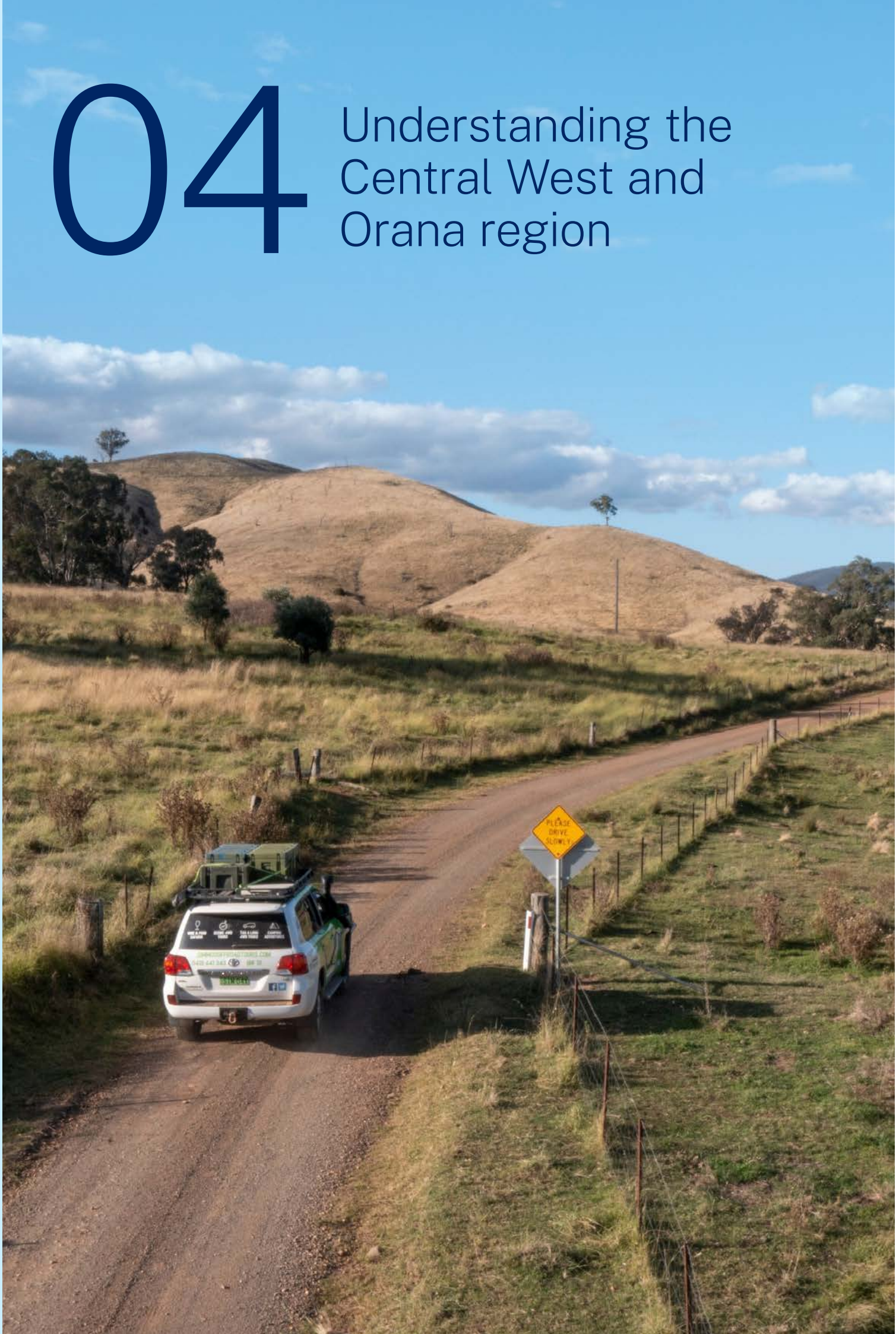
Vision
Defined for the region, the vision reflects the transport objectives and is informed by stakeholder consultation and detailed evidence and data. It responds to the region's long-term land use vision.

Indicators
Transport has developed a suite of indicators to measure against our objectives. This will inform our assessment of possible initiatives and how we will prioritise them.

Initiatives
In order to meet our objectives and realise our vision, a range of short and medium-term initiatives and longer-term outcomes have been developed for the region.

Figure 3. Vision-led transport planning approach

04 Understanding the Central West and Orana region



4.1 People and communities of the Central West and Orana

The region is home to the Kamilaroi, Ngiyampaa, Dharug, Wiradjuri, Wongaibon, Wailwan and Gundungurra people who have been the Traditional Custodians for thousands of years.

These communities have a rich cultural heritage and strong connections to the region's lands and rivers. The region's many forests, grasslands and rivers – the Kalari (Lachlan) and Wambuul (Macquarie) meant that bush foods and other natural resources were plentiful. Nearly 11 per cent of the region's population (about 31,000 people) identify as Aboriginal or Torres Strait Islander according to the 2021 Census.[1] Coonamble LGA has the highest proportion of Aboriginal people at 33 per cent (1200 people).

The NSW Government's vision for regional NSW is, 'The regions have the facilities they need to continue to be vibrant places for people to live, work and visit.[2]' Retaining existing populations and attracting new residents and workers to the region supports the retention and growth of regional businesses and provision of government services critical to ensuring the continued vibrancy of the region. Provision of transport networks that enable movement and growth across the region is critical to delivering the Government's vision for the region.

The Central West and Orana region is home to many vibrant communities, known for their agricultural history, cultural heritage and community-oriented lifestyle. The region had 291,000 residents in 2021 and is forecast to grow by under 12 per cent to 325,000 residents in 2041.[3] DPHI forecasts most population growth will occur in the population centres of Orange, Bathurst, Dubbo and Mudgee, and that population in other parts of the region will stabilise or decline. Transport acknowledges councils in the region are actively planning for population growth through the delivery of new housing supply in addition to DPHI's published forecasts. Transport's investment in infrastructure and services identified in this Draft Plan will support population and economic growth and continued vibrancy across the region's population centres.

The share of people over 65 years old is larger than the NSW average at 21 per cent and is forecast to grow to 23 per cent by in 2041,[4] while 53 per cent of the population is of working age, between 20 and 64 years old. Six per cent of the population has a need for assistance with core activities, which is similar to the NSW average.

There are different levels of relative socio-economic advantage and disadvantage across the region. People's level of advantage can impact their ability to access the places they want and need to go. Cost of living pressures may mean people choose to travel less due to the fuel and maintenance costs associated with private vehicles. According to the Index of Relative Socio-economic Advantage and Disadvantage (IRSAD), the region features areas of both high advantage such as the Cabonne and Orange LGAs and disadvantage such as the Coonamble, Cowra, Gilgandra, Lithgow, Parkes and Warrumbungle LGAs.[5]

Simmo's Off Road Tours, Bathurst © Destination NSW

1 ABS, Census 2021
2 NSW Government, regional plans
3 DPHI, NSW Population Projections, 2024
4 DPHI, NSW Population Projections, 2024
5 ABS, Census 2021

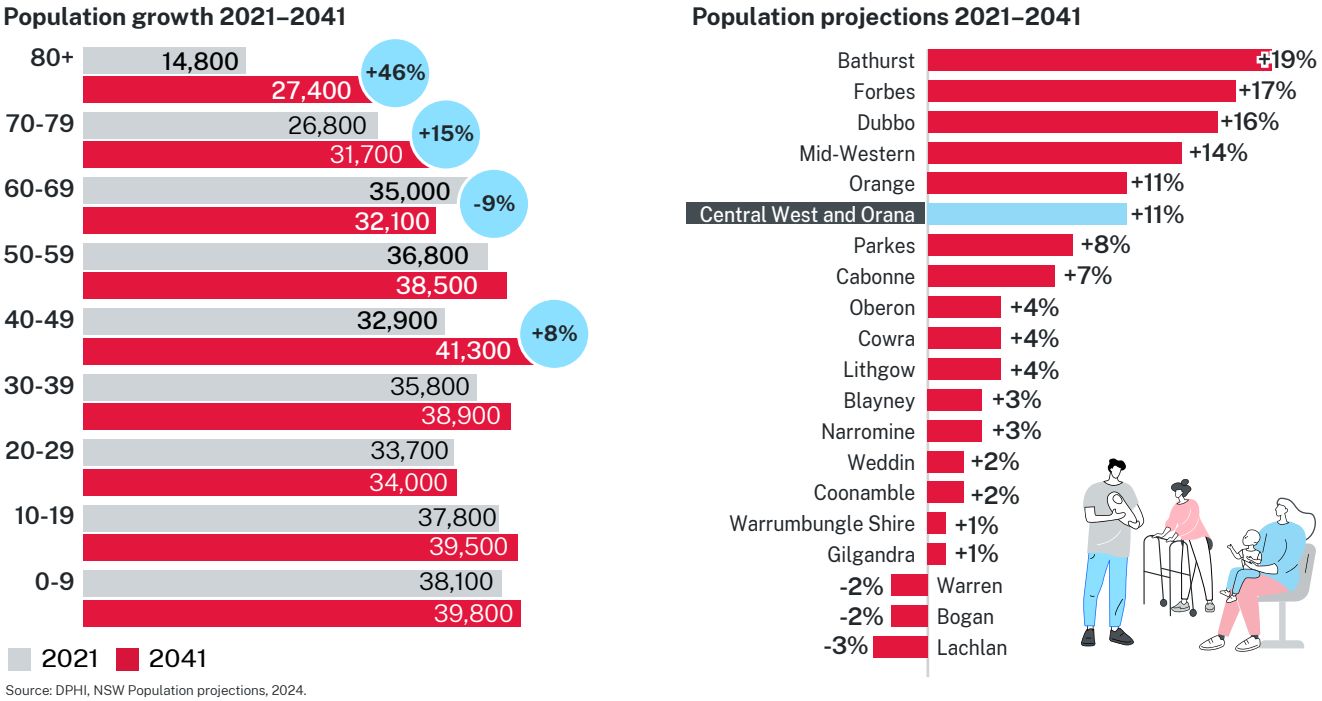


Figure 4. Population growth to 2041 by age band and local government area

Bellevue Hill Lookout, Cowra © Destination NSW

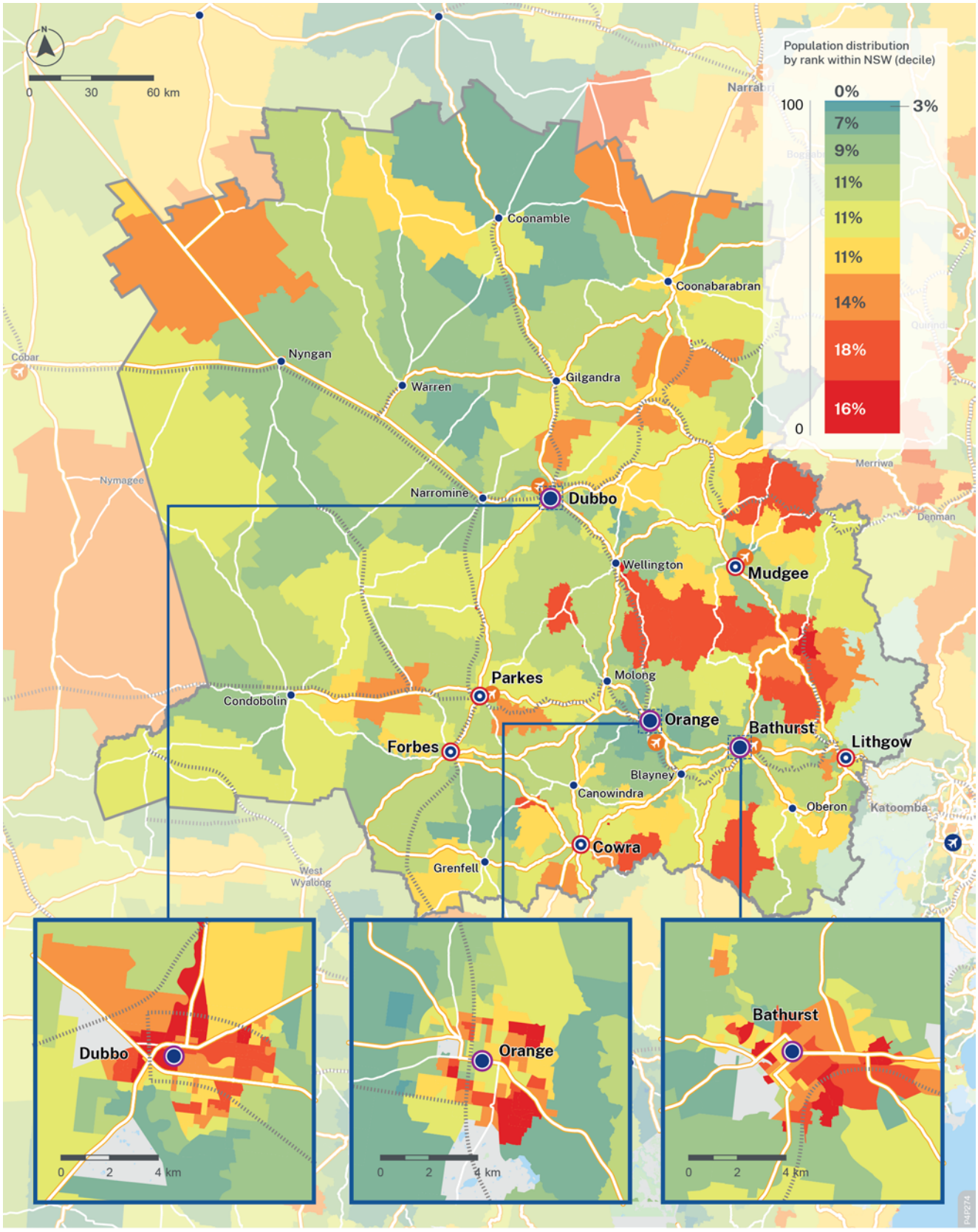


Figure 5. SEIFA index of relative socio-economic advantage and disadvantage (IRSAD) by SA1 for the Central West and Orana

4.2 Land use, services and employment

The eastern half of the Central West region is characterised by denser centre clusters based around the region's main population centres of Orange, Bathurst and Lithgow and along the Great Western Highway and Main West Rail Line corridor. This part of the region benefits from closer proximity to Greater Sydney, more transport infrastructure and services, and better access to Greater Sydney destinations and services. The western half of the Central West region and the Orana region, by contrast, have more dispersed centres ringing the population centres of Dubbo in the north and Parkes in the west. These parts of the region have developed to meet the needs of agricultural and resource sectors and workforces. While road-based transport networks are critical to serving these lower density regions and industries, committed transport infrastructure projects and emerging transport technologies have the potential to be catalysts for change, growth and renewal across the region.

A range of larger and smaller health facilities and tertiary education facilities serve the region and are more concentrated east of the Newell Highway. Due to the region's central location, the health and education services serve a catchment that extends west, north and south. The catchment of Dubbo's health service extends far into western NSW. Next to Dubbo, the largest health services are found in Orange and Bathurst. Specialist health services and education opportunities require residents to travel to Greater Sydney, Newcastle, Canberra or Wollongong. Charles Sturt University, Western Sydney University, University of Notre Dame Australia and TAFE NSW offer services in Bathurst, Dubbo, Orange and Lithgow.

Healthcare and education make up about 26 per cent of employment in the region.[6]

The region is known for its high-quality agricultural produce, featuring both cropping and livestock, enabled by fertile and diverse soil types. Almost 70 per cent of the region's productive agricultural land is used for grazing.[7] Food manufacturing businesses thrive off the region's agriculture, including food production and packaging. Coal mining remains the region's largest industry by gross value added, making up 26 per cent of the regional economy.[8] However, the extraction and export of coal from the region are expected to steadily decline over the next 20 years. Other major resources mined in the region include gold, copper and critical minerals such as lithium. Employment in agriculture, manufacturing and mining represents a significant proportion of the workforce at 20 per cent.

The NSW Government is investing in renewable energy zones (REZ) that combine renewable energy generation, storage and transmission infrastructure to deliver clean, reliable and cheap electricity for homes and businesses across NSW. The Central-West Orana REZ will support economic growth and create 5000 jobs in the delivery and maintenance of large-scale wind and solar farms, batteries and transmission network infrastructure. NSW and Commonwealth planning approvals are secured, construction is imminent and initial operations are anticipated for 2028.

Central West and Orana is a major tourism destination in NSW, attracting more than 7.3 million visitors in 2023 to its national parks and other natural attractions, world-class wineries and restaurants, cultural heritage and wildlife experiences such as the Dubbo Zoo. Visitors spent $1.6 billion per year in the region between 2016 and 2019.[9]

6 ABS, Census 2021
7 DPHI, Central West and Orana Regional Plan 2041, 2022
8 Gillespie Economics developed for Energy Corporation of NSW, Technical Paper 8 – Economic. Central-West Orana Renewable Energy Zone Transmission, 2023
9 Tourism Research Australia, Local Government Area profiles, 2021

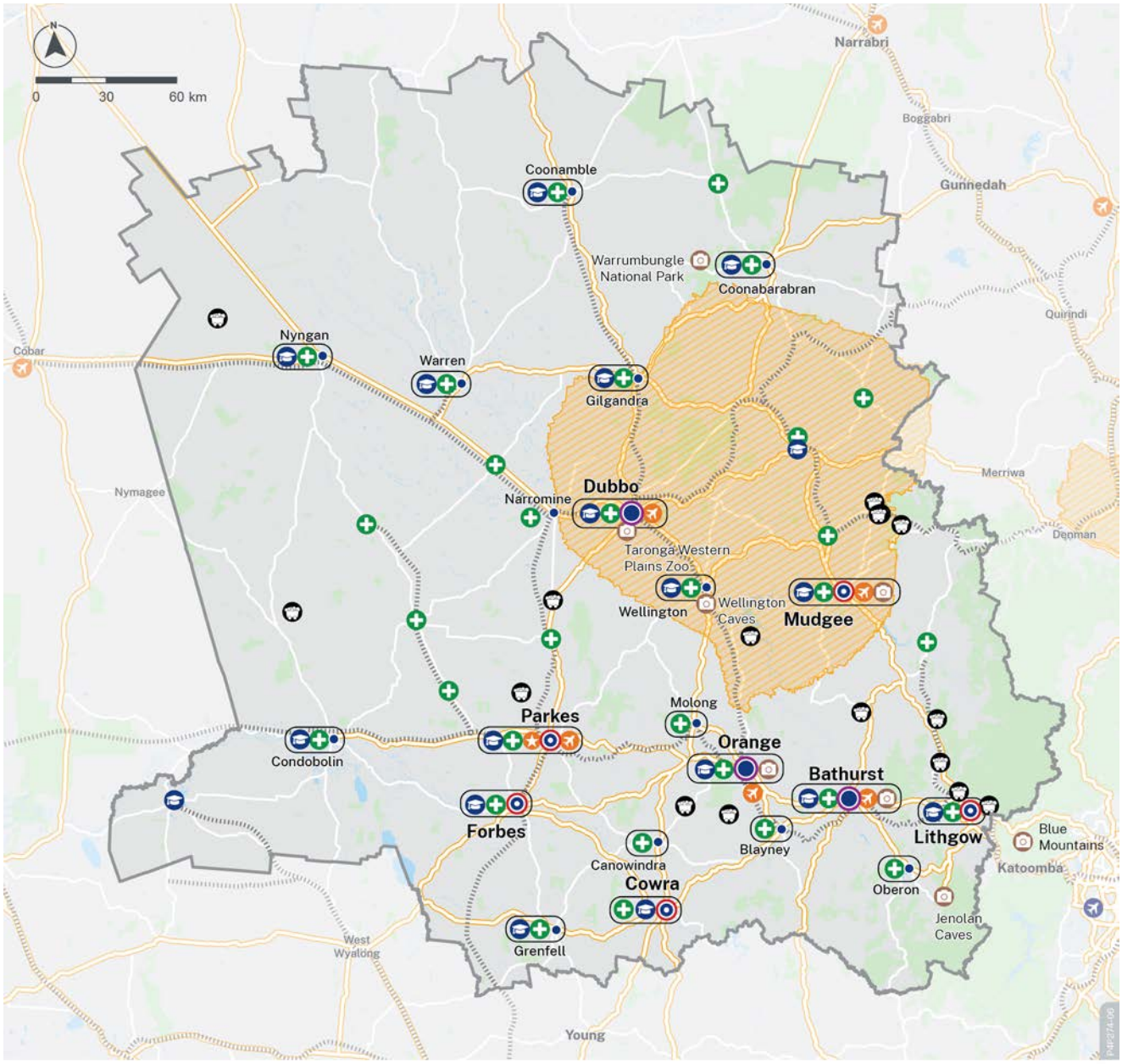


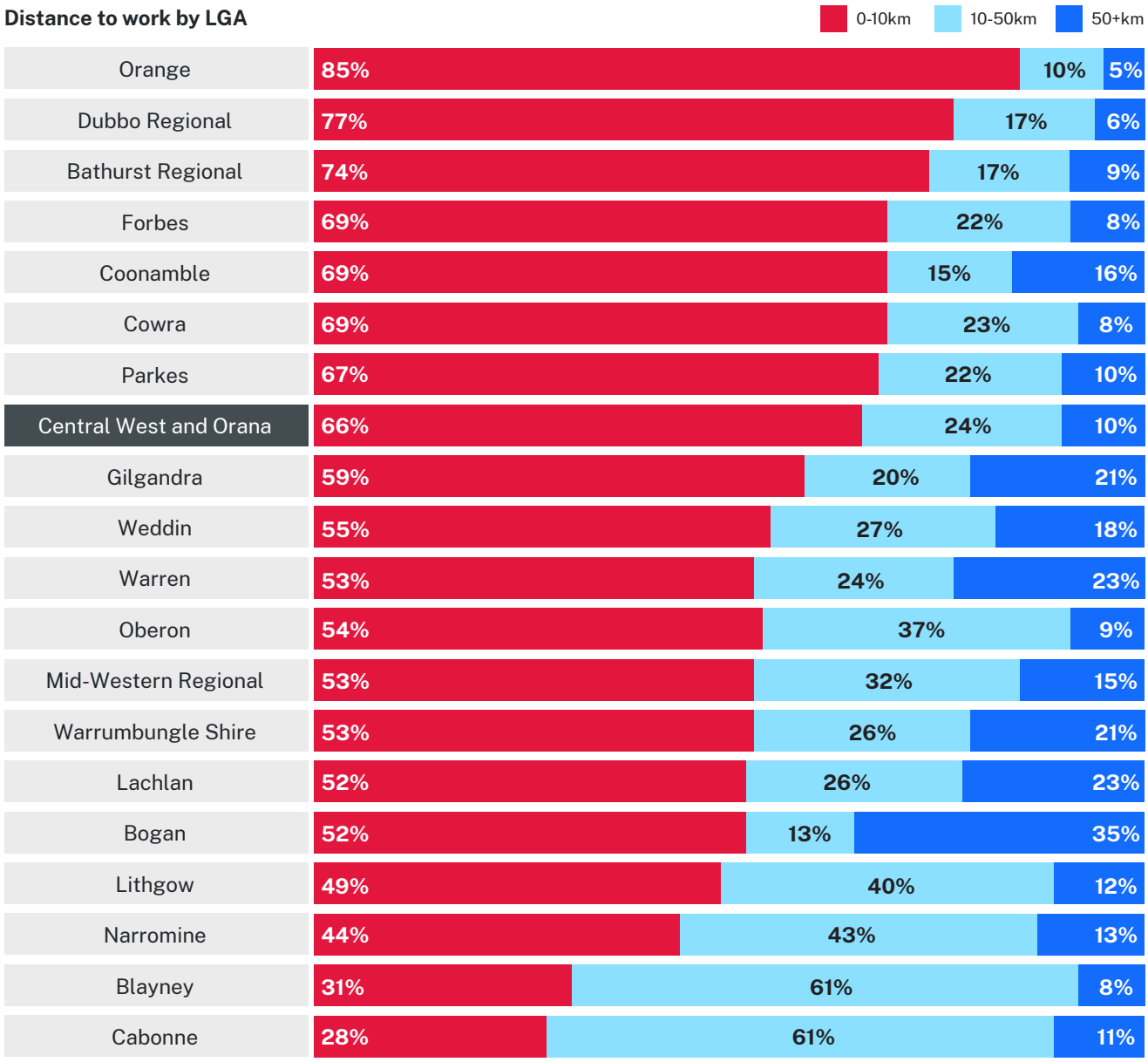
Figure 6. Major employment destinations, hospitals, tertiary education and tourist destinations

4.3 Travel in the Central West and Orana region

4.3.1 How people travel

People in the region use private vehicles for most trips. In 2021, about 93 per cent of people used a private vehicle people to go to work, followed by about five per cent who used active transport and about one per cent who used public transport.[10]

Most of the region's population (75 per cent)[11] live in population centres. The NSW Government and councils are investing in providing well-located housing that will foster population growth and the proportion of the region's population living in population centres over the next 20 years.
Trips made by residents of population centres are generally short and could be served by walking and cycling as well as local public transport services. Despite the generally dense settlement patterns in the region's population centres, driving is considered the most convenient way to travel for most trips, with about 94 per cent of households in the region owning one or more motor vehicles.[12]



Percentages are rounded and may not sum to 100%
Source: Australian Bureau of Statistics 2021 Census based on place of usual residence.

Figure 7. How people travel in Central West and Orana.

10 ABS, Census 2021
11 ABS, Census 2021
12 ABS, Census 2021

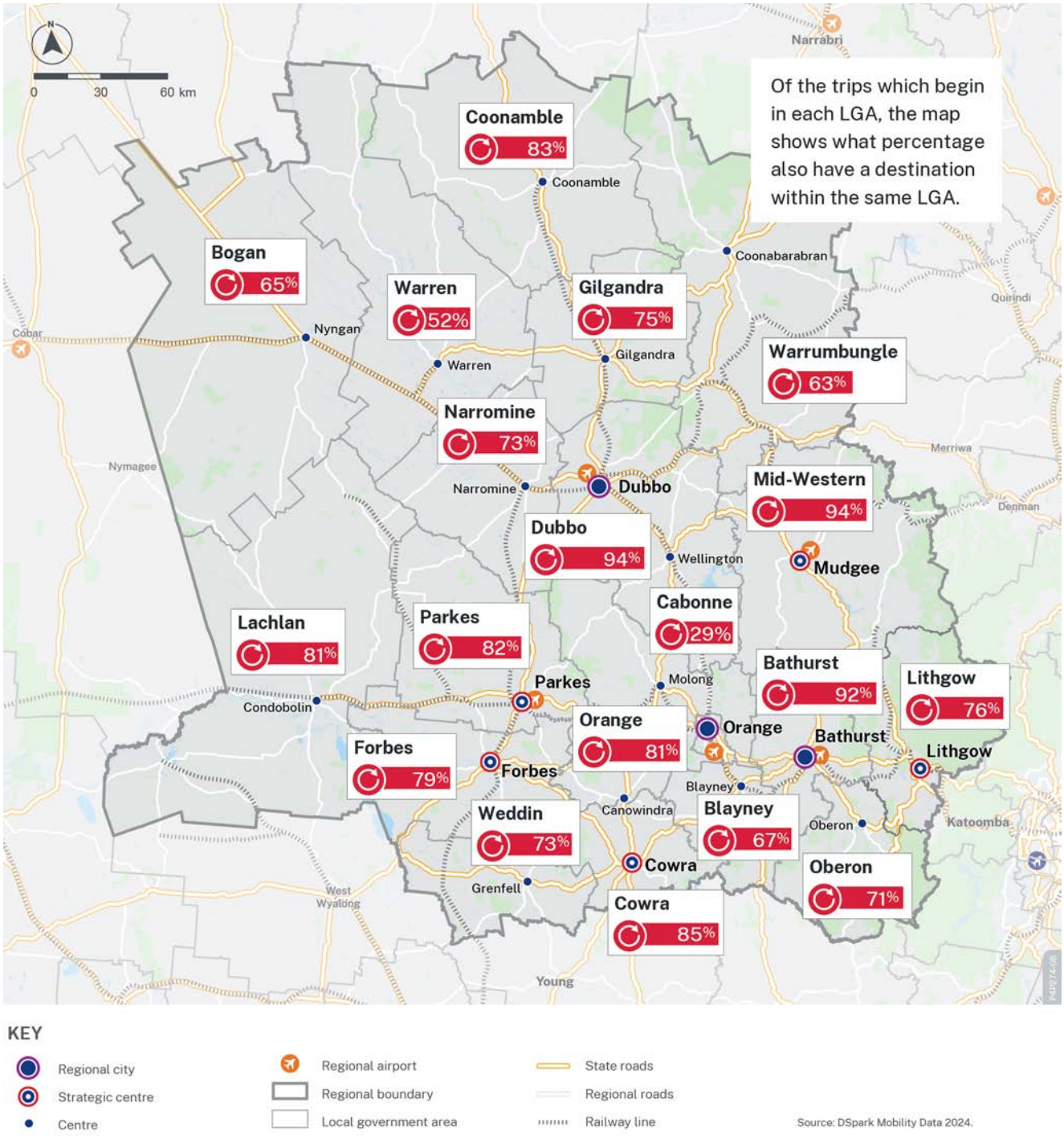
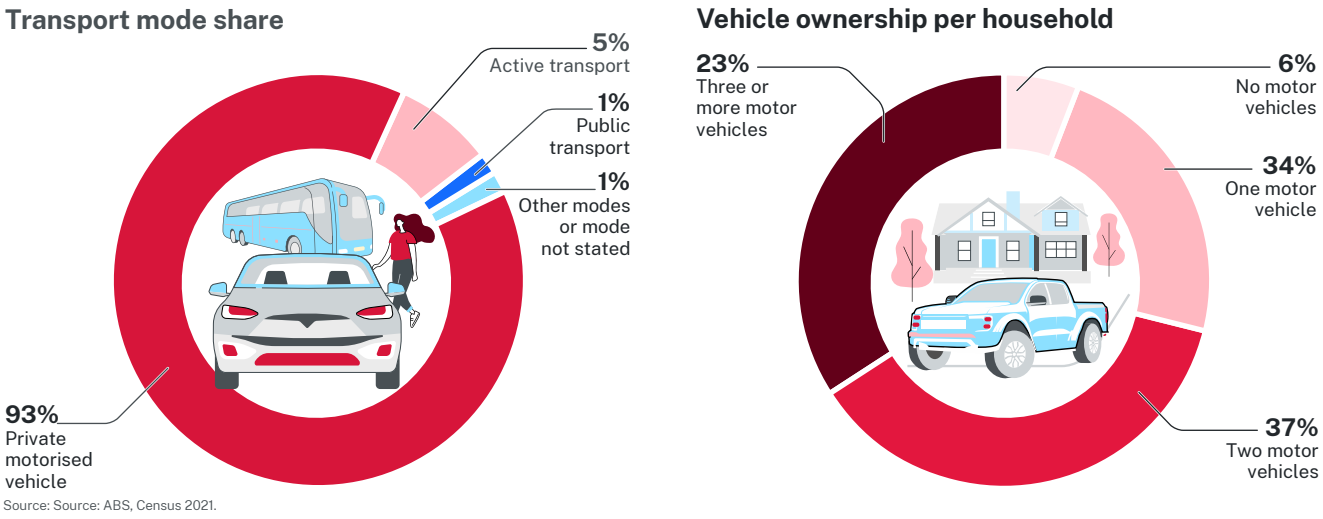


Figure 8. Movement in the Central West and Orana



Source: Source: ABS, Census 2021.

Figure 9. How people travel in Central West and Orana

4.3.2 Road network

The road network plays a critical role in meeting people's daily travel needs, serving general traffic, coaches, buses and freight vehicles, and pedestrian and bike rider movements within population centres. Due to its central location, the region features intersections of important highways at population centres such as Dubbo and Parkes, connecting to major destinations across the state and the country.

The Great Western Highway is part of the National Land Transport Network and is one of four major road freight connections to and from Sydney. Investigations are underway to understand the importance and challenges of the corridor between Sydney and the Central West to guide future planning and investment decisions. The Newell Highway, a key north to south highway connecting Victoria and Queensland, and the Mitchell Highway from Bathurst to Dubbo are also part of the National Land Transport Network and. Henry Parkes Way from Parkes connects to western NSW and provide important connections for Far West residents to access opportunities in the Central West, Orana and Greater Sydney.

Other key roads in the region include:

- the Castlereagh Highway, which runs north-west and connects the Great Western Highway at Marrangaroo to the Golden Highway east of Dunedoo via Mudgee and Gulgong
- the Golden Highway, which runs east–west through the north-eastern part of the region and connects the Orana region with the Hunter region from Dubbo to Newcastle via Dunedoo
- the Oxley Highway, which runs west to north-east through the Orana region, connecting the Newell Highway at Nevertire in the west to the Pacific Highway in the east at Thrumster between Wauchope and Port Macquarie, via Warren, Gilgandra and Coonabarabran
- the Mid Western Highway, which runs west to north-east through the Central West region, connecting the Cobb Highway and Sturt Highway in Hay to the Great Western Highway and Mitchell Highway in Bathurst via West Wyalong, Wyalong, Grenfell, Cowra and Blayney
- the Escort Way, which runs east–west through the Central West region, connecting the Mitchell Highway in Orange and the Newell Highway in Forbes via Cudal and Eugowra
- Lachlan Valley Way, which runs north–south through the Central West region, connecting the Hume Highway at Yass to the Mid Western Highway at Cowra.

4.3.3 Freight network

Freight is transported by both road and rail using shared and dedicated connections. The region includes intersections of key national road and rail routes. From east to west, the Main West Rail Line and Great Western Highway provide freight connections between the region and Greater Sydney, including Port Botany and Sydney distribution centres. Port Kembla can be accessed via Sydney on the Main West Rail Line and Great Western Highway or, from the south of the region via the Cootamundra intermodal terminal, Main South Rail Line or Lachlan Valley Way to the Hume Highway.

Port of Newcastle is typically accessed via the Golden Highway or on the Ulan Line, which is part of the Hunter Valley Coal Network. From north to south, the Newell Highway is a nationally significant connection from Queensland to Victoria and Dubbo provides key east–west road and rail connections, including to the Mitchell Highway. Parkes is strategically located on the intersection of the Newell Highway and key east–west rail connections, enabling its function as a key intermodal freight hub for the region. Other key intermodal terminals in the region include Dubbo, Manildra, Narromine, Trangie, Forbes, Coonamble, Kelso, Bathurst, Forbes, Condobolin and Warren.

4.3.4 Walking and cycling

Most walking infrastructure in the region, such as footpaths, shared paths and crossings, are focused in city and town centres and commercial districts. The edges of commercial centres typically feature crossings only in the most walked places, and suburban streets might have dedicated footpaths only on one or neither side of the street.

There is limited provision of dedicated cycling infrastructure in the region, with the majority of cycling trips made in shared traffic environment on local streets, footpaths and shared paths in parks. These shared facilities provide limited safety and amenity benefits for bike riders and are often perceived as having a negative impact on pedestrian safety. They also provide limited connectivity between residential areas and destinations such as public transport hubs in population centres.

The attractiveness of walking and cycling is impacted by missing and sub-standard infrastructure, topography, weather, infrastructure-based barriers to movement, and high-speed traffic environments. This has a knock-on impact on the attractiveness of public transport.

Road safety is a key determinant of walking, cycling and public transport uptake. Heavier vehicles have a disproportionate impact on more vulnerable road users, particularly in regional cities. Personal security is also negatively impacted by car dependency and lower levels of passive surveillance, which provides more opportunities for anti-social behaviours.

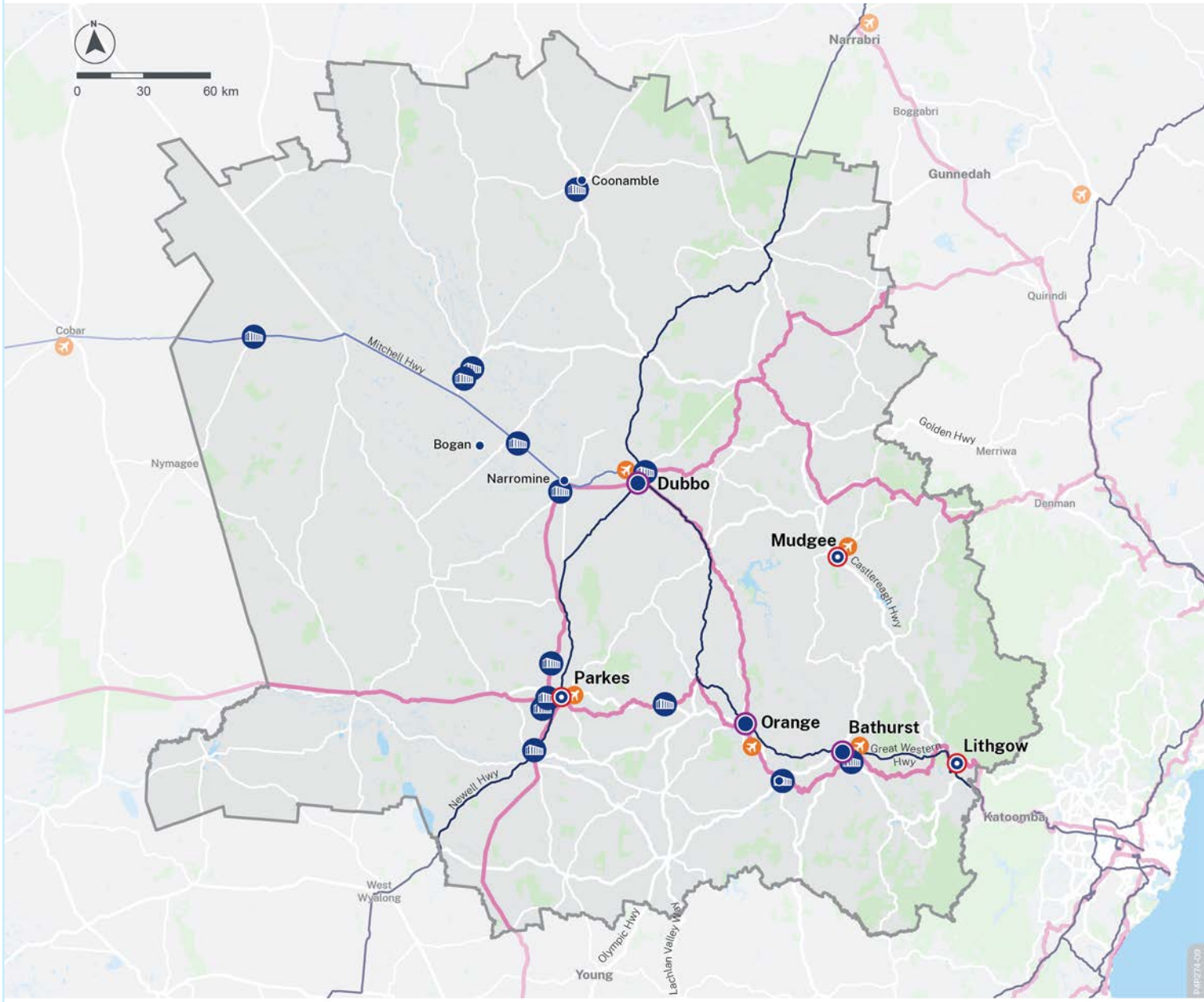


Figure 10. Road and rail freight network

4.3.5 Public transport

Buses are generally used to provide local public transport services, predominantly operating within Dubbo, Orange and Bathurst and some larger population centres. On some routes buses are used to provide access between nearby population centres and regional cities such as Blayney, Bathurst and Orange.

By contrast, coaches are typically used to serve longer distance journeys, where comfort features such as a toilet and separated large luggage compartments are more desirable. In NSW, the regional rail and coach services work together as one network, using complementary routes with aligned timetabled arrival and departure times to reduce interchange time.

The coach network supports the rail network in three distinctive ways: coaches provide access to railway stations, expanding their catchment, such as in Parkes and Dubbo; they serve areas that are not served by rail, such as the Lithgow to Baradine corridor; and they provide increased service frequency and stops along a rail corridor, such as between Orange and Lithgow.

The region is served by two east–west rail lines. The Main West Rail Line runs from Central Station in Sydney to Dubbo. The Broken Hill Rail Line runs from Orange to Broken Hill and continues further west. Stations along the Main West Rail Line within the region include Lithgow, Rydal, Taranna, Bathurst, Blayney, Millthorpe, Orange, Stuart Town, Wellington, Geurie and Dubbo. Stations along the Broken Hill Rail Line within the region include Orange, Parkes, and Condobolin.

The Sydney to Lithgow corridor has the highest number of rail services at 25 services per week in each direction.[13] Lithgow to Dubbo is served by about half as many services, while the corridor from Orange to Parkes and Broken Hill has one service per week in each direction. Coaches also provide day return services, including from Parkes to Orange.

4.3.6 Airports

The region is served by regular passenger air services from Bathurst, Dubbo, Orange and Parkes airports. These airports primarily connect to major destinations within NSW, major cities in Queensland and Victoria, as well as Canberra and Perth. Dubbo Airport is recognised as a regional hub for emergency services, supporting operations for agencies such as the NSW Rural Fire Service, Royal Flying Doctor Service and State Emergency Service.

Outside the region, Canberra Airport and the Western Sydney International (Nancy-Bird Walton) Airport, which is planned to open in 2026, will enhance aviation options for business and leisure travellers and expand opportunity to export fresh produce and other high value goods via curfew-free international flights.

Orange Regional Airport, Orange © Destination NSW

13 Transport for NSW, coach and rail timetables, October 2024

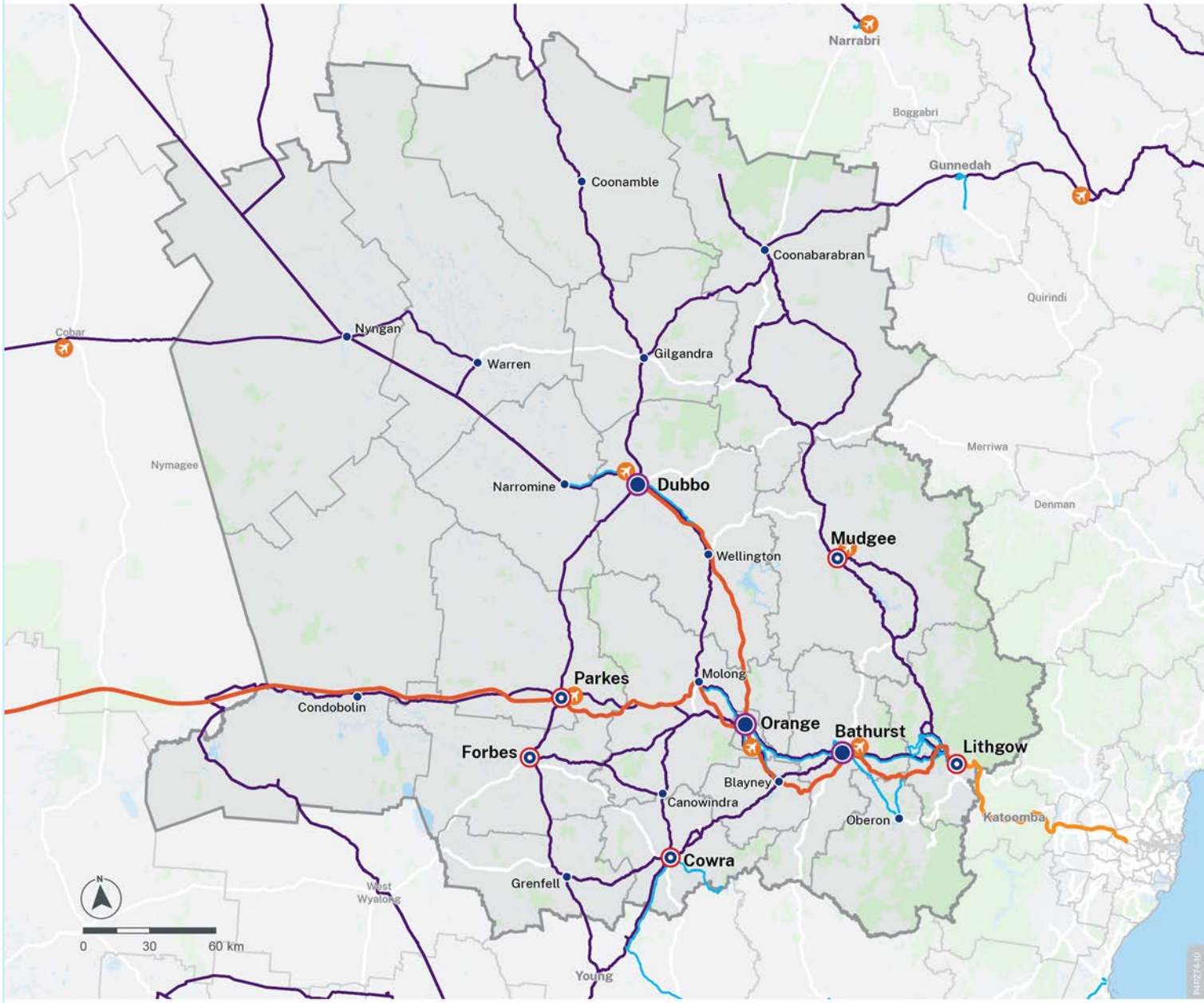


Figure 11. Rail and coach transport network

4.4 Current, planned and committed projects

The region is experiencing significant investment from federal and State government for a range of transport infrastructure and service improvements across the Central West and Orana region, with the aim of maintaining safe and efficient travel for NSW passengers and freight. Some key projects being planned or in delivery are described below.

Inland Rail

The Inland Rail project, led by the Australian Rail Track Corporation (ARTC) with Transport as a stakeholder, is a strategic rail freight line that traverses the region. The project will eventually provide a direct rail link from Melbourne to Brisbane, passing through key locations such as the Parkes Intermodal Terminal. Designed as a fast, efficient and reliable land bridge between Melbourne's manufacturing, Western Australia and South Australia's primary industries, regional Victoria, NSW and Queensland, and east coast ports closer to Asia, this corridor aims to enhance freight efficiency and support economic development across Australia and regional NSW.

Within the region, Parkes to Narromine rail line upgrades have been completed and are operational, Stockinbingal to Parkes rail line upgrades to the south are under construction and due for completion by 2027, and the new Narromine to Narrabri rail line to the north is seeking planning approvals.[14]

Parkes Special Activation Precinct

The Parkes Special Activation Precinct is a strategic initiative by the NSW Government aimed at driving economic growth and job creation in the Parkes region. Spanning over 4800 hectares, the precinct focuses on developing an inland port to support industries such as agriculture, logistics, manufacturing and energy. The precinct is uniquely positioned at the junction of the Inland Rail and the Trans-Australian Railway from Perth to Greater Sydney, enhancing its role as a critical hub for freight movement across the country.

Central-West Orana Renewable Energy Zone

The Central-West Orana REZ will deliver clean, affordable and reliable energy, and create 5000 jobs. The REZ will include infrastructure to generate, store and transport clean energy, including large-scale wind and solar farms, batteries and transmission network infrastructure. NSW and Commonwealth planning approvals are secured, construction is imminent and initial operations are anticipated for 2028. REZ construction and ongoing maintenance will involve the delivery of thousands of large wind turbine components. These deliveries are envisioned to be almost exclusively made using oversize and overmass vehicles (OSOM) on the Golden Highway (see Port to REZ below).

Port to REZ

The Port to REZ project will enable transport of construction materials for the Central-West Orana REZ and the Hunter-Central Coast REZ, which are currently being delivered. The infrastructure component of the project involves 19 highway upgrades and has been committed to and funded by the NSW Government with an investment of $128.5 million. Seven road upgrades are planned for the Central West and Orana region, including along the Golden Highway between Elong Elong and east of Uarbry, as well as the Castlereagh Highway near Birriwa.

14 Inland Rail, Project Stages, accessed February 2025 from https://inlandrail.com.au/building-inland-rail/project-stages/?stage=1

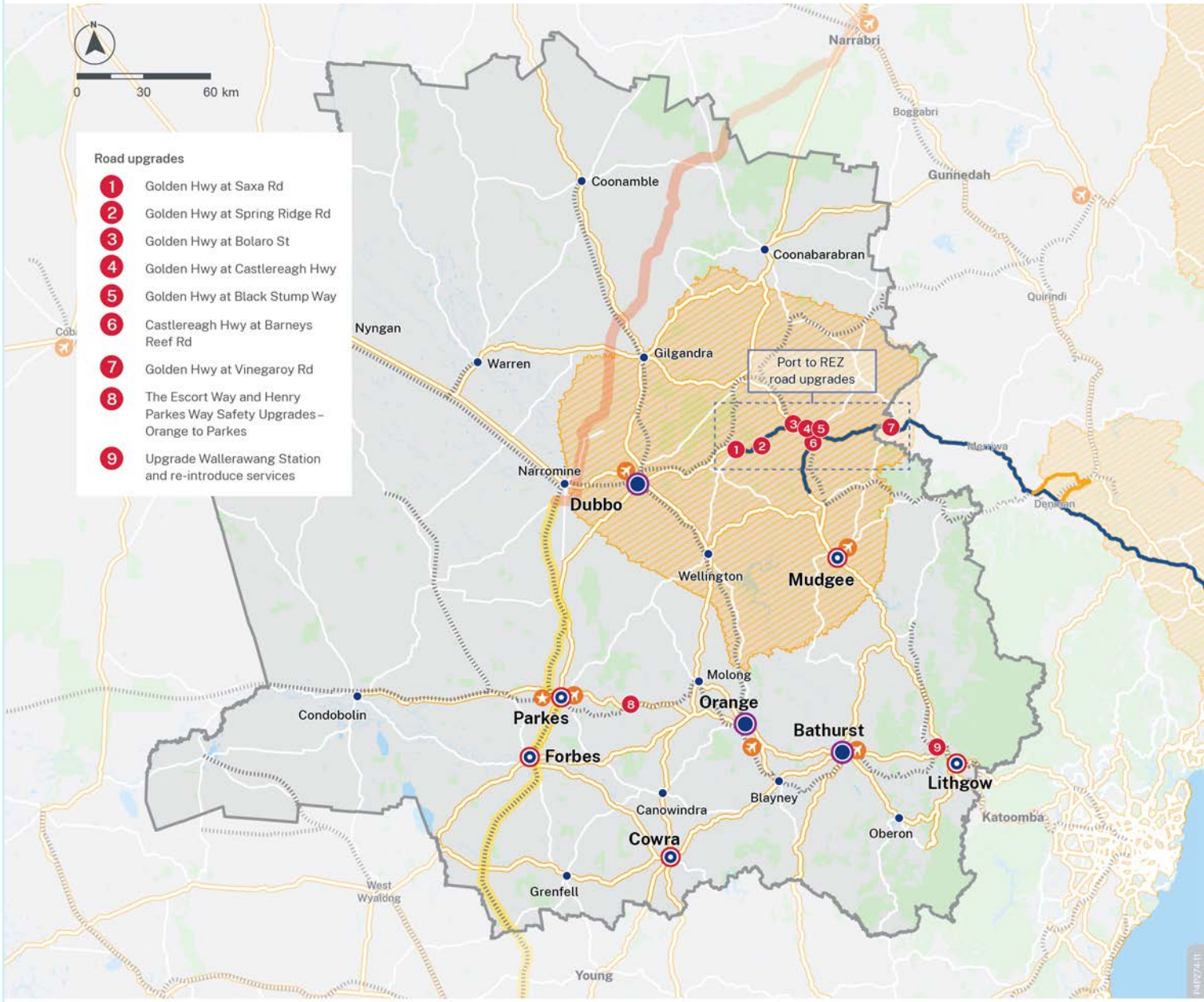
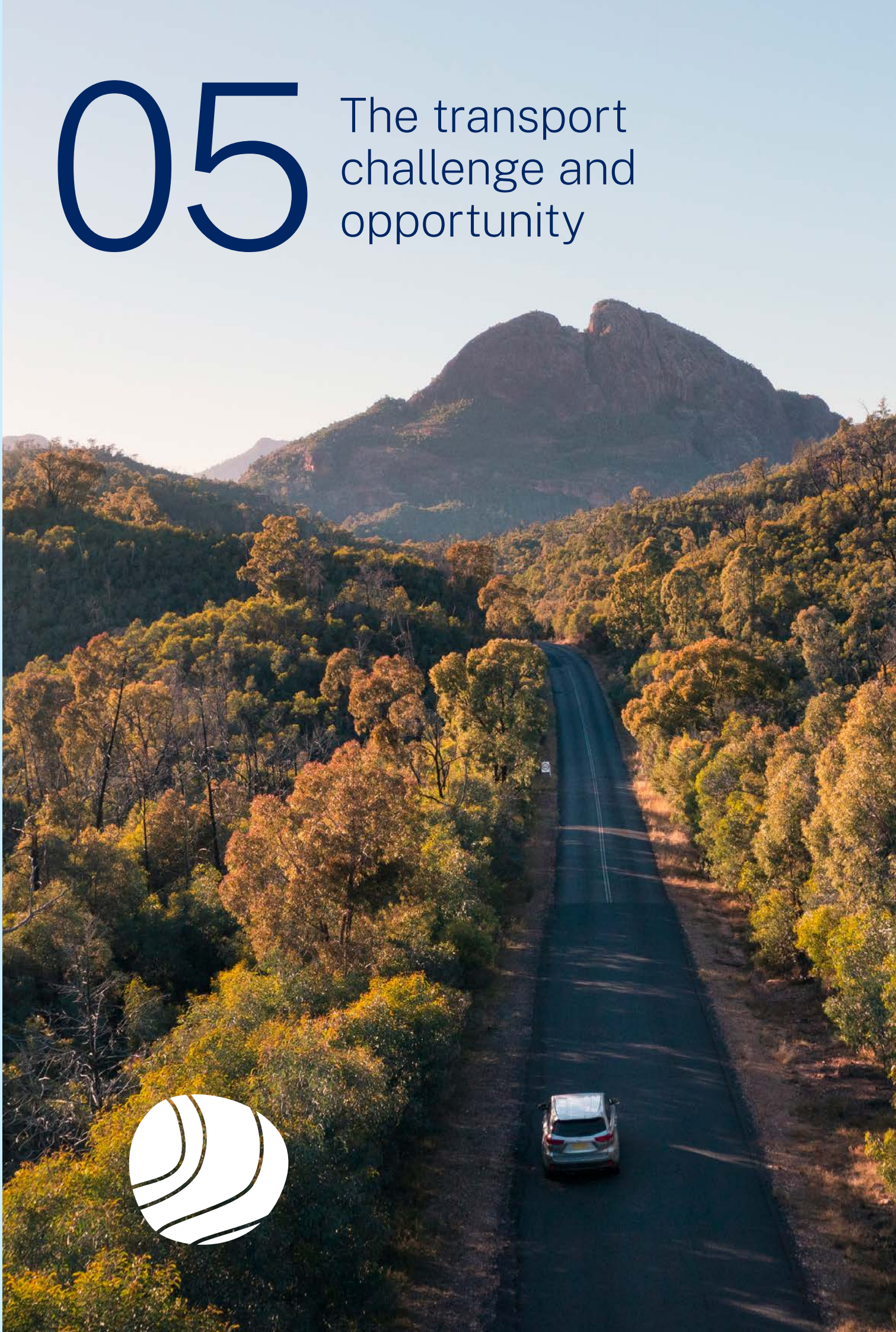


Figure 12. Major projects

Delivery of safety improvements for the Mitchell Highway between Bathurst and Orange.

05 The transport challenge and opportunity



Achieving the community's vision for the Central West and Orana is reliant on successful planning and development of the Central West and Orana road and transport network.

Consideration will be given to the design, operation and maintenance of the current transport network; changes in population, demographics, travel behaviours and freight demand; in-flight projects; and evolving transport technologies. Geography, population distribution, settlement patterns, heritage and character create constraints that determine the layout and level of service that will be provided for different parts of the region.

The Central West and Orana region has many waterways, national parks and a rich cultural heritage, making it an attractive place to live, work and visit. With population forecast to grow and development set to occur in many greenfield areas, more pressure will be placed on the transport network. Well-planned development close to existing destinations and services minimises travel demand and associated community costs. More car-dependant development has the opposite effect.

A lack of public transport coverage outside population centres and high car use compound difficulties in accessing population centres and limit reliable travel to healthcare, education, jobs and employment areas. Population growth will be accompanied by increased demand for goods and services, which will drive growth in freight demand to, from and within regional population centres.

The Central West and Orana is also home to areas of socio-economic disadvantage and mortgage and rental stress, with areas of lower individual and household incomes. The increase in demand for housing and supporting industries and services, means the region is evolving rapidly. However, as the region grows and many thrive, we need to ensure that the most vulnerable are not left behind.

The resilience of the transport network is also challenged as the region is expected to continue to experience adverse weather events that impact the operation and reliability of the network. Many communities are only accessible by one road in and out.

The transport sector is also adapting to a move towards net zero emissions, which requires planning for infrastructure improvements, policy interventions and behavioural change.

The following transport opportunities and challenges for the Central West and Orana were identified through extensive engagement across the region together with data analysis to validate the priorities for action and delivering change. This change will be achieved through an implementation plan of initiatives identified for the short and medium term.

Warrumbungle National Park, Coonabarabran © Destination NSW

5.1 Starting with Country

All investment in the transport network, services, policy and technology takes a Country-centred approach

Many of the transport routes we use today, from rail lines to roads such as the Newell, Mitchell and Golden highways, follow ancient, traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for over tens of thousands of years.

At a regional scale, the first 'new' initiative from this Draft Plan is to develop a local transport and services plan, written in partnership with local Aboriginal communities, to ensure infrastructure and services are connecting to the right places at the right times. This process will be transparent, co-designed and identify tangible improvements.

Transport values the input from Elders and other traditional knowledge holders who possess this information about Country so that it can inform strategic transport planning, while sensitively working in partnership with Aboriginal people. This is supported by the community-led OCHRE plan, which stands for 'opportunity, choice, healing, responsibility and empowerment'.

Active involvement of Aboriginal stakeholders in the development of the Draft Plan has enabled Transport to identify access challenges of Aboriginal communities and where these can be improved. This engagement sets the foundations for active involvement in the delivery of culturally appropriate transport network solutions for Aboriginal communities and people in the region.

What we heard

- Equitable access to health, education, and other government services is critical for improving outcomes for Aboriginal communities. Ensuring these services are available and accessible is a priority for achieving better health, educational, social and economic outcomes.
- Providing diverse transport options, including walking, public transport and on-demand services, is essential for all trips. This is particularly important for remote Aboriginal communities, where equitable access to transport choices is necessary for day return journeys and seasonal travel.
- The presence of diverse opinions within Transport, councils and Aboriginal groups makes gaining consensus and developing a shared vision complex. This diversity requires careful consideration and inclusive dialogue to achieve a unified approach.
- There is a need for transparency, consistency and certainty in decision-making processes related to Planning with Country and Aboriginal outcomes. Establishing clear and consistent processes for place and infrastructure naming is necessary to ensure fairness and respect for Aboriginal culture.
- Transport plays a significant role as a major direct employer of Aboriginal people and as a facilitator of Aboriginal tourism, which contributes to economic independence. There is a need for consolidated and common data related to Planning with Country and Aboriginal outcomes.
- Engaging with Aboriginal culture and communities through initiatives like 'Walking on Country' is essential for fostering respect and understanding. This engagement should be integrated into planning and decision-making processes to ensure culturally appropriate outcomes.
- Each Aboriginal community within the region is unique. However, transport is fundamentally linked to many of the challenges faced by Aboriginal people.

5.1.1 Establish Planning with Country processes

Transport plans, operates and maintains transport infrastructure and services on Country that has been cared for by Aboriginal people for time immemorial. Today's transport networks are more likely to address the needs of Country when planned, designed and operated in partnership with traditional Aboriginal custodians and guided by traditional, ecosystem-focused Aboriginal principles and value systems. However, Planning with Country processes sometimes challenge Transport's current human-centric planning and project development processes:

Learning from first languages and place names

Aboriginal place names are inexorably linked to the physical characteristics and traditional purpose of Country. Post-settlement development, history and culture is often inconsistent with these traditional characteristics and purposes. Compromises between Aboriginal and post-colonial place values can be difficult to navigate.

Developing mutually beneficial relationships with Country

Establishing long-lasting consultative relationships with Aboriginal communities helps to inform and deliver projects that better address the needs of Country and Aboriginal communities. However, it is sometimes unclear what level of support and resulting authority Aboriginal representative groups have when providing feedback on behalf of the wider Aboriginal community.

Reawakening memories of cultural landscapes

It is sometimes challenging balancing planning, project development and budgetary and scheduling priorities with the financial costs and timeframes associated with Walking with Country with an approved Aboriginal guide.

The capacity of local Aboriginal land councils, native title holders and other representative groups to provide Walking with Country guidance needs to be considered.

Finding common ground

It is challenging to assess the impact of transport network development on Country (an ecosystem approach to planning) using planning tools that value human-centric costs and benefits with a more limited understanding of how to value environment, ecosystem, culture and Country benefits and costs.

Macquarie River, Dubbo © Destination NSW

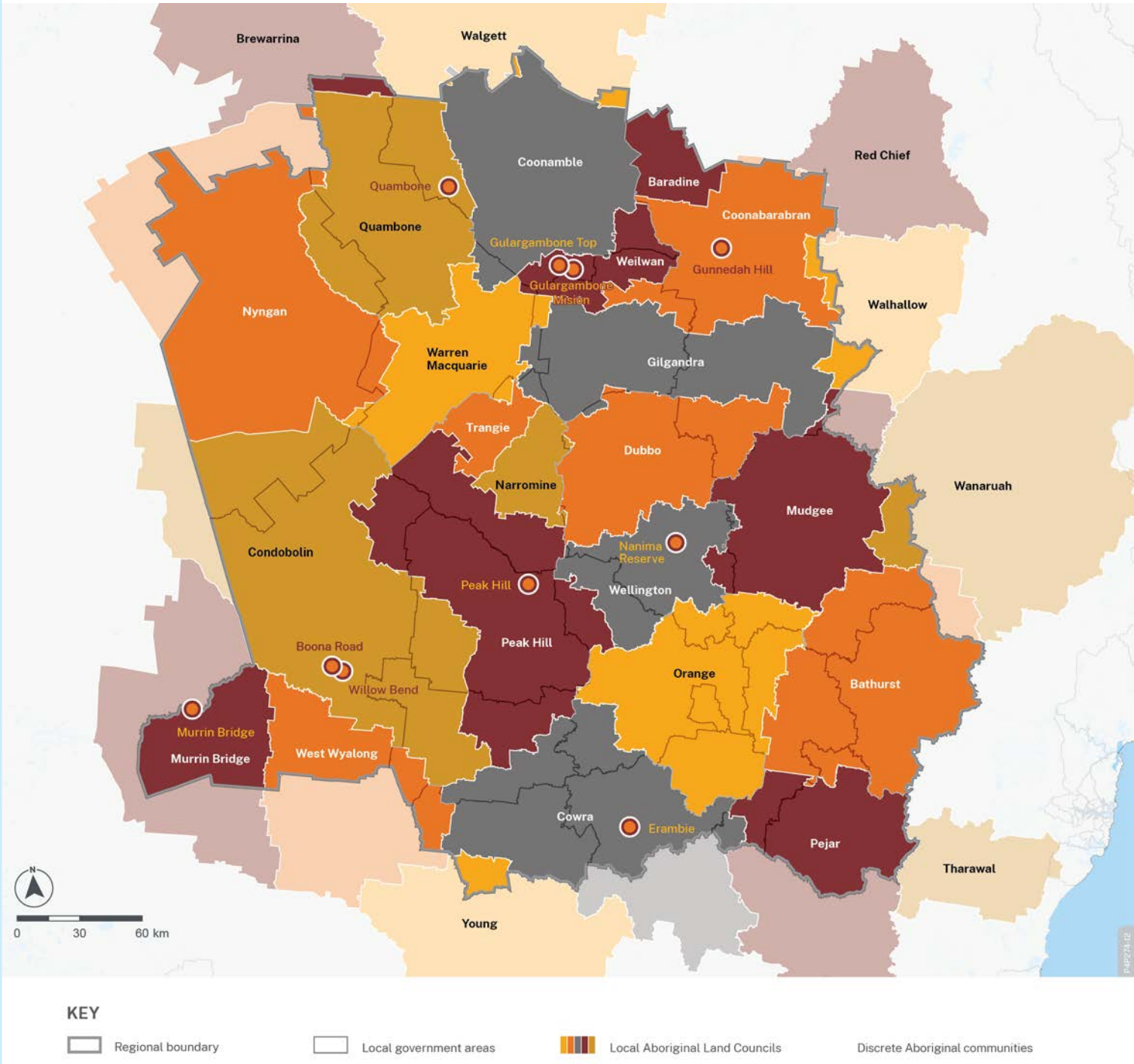


Figure 13. Local Aboriginal land councils in Central West and Orana

5.1.2 Improving Aboriginal outcomes

The NSW Government is committed to achieving the objective of the National Agreement on Closing the Gap to enable Aboriginal and Torres Strait Islander people and governments to work together to overcome the inequality experienced by Aboriginal and Torres Strait Islander people and to achieve life outcomes equal to all Australians.[15] The NSW Government's Closing the Gap Implementation Plan provides a framework for delivering more equitable outcomes for Aboriginal communities and people.

Key Closing the Gap challenges that can be addressed through transport planning and programs include:

- improving Aboriginal people's access to jobs, healthcare, education, social and recreational venues, housing and Country
- transport effectively partnering with Aboriginal communities and businesses, including funding the development and operation of Aboriginal transport businesses.

These challenges relate to the level of access Aboriginal people have to destinations and services which support improved Closing the Gap outcomes such as healthcare, education, social destinations and well-located housing.

The level of access that Aboriginal people have to key destinations and services and what this means in terms of improving transport infrastructure and service provision to meet the needs of Aboriginal communities is assessed as part of the 'Access to transport for all objective.

Transport's Reconciliation Action Plan 2022–2025 acknowledges and values the importance of connecting to Country in the creation of our transport infrastructure and networks. Transport will monitor and report progress against the Aboriginal Outcomes Framework, which has four key areas for transport outcomes:

1. Aboriginal people are connected safely to the economy and socially, through transport solutions.
2. Our Country is healthy and strong through transport planning and place making.
3. Aboriginal economic independence is supported by Transport.
4. Transport drives transformative action to deliver systemic change.

Opportunities

Transport can improve Aboriginal outcomes by:

- identifying opportunities for improving access to local and more regionally important destinations and services for Aboriginal people, particularly for those living in discrete Aboriginal communities.

Passsengers on board NSW TrainLink XPT train

15 Commonwealth of Australia, Closing The Gap, https://www.closingthegap.gov.au/national-agreement

5.2 Access to transport for all

All Central West and Orana residents, workers, and visitors will have access to more equitable options for travelling to and from local, regional and metropolitan destinations and services

Access is the ability of people to reach desired goods, services, activities and destinations efficiently, considering factors like proximity, mobility options and infrastructure connectivity.

Central West and Orana residents require regular access to employment, education, healthcare, recreation, and social services. Co-locating these destinations with residential populations reduces the frequency and length of trips and increases the number of journeys made by lower-impact modes such as walking, cycling, and public transport. This integrated approach to land use, transport planning, and travel demand management helps limit congestion, crashes, and pollution – supporting the wellbeing of current and future communities.

The viability of local and regional destinations depends largely on the size of the populations they serve. For example, primary schools require fewer teachers in smaller towns, while high schools with more specialised staff need to draw from a larger student catchment. Similarly, local doctors can serve small communities, while regional hospitals cater to broader populations. Local playing fields may meet day-to-day needs, whereas regional facilities like swimming centres support wider recreational demand.

Barriers to transport access can limit participation in work, education, healthcare, and social life. Affected groups include older people, rural residents, people with disabilities or temporary injuries, culturally and linguistically diverse communities, and those travelling with dependents. Enhancing transport access and choice can significantly improve quality of life for these groups.

Increasing the proportion of the population living within a 15-minute walk or 30-minute public transport trip of both local and regional services will reduce travel demand, improve transport options, support a shift to more sustainable modes, and mitigate negative transport impacts.

Streetscapes, Rylstone © Destination NSW

This can be achieved by:

- delivering more local and regional destinations closer to population centres
- enhancing active and public transport infrastructure and services to improve connectivity.

In the longer term, urban renewal and greater residential density in accessible areas will further reduce transport-related impacts and increase the number of residents living near essential services.

Improving the quality and appeal of the region's active and public transport networks is critical to reducing car dependency.

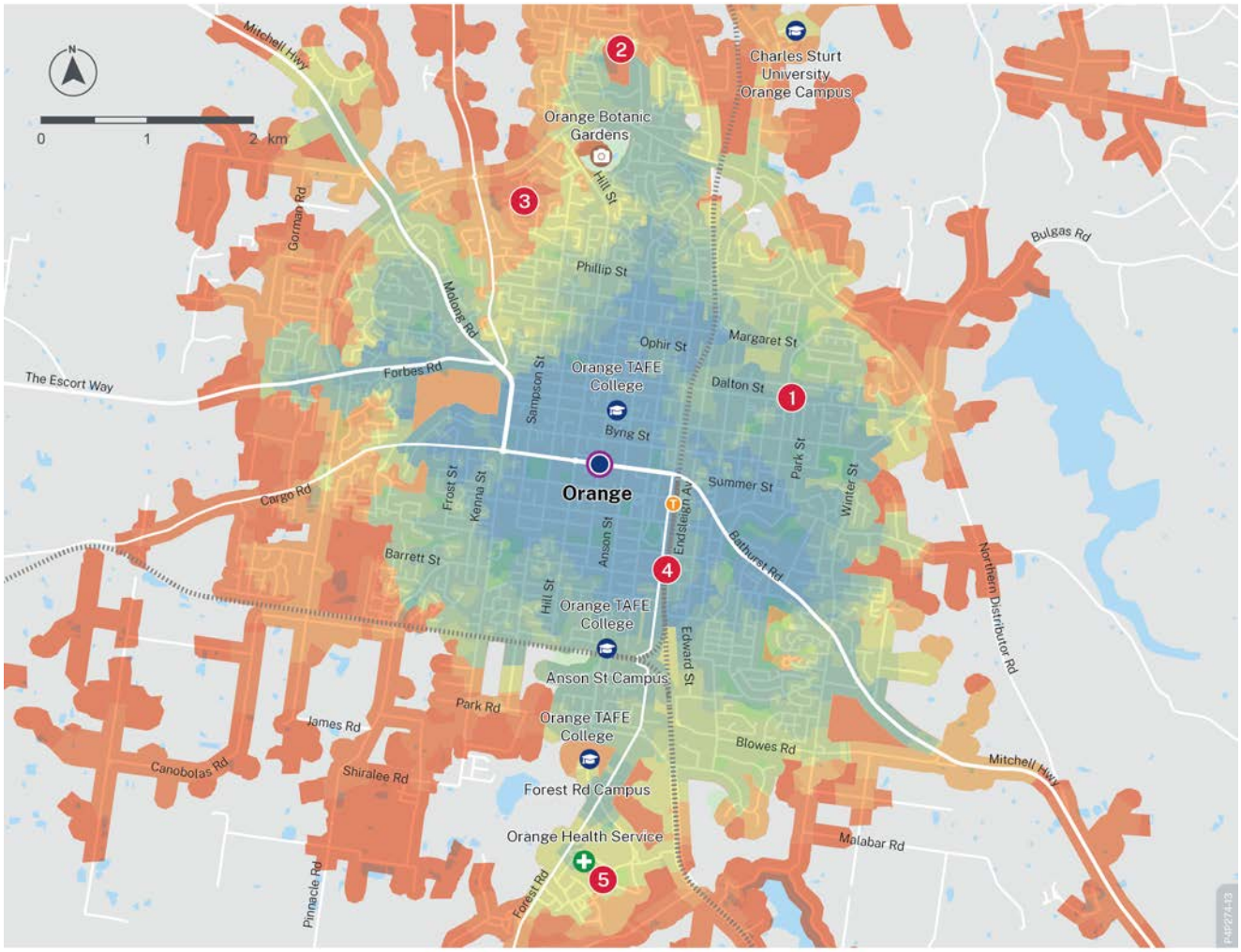
Services must be responsive to community needs – particularly in rural and remote areas, and for vulnerable populations.

What we heard

- Eighty per cent the region's population lives in its main cities and centres. Ensuring good levels of accessibility to both local and regional destinations and services is critical to maximising benefits for all residents of and visitors to the region's cities and centres.
- While regional cities are typically compact, improving walking and cycling infrastructure and integrating local active and public transport networks with regional train and coach links, including by allowing bikes on trains, will enhance mobility and make car-light lifestyles more attractive.
- The region's residents are less familiar with public transport and experience few disincentives to car use, making it challenging to design cost-effective public transport networks that improve access for remote customers and encourage mode shift away from private vehicles. Split responsibilities for bus service and infrastructure funding makes coordination of bus network improvements difficult.
- School bus services are well used and help to minimise entrenched socio-economic disadvantage.
- Market viability of point-to-point and on-demand services varies across the region, providing inconsistent support for car-light lifestyles, especially for elderly, disabled and rural residents.
- Balancing passenger and freight access priorities on existing road and rail networks between the region and Sydney is challenging.
- The benefits for Central West and Orana communities of extending Sydney metropolitan rail services to Lithgow with more frequent regional rail services between Lithgow and western NSW need to be considered.

Currently, comparatively better access to local and regional destinations is more achievable in the region's larger population centres. Around 35 per cent of residents live within a short walk or public transport trip of multiple key destinations. However, this access is not distributed equitably across the region.

Local government areas (LGAs) with major centres, such as Orange, typically enjoy better proximity to services than more rural LGAs like Cabonne. Comparing access levels across LGAs helps identify where improving the location and availability of local destinations is likely to support travel demand management, and where investment in more flexible and tailored public transport services should be prioritised.



KEY

- Regional city
- Train Station
- Railway line
- Tourist attraction
- TAFE/University
- Hospital

1. Walking access negatively impacted by impermeability of Blackman's Creek industrial precinct.
2. Limited walking access to local education and health destinations and limited public transport access to central Orange.
3. Slow and indirect public transport services linking central Orange and Orange Botanic Gardens precinct.
4. Rail line impacts walking access to local primary schools.
5. Slow and indirect public transport access between Orange Hospital precinct and Orange station.

SRITP Regional Access Measure

1 (lowest access)	6
2	7
3	8
4	9
5	10

Combined metric showing 15min walking and 30min public transport access to local and more regionally important job, health, education, recreation, and social destinations and services. Source: Transport for NSW, 2025.

Figure 14. Measure of relative access for Orange

Comparatively poor access to destinations often reflects the fact that large portions of an LGA's population live on the outskirts of population centres. In these areas, providing additional local destinations and improving public transport services is more likely to support a shift toward active and public transport, reducing reliance on private vehicles.

In more rural parts of the region, poor access to services is typically due to distance and low population density. In these cases, bespoke or flexible transport services may be the only viable way to improve mobility and reduce car dependency.

Some population centres, such as Dunedoo, Gulgong, Kandos, Peak Hill and Wallerawang, have relatively good access to both local and regional destinations, yet are not identified as major centres in the Department of Planning, Housing and Infrastructure's regional plan. These towns may represent opportunities to strengthen local service provision and support more sustainable transport outcomes.

Open Streets, Orange © Kirsten Cunningham Photography

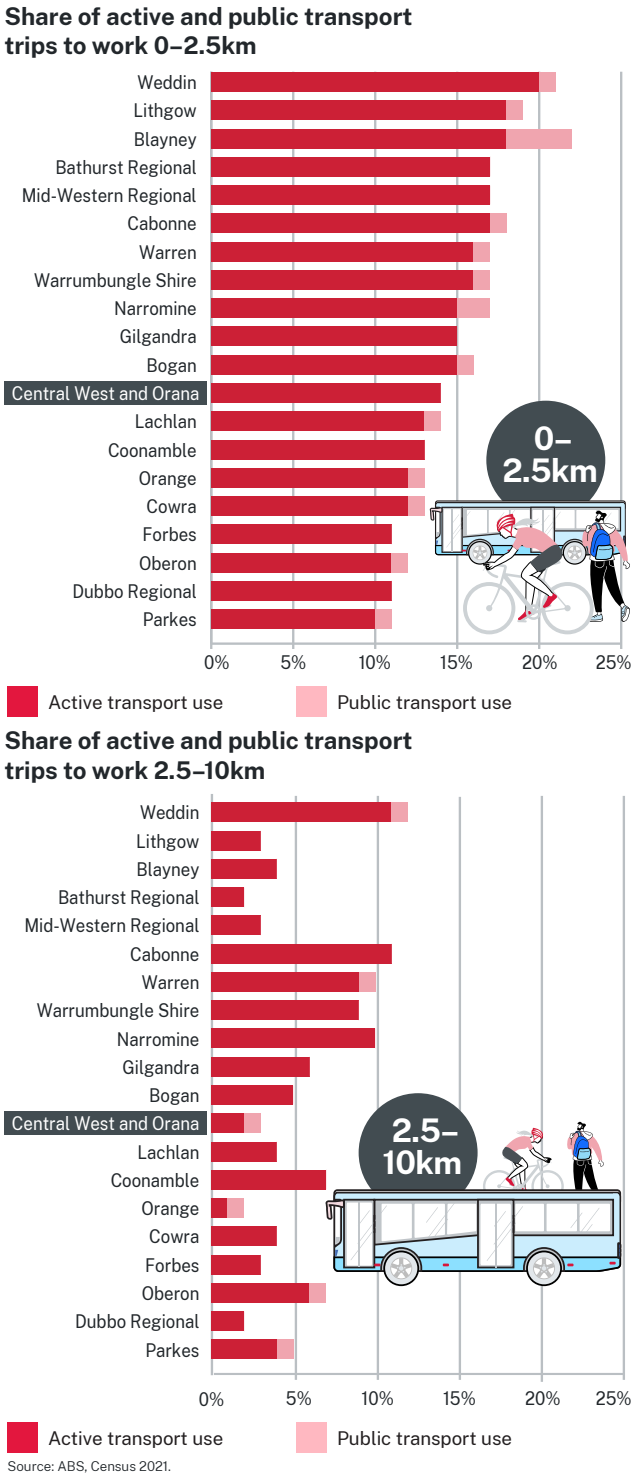
5.2.1 Access within population centres

Enabling mode shift to active transport provides health, environmental and economic benefits and can help create more resilient, equitable, inclusive and liveable communities.

Walking mode share in the region's compact and walkable centres is higher than walking mode share in comparable areas of Greater Sydney.

This supports the idea that proximity to local destinations and services and good local walking networks in the region's population centres increase the likelihood of residents walking for everyday trips. With almost a third (29 per cent) of journey to work trips across the region being less than 2.5 kilometres, there is potential to shift more of these trips to active transport modes with the provision of attractive active transport infrastructure,[16] particularly in the Parkes, Dubbo and Oberon LGAs where 10 to 11 per cent of trips under 2.5 kilometres are made using active transport. Other factors such as directness, convenience and real and perceived road safety, also impact the extent to which residents choose to walk for local journeys.

Dubbo, Wellington, Bathurst, Canowindra, Coonamble, Cowra, Mudgee, Warren, Coonabaraban and Forbes are all located on rivers which create significant natural barriers to movement between residential neighbourhoods and the destinations and services residents regularly travel to, for example, between Delroy and central Dubbo. Rail lines and loading and maintenance yards, even when not active, create similar barriers to local movement where frequent crossings are not provided. This can be seen in Orange, Dubbo, Parkes, Lithgow, Mudgee (disused), Narromine, Blayney, Coonabarabran (disused), Gilgandra, Grenfell (disused) and Nyngan.



Source: ABS, Census 2021.

Figure 15. Share of trips using active and public transport for short trips (0–2.5 km) and medium distance trips to work (2.5– 10 km)

16 ABS, Census, 2021

Similarly, major traffic routes (state and regional roads) that cut through centres tend to divide communities and reduce the likelihood of residents walking to local destinations and services, particularly where formal pedestrian crossings are not frequently provided. They create clear divisions between different parts of these centres and reduce the likelihood of residents walking for local trips. Examples throughout the region include:

- the Mitchell, Newell, and Golden highways in Dubbo
- the Mitchell Highway in Orange
- the Great Western Highway in Bathurst
- the Newell Highway and Henry Parkes Way in Parkes
- the Great Western Highway and Bells Line of Road in Lithgow
- the Castlereagh Highway in Mudgee
- the Mid Western Highway in Cowra
- the Mitchell Highway in Narromine
- the Newell Highway in Forbes
- the Mid Western Highway in Blayney
- the Newell Highway in Coonabarabran
- the Newell and Castlereagh highways in Gilgandra
- the Mid Western Highway in Grenfell
- the Mitchell Highway in Molong
- the Castlereagh Highway in Coonamble
- the Mitchell Highway in Nyngan
- the Oxley Highway in Warren.

The ‘barrier effect’ of these major roads is exacerbated where they perform dual functions as both a ‘main street’ and a major regional traffic thoroughfare, such as in Cowra, Blayney, Coonabarabran, Gilgandra and Condobolin. In many of these centres, main street improvement programs have been undertaken to provide a central median, increase street tree planting and improve footpath amenity. Even on these streets, pedestrian safety and amenity is negatively impacted by high through traffic volumes, large vehicles and traffic-oriented street design including wide kerb radii, angled parking, and manoeuvring areas. These types of treatments prioritise the main street’s traffic function and reduce crossing opportunities that are fundamental to main street social and economic outcomes.

The Orange northern distributor road and the Parkes bypass are intended to improve place and local movement outcomes by encouraging regional traffic to pass around these centres. Complementary changes to junction priority and signage should be pursued to ensure that these bypasses are prioritised for use by through traffic and freight vehicles.

Autumn leaves on the country streets of Rylstone © Destination NSW

The regional cities of Dubbo, Bathurst and Orange and some population centres such as Parkes, Lithgow and Blayney have regular local bus services. In contrast, many other population centres and smaller towns and villages only have regional public transport services to larger centres via the TrainLink coach network or no public transport service provision. Even where public transport services are available, services can be infrequent, indirect or not adequate to meet customer needs. They can fail to provide a competitive alternative to private vehicles. About one per cent of journey-to-work trips are being made by public transport despite about 66 per cent of journey-to-work trips in the region being shorter than 10 kilometres.[17]

The nexus between improved public transport coverage, service frequency and patronage growth is not as clear for the region's public transport network as local walking network improvements or urban public transport network improvements. Regional NSW population centres do not have the population densities, settlement patterns, or disincentives for private vehicle travel such as congestion and parking availability that encourage higher levels of mode share on fixed route and timetable public transport services.

Between 2021 and 2023, Transport's 16 Regional Cities Services Improvement Program augmented bus services in Dubbo, Orange and Bathurst. New and improved bus services increased coverage and service frequency. However, the rollout of additional services has had mixed results. Some services experienced notable increases in patronage while others delivered only small increases.

Past trials of on-demand public transport services in the region which focused on providing services for longer-distance trips between under-served regional centres, have been largely unsuccessful. In other regions of NSW, on-demand services that replace or complement existing fixed route and timetable services within a geo-fenced catchment have been far more successful, including the on-demand trials in Moree and Bourke.

Market viability and availability of point-to-point services such as taxis, Uber and community transport, varies across the region but is mainly limited to Dubbo, Orange and Bathurst. This provides inconsistent support for less car dependant lifestyles, including for those communities with less access to private vehicle travel, including elderly, disabled or socio-economically disadvantaged residents. Provision of more customised and flexible on-demand public transport services would help to address shortfalls in the provision of more traditional point-to-point transport services.

Case study: Driving patronage growth and delivering value for regional communities with On Demand

Provision of customised and flexible public transport services in Moree and Bourke generated significant public transport patronage growth and improved residents' transport choice for all trip purposes. Moving from fixed route and timetabled public transport services to on-demand public transport services resulted in public transport patronage increasing by 2400 per cent as well as garnering awards that recognised the social equity benefits they bring, particularly for local aboriginal communities.

On Demand public transport vehicle

17 ABS, Census, 2021

Opportunities

Transport can improve access within population centres by:

- working with DPHI, service providers and local government to support complementary land use and transport planning that reduces distance and increases transport choice for residents' trips to the destinations and services that they use regularly
- leveraging findings of the Transport for Health final report to inform opportunities to improve local public transport services connecting patients with healthcare
- identifying locations where the delivery of shared walking and bicycle bridges across rivers and rail lines would make walking trips more direct, would improve pedestrian safety and amenity, and would increase the likelihood that residents of poorly connected neighbourhoods will walk to access local destinations and services
- identifying locations where the delivery of formal pedestrian crossings on state and regional roads passing through population centres would improve the safety and amenity of walking trips between less well-connected neighbourhoods and local destinations and services
- identifying locations where replacing angled parking and manoeuvring areas with parallel parking, delivering new build-outs around intersections, and removing pedestrian barrier fencing and centre lines would reduce crossing widths and improve pedestrian safety and amenity on main streets, such as in Orange, Cowra, Narromine, Blayney, Coonabarabran, Gilgandra and Condobolin
- re-prioritising the intersections of existing state roads and population centre bypasses to prioritise use of bypasses by through traffic
- introducing planning controls that protect bypasses from direct connections from greenfield development and minimise conflict and competition between local and regional traffic movements
- delivering a more competitive mix of fixed route, timetable services and on-demand public transport services to encourage mode shift away from private vehicle trips and increase public transport patronage in Central West and Orana centres.

Aerial view of bus on road in regional Dubbo area

5.2.2 Access to regional cities

Longer distance trips between population centres, towns and villages, and the region's three regional cities are required less frequently than local travel. However, for many residents, they're necessary for trips to higher order hospital and education services.

The region's rail network includes both active and non-operational rail lines that are generally less direct than the region's state and regional road network. This impacts rail-based travel times, which are generally longer than equivalent private vehicle trips. In addition, many rail lines in the region, particularly the Main West Rail Line, accommodate a mix of passenger and freight services. This impacts the flexibility, reliability and amenity of both the passenger and freight services that use these lines.

Legacy rail infrastructure and services, such as the Blue Mountains Line, also suffer from increased vulnerability to environmental shocks and stresses. As a result, the amenity of Blue Mountains passenger rail services – in terms of speed, frequency and reliability – has not improved at the same rate as private vehicle amenity on the Great Western Highway.

Coach services provide more direct and competitive services between centres but do not offer the same level of onboard amenity as train services or the flexibility of private vehicle travel.

While practical longer distance trips are rarely made by bicycle alone, providing facilities for the easy carriage of bicycles on rail and coach services helps to expand the range of longer distance trips that combine cycling and public transport. Cycling tourism will also benefit from the easier carriage of bicycles on trains and coaches.

Opportunities

Transport can improve access to the region's cities by:

- leveraging findings of the Transport for Health final report to inform opportunities to improve longer distance public transport services connecting patients with healthcare
- providing more meaningful, fast and reliable day return services between the region's 18 strategic centres and the region's three regional cities – Dubbo, Orange and Bathurst – to increase public transport access to higher order services like hospitals that are offered in the region's cities
- providing meaningful day return services between villages and towns to enable access to higher order services in the region's 21 population centres.

Passenger looking at the trip planning map on the platform at Orange Station

5.2.3 Access to metropolitan cities

Dedicated Inland Rail and existing ARTC freight rail networks maximise the capacity, flexibility and reliability of NSW's freight rail network. Introducing passenger services on Inland Rail or existing ARTC lines would reduce incentives for freight to transfer from road and the existing Main West Rail Line onto the Inland Rail Parkes–Port of Newcastle route, limiting opportunities to minimise road-based freight externalities and freight/passenger rail conflict on the Main West Rail Line. It is unlikely that passenger services on Inland Rail and existing ARTC lines would result in significant patronage growth on these routes as they would be unlikely to be able to provide competitive, fast and reliable passenger rail services compared to road-based transport modes, such as coaches or private vehicles.

Sydney metropolitan rail services are provided using electric trains. The Blue Mountains Rail Line is currently electrified to Bowenfels in Lithgow.

Extending Sydney rail service patterns beyond Lithgow would require significant electrification of the rail line beyond Lithgow.

Travelling by air for inter-regional trips offers superior travel times between Sydney and the region's airports. This comes at significant cost relative to other modes and is not a viable option for many living in the region. New e-aviation technologies may help to drive down seat costs and increase opportunities for more regular and flexible flights making air travel a better option for longer distance trips.

Private vehicle trips have benefitted from decades of investment in the road network. They offer a high level of service compared to public transport and are more cost effective, available and flexible compared to aviation. Resulting induced demand has caused further growth in the number of longer distance private vehicle trips to and from the region.

Sydney to Central West

Growth in private vehicle trips between Greater Sydney and the Central West have contributed to traffic growth on the Great Western Highway and the Bells Line of Road corridor. However, most traffic growth along the corridor has occurred at its eastern end. This growth in local trips is driven by population growth in Western Sydney and the Blue Mountains LGA, growth in the Blue Mountains and Central West and Orana region's visitor economies and associated recreational trips from Sydney to the Blue Mountains, which is particularly prevalent on weekends and during holiday periods.

Transport continues to investigate options to improve network reliability and efficiency for this key national road link between large economic regions. The challenge to develop cost-effective improvements requires support at all levels of government to unlock region-shaping benefits. Transport is committed to developing responses to the challenges of the corridor from Sydney to the Central West, particularly along the Great Western Highway between Bathurst and Sydney and the Bells Line of Road between Lithgow and Sydney.

Great Western Highway, Blue Mountains region

Opportunities

Transport can improve access to the metropolitan cities by:

- leveraging findings from the Transport for Health final report to inform opportunities to improve longer distance public transport services connecting patients with healthcare
- increasing the frequency, speed and reliability of passenger rail services connecting the Central West and Orana and Sydney. Consideration should be given to the mode shift and patronage benefits of extending Sydney metropolitan rail service patterns to Lithgow and promoting the interchange at Lithgow to more frequent, reliable and faster shuttle services between Orange, Lithgow, Dubbo and Parkes
- supporting the emerging e-aviation industry, improving the prospect of frequent, reliable and fast air services between Orange, Dubbo, Bathurst and Sydney, reducing the negative externalities of long-distance trips on the region's communities, and reducing demand for private vehicle travel between the region and Sydney.

Aerial of regional road and rail track near Dubbo

5.2.4 Equitable access to transport for people of all ages and abilities

The region's community is forecast to change rapidly in coming decades, including a growing and ageing population and a transforming and diversifying economy. Ageing populations (see Figure 4) in the region and the associated increase in age-related infirmities, such as deteriorating eyesight and reaction times, will result in an increasing proportion of the community having more limited access to private vehicle transport in the future. As such, the future productivity, liveability, health and sustainability of the region depends on a transport network that provides a range of travel choices to people, regardless of where they live or their personal circumstances.

Access and mobility issues are compounded for residents living with a disability such as a visual impairment that limits their access to public transport and private vehicles. The use of tactile indicators and audible pedestrian signals can help visually impaired people use local walking networks. However, these treatments have limited benefit where walking networks are incomplete or provide insufficient width for pedestrian movement and other uses such as for signage, outdoor dining and seating. Footpath networks that lack or have sub-standard pram ramps and non-compliant bus stop infrastructure – even where the bus itself is disability compliant – create barriers for people using wheelchairs and other assisted mobility devices on the walking network and limits their ability to access public transport. Declining taxi service coverage and limited requirements for accessible vehicles for other types of point-to-point services mean people with a disability have limited options for independent and unassisted travel.

The region is home to some of the most disadvantaged communities in New South Wales. Coonamble LGA is the most disadvantaged in the region with a Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) score of 1, followed by the Gilgandra, Warrumbungle, Lithgow and Cowra LGAs with a IRSAD score of 2.[18] Areas with the highest level of disadvantage typically have less access to regionally important destinations and services by public transport than areas with higher levels of advantage. A person's level of socio-economic advantage or disadvantage impacts their mobility options and level of access to the region's transport network and services. People with high levels of socio-economic disadvantage often experience transport disadvantage, which limits their ability to access goods, services and employment opportunities. Transport disadvantage is defined as difficulties accessing both public and private transport or difficulties associated with maintaining private transport.[19]

Transport can respond to transport disadvantage in the region by improving people's access to public transport, including on-demand public transport, and, to a lesser extent, improving access to point-to-point services and private vehicles. Transport can improve people's access to public transport by improving public transport network coverage and availability, in terms of service frequency, span of hours and days, and digital access.

18 ABS, SEIFA 2021

19 Rosier and McDonald, The relationship between transport and disadvantage in Australia, 2011. https://aifs.gov.au/sites/default/files/publication-documents/rs4_2.pdf

Real and perceived levels of personal security impact people's willingness to travel on the network. For example, women cite personal security and fear of crime as their top reason for not using active and public transport, opting instead to travel using private vehicle or deferring travel entirely. Transport's Safer Cities Survey found that 92 per cent of women and 75 per cent of men surveyed cited a sense of safety as a factor influencing which routes they choose to travel. Availability of lighting was the most common factor influencing sense of safety for all participants.[20] The survey also revealed that 42 per cent of women feel unsafe 'most or all of the time' in public spaces after dark compared to 17 per cent of men. This is more pronounced for women living in regional NSW (68 per cent) who are more likely to feel unsafe across all types of public spaces compared to women in metropolitan areas (57 per cent).[21]

Passenger experience, safety and comfort influence a person's ability to use public transport. Some people are unable to use public transport services even when they are available due personal security concerns accessing and while on board public transport. All people in the region deserve freedom from racism and an equitably safe, secure and comfortable experience using public transport.

Opportunities

Transport can improve equitable access to the transport network for people of all ages and abilities by:

- working with councils and public transport service providers, including on-demand public transport providers, to ensure vehicles and infrastructure are accessible for people of all ages and abilities for the entirety of their trip
- working with councils and public transport service providers, including on-demand public transport providers, to ensure that infrastructure and services address the needs of transport disadvantaged communities
- working with councils to identify opportunities to improve lighting, street activation, passive surveillance and the application of Crime Prevention through Environmental Design (CPTED) principles at rail stations and bus stops as well as on state roads that perform place, local access and regional movement functions in the region's population centres. This will support increased walking activity and public transport use in the evening and at night, reduced crime, and improved perceptions of personal security on roads and public transport services, particularly for the most vulnerable members of the community including children, women and the elderly.

Condo Comes Alive, Lachlan Shire Council, Open Streets Program

Condo Comes Alive ran over one day, transforming the main street of Condobolin with a spectacular array of art and cultural activities, live music, entertainment, market stalls, outdoor dining and child friendly activities, giving residents and visitors a chance to rediscover their local businesses.

Open Streets, Condo Comes Alive © Lachlan Shire Council

20 Transport for NSW, Safer Cities Survey Report, 2023, https://www.transport.nsw.gov.au/system/files/media/documents/2023/Safer-Cities_Survey-Report_0.pdf

21 ABS, SEIFA 2021

Summer Night Fun © Gilgandra Shire Council

5.3 Well-located housing and successful places

Well-located housing and successful places will be supported by coordinated delivery of active transport network infrastructure and public transport services

By 2041, Central West and Orana's population is projected to exceed 323,000 – generating demand for at least 21,000 new homes and increased value for public spaces. The best opportunity to build 'well-located' housing – housing that enhances place value – is in or near existing centres. This location ensures efficient access to local and regional destinations, supports new and growing businesses, strengthens government services, reduces travel demand and distances, expands travel options, and lowers transport's negative impacts.

However, while focusing on centres is ideal, it's not always feasible within required timeframes. Although housing and associated infrastructure are central to growth, poorly located development can worsen social inequity and external transport costs – often borne by taxpayers, not developers.

What we heard

- Successful places thrive on social interaction, but traffic activity diminishes place value.
- Densification and co-locating housing with key destinations is essential to promote walking and cycling but must be supported by improved walking and cycling infrastructure.
- Communities support medium density development in regional centres where it delivers clear urban renewal benefits including supporting the ongoing viability of local and regional destinations and services.
- Ageing populations face mobility challenges and downsizing barriers, necessitating urban planning that supports 'ageing in place' and more equitable housing redistribution.
- Urban renewal and densification are less attractive to developers than greenfield development but provide significant place benefits. Current planning processes fail to accurately represent and mitigate the downstream traffic impacts of greenfield development.
- Local communities expect direct connections between greenfield development and the state road network to mitigate local traffic network impacts. In many cases, direct links to the state road network have limited local benefit and negatively impact the safety and efficiency of the state road network.

5.3.1 Delivering well-located housing supported by transport networks

Well-located housing is defined as being within a 10 minute walk of daily destinations (jobs, school, doctor, sports, cafés) and within a 30 minute public transport ride to less frequent needs (supermarket, TAFE, hospital, stadium, museum). Regional cities – Bathurst, Dubbo, Orange – typically offer this access. Most new 'well-located' housing should be infill within these centres, delivering benefits to:

- existing government services and businesses
- provision of more specialised destinations
- active travel and public/shared transport infrastructure and services
- regional places as centres of community life.

New housing in existing centres can be contentious if poorly designed, threatening heritage and character. High costs – and more affordable rural land – encourage developers toward greenfield options, especially where community resistance is low.

Greenfield sites far from destinations require costlier infrastructure, promote car dependency, raise external costs, and reduce demand for fixed-route public transport. Examples: William Maker Drive (Orange) and eastern Kelso/Raglan (Bathurst) show how limited walkability leads to heavy car use.

Over-reliance on cars in greenfield areas increases kilometres travelled – raising risks of fatal and serious crashes – and contributes to pollution, noise, sedentary lifestyles, respiratory illness, and reduced productivity. Increased traffic also makes main streets less appealing, undermining business and social cohesion and stressing road networks when incidents occur.

Sometimes infill is unsuitable, e.g. on floodplains. In these cases, 'self sufficient' greenfield communities must include complete local services (businesses, schools, healthcare, recreation, social venues) and high-quality public transport to regional centres to limit demand and externalities.

Opportunities

Transport can support well-located housing by:

- identifying areas in population centres where new walking/cycling links or public transport would enhance such development and support sustainable travel
- leveraging its property, assets, and services to support housing, renewal, and densification
- encouraging local destination and service provision in greenfield areas and improving public transport between greenfield and central areas.

Housing in Orange © Shutterstock

5.3.2 Delivering successful places supported by multimodal transport networks

Land-use and transport planners must balance housing growth and access with preserving the identity and wellbeing of regional centres. Because growth has been slower here than in metropolitan NSW, many centres retain characteristics supporting local access:

- clear land use and service planning, with centralised destinations and services providing the foundations for successful main streets balancing the movement and place needs
- more compact street networks with consistent junction densities, designed to support the use of slower speed modes such as walking
- more complete local walking networks, including pedestrian cut-throughs and green infrastructure
- train stations in the heart of regional centres
- fewer vehicle crossings
- on-site delivery facilities.

These traits support regional values: tight knit communities, secure public spaces, clean and quiet environments, active rural lifestyles, and attractive streetscapes.

However, new residents can lead to car-oriented changes – more traffic and parking – that concern communities about poor development, environmental decline, and loss of local culture. Tensions often arise between those in established centres and those in new greenfield areas when traffic detracts from place quality.

Opportunities

Transport can help reinforce successful places by:

- supporting walking-friendly street design (paths, crossings, trees, lighting) and reducing harmful vehicle crossings
- working with councils and DPHI to manage traffic and parking impacts from new development on main-street safety and amenity.

5.4 A thriving and diversifying economy

Transport infrastructure and services support local business, the visitor economy and improving the productivity of freight movements to support jobs growth, increased regional productivity, and economic diversification

The Central West and Orana's economy has historically been driven by primary industries. Today, however, 60 to 70 per cent of the region's gross regional product comes from service sectors such as healthcare, social assistance, education, and retail. One in five regional workers is employed in healthcare or social assistance, and more than one in ten in education and training. As automation reduces employment in traditional industries, service sectors are expected to remain the region's largest employers, with growth concentrated in the main population hubs.

At the same time, the region faces both challenges and opportunities related to evolving freight needs. Key factors include the delivery of transformative infrastructure like Inland Rail and the Parkes Special Activation Precinct, a decline in coal extraction and rail freight movements, and the emergence of the Central-West Orana Renewable Energy Zone (REZ). Ensuring the freight network keeps pace with these changes will be essential to supporting economic diversification. Continued investment in primary industries and the visitor economy will also be important for maintaining regional economic strength.

Aerial view over Neilson Park, Coonabarabran © Destination NSW

What we heard

- Retaining existing businesses and attracting new businesses, including in advanced transport technology and tourism, and supporting the region's local economy and jobs, are essential for sustainable economic growth in Central West and Orana, particularly as coal mining jobs decline.
- Freight network capacity needs to be rebalanced to support growth industries such as agriculture, and to counteract declining domestic and international coal demand.
- Central West and Orana's local road network needs to be re-focused to support improved freight access to intermodal terminals and more inter-regional rail freight.
- Transport should work with the ARTC to increase the percentage of Central West and Orana exports moved via Inland Rail (Stage 1), Dubbo–Muswellbrook dedicated rail lines, and Hunter Valley freight lines to the Port of Newcastle to improve passenger rail performance on the shared network and increase freight rail service frequency.
- Transport should investigate opportunities to transport renewable energy infrastructure components on double-height Inland Rail infrastructure linking Melbourne to Dubbo.
- Alternate freight routes should be monitored for vehicles bypassing enforcement, as larger heavy freight vehicles can cause greater structural damage to regional roads not designed to accommodate their weights, resulting in increased maintenance and funding needs.
- Public private partnership models should be investigated for rest stops and future heavy vehicle chargers on the state road network.

5.4.1 A vibrant local and visitor economy

Main streets are the economic and social hubs of the region's centres, designed to support local customer access and clustered business activity. However, incremental redesigns that prioritise private vehicles – with expanded on-street parking and increased through-traffic capacity – have come at the expense of plazas, pedestrian crossings, wide footpaths, and other local access features. This shift has led to more traffic, noise, and pollution, making main streets less attractive for residents, visitors, and businesses.

In some centres, these changes have encouraged inward-facing developments like shopping centres, while other businesses have relocated, closed, or left the region. The decline in street-level activity undermines main streets as vibrant economic and community spaces and can lead to increased crime, especially outside business hours. This, in turn, affects the broader visitor economy, even when tourist attractions are located outside of town centres.

In Orange, a distributor road was delivered to divert traffic from the main street, but the lack of complementary place-based improvements has limited its social and economic benefits. Competing traffic flows between new development areas and through-travel have diluted the road's intended function. Where bypasses are not feasible, prioritising traffic flow over local access makes it harder to create successful, people-friendly centres.

Opportunities

Transport can support the local and visitor economy by:

- reallocating carriageway space to enhance main streets with plazas, wider footpaths, outdoor seating, street trees, and active frontages, making centres more appealing to businesses and workers
- reducing through-traffic in town centres by reallocating road space to improve safety and amenity, while protecting the function of regional bypasses.

Streetscapes, Mudgee © Destination NSW

5.4.2 Supporting primary industries and freight

Freight infrastructure that supports primary industries – such as agriculture, mining, and forestry – differs significantly from that required for service-based economies. These industries rely on the efficient transport of bulk goods to local consolidation centres, domestic markets like Sydney, and international gateways including the ports of Newcastle and Brisbane.

Transport's 2024 forecasts indicate that 90 per cent of commodities by weight originating in the region are exported. Coal dominates, accounting for 77 per cent of goods originating in the region. Grain is the second largest movement with four per cent, and is seasonal, peaking from September to December during harvest. About 83% of goods originating in the region are transport by rail.

Rail currently carries about 75 per cent of the region's freight[22] – mainly coal, minerals, grain, and timber.

The region's two largest freight tasks are coal-related: approximately 53,000 kilotonnes from the Ulan area are exported via the Port of Newcastle, and 730 kilotonnes are sent to power stations in the Hunter. However, with Liddell Power Station closed in 2023, Bayswater scheduled for closure by 2033, and coal demand projected to fall by 36 per cent by 2046,[23] freight capacity on the Ulan–Hunter Valley corridor may soon be underused. Demand on the Blue Mountains Line is also expected to decline, though to a lesser extent.

Given coal's high rail mode share, this decline will significantly affect the current rail-road freight balance. Without efforts to shift more non-coal freight to rail, the viability of regional rail services may be compromised.

This shift, combined with the completion of Inland Rail Stage 1 in 2027 and planned diversification at the Port of Newcastle (including a future deepwater container terminal[24]), signals the need to reassess NSW's freight strategy.

Other pressures include container flow imbalances, growing reliability issues through the Great Dividing Range, and increasing frequency of disruptions from bushfires, floods, and crashes.

The Great Dividing Range poses a natural barrier between the region and Greater Sydney, with narrow, steep terrain and sensitive biodiversity. This corridor is particularly vulnerable to delays and closures. As part of the NSW Government's Freight Policy Reform Program, opportunities are being explored to leverage new ARTC freight rail links[25] and improve the resilience of passenger/freight rail corridors in the Blue Mountains and beyond.

Parkes is well-positioned as a major freight hub, located at the junction of the Main West Rail Line, Inland Rail, and the Trans-Australian Railway. It can support efficient rail-based freight movements across New South Wales, to Sydney and interstate markets, and to international gateways via the North Coast Rail Line.

22 Transport for NSW, Transport Strategic Freight Model (v. 47) forecasts, 2024. Note: There is ongoing work to refine these forecasts through the Consolidated Freight Study project, which was not available at the time of publication.

23 Transport for NSW, Transport Strategic Freight Model forecast, 2024

24 Port of Newcastle, Newcastle Deepwater Container Terminal. Newcastle Deepwater Container Terminal - Port of Newcastle

25 Either Inland Rail: Stage 1-Narromine-Dubbo-Muswellbrook-Port of Brisbane or Hunter Valley Coal Network-Port of Newcastle

While Inland Rail and the ARTC network may not serve all regional freight tasks, such as forestry exports from Oberon, enabling more freight to shift to these corridors can free capacity on other road and rail routes for emerging industries.

Road freight, which currently carries about 25 per cent of the region's total freight, remains vital. Heavy vehicles, however, contribute to road safety risks, network wear, and amenity impacts – particularly in townships and population centres. The NSW Heavy Vehicle Access Policy[26] outlines a strategic approach to improve safety and productivity on national, state, and local roads. This includes strengthening access for Performance-Based Standards (PBS) vehicles on key north–south and east–west corridors.

The region's road network connects east–west via the Great Western and Golden Highways to Sydney and Newcastle, and north–south via the Newell Highway. Freight volumes to and from Sydney – including the Western Sydney Airport and intermodal terminal – are expected to increase. Investigations focusing on the corridor between Sydney and the Central West will consider how to improve these key freight routes. Prioritising connections to intermodal terminals could also enhance rail freight use and reduce pressure on major road corridors.

Targeted upgrades to the Golden Highway, including junction widening and new passing lanes, are already supporting the transport of wind turbine components to the Central-West Orana Renewable Energy Zone (REZ) using OSOM vehicles. In the long term, upgrading ARTC rail links, such as the Port of Newcastle to Dubbo corridor, could offer more sustainable alternatives for transporting large components, lowering impacts on regional roads.

Opportunities

Transport can support primary industries and freight by:

- leveraging the completion of Inland Rail and declining coal use to increase rail-based movement of non-coal freight to major ports
- enhancing road connections to Inland Rail, the ARTC network, and intermodal terminals in line with state freight policy reforms
- supporting the construction and maintenance of renewable energy projects, including in the Central-West Orana REZ, by enabling non-road-based transport of key components.

The heritage-listed Mudgee Railway Station © Destination NSW

26 Transport for NSW, Heavy Vehicle Access Policy, 2025, https://www.transport.nsw.gov.au/operations/freight-hub/heavy-vehicle-access-policy

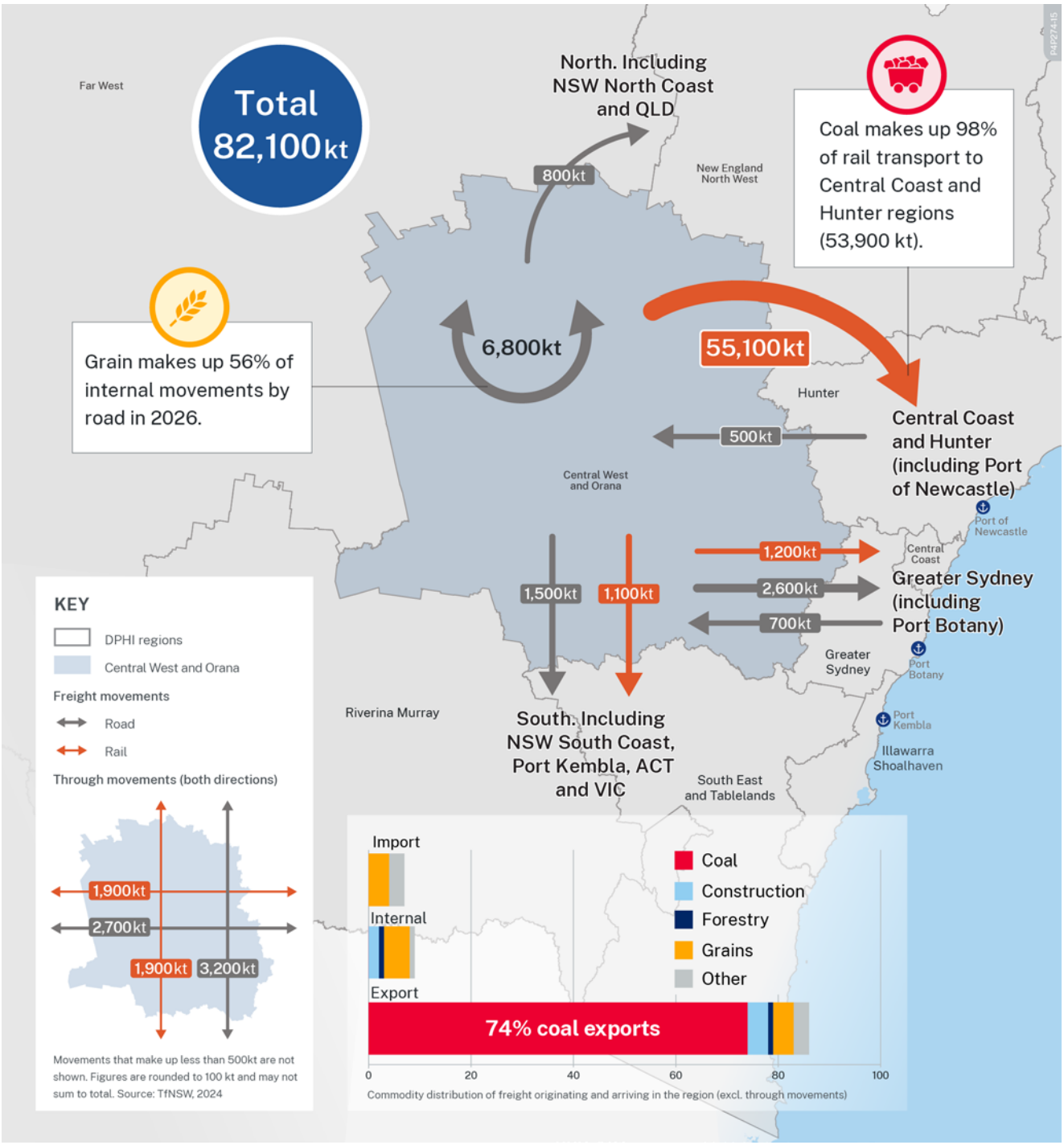


Figure 16. Commodity import and export distributions for 2026[27]

27 Transport for NSW, Transport Strategic Freight Model forecast, 2024

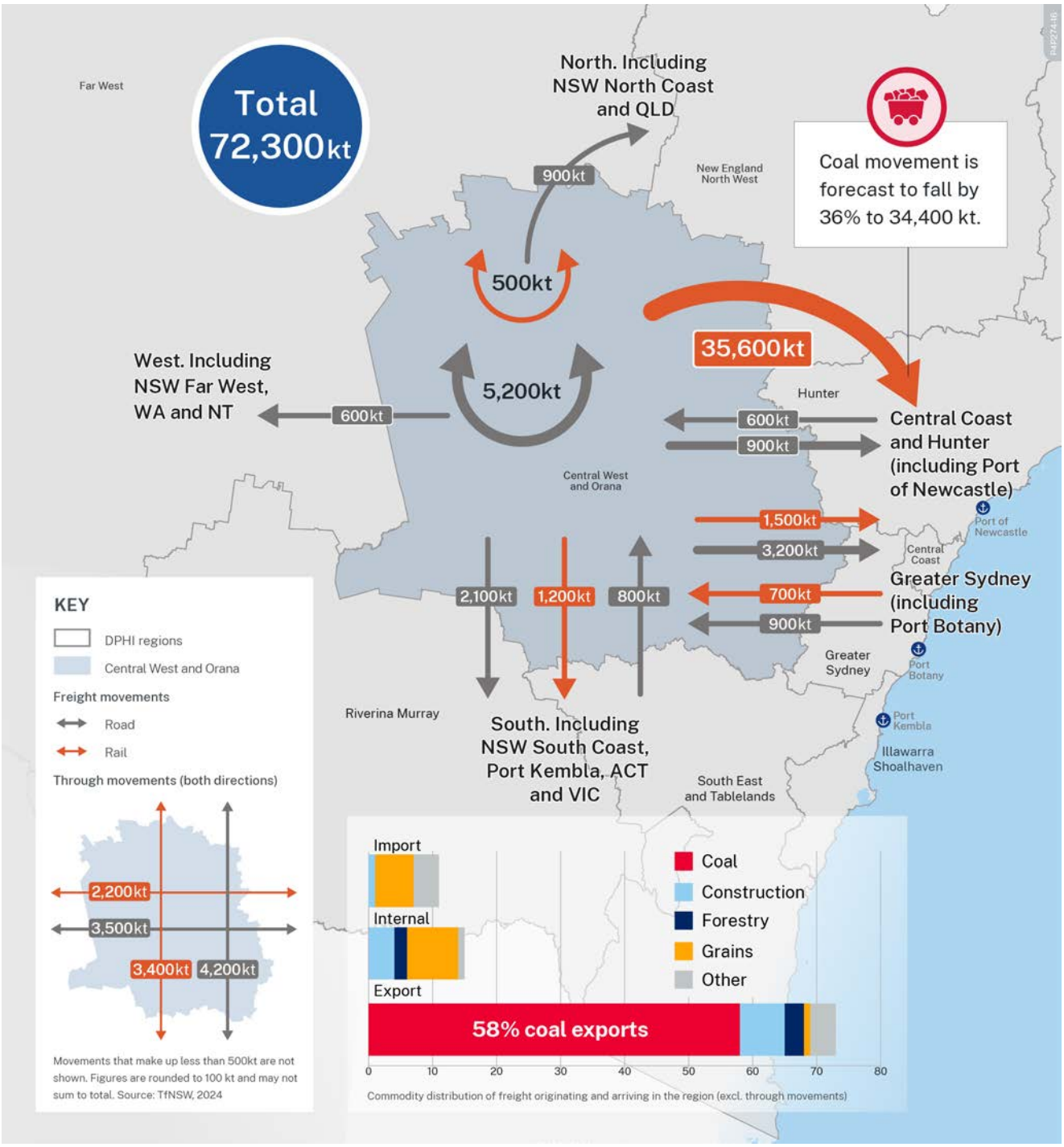


Figure 17. Commodity import and export distributions for 2046[28]

28 Transport for NSW, Transport Strategic Freight Model forecast, 2024

5.5 A safe transport network

Trauma on the Central West and Orana road network will be in decline and heading towards Transport's goal of zero fatalities and serious injuries by 2050

Transport's vision for NSW is to reduce trauma on the road network to zero by 2050. The NSW Government has adopted the internationally recognised Safe Systems approach to transport safety. This approach recognises that: people sometimes make mistakes, but a simple mistake shouldn't cost someone their life; roads, roadsides and vehicles need to be designed to minimise crashes and reduce forces if a crash happens; and road safety is a shared responsibility ... we can all prevent crashes and save lives when we make safe choices.[29]

A safe transport network is vital for providing mobility across the region. The NSW Road Safety Action Plan 2026 includes a target to halve deaths and reduce serious injuries by 30 per cent on NSW roads by 2030 as a stepping stone towards zero road trauma by 2050.

Between 2019 and 2023,[30] 157 people lost their lives and 1226 people suffered serious injuries on the Central West and Orana region's road network. At about 11 fatalities per 100,000 population, the region's crash fatality rate is about three times the rate for all NSW of about four per 100,000 population. It is almost double the rate for regional NSW of about seven per 100,000 population.

What we heard

- Keeping regional cities and centres compact and walkable allows more residents to use lower impact travel modes such as walking, cycling and public transport to access everyday needs.
- Speed zoning needs to align with the network function of local streets, regional roads or highways. Speed zoning should be consistent and intuitive.
- Main and local street environments should be self-explaining and encourage slower driving speeds, while higher speed regional road environments require more separated infrastructure.
- Bypass projects improve safety and amenity in cities and centres.
- Provision of competitive on-demand public transport could provide road safety benefits, particularly by reducing evening and weekend crashes related to fatigue, alcohol and drug use.
- Behaviour change programs and enforcement should include the importance of driving etiquette, towing and vehicle maintenance, in addition to speeding, fatigue and alcohol and drug risk factors.
- Behaviour change programs should address resistance to the adoption of in-vehicle road safety technologies, particularly for heavy vehicle fleet owners and operators.
- Funding for road safety infrastructure could be bundled with disaster recovery and general maintenance.
- Transport safety should include personal security when accessing and riding public transport and injuries sustained while on public transport as well as road trauma.

29 NSW Government, Towards Zero - Safe System https://www.transport.nsw.gov.au/roadsafety/what-we-do/safe-system

30 Transport for NSW, Speeding, https://www.transport.nsw.gov.au/roadsafety/topics-tips/speeding

5.5.1 Road safety in population centres

About 70 per cent of the region's population reside in its 21 population centres. While fatal and serious injury (FSI) crashes in population centres comprise 25 per cent of total FSI crashes in the region, with only 2.5 per cent of the region's road network located in its main population centres, the rate of crashes for all modes is highest on state roads in population centres. With the percentage of the population in centres set to increase due to concentrated population growth in Orange, Bathurst, Dubbo and Mudgee, the number and rate of FSI crashes that occur in centres is also be expected to increase. Notably, the share of FSI casualties occurring on roads with speed limits more typically applied in population centres (80 km/h or less) increased from 29 per cent in 2019 to 44 per cent in 2023. This trend highlights the growing need to prioritise road safety in the region's population centres, towns and villages.

While population centres naturally generate and attract higher volumes of movement across all transport modes, peri-urban areas next to population centres also generate relatively high traffic movements compared to more rural areas of the region due to residents travelling to and from nearby population centres more frequently, thereby increasing interactions and conflict between road users. During the 2019–2023 reference period, 223 FSI crashes occurred on state roads within Central West and Orana population centres and peri-urban areas. This is significant considering these roads comprise only about 900 kilometres or about one per cent of the region's road network.

Table 2. FSI crashes within population centres, peri-urban areas and rural areas, 2019 to 2023[31]

	Population centres	Peri-urban areas	Rural areas
FSI crashes (% of total)	292 (25%)	247 (21.1%)	631 (53.9%)
Road length (% of total)	2,861 km (2.5%)	13,720 km (11.8%)	99,757 km (85.7%)
FSI crashes (per 100 km)	10.2	1.8	0.6

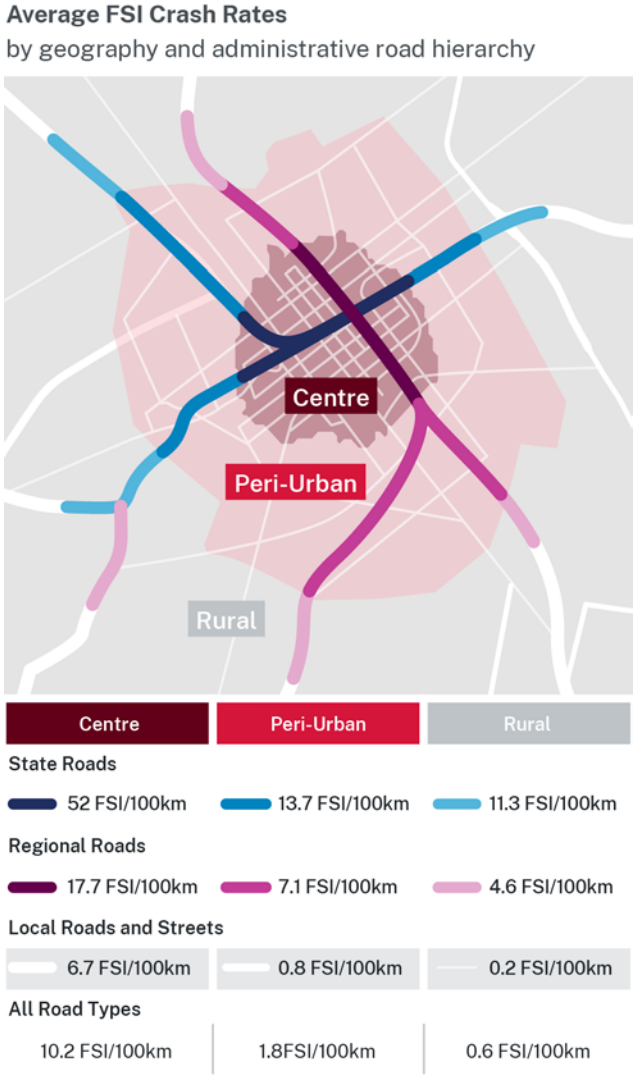


Figure 18. Average FSI crash rates by geography and administrative road hierarchy, 2019–2023[32]

31 Transport for NSW, Speeding, https://www.transport.nsw.gov.au/roadsafety/topics-tips/speeding

32 Transport for NSW, 2024

Many of the state roads in the region's population centres accommodate a mix commercial, social, local access and through traffic functions. This presents challenges for improving safety and amenity due to conflicts between pedestrians, bicycle riders, local traffic, through traffic and heavy vehicles. Pedestrians and bicycle riders are particularly vulnerable in these environments and the risk of crashes is increased by higher traffic volumes, the presence of heavy vehicles and relatively high vehicle speeds. Bypasses provide an opportunity to improve both amenity and safety in population centres by removing significant volumes of through traffic and heavy vehicles from state roads in population centres. Where bypasses are pursued, complementary measures to deprioritise through traffic on state roads through population centres help to maximise road safety benefits.

Opportunities

Transport can improve safety for all road users in population centres and peri-urban areas in the region by:

- delivering cost-effective road safety initiatives, including reducing speed limits, reallocating carriageway space, and delivering high amenity walking infrastructure and separated bicycle facilities on state and regional roads in population centres
- delivering cost-effective and consistent slower speed transition zones around population centres to address crashes in peri-urban areas
- identifying opportunities for population centre bypasses to reduce trauma on state and regional roads in population centres
- including a local benefits program for bypasses that might include re-categorising state roads in centres to help local government prioritise local place and movement functions on these roads, reducing speed limits, reallocating carriageways, providing safer footpath and crossing infrastructure, and separating bicycle facilities.

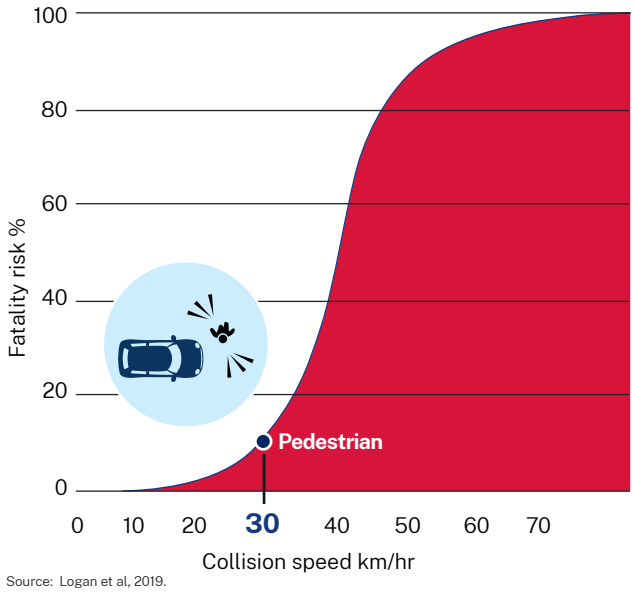
Road construction worker standing at a construction site near Dubbo

5.5.2 Speed effects the outcomes of all crashes

Speed increases the risk of having a crash and the severity of injuries sustained when crashes occur. Speeding is one of the biggest killers on the region's roads,[33] with 45 per cent of fatal crashes in the region involving speeding. While increased speed limit compliance will reduce the likelihood of crashes occurring and the severity of injuries when crashes occur, it will not eliminate them altogether. This is because the speeds at which vehicles are legally allowed to travel in most speed zones are still incompatible with the physical limitations of the human body.

In a crash between a car and a pedestrian there's a 90 per cent chance a pedestrian will survive if the car was travelling at 30 km/h. There's a 60 per cent chance if the car was travelling at 40 km/h, and a 10 per cent chance at 50 km/h.[34]

Fatality risk at different travel speeds



Source: Logan et al, 2019. https://link.springer.com/referenceworkentry/10.1007/978-3-030-23176-7_34-1#ref-CR16)

Figure 19. Balance between harm reduction and mobility in setting speed limits, 2005[35]

Slower speed limits, such as the 40 km/h high pedestrian activity area speed limit in Orange's central business district, generally result in improved road safety outcomes with minimal impact on actual travel times. On most roads and particularly in built-up areas, drivers cannot travel at the speed limit for the full journey due to interactions with other traffic, road width, curvature and terrain, surface conditions, and slower travel speeds around intersections. As a result, average vehicle speed is usually less than the speed limit. For example, if the 40 km/h high pedestrian activity area in Orange (on the Mitchell Highway/Summer Street between Peisley Street and Hill Street) was slowed to a 30 km/h high pedestrian activity area, the projected change in travel time to drive the full 900 metres increases by five seconds (six per cent) from one minute 33 seconds to one minute 38 seconds.[36]

33 P. 25, 2026 Road Safety Action Plan – updated for 2019 to 2023, 41% of fatal crashes on NSW involved speeding (CfRS Crash stats)

34 Austroads Balance between harm reduction and mobility in setting speed limits: a feasibility study (2005)

35 Transport for NSW, Speeding, https://www.transport.nsw.gov.au/roadsafety/topics-tips/speeding

36 Average operating speed assumed for this example is 35 km/h.

Inconsistent speed zones, particularly in peri-urban areas of the region may be contributing to the higher concentration of FSI crashes in these areas. State and local roads in peri-urban areas that provide access to population centres often have higher speed limits than the population centres they connect to. They typically have more junctions than in more rural areas, increasing the risk of FSI crashes.

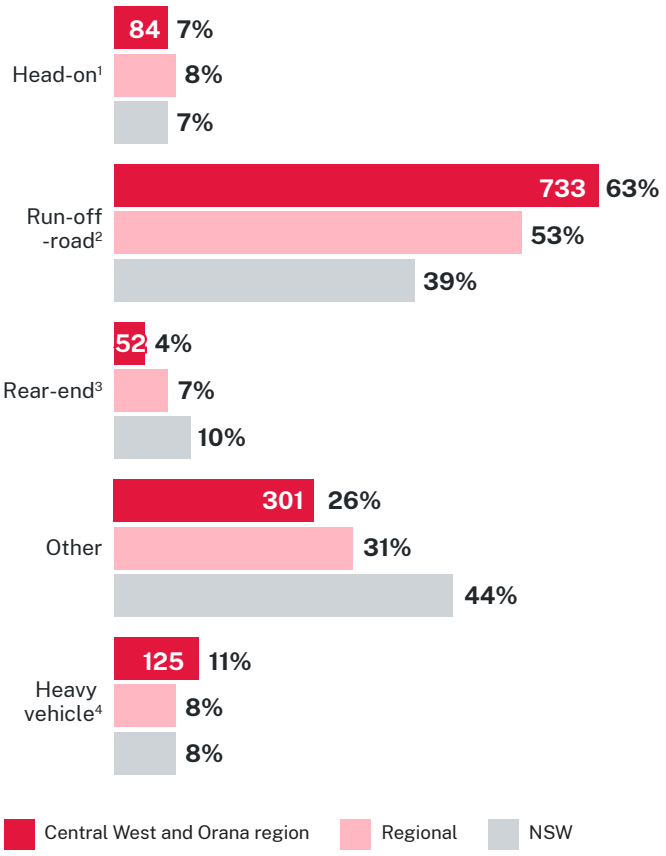
Outside of population centres, reductions in speed limits on higher speed roads can also deliver safety benefits. Single vehicle, lane departure crashes on high-speed (greater than or equal to 90 km/h) rural roads are typical FSI crash types across NSW. In the Central West and Orana region, 63 per cent of FSIs were run-off-road crashes, which is above the benchmark for regional NSW (53 per cent). All were recorded as lane departure type crashes, with 70 per cent on high-speed rural roads. In-vehicle safety technologies, such as lane-keep assist, have the potential to significantly reduce the frequency of run-off-road FSI crashes in line with fleet renewal.

Opportunities

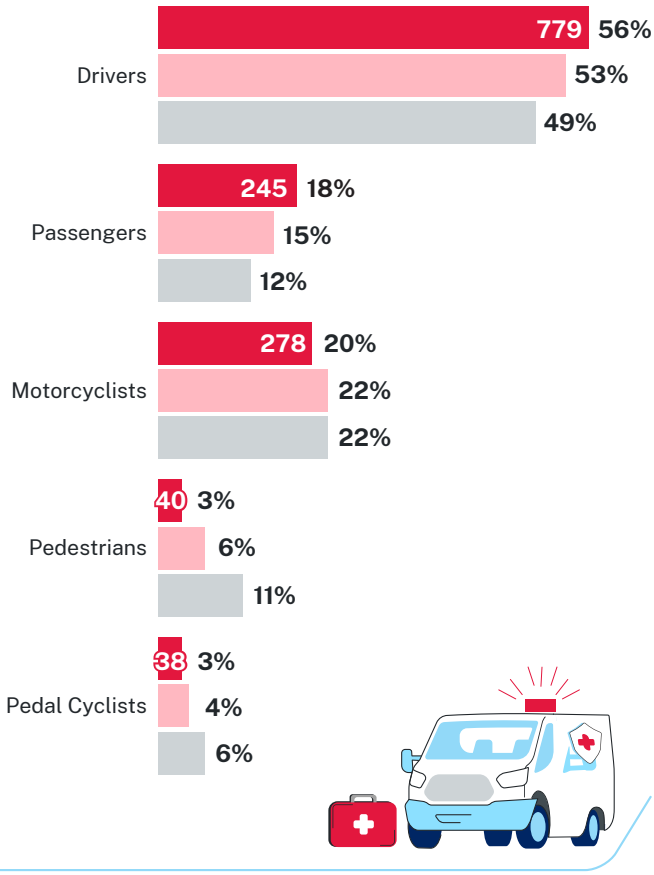
Transport can address speed-related FSIs in the region by:

- implementing consistent transition zone speed limits and supporting infrastructure, such as gateway treatments, between higher speed state and regional roads outside of centres and state and regional roads in population centres
- delivering cost-effective road safety initiatives on higher speed state roads outside population centres
- implementing safer speed settings, supported by clear visual cues, to encourage lower, more appropriate travel speeds.

Central West and Orana fatal and serious injury (FSI) crash types, 2019–2023 (as % of all FSI crashes)



People killed and seriously injured by road user type, 2019–2023 (as % of all FSI casualties)



1 RUM codes 20 & 50
2 RUM codes 70–73 & 80–87
3 RUM codes 30–32
4 The 'Heavy vehicle' types of vehicle comprise: Articulated truck; B-double (truck); Heavy bus; Heavy rigid truck; Heavy truck; Heavy vehicle; Road train/B-triple (truck); Semi-trailer. https://www.transport.nsw.gov.au/roadsafety/statistics/interactive-crash-statistics/heavy-vehicle-statistics-definitions-and-notes

Figure 20. Comparison of Central West and Orana crash types to regional NSW and Greater Sydney, 2019–2023[37]

5.5.3 Heavy vehicles in FSI crashes in the region

Heavy vehicles have a greater impact on road safety outcomes in the region, with about 11 per cent of FSI crashes involving heavy vehicles, compared to between seven and eight per cent for regional NSW, Greater Sydney and NSW. During the reference period, there were 125 FSI crashes involving heavy vehicles on the road network killing 30 and seriously injuring 95. Because of their size and weight, crashes involving heavy vehicles are often very serious, with around one in five people killed in crashes in the region having been involved in a crash involving a heavy vehicle.

About 39 per cent of heavy vehicle crashes in the region were single vehicle crashes, well above the regional NSW benchmark of 29 per cent over the same period. Fatigue is a significant contributing factor in heavy vehicle crashes, attributable to 23 per cent of crashes involving heavy vehicles in the region. Long hours behind the wheel, irregular sleep patterns and demanding schedules often lead to driver exhaustion, reducing alertness, reaction times and decision-making ability.

In-vehicle safety technologies have the potential to significantly reduce the frequency of run-off-road FSI crashes in line with fleet renewal. Slower fleet renewal has been suggested as a factor delaying adoption of heavy vehicle safety technology and associated benefits. However, while commercial freight companies tend to maximise the value of their vehicle fleet by keeping them in active service for as long as possible, this tends to be balanced by the significantly greater number of kilometres freight vehicles travel per year compared to private vehicles. In Australia, the average car travels 12,000 km per year while a freight vehicle travels 80,000 km per year. An alternative suggestion is that rapidly changing freight vehicle technologies such as electrification and autonomous driving assistance[37] combined with changing heavy vehicle legislation, such as high productivity vehicle legislation, may be encouraging freight companies to delay fleet renewal, thereby delaying the benefits linked to heavy vehicle safety technologies in the short term.

Transport's analysis of adoption rates and the potential benefits of existing and future safety technologies will help identify future gaps and overlaps between in-vehicle technology safety benefits and the benefits of other safety initiatives, such as the heavy vehicles rest stops program,[38] which is intended to help address heavy vehicle driver fatigue and resultant heavy vehicle and fatigue FSI crashes.

Opportunities

Transport can address heavy vehicle related FSI's in the region by:

- identifying opportunities to increase the speed of fleet turnover to support the uptake of improved in-vehicle safety technologies for heavy vehicle fleets
- delivering heavy vehicle rest stops across Central West and Orana's primary freight corridors.

Freight truck on Molong to Orange Road

37 Kodiak, https://kodiak.ai/

38 Transport for NSW, Have your say: Improving heavy vehicles rest stops, https://www.haveyoursay.nsw.gov.au/heavy-vehicle-rest-stops

5.5.4 Safe people making safe choices

Speeding, driving under the influence of alcohol or drugs, non-seat belt wearing, and driving while fatigued are all behavioural choices that increase the risk of FSI crashes occurring within an unforgiving transport system. Except for fatigue-related crashes, which account for about 25 per cent of FSI crashes, these types of FSI crashes occur at a similar rate as in other parts of regional NSW. Education and advocacy campaigns help to reduce the prevalence of these types of driving choices and trauma on NSW roads.

Supporting a shift to lower impact travel modes by providing real alternatives to driving is an important mechanism through which we can address trauma on the region's road network.

Table 3. Road users involved in FSI crashes, 2019–2023[39]

Road user	% of total FSI crashes	Journey to work mode share
(ABS Census 2021*)	292 (25%)	247 (21.1%)
Pedestrians	5.5	4.6%
Pedal cycles	5.5	0.3%
Motorcyclists	29.7	0.6%
Motor vehicles	70.9	93.1%

Motor vehicles are involved in the majority of FSI crashes in the region (71 per cent). However, their representation in FSI crashes is far less than the percentage of trips (93 per cent) and relative distance travelled by motor vehicles. This suggests that, while a motor vehicle's external protection helps to protect drivers and passengers in the event of a crash, this can have the perverse effect of transferring risk to other road users.

FSI crashes involving pedestrians also occur at a rate lower but much closer to percentage of trips – 5.5 per cent of FSI crashes compared to 4.6 per cent of trips. The region's compact and walkable population centres make walking an attractive travel option, even compared to Greater Sydney.[40] Walking network improvements that better connect residents, such as new crossings of disused rail lines, or that improve the amenity of walking trips, such as trees that provide shade, can support mode shift to lower impact travel modes. This could provide safety benefits as well as improving local access. However, residents living outside population centres in peri-urban and rural areas of the region are far less likely to walk for daily trips.

Bicycle network infrastructure gaps combined with higher traffic volumes, speed limits and resulting vehicle speeds on state and regional roads in population centres and peri-urban areas result in higher concentrations of pedal cycle FSI crashes on these roads, limiting opportunities for people to ride to meet daily travel needs. Despite the limited uptake of bicycle riding in the region, the rate of bicycle riding involvement in a FSI crashes is almost 20 times greater than the percentage of trips made by bicycle in the region.[41] Targeted investment in separated bicycle infrastructure on these roads would address bicycle riding related road trauma more cost-effectively than equivalent investment in separated infrastructure on the local road network.

Motorcycle FSI crashes occurred over 50 times more frequently than the percentage of trips made by this mode. The rate of motorcycle FSI crashes may be skewed by recreational motorcycling FSI crashes, but it is evident that all motorcycle trips are risky. Best efforts are made to minimise harm when motorcycling crashes occur. However, motorcycle crashes are difficult to address using typical road safety engineering treatments such as superelevation, as these types of treatments can illicit risk-compensating behaviours that offset the benefits of road safety treatments.

39 Transport for NSW, Road user safety data, 2019–2023

40 ABS, Census 2021, Journey to Work for NSW' Regions=2.9% vs Greater Sydney of 2.5%

41 ABS, Census 2021, Journey to Work as a proxy for bicycle mode share for all trips

The availability of alternatives to driving is particularly important for younger and older people who face unique challenges that impact their ability to use the transport network safely. Younger road users tend to be less experienced and have a less developed understanding of the balance between risk-taking and reward. About 20 per cent of FSI crashes in the region involved road users in the 20–29-year age cohort, the highest representation of any age group.[42] People aged 75–85 years are three times as likely to be killed in a crash than people in their 20s. This increases to four times as likely for people over 85.[43] Injury severity and the number of fatalities in this age group are likely to increase in line with an ageing regional population.

Rail and air travel operate in a 'closed' operating environment and Australia's aviation industry has an admirable safety record. Potential safety benefits of increasing the proportion of travel by rail and aviation include the reduction in long, fatiguing journeys, particularly for trips to destinations outside the region. Greater use of aviation for long distance regional journeys would require a significant reduction in aviation passenger costs to be realised at scale. Emerging aviation technologies, including electric aircraft, could help deliver this reduction in operating costs over the medium to long term.

Tree lined streetscape in Mudgee's town centre

42 Transport for NSW, road safety data 2019–2023

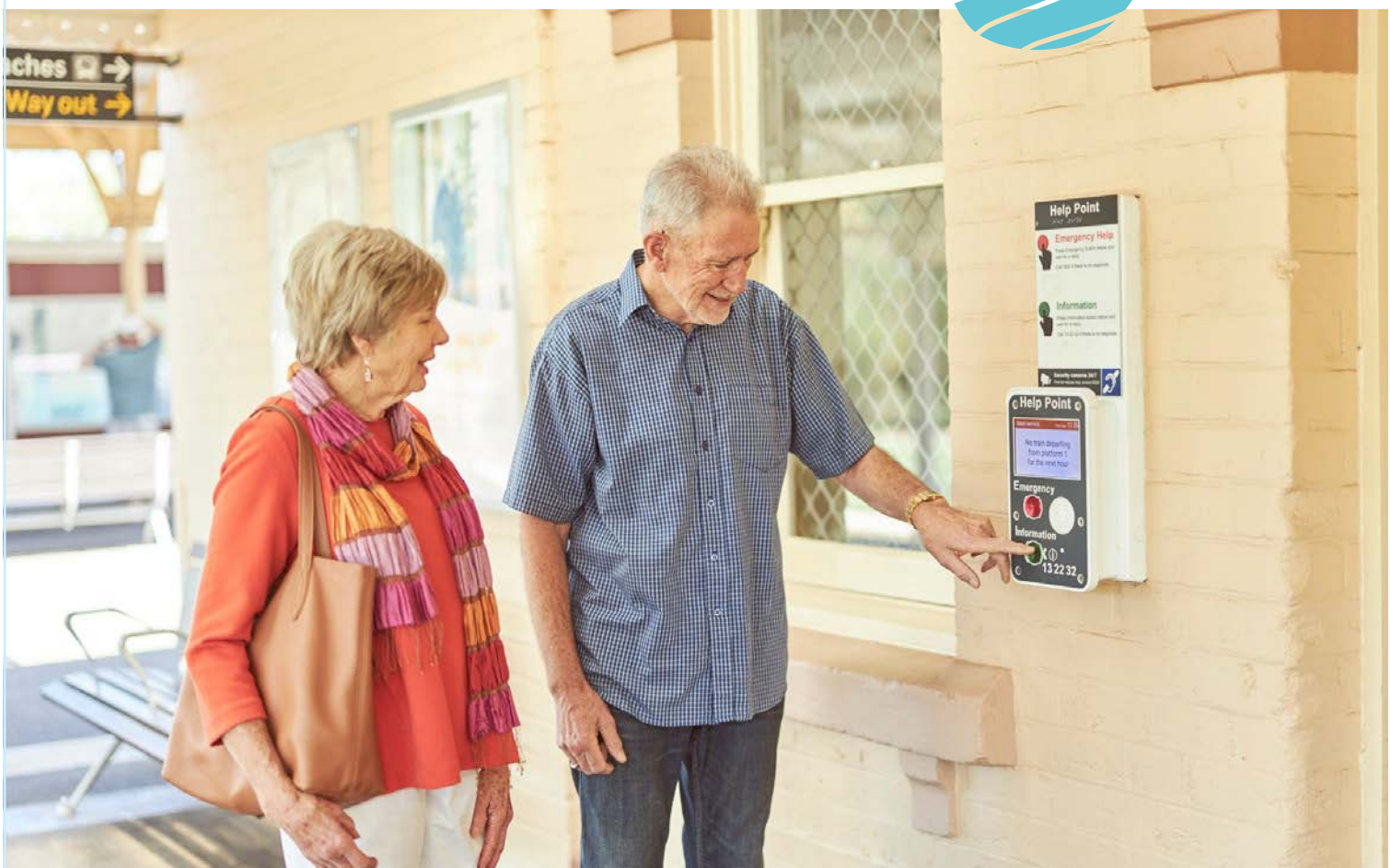
43 The Road Ahead https://www.transport.nsw.gov.au/roadsafety/older-road-users

Opportunities

Transport can support people to make safer choices by:

- extending hours of operation and increasing the flexibility of public transport services' during evenings and weekends to support increased use of public transport during periods when the provision of safer travel choices (Plan B) provides significant opportunities to deliver trauma reduction benefits
- increasing driver awareness of existing risks for all road users through more integrated and slower-speed main street design and wider application of shared zone design principles such as rationalisation and removal of centre lines, road signs and pedestrian barrier fencing
- working with councils to provide more direct walking connections between neighbourhoods and local destinations and supporting urban design that delivers better walking amenity, delivering: active frontages, shared streets, wide footpaths, boundary fence reduction or removal and street tree planting
- delivering separated bicycle paths on all state and regional roads in population centres
- identifying opportunities to accentuate road curvature, remove roadside obstructions, and deliver anti-skid treatments on popular recreational motorcycling routes that have poor motorcycle road safety records
- providing public transport services that provide real travel choice for social groups with underdeveloped and impaired task capabilities
- identifying opportunities to support the emerging e-aviation industry to increase the prospect of frequent, reliable and fast air services that connect Orange, Dubbo and Bathurst with Sydney, Canberra and Newcastle.

Senior couple using Help Point for information on train platform at Orange Station



5.5.5 Public transport safety and rail level crossings

Public transport vehicles, including trains, coaches and buses, have a better safety record relative to other vehicle types through a combination of high levels of external protection, slower operating speeds, more stringent driver training and licensing requirements, and a closed operating system in the case of rail. Road safety benefits associated with increased use of safer public transport services will increase at similar rates to patronage. Providing more competitive public transport choices is required to deliver commensurate reductions in FSI crashes, particularly in population centres where FSI crashes involving vulnerable road users are most likely to be addressed through mode shift to public transport.

Passenger security and the security of people walking and riding on roads and streets is also a primary consideration affecting mode choice, particularly for women and other more vulnerable people (see section 5.2.4). The installation of appropriate street lighting, planning for active and passive surveillance, and the application of Crime Prevention Through Environmental Design principles help to improve actual and perceived security for pedestrians, bicycle riders and public transport customers travelling to local destinations.

Grade separation and modernisation of warning signals and signs around level crossings reduce the chances of catastrophic crashes between trains and other road users. Community support for rail level crossing safety improvements and in-vehicle safety technologies for coaches and buses reflect a shared understanding of the impact of these types of crashes on regional communities.

Opportunities

Transport can support more people to use public transport, improve the safety of public transport networks, and reduce risks where there are interactions between the road and rail networks by:

- improving the competitiveness of public transport services compared private vehicle trips
- working with councils to improve lighting, land use activation, passive surveillance and the application of Crime Prevention through Environmental Design (CPTED) principles at rail stations and bus stops as well as on state roads that perform place, local access and regional movement functions in population centres
- identifying opportunities to grade separate or close level crossings to reduce the likelihood of rail crashes.

Rail level crossings

There are 14 level crossing upgrade projects in the region funded for delivery between 2023–24 and 2026–27. The projects are jointly funded by the Australian Government's Regional Level Crossing Upgrade Fund and the NSW Government's Level Crossing Improvement Program. Upgrades include the installation of retro-reflective boom gates, audible warning devices, updated signage and LED flashing lights, which increase the visibility of crossings on both sides of the roadway in response to approaching trains.

Freight truck crossing railway in Central West and Orana region

5.6 Resilient transport networks

Proactively planning for network shocks and stresses will increase the reliability of the transport network

The Central West and Orana region is facing increasing occurrence of natural disasters and severe weather events. Disruptions on the transport network impact how and when customers and passengers can travel, restricting access to health, education and employment as well as interrupting supply chains and connections to ports and airports.

When critical parts of the network are impacted by natural hazards the duration and impacts can be significant, particularly when these are key freight corridors. From late October 2022, the Newell Highway was closed for seven weeks when 20 kilometres of this section was flooded. From September 2016, the highway was closed for six weeks due to flooding.[44]

Increasing seasonal travel demands, population growth and expanding tourism opportunities put additional pressure on the transport network. As the regional transport network continues to grow, there is a greater need for planning to consider its resilience, ensuring the safety and accessibility of the transport network for all our customers.

While planned disruptions can be anticipated and prepared for in advance of an event, unplanned disruptions require a dynamic response in real time. Responding to shocks and stresses and the associated maintenance and network improvements are costly for the community. With travel increasing on the transport network in the region as the population grows and with the cost of maintaining ageing assets increasing, improved resilience of the transport network is critical.

Impacts on local road movements and community access can also be impacted through heavy vehicles and increases in oversize and overmass (OSOM) vehicle movements to support the development of REZs. Planning is required to accommodate these movements on key corridors including the Golden Highway to increase redundancy in the road network by building stopping bays and spreading loads across multiple routes to reduce impacts on communities.

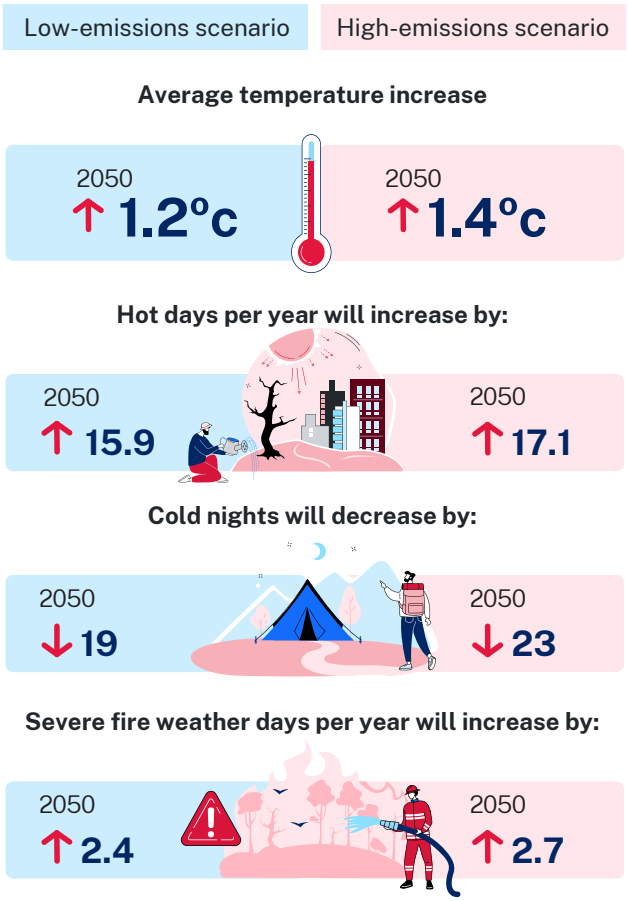
Train track near Dubbo

44 https://www.transport.nsw.gov.au/projects/current-projects/newell-highway-flood-mitigation

By building more resilience into the transport network, it becomes better equipped to successfully manage disruptions and minimise the social, economic and connectivity impacts on regional communities and businesses.

In addition, effective oversight and coordination of operations and response activities must occur across government agencies, local government and community groups.

The Australian and NSW governments are providing funding through the Regional Road and Transport Recovery Package to help communities become more resilient to natural disasters. Funding is available to repair or build back an asset to better withstand future natural distasters.



Source: Data is based on NARCliM2.0 (2024) projections for SSP1-2.6 (low-emissions) and SSP3-7.0 (high-emissions) and is presented relative to the historical climate baseline of 1990–2009. The projections for 2050 represent averaged data for 2040–2059. Values presented are averages across the NARCliM2.0 model ensemble, and do not represent the full range of plausible climate futures. Regional climate change impacts are used to highlight how the region is likely to be affected by climate change, and impacts are not limited to the examples provided.

Figure 21. Projected climate changes for the Central West and Orana region[45]

45 Department of Climate Change, Energy, the Environment and Water, NARCliM2.0 Central West Orana regional climate change snapshot

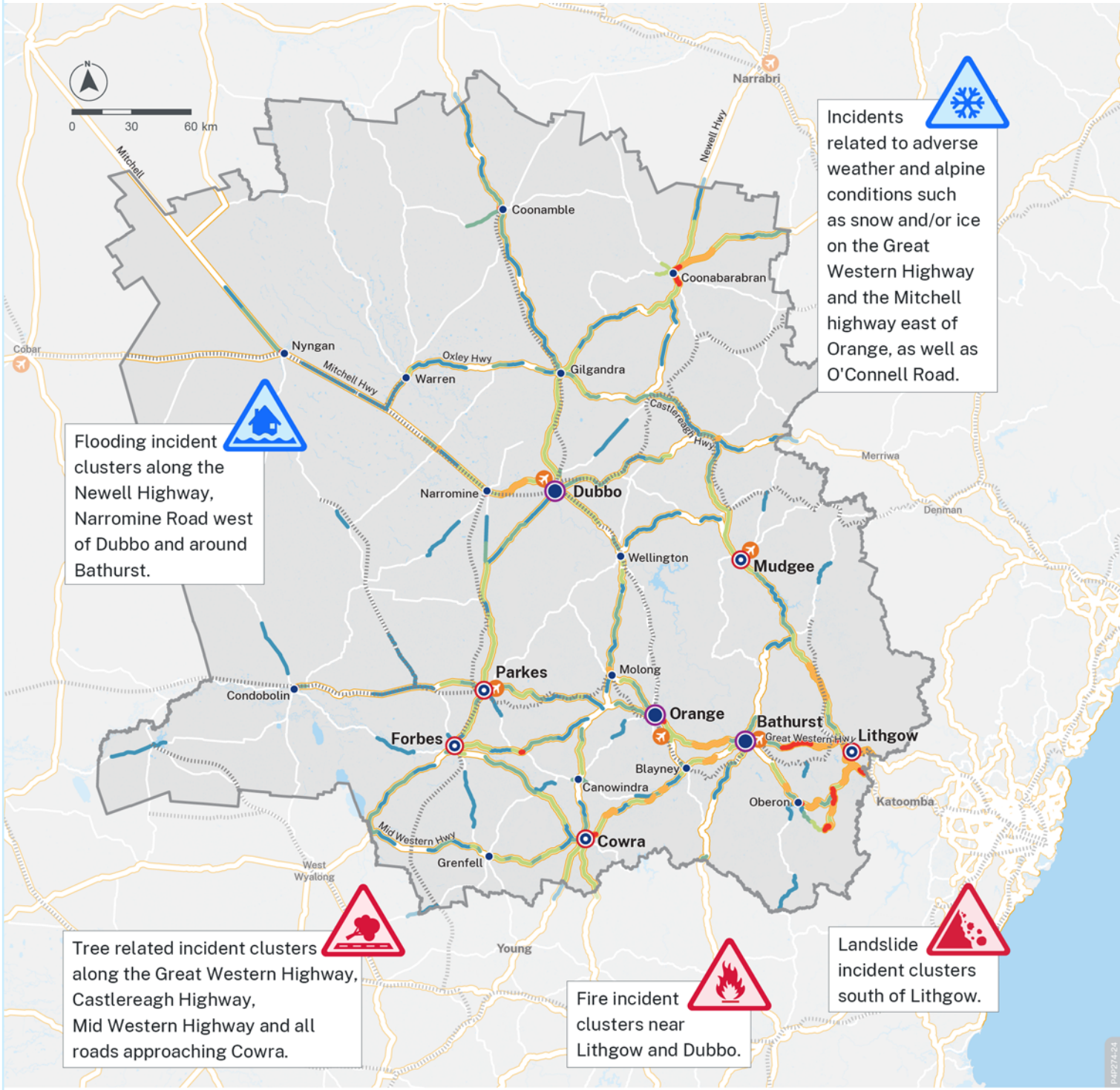


Figure 22. Environmental hazards on the Central West and Orana region's road network 2012–2022

What we heard

- Resilience is a network outcome with transport network reliability as a community outcome.
- We need to talk more about local 'self-sufficiency' and 'independence' when we talk about resilience.
- Funding programs need to be more legible, accessible and interconnected, particularly for smaller councils with less capacity to progress multiple or any funding applications.
- Communications infrastructure is key to incident management and reducing the impact of network shocks.
- Bridges, culverts and causeways are almost always the critical failure points for both road and rail networks during flooding events.
- Resilience of critical transport links within, to and from the region such as the Newell Highway (north–south) and the Great Western Highway (east–west) among others are vulnerable to natural hazards such as bushfires and floods. Exploration of alternative passenger and freight routes and or investment in improved resilience of these links is critical to ensuring community outcomes and improving business confidence to invest in the region.
- Local roads were not designed to carry modern, large freight vehicles and are being damaged.

5.6.1 Criticality and vulnerability

Most travel in the region is by private vehicle and these trips are predominantly local trips and trips within LGAs. This places pressure on councils to maintain the availability and reliability of local and regional roads to ensure people can access employment and meet daily needs for goods and services. Parts of the state road network are susceptible to disruption, particularly during natural disasters and significant rainfall or bushfire events. For example, the Newell Highway performs a nationally significant freight function between Brisbane and Melbourne but is vulnerable to disruption, with flooding closing part of the highway for several weeks as recently as October 2022. The Great Western Highway also performs a significant freight function between the region and Sydney and is vulnerable to disruption from natural events through the Blue Mountains.

The repair and reopening of state roads is generally funded and prioritised for repair while many regional and local roads are closed for longer periods and or reopen without sufficient time for the road to recover or be adequately repaired following closures, leading to the deterioration of road quality, comfort, safety and accessibility.

Bridges in the region provide critical connections for private and freight vehicles. However, many bridges and adjoining roads are vulnerable to flooding. Even moderate levels of rainfall can impact access to some parts of the region. This can sever communities from destinations and services in the centres and impact the ability of emergency services to respond during emergencies. This is particularly challenging for population centres in the region with singular river crossings. Increased provision of local and more regionally important destinations and services closer to where people live also helps to increase the self-sufficiency of regional communities and reduces the impact of network failures.

Rail freight continues to be a critical component of the region's transport network, currently carrying 75 per cent of the region's export and import commodities, predominantly coal, agricultural and forestry products. Even with the forecast decline in coal, the rail freight network is still expected to carry 46 per cent of the freight by weight moving in and out of the region (incl. internal) by 2061.[46] Inland Rail could increase the criticality of the rail network, with ARTC forecasting increased container movement by rail from 26 per cent to 62 per cent[47] between Melbourne and Brisbane. This will help improve rail freight reliability for the region by reducing the importance of vulnerable road and rail freight connections through the Blue Mountains to Sydney and Port Botany.

Opportunities

Transport can address the vulnerability of critical transport network assets and services in the region by:

- increasing support for road network repairs and improvements
- identifying opportunities to deliver transport connections and services that help to reduce the impact of disasters on the transport network
- identifying opportunities to support re-assignment of import and export freight from vulnerable shared road and rail networks to more resilient and dedicated Inland Rail and ARTC freight rail connections linking the region, as well as Western Australia, South Australia, Victoria and Western NSW, with the Port of Newcastle and the North Coast Rail Line.

46 Transport for NSW, Transport Strategic Freight Model forecast, 2024

47 ARTC, Inland Rail business case, 2015

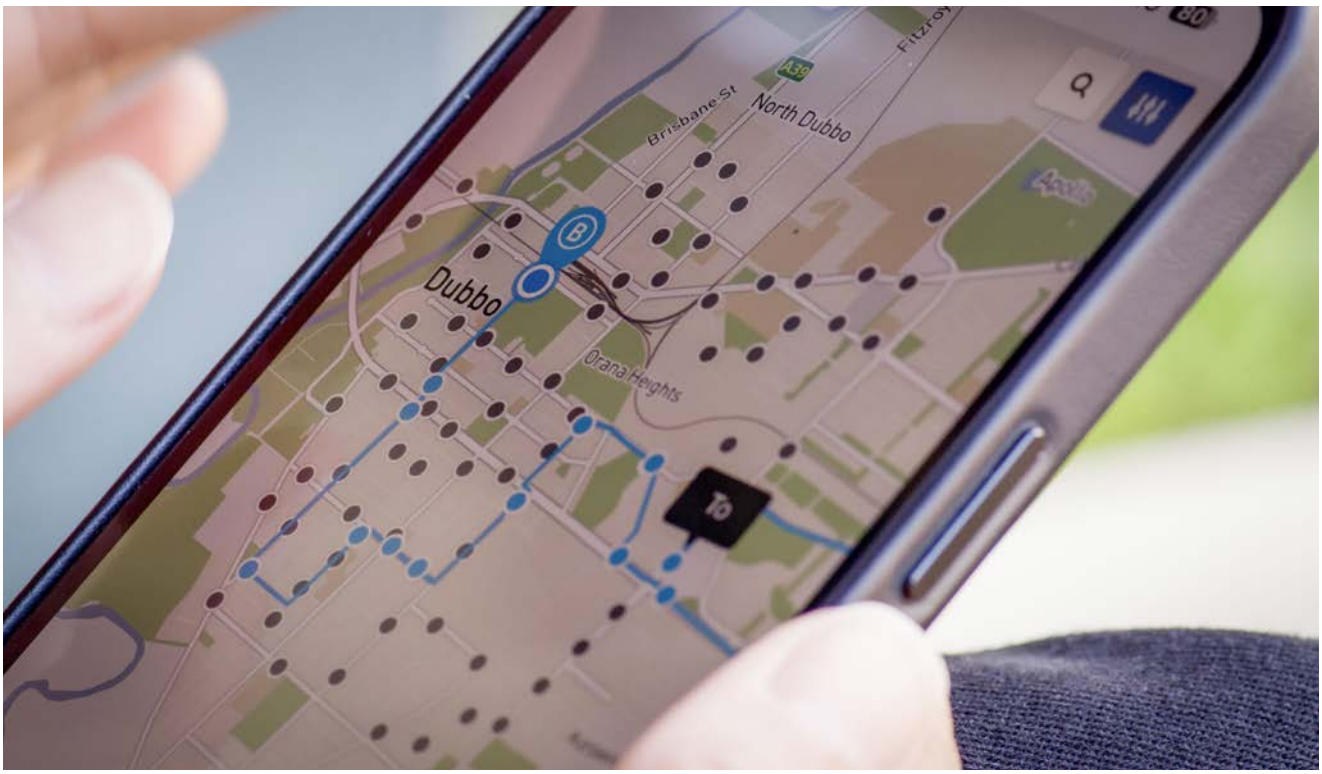
5.6.2 Resilience, communication and technology

Effective communication between state agencies, councils, freight operators, businesses and communities is critical during network disruptions, whether they are region-wide network impacts due to natural disaster events or singular traffic incidents on the road network. The breadth and quality of phone and internet coverage varies across the region. Community awareness coupled with the coordination of information between emergency and traffic disruption channels such as Hazards Near Me NSW and Live Traffic,limit the effectiveness of communication from Transport and emergency management teams and to councils, transport operators, businesses and the community during incidents.

The region's transport network includes more the 116,300 kilometres of public roads, including state roads (3250 kilometres), regional roads (3750 kilometres) and local roads (109,300 kilometres). There are also several thousand kilometres of private roads accessible to certain users (or when certain conditions are met) in national parks, state forests and on private property, in agricultural land, bushland and mining areas. Monitoring, assessing and recording road conditions and changes in road conditions over time is a monumental task.

Emergency management currently relies heavily on physical presence and visual investigations of network damage. Advances in technology such as satellite imagery, artificial intelligence and drones may be capable of addressing this challenge, improving the ability of Transport, councils and other road authorities to monitor, assess and document network condition. Automation of monitoring and emergency management systems help to reduce the impact of network incidents in the longer term by providing clear records and timelines of network damage, repairs and the overall vulnerability of infrastructure and services.

Publishing alternate routes to the state and regional road network via an online portal or app would enhance transport operator, council and community preparedness, resilience and safety during network disruptions. Advances in power generation, storage and communications technology, such as 5G, create the opportunity for Transport to investigate the feasibility of new systems such as advanced real-time monitoring, detection and adaptive electronic signage to improve Transport's ability to identify, in near real time, and effectively communicate network disruptions and recommend actions to people on the region's road network.



Person using Trip Planner app on their mobile phone

Emerging mobility technologies such as e-aviation and the increasing automation of cars and heavy vehicles have the potential to address some of the resilience challenges of the regional network. E-aviation has the potential to significantly reduce per seat costs and make flying a cost-effective, flexible, reliable and fast option for longer journeys, providing alternative means of access and reducing the criticality of local and regional road networks.

Opportunities

Transport can improve the resilience of the region's transport network by:

- supporting improved digital connectivity and communications using Transport lands and assets as well as improving coordination between transport-related emergency communication channels and other NSW emergency service platforms
- investigating the trial and use of remote monitoring technologies to improve resilience planning and operations
- proactively sharing network disruption information with councils, the community and freight operators.

Case study: Smarter Highways program

The NSW Government launched a new program of low-cost technology trials on highways throughout regional NSW to prompt safer driver behaviour on roads in January 2025. The $5 million Smarter Highways program will harness emerging and existing technologies in innovative ways to improve journey management, especially when a major disruption occurs. Each trial will feature technology that detects an issue on the network, causing systems to be activated to warn drivers about hazards and, if possible, provide alternative options.[48]

Scenic Drive, Mudgee © Destination NSW

48 Transport for NSW, Smart tech trials to drive safer behaviour on the roads, 2025. https://www.transport.nsw.gov.au/news-and-events/media-releases/smart-tech-trials-to-drive-safer-behaviour-on-roads

5.6.3 Road network maintenance

The frequency of disruptions caused by climate-related events such as flooding and fires is likely to increase due to climate change. Disruptions on the network caused by vehicles, including crashes and vehicle failure, are likely to increase as traffic movements on the network increase. Foreseeable incidents and network disruptions can be planned for. Proactively planning to reduce exposure to flooding and fires, and increasing the durability of at-risk critical network infrastructure will help to minimise the negative impacts of foreseeable incidents on the region's transport network and communities.

Planning for the unforeseeable is more problematic. Emergency plans that provide detailed operational responses to incidents on the network and facilitate rapid re-prioritisation of infrastructure and services to ensure continued network operation can increase the region's ability to adapt and respond during unforeseen events.

Maintenance of the public road network is generally the responsibility of Transport (state roads and some regional roads) and councils (some regional roads and local roads). The scale of the road maintenance task is significant (see 5.6.2) and increasing due to several factors including:

- the increasing cost of planned road maintenance including the costs of raw materials, labour, transport and complying with revised, more stringent road standards
- the growing road network requiring maintenance because of network duplication, bypasses and the growth in suburbs in and around population centres. New roads generally receive capital funding for construction, but lack commensurate increases in operational funding to maintain new or upgraded assets, which stretches existing maintenance budgets
- the increasing frequency of unplanned maintenance in response to the increasing frequency of climate-related events and the unplanned, and in some instances unauthorised, use of regional and local roads by heavy vehicles
- damage to road network assets caused by a mismatch in maximum design vehicle at time of asset construction and current authorised and unauthorised use of the road network. This is particularly prevalent on regional and local roads.

Heavy machinery parked at a road construction site near Dubbo

Case study: Inland Flat Route

Councils have observed growing traffic volumes – predominately heavy vehicles and tourist caravans – on the 'Inland Flat Route', which is being used as an alternative to the primary alternate north–south road corridor, the Newell Highway. The Inland Flat Route extends from Narrabri through Wee Waa, Pilliga, Coonamble, Warren, Tottenham, Fifield and Condobolin to West Wyalong via Lake Cargelligo to Hillston and south.

The Inland Flat Route is longer by distance. However, it may be viewed as an attractive alternative to the Newell Highway by freight operators and tourists, particularly grey nomads, for perceived or actual improvements in efficiency through time savings – there is less traffic through Dubbo, Parkes, Forbes and less hilly topography – and improved fuel economy. Most of the roads and bridges along the route are not built to higher mass limits standards.

Inland Flat Route Key Roads

1. West Wyalong to Condobolin via Wyalong Condobolin Rd and The Gipps Way
2. Condobolin to Fifield via Denison St/Henry Parkes Way and Fifield Rd
3. Fifield to Tottenham via Fifield Rd and The Bogan Way
4. Tottenham to Warren via Tabratong Crossing Rd, Tottenham Rd, Nevertire-Bogan Rd and Oxley Hwy/Warren St
5. Warren to Coonamble via Burton St/Oxley Hwy, Warren Rd, Castlereagh Hwy/B55
6. Coonamble to Pilliga via Baradine Rd/ Coonamble Rd and Pilliga Rd
7. Pilliga to Wee Waa via Pilliga Rd
8. Wee Waa to Narrabri via Kamilaroi Hwy/Rose

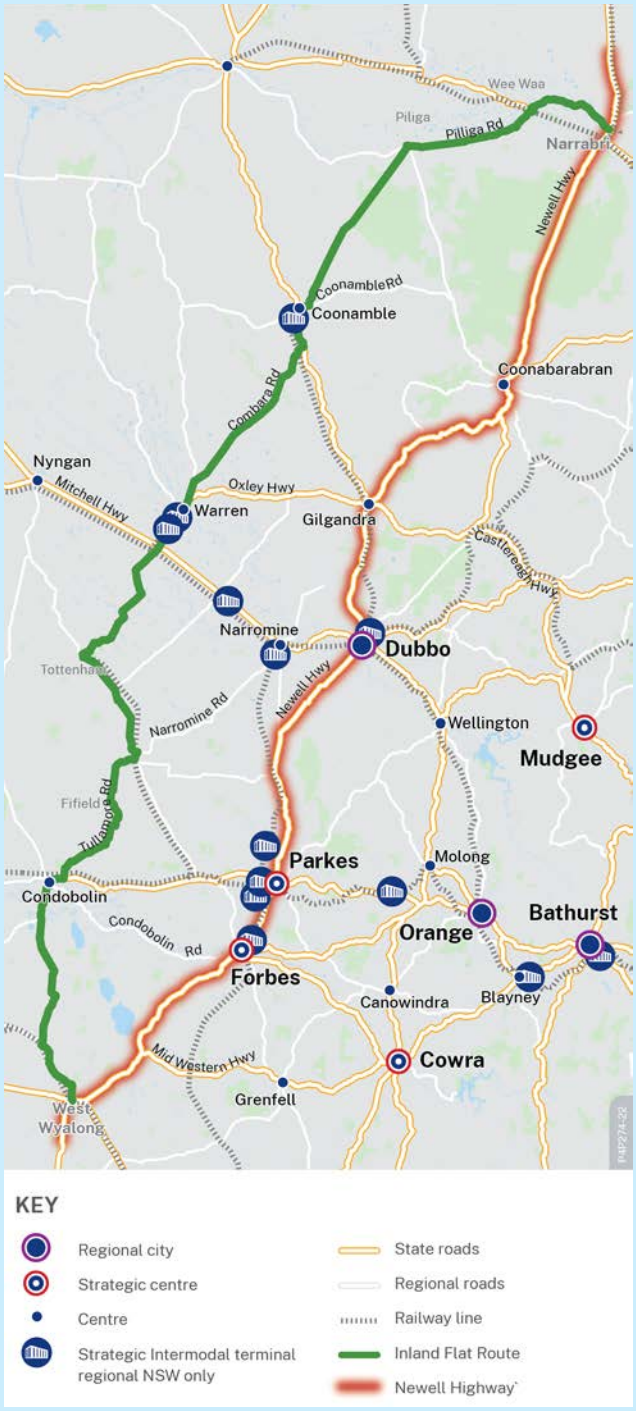


Figure 23. Inland Flat Route

There are several funding sources for Transport and councils to support the routine maintenance of the road network including funding from the NSW Government, council rates and the Commonwealth Government. These funding streams are typically supplemented by Commonwealth and State governments following natural disaster events to expedite the repair and reopening of the critical road network.

The processes and requirements to access road maintenance funding, particularly bespoke funding to support natural disaster recovery, are onerous and can be challenging for councils to use in a timely and cost-effective manner. This is of particular concern for smaller councils with fewer human and financial resources, who may have to make significant compromises in other areas to access and use funding, even for critical network repairs.

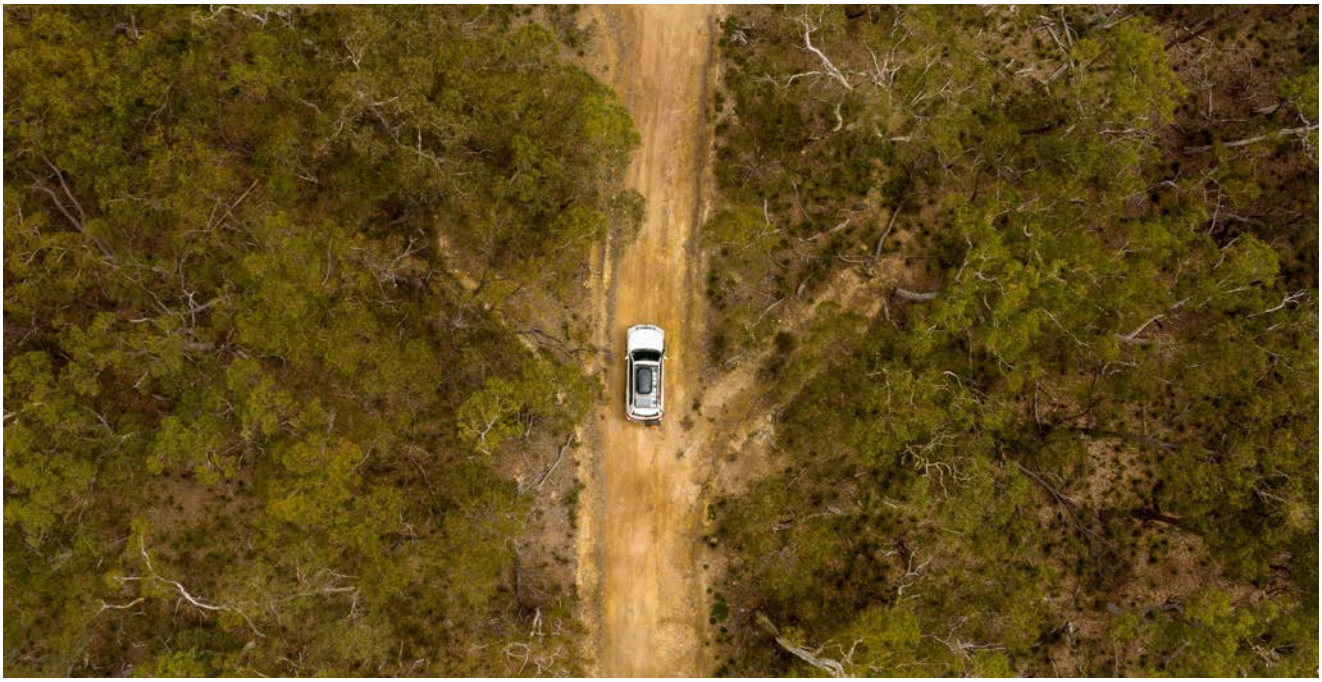
This complexity and challenge increases when multiple funding sources are available or required to deliver projects. Each funding source has its own application process, including providing evidence of an asset's existing and previous condition, its own requirement for the use of funds, including around project management and reporting, and its own timing for funding release, including progress and final payment.

The rigidity of funding sources, such as covering the replacement of like-for-like only, and insufficient integration between resilience, maintenance, safety and other funding sources, often results in councils and Transport providing like-for-like replacement for damaged infrastructure despite the infrastructure standard, design, location or quality no longer being fit for purpose. This is of particular concern for critical infrastructure in vulnerable locations that are regularly repaired or replaced to previous condition only to be damaged again during the next rainfall or other natural hazard event. In some locations, this has created a cycle of ineffective human and financial resource use which is not delivering value for money for government.

Opportunities

Transport can improve road network maintenance outcomes for the region by:

- working with councils and emergency services to prepare risk mitigation plans for critical network infrastructure
- identifying opportunities to proactively manage Transport funding to support the rapid and efficient distribution of road maintenance funding to councils to deliver improved network resilience through rapid identification of preferred 'don't build back' or 'build back better' options and the rapid repair and reopening of local transport networks.



Detour Adventures, Bathurst © Destination NSW

5.7 Net zero emissions

Minimise greenhouse gas emissions and particulate pollution to deliver an environmentally sustainable transport network and healthy natural environments

Transport's Net Zero and Climate Change Policy outlines that climate change risk needs to be considered in all key decisions including how Transport plans, prioritises, designs, constructs, maintains and operates its infrastructure and services. Transport is embedding net zero principles from the outset, designing a transport system that improves access to daily destinations and services, uses less materials and makes sustainable transport modes practical options for most trips.

Transport is committed to achieving net zero emissions consistent with Australia's commitment under the 2016 Paris Agreement. This involves achieving a series of decarbonisation targets, as shown in Figure 24. Transport sector activities account for 19 per cent of NSW's emissions. However, by 2030 it is projected to be the largest single source of emissions.[49] In 2021, the Central West and Orana region accounted for about 12 per cent of NSW's scope 1 emissions (direct) and about seven per cent of NSW's scope 2 emissions (indirect, electricity generation).[50] Achieving net zero emissions in the transport sector will require a coordinated and determined change in the way that Transport operates and in the way that customers across NSW carry out their journeys.

Transport Net Zero and Climate Change Policy

The targets are:

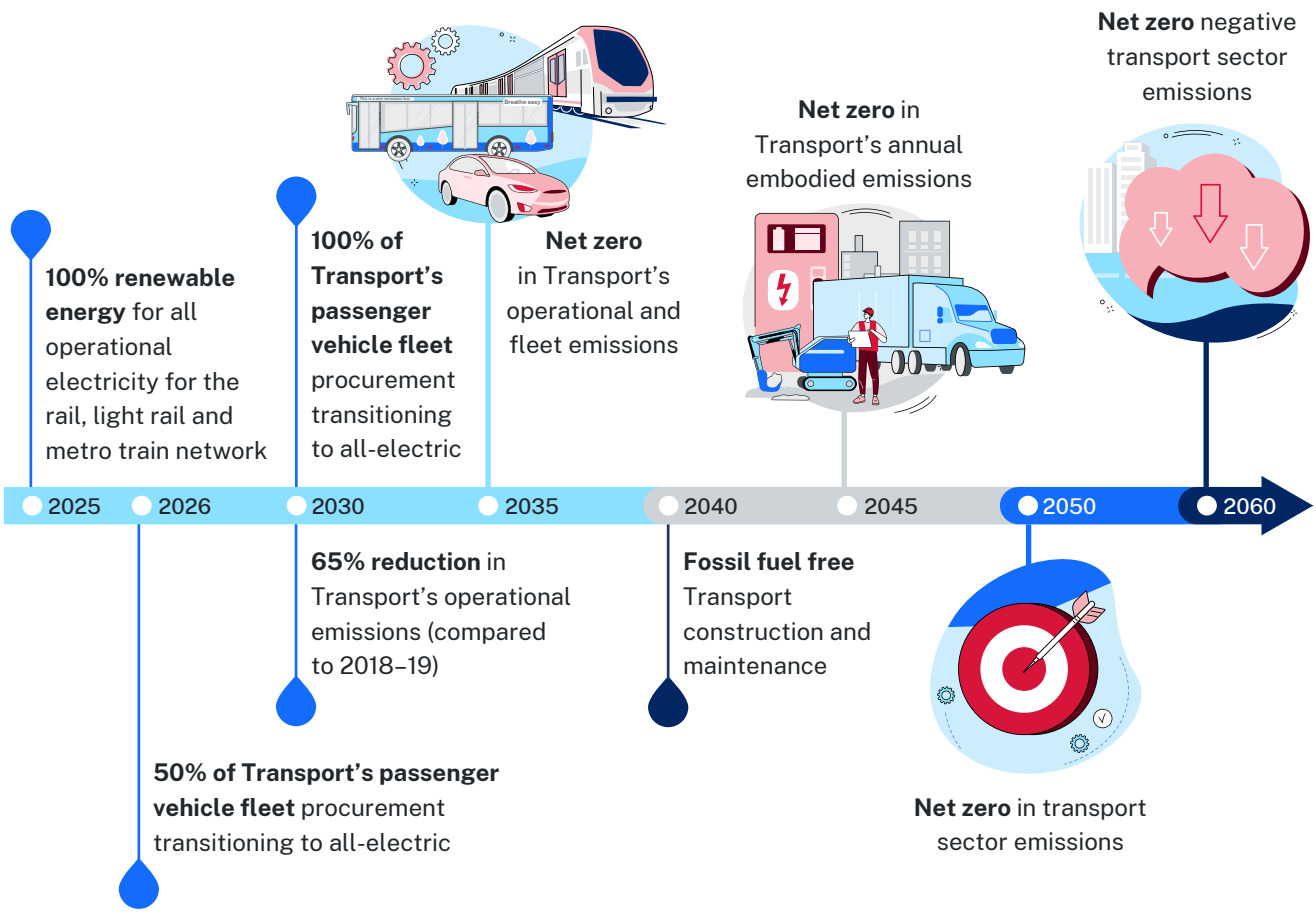


Figure 24. Transport Net Zero and Climate Change Policy targets

49 Future Transport Strategy 2022

50 NSW Net Zero Emissions Dashboard

What we heard

- The unique challenges of freight electrification need to be addressed, including slow fleet turnover and the suitability of existing road infrastructure to accommodate heavier electric freight vehicles.
- Insufficient funding for walking, cycling and public transport infrastructure and services hampers people's willingness to travel sustainably and reduce emissions. This includes funding for safe crossings to access public transport stops and stations.
- Electric aviation should be considered as a viable opportunity for the medium to long term.
- There is a high demand for more electric vehicle charging stations to improve coverage. There is opportunity to develop charging precincts into places to dwell by including retail and green spaces.
- Lack of collaboration among NSW agencies slows down delivery of emission-reduction initiatives.
- Consideration should be given to safeguarding space for park and ride facilities at regional centre edges to improve local air quality.

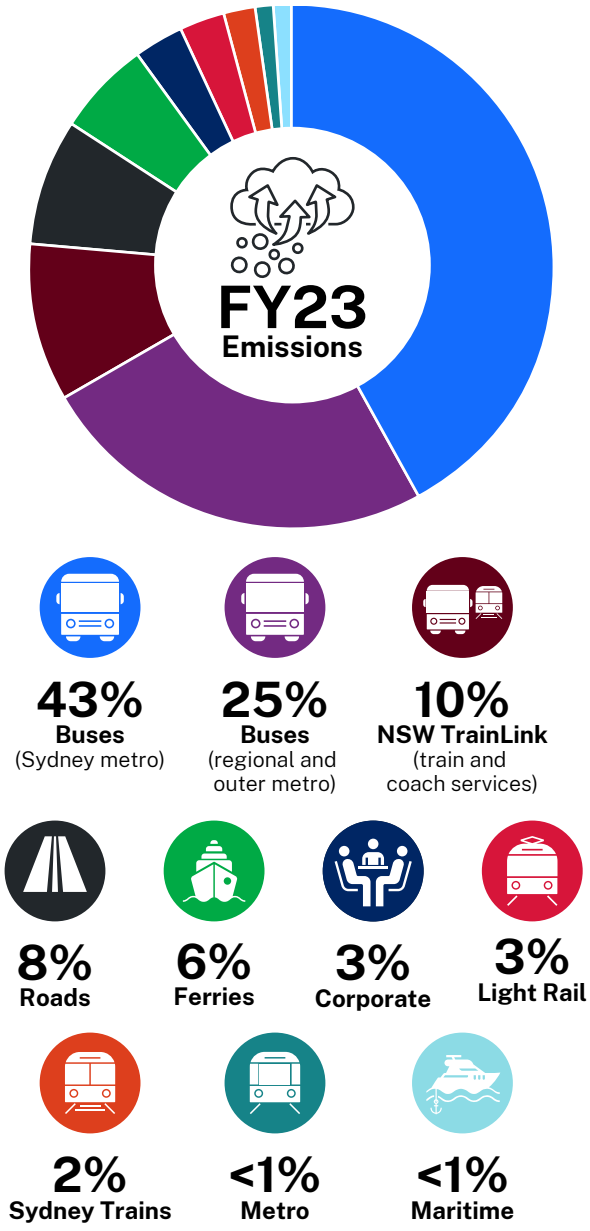


Figure 25. Transport industry emissions, Future Transport Strategy 2022

5.7.1 Transport for NSW operational emissions

Transport's operational emissions account for three per cent of the transport sector's emissions. Under the Net Zero and Climate Change Policy, Transport has committed to achieving a 65 per cent reduction in operational emissions by 2030 and net zero operational and fleet emissions by 2035. A breakdown of Transport's emissions is shown in Figure 24.

Buses currently account for the greatest single source of Transport's emissions, with buses in regional and outer metropolitan NSW accounting for a quarter of Transport's total operations emissions. While buses are an efficient transport mode, there is a significant opportunity to reduce their emissions. Under the Zero Emission Buses Transition Plan, Transport is aiming for all buses in the region to be zero emission buses by 2047.[51]

51 https://www.transport.nsw.gov.au/system/files/media/documents/2022/Zero_Emissions_Bus_Fact_Sheet_June_2022-v2.pdf

These buses are likely to use battery electric or fuel-cell electric technology powered by renewable energy. They would also have added benefits including contributing to better air quality, more comfortable journeys and quieter operation.

Aside from buses, a significant challenge for Transport will be to achieve net zero emissions for other modes such as non-electrified trains. Transport is continuing to partner with industry to run trials and prioritise the rollout of zero emissions technology for these operations.

Net zero transport operations also require net zero energy. The NSW Government is investing in REZs which combine renewable energy infrastructure, storage and transmission infrastructure to deliver cheap, reliable and clean electricity for homes and businesses across NSW.

Opportunities

Transport can reduce our operational emissions in the region by ensuring all buses in the region are zero emission buses by 2047.

5.7.2 Enabled emissions

Enabled emissions refer to greenhouse gas emissions produced through private vehicle use, which make up about 97 per cent of transport sector emissions. This includes source energy generation for electric vehicles (EV) as well as tailpipe emissions from internal combustion engine (ICE) vehicles.

In the region, more dispersed populations and longer distances to regional destinations and services increase the distances travelled and enabled emissions compared to Greater Sydney, outer metropolitan areas and coastal regions where denser population and settlement patterns result in shorter trip distances for many activities. Conversion of the privately owned regional fleet to EVs will significantly reduce the region's operational transport emissions. However, recent modelling by Monash University's Climateworks Centre suggests that, under current EV adoption rates, an additional 30 per cent reduction in vehicle kilometres is required to meet Australia's 2050 net zero targets.[52] This level of travel demand management requires both a reduction in the number and distance of trips and mode shift to more sustainable travel modes.

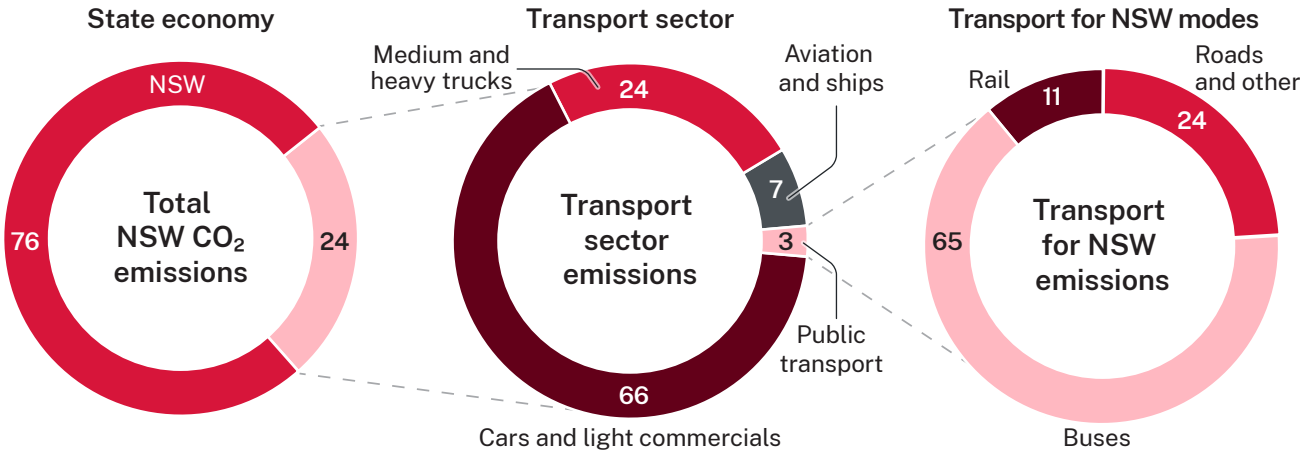
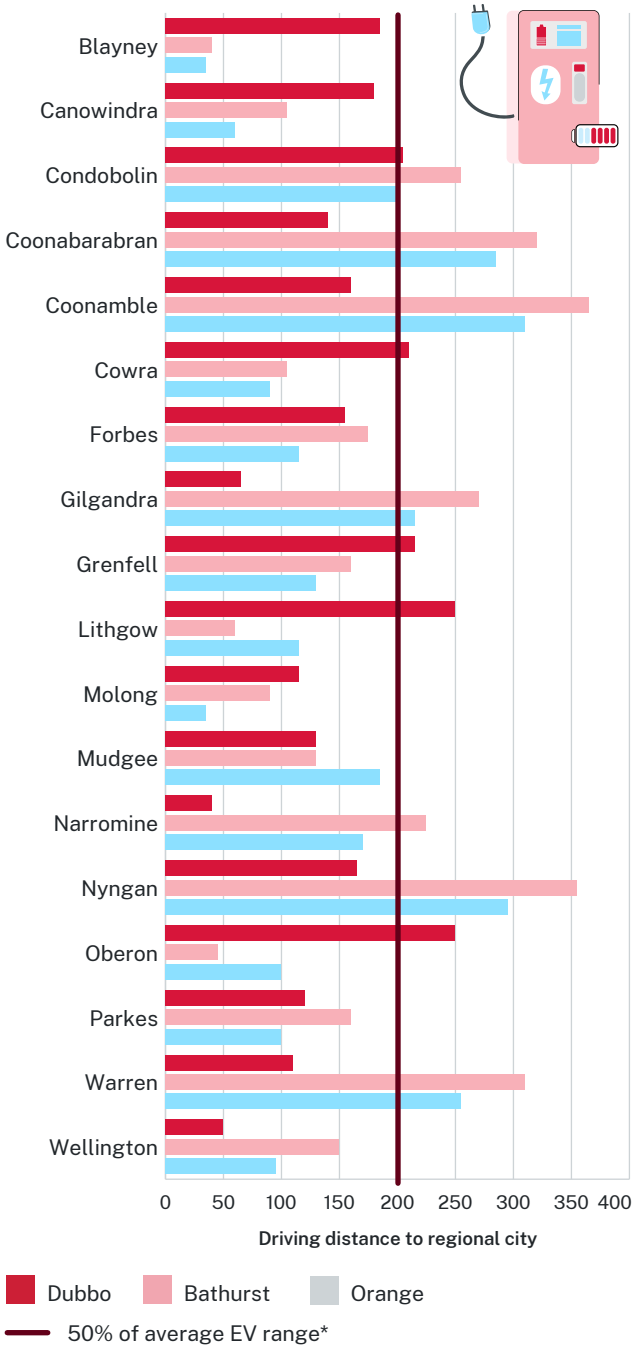


Figure 26. Transport industry emissions, Future Transport Strategy 2022

52 Decarbonising Australia's transport sector: Diverse solutions for a credible emissions reduction plan. Climateworks Centre, 2024

Distance to regional cities compared to electric vehicle range



In October 2023, new EV models provided about 450 kilometres range on a full charge. 50 per cent of average EV range is calculated as 450 km minus 50 km buffer divided by two. Battery technology is continuing to develop rapidly.
Source: https://www.whichcar.com.au/advice/driving-range-of-all-electric-cars, October 2023.

Figure 27. Distance to regional cities from strategic centres and centres compared to electric vehicle range

Short local journeys of under 2.5 kilometres present the greatest opportunity for mode shift to active transport. However, the current availability and attractiveness of active transport infrastructure has not resulted in high rates of active transport use in the region. The increasing availability and uptake of e-bikes and electric micromobility modes have helped to reduce physical barriers to active travel and enable faster and longer journeys.

Patterns of settlement, lower population density and longer distances to regional destinations and services make the provision of cost-effective and competitive public transport services challenging in much of the region. The provision of more customised and flexible on-demand public transport services has delivered significant public transport patronage growth and associated reductions in environmental externalities in some NSW regional centres.

Targeted population growth in the region's population centres will increase demand for both active and public transport, driving down transport-generated greenhouse gas emissions.

There is also an opportunity to support mode shift to public transport for longer journeys to, from and between centres. However, significant improvements to the frequency and speed of longer distance public transport services would be required for them to compete with private vehicles for these trips.

Reduction in emissions for longer journeys will be primarily driven by a gradual adoption of private EV vehicles and of lower and zero emissions heavy vehicles as ICE vehicles reach end of life. Many EV models can travel from a population centre to a regional city without recharging en route.[53] Ongoing improvements to battery technology that increase the range and reduce the upfront cost of EVs will improve their value proposition for people living and doing business in the region.

53 Many EV models offer a range of 450 km or better meaning 200 km is half the 'round-trip' range with a 50 km buffer

Case study: NSW Electric Vehicle Strategy

The NSW Electric Vehicle Strategy outlines the NSW Government's commitments to increasing the uptake of EVs and accelerate the State's vehicle fleet of the future.[54] As a key action under the strategy, the EV fast charging grants program will add about 280 fast and ultra-fast charging stations across NSW. Investment in these fast-charging stations will stimulate the growth of the EV market by ensuring connectivity between metropolitan and regional areas and future-proofing the EV charging network beyond 2030.

Opportunities

Transport can support a reduction in the region's enabled emissions by:

- improving walking and bicycle riding networks that support more walkable, bike-able and environmentally sustainable communities, including by retaining or providing new footpaths, bicycle paths, shared paths, cut-throughs and crossings, retaining or providing new street trees, minimising vehicle crossings that negatively impact footpath safety and amenity, and by improving street lighting
- delivering a more competitive and sustainable public transport network that encourages mode shift away from private vehicle trips and increases public transport patronage in the region
- identifying areas of population centres where 'well-located development' would provide good access to a range of local and regional jobs, health, education, recreational and social destinations and services using existing walking and public transport networks
- increasing the speed, reliability and availability of meaningful day return public transport services to the region's population centres and improving connection between the region and Sydney, Canberra and Newcastle
- support the Commonwealth Government and private charge point providers in the delivery of a strategic regional charging network to support longer distance regional EV trips.

NSW Regional Zero Emission Bus trials

54 NSW Government, NSW Electric Vehicle Strategy, 2021

5.7.3 Embodied emissions

Embodied emissions encompass greenhouse gases associated with manufacturing and maintenance of infrastructure and fleet as well as fuel production and delivery.[55] The contribution of embodied emissions as a percentage of lifecycle emissions will increase as the Transport fleet transitions to EV and other low emissions modes. Shared transport modes like on-demand public transport and aviation generally have lower embodied emissions in fleet and infrastructure compared to private vehicles. This efficiency stems from their ability to serve multiple customers, resulting in more efficient use of infrastructure and resources. Consideration should be given to balancing operational emissions benefits against the cost of embodied energy associated with transitioning to a new zero emissions bus fleet.

A 2047 timeframe for this transition[57] affords the opportunity to maximise fleet asset utility and minimise fleet-related embodied energy costs.

Transport has committed to fossil fuel-free construction and maintenance by 2040 and net zero in Transport's annual embodied emissions by 2045. This includes emissions embedded during the production and transportation of materials, construction, maintenance and at the end of life of an asset. Transport, in partnership with Infrastructure NSW and Infrastructure Australia, is working to streamline and simplify decarbonisation and the circular economy through the Sustainable Infrastructure Program and the 2026 Decarbonising Infrastructure Delivery Program. As part of sustainable decision making, Transport will need to ensure new infrastructure in the region does not present a risk to biodiversity through habitat fragmentation or destruction. Projects will need to optimise air quality, noise and human health impacts in all stages.

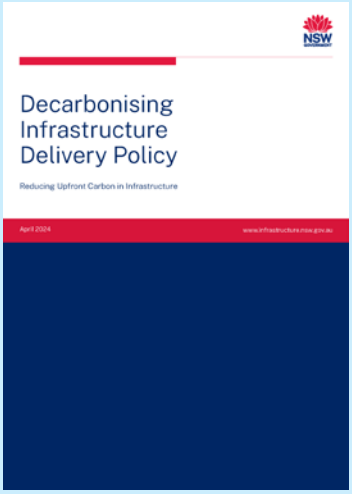
Opportunities

Transport can support a reduction in the region's enabled emissions by:

- implementing circular design principles in all Transport construction, maintenance and operational work
- prioritising investment in sustainable transport modes and projects that minimise air quality, noise and human health impacts.

Decarbonising Infrastructure Delivery Policy

In April 2024, Infrastructure NSW (INSW) released the Decarbonising Infrastructure Delivery Policy, which applies to all NSW Government building projects valued over $50 million and linear infrastructure projects valued over $100 million. It provides guidance to NSW Government infrastructure delivery agencies on expectations for managing upfront carbon in public infrastructure projects, ensuring upfront carbon is a consideration in early project stages. It outlines that agencies must, at a minimum, quantify the impact of carbon in business cases, planning approvals, design, procurement and completion. INSW and Transport have prepared the Decarbonising Infrastructure Delivery Roadmap which sets out initiatives for 2024–2026.



55 Department of Climate Change, Energy, the Environment and Water, Net Zero and Circular Economy Guidelines, 2025

56 https://www.transport.nsw.gov.au/system/files/media/documents/2022/Zero_Emissions_Bus_Fact_Sheet_June_2022-v2.pdf

06 Realising the vision

Initiatives and longer-term outcomes for the Central West and Orana region have been identified to address the challenges of the region and to leverage current and future opportunities.

The initiatives are organised by short-term (0–5 year), medium-term (5–10 year) and statewide. Transport is the lead for all short and medium term initiatives

This chapter presents a range of initiatives Transport will lead in response to the challenges (as described in Chapter 5) that need to be addressed to meet the Plan's objectives and achieve the NSW Government's transport vision for the Central West and Orana region. Some initiatives will require partnership with key stakeholders such as councils and other state agencies. Initiative alignment with objectives and challenges, status and proposed commencement timeframe are as follows.

Note: The initiative number does not reflect the order of priority for the start of the described activity.

Motorcyclists riding through the Mudgee countryside © Destination NSW

Starting with Country	Access to transport for all	Well-located housing and successful places	A thriving and diversifying economy
A safe transport network	Resilient networks	Net zero emissions	

6.1 Short-term initiatives (0–5 year timeframe)

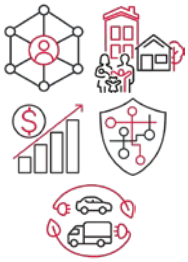
#	LGA	Objective alignment	Action
1	All		Develop local Aboriginal transport and services plans, co-designed in partnership with Aboriginal community-controlled organisations.
2	All		Deliver regional Aboriginal transport data through open source dashboard sharing to spotlight where transport needs to be improved for our Aboriginal communities.
3	All		Identify gaps in local and regionally important trips to health, education and employment destinations and services in population centres, particularly in areas of greenfield development.
4	All		Identify new and improved walking and bicycle riding links that improve connection between residential precincts and local destinations and services in population centres.
5	Orange, Cowra, Narromine, Blayney, Warrumbungle, Gilgandra, Lachlan		Reallocate road space to improve place outcomes and pedestrian and bicycle rider safety and amenity on state roads that have dual place and movement functions, such as main streets in Orange, Cowra, Narromine, Blayney, Coonabarabran, Gilgandra and Condobolin.
6	Bathurst, Dubbo, Cowra, Blayney, Warrumbungle, Lachlan		Investigate potential bypasses for population centres where state roads have dual place and movement functions such as main streets in Bathurst, Dubbo, Cowra, Blayney, Coonabarabran and Condobolin.

#	LGA	Objective alignment	Action
7	Orange		Refine access and signage to ensure the bypass function of the Northern Distributor Road in Orange is used by freight vehicles and traffic.
8	Dubbo, Orange, Bathurst, Lithgow		Investigate a new stabling yard at Orange to facilitate increased rail service frequency linking: Dubbo, Orange, Bathurst, Lithgow, and Sydney.
9	All		Investigate expanding local public transport services for population centres in the region. Examples include Dubbo, Bathurst, Orange, Parkes, Forbes, Lithgow, Mudgee, and Cowra. Solutions may include a range of fixed-route and flexible options.
10	All		Investigate improved day-return connections between centres and villages and their nearest city or strategic centre. These services may connect to, augment or enhance longer distance services, but should be focused on connecting the smaller centres to larger population centres, for example: • Kandos-Rylstone-Mudgee • Gulgong- Mudgee • Millthorpe- Orange • Portland-Wallerawang-Lithgow.
11	All		Investigate expanding longer-distance day-return services between population centres and nearest regional centres especially to Dubbo, Bathurst and Orange. Examples include: • Nyngan–Dubbo via Warren and Narromine • Coonamble-Dubbo via Gilgandra • Coonabarabran–Dubbo • Mudgee-Dubbo • Oberon–Orange via Bathurst • Grenfell–Orange via Cowra and Canowindra • Forbes–Orange • Condobolin–Orange via Parkes and Molong • Mudgee-Lithgow.

#	LGA	Objective alignment	Action
12	Dubbo, Orange, Cowra, Warrumbungle		Investigate expanding longer-distance services to connect to centres outside of Central West & Orana. Examples include: • Dubbo and Newcastle • Orange and Canberra via Cowra • Dubbo and Tamworth via Coonabarabran.
13	All		Deliver the Contactless Ticketing Program for all bus services in the Central West and Orana region.
14	All		Identify Transport land that can support the delivery of well-located housing.
15	Dubbo, Warrumbungle, Mid-Western, Gilgandra, Coonamble		Complete the Regional Network East West (RNEW) Strategy, including the investigation of improvements to the rail network between Dubbo and Newcastle, including: • reviewing the viability of a Maryvale–Gulgong freight rail line versus Merrygoen turn-out wye shunt removal • investigating a Dubbo freight rail by-pass – the Macquarie rail bridge replacement/renewal • undertaking a corridor assessment for the Dubbo–Coonamble rail corridor to identify both freight productivity improvements and maintenance priorities, and to inform future proposed upgrades on the corridor.
16	All		Strengthen access for PBS vehicles on north–south and east–west connections within the region identified in the NSW Heavy Vehicle Access Policy including: • Newell Highway • Castlereagh Highway • Mitchell Highway • Great Western Highway • Golden Highway • Oxley Highway • Mid Western Highway • Lachlan Valley Way • Olympic Highway.

#	LGA	Objective alignment	Action
17	Bogan, Warren, Coonamble, Narromine, Dubbo, Parkes, Forbes, Cabonne, Blayney, Bathurst,		Develop a freight network plan that prioritises road freight access to intermodal terminals such as the Parkes Activation Precinct and increases the use of Inland Rail and ARTC's Hunter Valley Coal Network to get more freight moving on rail, particularly between the region and Newcastle and Brisbane.
18	Parkes		Deliver grade separation of road and rail interfaces between Inland Rail and the Newell Highway at Tichborne between Parkes and Forbes.
19	All		Investigate targeted investment in crash barriers, wide central medians, and audio-tactile line markings on higher speed state and regional roads outside of regional cities, centres and buffer zones.
20	All		Investigate targeted investment in improved junction design, separated bicycle paths, and legible road design on state and regional roads in peri-urban zones around regional cities and population centres.
21	Warrumbungle, Oberon, Mid-Western, Blayney, Cowra, Lithgow, Dubbo, Parkes,		Develop a plan to deliver town entry gateway treatments across the region at key towns such as Coonabarabran, Oberon, Mudgee, Blayney and Cowra, and villages such as Lucknow, Capertee, Geurie, Peak Hill, Tomingley and Alectown.
22	All		Investigate targeted investment in improved crossings and junction build-outs, wide footpaths and separated cycling infrastructure, protected parking bays and legible road design for state and regional roads and streets in cities and population centres to improve safety for road users.
23	Bathurst, Lithgow, Blue Mountains, Cabonne, Orange, Dubbo, Weddin, Forbes, Parkes, Narromine, Gilgandra, Warrumbungle		Develop and deliver improved rest stop opportunities across the region to support the safe and efficient movement of heavy vehicles, including both heavy vehicle rest areas and green reflector sites (informal rest areas). This includes improvements on: • Great Western Highway • Bells Line of Road • Mitchell Highway • Newell Highway.
24	All		Investigate targeted and cost-effective speed management treatments for identified motorcycle crash locations that address the behaviours of recreational motorcyclists.

#	LGA	Objective alignment	Action
25	All		Identify critical fail points on the transport network and investigate options to reduce any resulting vulnerability.
26	All		Work with councils to investigate options to use technology to monitor, assess and document state and regional road network conditions to support more effective maintenance, grant work and natural disaster assistance.
27	Dubbo, Gilgandra, Mid-Western, Narromine, Warrumbungle		Develop alternate route guidance for freight and passenger vehicles that identifies and mitigates the impacts of OSOM movements for the Port to REZ project.
28	All		Develop corridor plans to assess asset condition and proactively plan and seek funding for maintenance and upgrades for the next 20 years for: • Newell Highway • Castlereagh Highway • Mitchell Highway • Great Western Highway • Golden Highway • Oxley Highway • Mid Western Highway • Henry Parkes Way • Jenolan Caves Road • The Escort Way • Lachlan Valley Way • Chifley Road and the Bells Line of Road.
29	Lithgow, Blue Mountains		Investigate providing de-coupling facilities near Blackheath and Wallerawang to reduce the accessibility gap for higher productivity vehicles.
30	Orange, Bathurst		Complete investigations for project development at Shadforth, Pretty Plains, Cashens to Callans Lane and Dunkeld as part of the Mitchell Highway safety upgrade from Bathurst to Orange.
31	Dubbo, Orange, Bathurst		Partner with local government to deliver place-based integrated transport planning solutions for Bathurst, Dubbo and Orange.
32	Dubbo		Investigate options to improve safety at the Newell Highway and Boothenba Road intersection.

#	LGA	Objective alignment	Action
33	Oberon		Work with the Jenolan Caves Trust, National Parks and Wildlife Service and Oberon Council to provide safe and resilient access to the World Heritage Jenolan Caves.
34	Bathurst. Lithgow, Blue Mountains		Work in partnership with federal, State and local government and transport operators to undertake a Sydney to Central West resilience study, leveraging recent investigations, to understand current network vulnerabilities to shock and stresses.
35	Lithgow		Investigate a targeted program of works for the Bells Line of Road based on the recommendations of the Sydney to Central West resilience study to ensure the Bells Line of Road provides a safe alternative during unplanned and planned disruptions on the Great Western Highway.
36	Lithgow		Undertake a trial of a 'Permanent Congestion Management' system, a series of signalised, coordinated traffic control devices to resolve issues caused by vehicles breaking down while queuing on the steep climb up Victoria Pass during peak periods such as holiday and around key events such as the Bathurst 1000.
37	Lithgow		Partner with councils and the NSW Police Force to improve road safety as part of the regional implementation plan, which aims to reduce road trauma by deterring unsafe behaviours across the road network, and support police compliance activities. Include a motorcycle route safety assessment for Chifley Road and the Bells Line of Road as motorcycles are overrepresented in crashes on these roads.
38	Lithgow		Work with Lithgow Council to investigate access opportunities to the Great Western Highway for the Marrangaroo urban release area to support access to housing and employment lands.
39	Lithgow		Support well-located housing and access to health services in Bowenfels by providing safe access for vulnerable road users by: • developing improvements to active transport along and across the Great Western Highway at Lithgow • providing signalisation of the Col Drewe Drive and Great Western Highway intersection for safer access to Lithgow Hospital and surrounding education and residential areas.
40	All		Enable and support the implementation of shared micromobility across the region to improve transport choice and reduce car dependence.

#	LGA	Objective alignment	Action
41	All		Promote Aboriginal language and culture on the NSW State Road network through the delivery of Signposting Country signs.
42	All		Investigate the coach (Trainlink) network for options to improve connections to improved rail services and improve transport choices across the region.

6.2 Medium term initiatives (5-10 year timeframe)

#	LGA	Objective alignment	Action
1	All		Investigate long-term transport solutions to support the ongoing maintenance and management of Central West and Orana REZ infrastructure.
2	Dubbo, Orange, Bathurst, Parkes, Lithgow		Investigate delivering increased daily public transport service frequency between: • Dubbo and Orange • Parkes and Orange • Orange, Bathurst and Lithgow.
3	All		Implement ongoing public transport improvements resulting from investigations undertaken in the 0–5 year timeframe (e.g. initiatives 8–11).
4	Lithgow, Blue Mountains		Investigate capacity and infrastructure enhancements to allow rail service frequency improvements on the Blue Mountains Intercity line across the mountains to Lithgow, including integration with local public and active transport connections.

#	LGA	Objective alignment	Action
5	All		Investigate integrating emerging aviation services into future long distance transport networks including by improving access to airports.
6	All		Investigate a streamlined funding model for councils that emphasises long-term cost-effectiveness of road network maintenance and upgrades.
7	Coonabarabran		Investigate an upgrade of the Newell and Oxley Highway intersection.
8	Narromine, Gilgandra, Warrumbungle		Investigate grade-separated crossings of Inland Rail to complement the Narromine to Narrabri (Stage 2) construction.
9	Bathurst. Lithgow		Work with Bathurst and Lithgow councils to improve network safety and access between future housing release areas and destinations and services in Bathurst and Lithgow.
10	Bathurst. Lithgow		Investigate options to improve safety on the Great Western Highway between Wallerawang and Raglan.

6.3 Statewide initiatives

These are statewide priorities for action that will be of benefit to our customers and communities across the Central West and Orana, but do not currently have specifically identified projects within this region so are included as statewide initiatives that will be delivered over the life of the Plan.

#	Objective alignment	Initiative	Lead	Source
i		Work with industry and the public research sector to support the transition of the NSW bus fleet to 100 per cent zero emission buses by 2040 for Outer Metropolitan regions and by 2047 for Regional NSW.	Transport for NSW	Zero Emission Buses Transition Plan
ii		Deliver on the four priority safety areas of the Maritime Safety Plan to guide the delivery of actions to work towards zero fatalities and serious injuries on NSW waterways by 2056, including reducing conflicts between recreational watercraft and access to ports.	Transport for NSW	Maritime Safety Plan 2056
iii		Real time travel information across the state.	Transport for NSW	Transport Connected Buses Program
iv		Work with industry to increase the number of electric vehicle charging stations within regional areas to reduce the need for the community to purchase long range vehicles.	Transport for NSW EV Industry	Internal Transport investigation
v		Establish an integrated ticketing solution to provide a consistent public transport payment system across the region. This is likely to require a statewide approach for an integrated system.	Transport for NSW	Internal Transport investigation
vi		Implement consistent ways of communicating the status of network disruptions during major events and natural disasters, including real time journey information relating to disruptions.	Transport for NSW	Internal Transport investigation Customer Coordination Centre State Disaster Mitigation Plan 2024–2026 Customer Journey Resilience Plans
vii		Partner with freight companies to support increased uptake of low-emissions freight vehicles.	Transport for NSW Freight Industry	Towards Net Zero Emissions Freight Policy

#	Objective alignment	Initiative	Lead	Source
viii		Support opportunities for Aboriginal organisations to have access, management and use of culturally significant lands and waterways and ensure that transport projects have considered access to cultural sites and lands, for example, provision for cultural burns along transport corridors.	Transport for NSW Councils In consultation with Aboriginal stakeholders and community, Local Aboriginal Land Councils	Internal Transport investigation
ix		Partner with Councils and the NSW Police Force to deliver road safety programs that aim to reduce road trauma by deterring unsafe behaviours across the road network and support police compliance activities.	Transport for NSW Councils NSW Police Force	2026 Road Safety Action Plan – Towards Zero
x		Undertake speed zone reviews and apply safer speed zone settings following the principles and guidance in the NSW Speed Zoning Standard, including for suitable local streets and state road and highway networks, to improve road safety and conditions for walking and cycling on local streets.	Councils Transport for NSW	NSW Speed Zoning Standard Movement and Place Framework
xi		Identify and address safety issues at existing private and public at-grade rail level crossings through improved management of conflict with pedestrian and motor vehicles.	Transport for NSW Rail operators	Internal Transport investigation Stakeholder engagement
xii		Work with Councils and State Agencies to improve the perception and safety of people walking, cycling and using public transport, particularly for women, girls and gender diverse people. This includes lighting and visibility improvements, infrastructure improvements, amenity at bus stops and train stations, and activating places to extend the time people spend in a place across different times of the day.	Councils Transport for NSW Other NSW Government agencies	Transport Safer Cities Survey Report July 2023 Stakeholder engagement

6.4 Longer-term outcomes

Objective	Longer-term outcomes	How we make it happen	Triggers that would change priority
Starting with Country  All investment in the transport network, services, policy and technology takes a Country-centred approach	Planning with Country practices are embedded at every stage of planning, development and delivery to result in Country-centred design.	**Policy** • Deliver regional Aboriginal transport data through open-source dashboard sharing. • Increase the number of Aboriginal businesses on approved prequalified panels and schemes. **Services** • Improve access to education, health, employment and cultural places for Aboriginal communities.	
Access to transport for all  All Central West and Orana residents, workers and visitors will have access to more equitable options for travelling to and from local, regional and metropolitan destinations and services	• Transport disadvantage is reduced across the entire Central West and Orana region and people are able to access their regular destinations with a variety of transport choices for all trips purposes. • Public transport and active transport are seen as safe, reliable and convenient transport options for most journeys within as well as outside the region. • There is a significant long-term reduction in private vehicle dependency. • Improved perceived personal security for transport users.	**Policy** • Use the Road User Space Allocation Policy to prioritise more sustainable travel modes. • Public transport station/stop location activation (passive surveillance/activity). **Services** • Support better bus and coach services connecting to education and health throughout the Central West and Orana region • Ensure services support housing development. • Onboard surveillance and safety. **Infrastructure** • Connected active transport network throughout the Central West and Orana region. • Train station and bus stop lighting	• New schools • New health services • Development of future housing growth areas.

Objective	Longer-term outcomes	How we make it happen	Triggers that would change priority
Well-located housing and successful places  Well-located housing and successful places will be supported by coordinated delivery of transport network infrastructure and services.	An integrated public transport network that achieves a 30-minute city through: • frequent and reliable public transport services to health, education, employment and tourism locations • a connected active transport and micromobility network • first and last-mile freight access.	**Services** • Provide better bus services to support university travel. • Increase bus and rail services across the day and week. • Ensure that vehicle travel is stabilised in the Central West and Orana region and that there is sufficient capacity to support travel demand for all trip purposes. **Road infrastructure** • Make local connections part of development. • Connect critical road corridors. • Monitor network capacity change as a result of growth • Provide local cycleways and footpaths to support short trips sustainably. **Public transport infrastructure** • Provide additional stations. • Introduce bus priority measures. • Upgrade train stations and bus stops, including accessibility, information and corridor crossings.	

Objective	Longer-term outcomes	How we make it happen	Triggers that would change priority
A thriving and diversifying economy  Transport infrastructure and services support local business, the visitor economy and improving the productivity of freight movements to support jobs growth, increased regional productivity, and economic diversification.	• Road and rail freight network efficiency is improved to support and enable economic growth • Safe, productive and sustainable freight is enabled through good planning, which incorporates freight movements in and between places. • Transport networks connect visitors and tourism destinations, including: transport that responds to seasonal demands, services and infrastructure that improve the uptake of public transport.	**Policy** • Support more efficient and safer freight vehicles. • Support the decarbonisation of freight. • Improve freight accessibility (vehicle type and access). • Support agribusiness. • Deliver the Heavy Vehicle Access Policy 2024, enabling high productivity vehicles on critical freight corridors across the Central West and Orana region, ensuring connectivity to points of economic purposes, such as Dubbo and Parkes intermodal terminals. **Infrastructure** • Provide infrastructure that enables the diversifying and growing demand for freight and heavy vehicle rest areas. • Protect land for future freight corridors. • Increase network access for high-productivity vehicles. • Introduce network and structure improvements to support this. **Services** • Bus connections to support tourism workers to workplaces across the Central West and Orana region.	• Repurposing of power plants • Planning advances faster than anticipated

Objective	Longer-term outcomes	How we make it happen	Triggers that would change priority
A safe transport network  Trauma on the Central West and Orana road network will be in decline and heading towards Transport's goal of zero fatalities and serious injuries by 2050	• Safer, more sustainable access to transport networks for safe and productive movement of goods.	**Policy** • Safer vehicles. • Safer drivers. • Lower speed limits in targeted locations. **Infrastructure** • Rail level crossing safety improvements. • Road safety network improvements.	• Changes to crash patterns. • New crash clusters.
Resilient networks  Proactively planning for network shocks and stresses will increase the reliability of the transport network	• Maintaining and improving transport networks in a changing climate. • Continuous improvement of asset management processes. • Journey reliability in response to external events.	**Policy** • Continually review asset management processes. • Review asset problem identification and response procedures. • Provide community information about asset practices. **Infrastructure** • Infrastructure is designed for a changed climate, and more extreme weather and temperatures. • Resilience (alternative routes/paths) is a determinant in prioritising delivery programs.	• Extreme weather events occur more frequently than forecast and require a reprioritisation of response.

Objective	Longer-term outcomes	How we make it happen	Triggers that would change priority
Net Zero emissions  Minimise greenhouse gas emissions and particulate pollution to deliver an environmentally sustainable transport network and healthy natural environments	• Fossil fuel-free Transport construction and maintenance by 2040. • Net zero in Transport's annual embodied emissions by 2045. • Net zero in transport sector emissions by 2050. • Net negative transport sector emissions by 2060. • Achieving net zero emissions will also lead to cleaner, quieter and more liveable neighbourhoods, healthier communities and a more resilient transport system.	**Policy** • Support freight industry's moves to decarbonise. **Infrastructure** • Support EV charging infrastructure delivery. • Support Central-West Orana REZ. • Transition NSW public transport fleet to zero emissions (including zero emission bus fleet roll out). • Transition Transport for NSW vehicle fleet to zero emissions.	Faster uptake of zero emission vehicles: • cars • buses • trucks.

07

Next steps and implementation

7.1 Community engagement and Plan finalisation

The Draft Plan will be presented for public exhibition and feedback. Transport will seek to engage broadly with communities, key stakeholder groups, businesses and transport operators who live, work or travel through the Central West and Orana region. What we hear during this engagement will influence the final Plan. The final list of initiatives will be refined to ensure what is presented in the Plan can be commenced within stated timeframes.

7.2 Plan governance

Transport is responsible for the implementation and ongoing management of the final Plan, with collaborative partnerships established for those initiatives that require support and input from key stakeholders like local government, relevant government agencies, industry and community representatives.

7.3 Progress reporting

The final Plan will be reviewed and updated every five years as the region changes, technology evolves, legislation adjusts and new opportunities emerge. Transport will provide status updates on the initiatives every 12 months.

7.4 Funding and delivery

The Draft Plan includes 60 draft initiatives. Most initiatives require further investigation to determine their progress to development and delivery. Key projects already in progress are discussed in section 4.4.

Hiking, Mount Arthur Reserve © Destination NSW

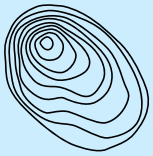
08 Appendix

Objectives and outcomes

The following tables include detail on the objectives for the Draft Central West and Orana Strategic Regional Integrated Transport Plan that address the characteristics of the region and define how the vision will be realised across the region.

The outcomes define what will be achieved if the objectives are met, and the indicators define the metric for assessing success and prioritising initiatives and actions.

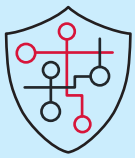
Open Streets, Bathurst Regional Council, Dhuluny Market Concert

Objective	Outcomes	Measuring success
Starting with Country  All investments in the transport network, services, policy and technology take a Country-centred approach	Aboriginal economic independence supported by Transport: • increase opportunities for Aboriginal community-controlled organisations ownership, access, management and use of land and waterways • increase the number of Aboriginal businesses on approved prequalified panels and schemes, delivering greater employment and business opportunities in communities to build a sustainable future • achieve greater Aboriginal driver licence independence and support. Aboriginal people are connected safely to the economy and socially, through transport solutions: • address Aboriginal road trauma incidents occurring on NSW roads and achieve safer transport outcomes for Aboriginal communities • address both physical safety and psychosocial incidents occurring on public transport services, so Aboriginal people feel safe and inclusive when travelling. Transport drives transformative action to deliver systemic change: • deliver regional Aboriginal transport data, to spotlight where Transport needs to be improved for our Aboriginal communities • embed cultural awareness and inclusiveness training programs across our transport industry partners, in delivering lasting cultural change. Our community and Country are healthy and strong, through transport planning and place making: • Aboriginal outcomes are embedded within each SRITP, supported by flexible transport solutions that prioritise improved access to education, health, employment, and cultural places for Aboriginal communities • embedding Aboriginal place making activities including cultural landscapes management, asset access parity, and all-encompassing transport asset Aboriginal branding that supports story telling across Transport projects.	↗ Engagement and partnership with Aboriginal community-controlled organisations and land councils ↗ Aboriginal employment and Aboriginal businesses on approval prequalification panels and schemes ↗ Aboriginal outcomes embedded into project initiatives as part of project scope and assessment ↗ Number of Aboriginal placemaking activities ↘ Aboriginal road trauma incidents ↗ Transport accessibility for Aboriginal communities, particularly to employment, health and education facilities ↗ Data sharing with Aboriginal communities ↗ Inclusiveness training participation for Transport staff and industry partners ↗ Aboriginal community's sense of cultural identification and representation, inclusion and safety on the transport network

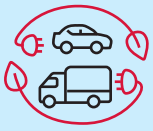
Objective	Outcomes	Measuring success
Access to transport for all  All Central West and Orana residents, workers and visitors will have access to more equitable options for travelling to and from local, regional, and metropolitan destinations and services	Transport disadvantage is reduced across the entire Central West and Orana region and all people can seamlessly access their regular destinations with a variety of transport choices. Private vehicle dependency in the region is reduced. The transport system meets the needs of the region as it grows and changes. For example, it better meets the needs of an ageing population. Public transport is seen as a frequent, fast and reliable choice for most journeys, including travel within, to and from the region. Services are more frequent and more reliable. Active transport infrastructure such as footpaths, shared paths and bicycle paths support the people of the Central West and Orana to walk and ride safely and comfortably. Customer personal safety is improved on board public transport services.	↗ Public transport usage ↗ Public transport infrastructure and service growth, particularly in areas with population growth ↗ Frequency of services and services running during off-peak, weekend and night-time ↗ Speed and reliability of public transport ↘ Number of people with low PTAL scores throughout the day ↗ Public and active transport investment in disadvantaged areas ↗ Public transport service to population centres ↗ Active transport usage ↗ Number of students using active transport to school ↗ Length of separated bicycle paths ↗ Shared paths and footpaths connecting residential areas and key attractors such as local centres, bus stops and public transport stops ↗ Perceived safety on public transport services ↗ Public transport stops or stations with adequate lighting, wayfinding, and surveillance ↘ Personal safety and crime incidents on public transport

Objective	Outcomes	Measuring success
Well-located housing and successful places  Well-located housing and successful places will be supported by coordinated delivery of active transport networks infrastructure and public transport services	Housing land and employment land in established areas are serviced by sustainable transport options including public transport, cycling and walking infrastructure with a resultant reduction in private vehicle use. Early provision of public transport and improvement to road network infrastructure increases transport access to housing and employment land in regionally significant growth areas. Walking and cycling infrastructure is available from day one. Main streets which serve multiple purposes and have conflicts between movement and place are enhanced and more vibrant.	↗ Number of people with improved walking and cycling connections to urban centres ↗ Number of people with 15-minute access to local destinations and services – Traffic volumes in population centres (stabilise) ↗ Vibrancy of population centres, public transport and main streets ↗ Public and active transport usage

Objective	Outcomes	Measuring success
A thriving and diversifying economy  Transport infrastructure and services support local business, the visitor economy and improving the productivity of freight movements to support jobs growth, increased regional productivity, and economic diversification	The transport network supports connectivity to international, national and state gateways. Transport monitors and plans for the continuing growth in heavy and commercial vehicle movements required to support economic activity. Freight attractors and precincts have access to a competitive and efficient transport network. Freight corridors are protected and preserved for dedicated freight movements. Transport identifies existing non-compliant heavy vehicle rest stops, areas required for heavy vehicles, including OSOM and higher productivity vehicles, to ensure adequate safe breaks as well as pinch points or constraints on the network for freight accessibility. Heavy vehicle operators are satisfied with the network and rest stops that are available. There is adequate capacity for all freight, including high capacity and OSOM vehicles, to traverse the network safely, efficiently and stop along their journey. Local jobs can be accessed via a variety of transport modes from across the region, particularly for employment precincts such as CBDs, hospitals, shopping centres and industrial areas. Transport supports the visitor economy with improved public and active transport connections for visitors and workers.	↗ Capacity for key freight road and rail corridors across the Central West and Orana region ↗ Length of state road available to Performance Based Standard (PBS) 2B vehicles ↗ Speed, reliability and frequency of public transport to Sydney and Newcastle ↗ Vibrancy and economic activity on main streets ↗ Heavy vehicle rest stops are sufficient to meet requirements ↗ Public and active transport access to employment lands and population centres ↗ Public and active transport journey to work mode share ↗ Multimodal access, including active and public transport, for travel to major events and tourist destinations

Objective	Outcomes	Measuring success
Safe transport network  Trauma on the Central West and Orana road network will be in decline and heading towards Transport's goal of zero fatalities and serious injuries by 2050	Existing high risk crash locations are treated. Consistent safety treatments are rolled out across the road network. Safer speeds on local and low-volume rural roads are set. People drive observing the speed limit on all roads. The risk posed by the increasing number of heavy vehicles, particularly in urban areas, is managed and mitigated while intersections are made safer for all road users. These changes result in a 50% reduction in fatalities and a 30% reduction in serious injuries by 2030. Zero road trauma is achieved on the road network by 2050.	↘ Number of people killed and seriously injured in crashes in the region ↘ Number of people killed and seriously injured in crashes involving vulnerable road users across the region ↗ AusRAP star rating on state roads

Objective	Outcomes	Measuring success
Resilient networks  Proactively planning for network shocks and stresses will increase the reliability of the transport network	Time and cost exposure to shocks and stresses are identified on critical areas of the network. Vulnerability of the network is identified, and risk assessed. Transport identifies appropriate treatment on critical areas of the network. Transport network users know how to plan for shocks and stresses. Ageing infrastructure is managed and maintained to ensure reliable travel and access.	↘ Likelihood and duration of road and rail network closures and disruptions due to flood events ↘ Likelihood and duration of road and rail network closures and disruptions due to bushfire events ↗ Real-time journey information is available and accessible ↗ Reliability of rail freight ↗ Reliability of passenger rail services ↘ Number of public transport service disruptions

Objective	Outcomes	Measuring success
Net zero emissions  Minimise greenhouse gas emissions and particulate pollution to deliver an environmentally sustainable transport network and healthy natural environments	There is alignment with the NSW Government Climate Change (Net Zero Future) Act[57] including: • fossil fuel-free Transport construction and maintenance by 2040 • net zero in Transport's annual embodied emissions by 2045 • net zero in transport sector emissions by 2050 • net negative transport sector emissions by 2060 • consideration of climate change risk in all our key, relevant decisions. Specifically for the Central West and Orana, there is: • a reduction in transport sector emissions through increased uptake of low emissions travel modes – walking, cycling, e-bikes, shared and on-demand – on direct, continuous, well-lit networks • increasing use of sustainable fuels such as battery electric, biofuels and hydrogen by freight • rapid electrification of the NSW regional private vehicle fleet with supporting infrastructure, such as the strategic regional EV charging network • a reduction in emissions from Transport operations through zero emission buses rollout.	↗ Number of zero emission buses serving the region ↗ Public and active transport usage ↗ Percentage of government fleet as EVs ↗ Projects demonstrating carbon was a factor in options assessment ↗ Emissions reduction per tonne kilometre per modes ↗ Zero and low emission freight kilometres ↗ Availability of EV charging infrastructure for public usage ↗ Availability of EV charging infrastructure for freight

57 NSW Government, 2023, Climate Change (Net Zero Future) Act

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