

Draft Hunter

Strategic Regional Integrated Transport Plan



Acknowledgement of Country

Transport for NSW (Transport) acknowledges the traditional custodians of the lands of the First Nations people of the Newcastle area, the Awabakal people.

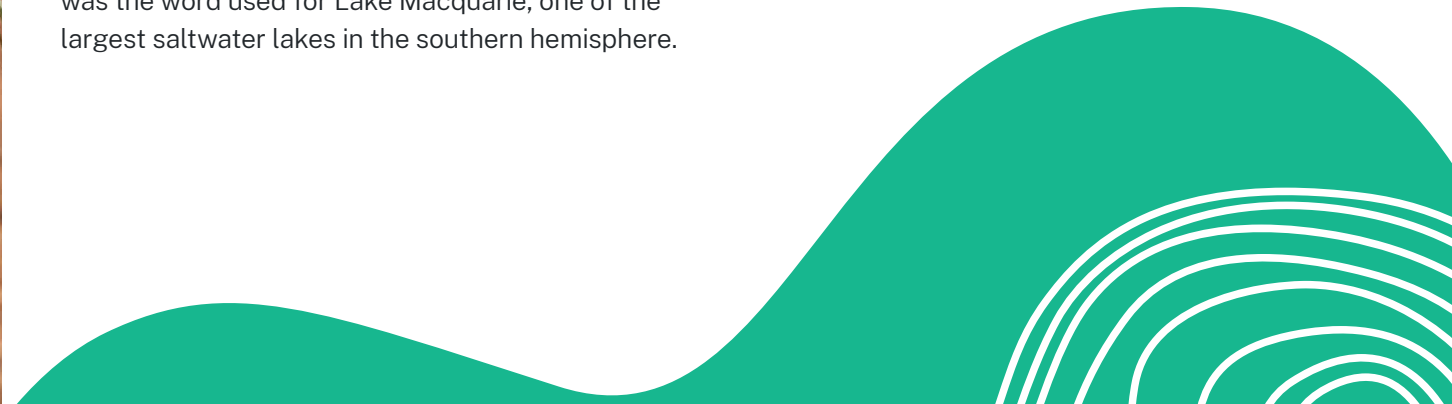
Transport acknowledges the continuous deep relationship and connections by our First Nations people to their land, language, song, dance, art and stories spanning tens of thousands of years and pays respect to the cultural values of the local Awabakal community and their families. Transport pays respect to the ancestors that defended, walked and managed these lands for many generations before us and who have left a legacy of strong cultural wisdom and knowledge embedded within Awabakal Country. Transport acknowledges Newcastle being the capital and creative hub of the Hunter Region Awabakal Country.

The traditional Awabakal people were a group of First Nations people, located along the coastal area of the hunter and Lake Macquarie regions of New South Wales. In the Awabakal language, Awaba was the word used for Lake Macquarie, one of the largest saltwater lakes in the southern hemisphere.

The Awabakal were bounded to the north-west by the Wonnarua, the Worimi and Guringai to the north-east and the Darkinjung people to the south. Awaba is now the name of a small town in the region. Awabakal country extends from the Hunter River to the north, the Pacific Ocean in the east, Wollombi to the west and Awaba/Lake Macquarie to the south, the largest saltwater lake systems in the east coast.

Left: Gum leaves in hand of Aboriginal boy performing dance
© Clare Seibel-Barnes, used under license from Austockphoto

Cover: Family using the light rail to explore Newcastle
© Destination NSW



Minister's foreword



I am pleased to present the Draft Hunter 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 Hunter.

The Hunter is a region of significant growth and change and as a social determinant of health, education, opportunity and jobs, transport is fundamental to meeting the demands of this growth, while maintaining social inclusion and community resilience.

Creating a transport system that works for all our citizens is a core pillar for the Government – and that starts with looking after our most vulnerable and isolated communities. 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 is a blueprint for this change. Focused on short to medium term deliverables, while maintaining an eye on a long-term vision for the Hunter, this Plan is outcome focused, designed to acknowledge the diversity of communities across the Hunter and effectively address changing transport needs.

As the Hunter population grows Transport for NSW will support the delivery of well-located homes. The Government's plan to help housing happen will unlock more than 30,000 new homes for Newcastle and the Lower Hunter over the next five years as Transport works hand in glove with the Department of Planning, Housing and Infrastructure to deliver more homes for more Hunter families and the future land uses in the Hunter Region Plan 2041.

We will support sustainable growth and housing by expanding public transport options that align with population increases and enhance multimodal connections to mass transit, particularly by improving access for pedestrians and cyclists. This approach will improve transport choices, fostering a vibrant and liveable Hunter region.

Essential workers are an enormous part of our local work force with, for example, 17 per cent working within healthcare growing to 20 per cent over the life of the plan. Connecting these workers and communities to the essential services they

perform through viable transport choices will support access to these essential services. Improved transport services linking tourism employees and visitors to major destinations is not just good for our people, but good for our economy, particularly as we go through a once-in-a-generation economic shift with the Electricity Infrastructure Roadmap and the work to support renewable energy zones.

The development of renewable energy zones (REZ) are playing a vital role in the transformation of the Hunter economy. Significant freight and oversize overmass (OSOM) movements from the Port of Newcastle across the Hunter and out to the Central West and Orana REZ as well as the development of the Hunter and Central Coast REZ require new and innovative approaches to how we safely and sustainably manage these movements on many of our state roads.

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 that meeting this commitment present. Every death on our road is one too many. Every person who dies on our road network matter. They are loved ones, friends, neighbours, or colleagues to someone. For those left behind the grief, trauma and loss lasts a lifetime, that's why our goal is 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 local councils to identify locations of 'crash clusters' and improve safety infrastructure and behaviour in these locations, many of which occur on our regional and remote roads across the Hunter.

Our regional and remote roads will also continue to benefit from our focus on resilience. The Hunter region has experienced more than its fair share of climate-related disasters. Flooding and fires have ravaged the region in recent years, with the instances of natural disasters only expected to increase.

We need to build more resilience into our existing network and plan for future shocks and stresses to minimise their impact on our transport network and services. The Government's Betterment programs are delivering vital investment in key areas so that workers, students, tourists, freight operators and other residents can go about their business, get to education and medical appointments with less inconvenience and disruption during disasters.

The adage '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 Hunter and understand the complex challenges the region faces. Talking with local communities, councils, business owners and community groups, I heard about the lack of travel options for regional and remote communities; the role transport can play to unlock housing in the Hunter; the reliance young people have on private vehicles to get to their jobs or education; and the need for a better transport system that supports our essential workers. The case for change is clear and there is much we need to do.

As the Hunter region goes through significant growth 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.

This Draft Plan has been developed using an innovative model of deep consultation with our community and encouraging people to share their ideas, hopes, and aspirations for better connections to build a better community in the Hunter. It is only by hearing the lived experiences of our community in accessing education, medical care and harnessing work and business opportunities that we can ensure our transport network is responsive to your needs. I urge you to continue the conversation about how we can work together to improve our transport network in the region.

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



To the reader of this Draft Plan

The 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 outline a targeted program of initiatives for each region's unique needs.

The Draft Hunter Strategic Regional Integrated Transport Plan (Draft Plan) replaces the previous Draft Hunter Regional Transport Plan and various Place Plans with a greater focus on outcomes, aligning closely with the government's priorities.

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

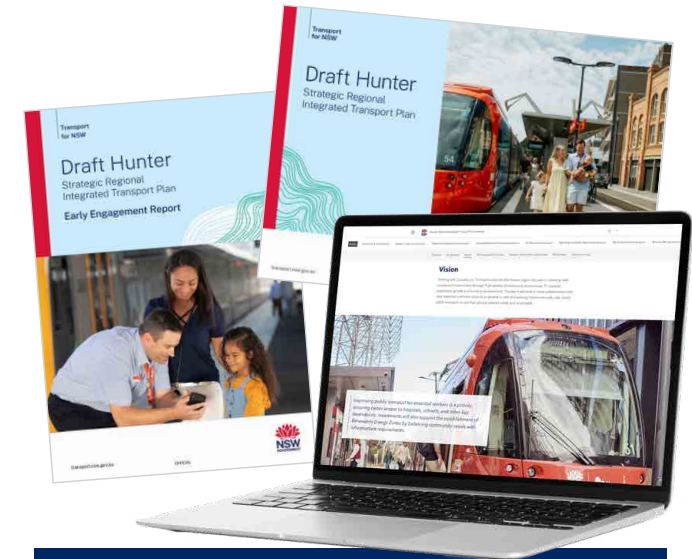
In developing the Draft Plan there has been a focus on ensuring we have identified challenges, opportunities and draft initiatives – directly informed by insights and evidence gathered from data and stakeholder engagement, ensuring a clear connection between feedback, analysis and action.

This Draft Plan has been built on previous work completed including the Draft Hunter Regional Transport Plan, 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 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 the draft initiatives within this Draft Plan.

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

What you can access to inform your feedback and submissions on the Draft Plan:

- the Draft Plan
- the Early Engagement Report
- the 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 have been used to understand current and future transport requirements.

Share your feedback via our [Have Your Say portal](#). Here you will be able to fill out a survey, upload a submission or drop a pin on our interactive map. We look forward to hearing your thoughts.

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Entire Newcastle city CBD in wide aerial panorama from Pacific ocean facing Hunter Valley and city beaches © Taras Vyshnya/Shutterstock.com



Executive summary

The future of the Hunter region is a story of significant growth and change. The population will increase across all age bands, requiring growth in all types of housing; freight movements will grow both within and through the region, including the Port precinct; and the nature and location of jobs will evolve as the economy shifts away from the dominance of mining.

The Draft Plan responds to the NSW Government priorities and is the Transport response to the Department of Planning, Housing and Infrastructure's [Hunter Regional Plan 2041](#).

This plan identifies achievable actions that will optimise the transport network and improve transport options for Hunter's 950,000 residents and 480,000 workers in 2041. This will support growth and enable the Hunter region to transition into an even more productive and vital economy, driven by health, education, tourism and logistics.

The future of transport in the Hunter

The existing transport infrastructure network, including road and rail, will be reimagined to support improved roads and public transport connections between homes and jobs, education, health care services and entertainment precincts.

New growth areas will be served with safe roads and public transport from day one. The NSW Government is pursuing the opportunity to increase housing density around train stations, particularly those identified as Transport Oriented Development (TOD) priorities along the Main North line and the option to pursue it on the Hunter Line. Between formal TOD precincts and other 'well-located housing' reform, the Department of Planning, Housing and Infrastructure forecast approximately 30,310 new homes for Newcastle and the Lower Hunter under the five-year National housing target with housing growth to continue in the longer term

This Draft Plan further recommends supporting growth with more public transport options, with services matching population growth, and better multimodal connections to mass transit, particularly station connections for pedestrians and cyclists. This will help reduce reliance on private vehicles and provide greater transport options that support a thriving liveable region.





Our transport vision for the Hunter region is one where all communities are well connected via high quality infrastructure and services to allow people to walk, ride, catch public transport or use their private vehicle safely. This includes better serving smaller communities with ageing populations with more services to more places across the day and week.

Greater Newcastle strategic destinations, including the Port of Newcastle, Newcastle Airport and the University of Newcastle will be key considerations for future investment in transport projects to ensure these sites are suitably serviced, connected across the Hunter and adaptable as the uses of these destinations diversify and grow.

Safe and efficient freight movements at the international, national and local level will be improved through delivery of key projects including the M1 Pacific Motorway extension to Raymond Terrace and Lower Hunter Freight Corridor, alongside continued improvements to the New England and Golden Highways, particularly to support the energy transition.

As the economy continues to thrive and diversify, the transport network, services and policies will focus on connecting essential workers and communities to key services, tourism workers and tourists to tourism destinations such as beaches in the MidCoast, Port Stephens and Newcastle local government areas as well as the Hunter Valley.

The resilience of the network will be increased to better prepare for and withstand natural events that disrupt services and operations and be constructed in a way that provides value for money to regional NSW.

The transport system will recognise diverse places and contribute to liveable communities, maximising the potential for infrastructure to move people and goods for a sustainable future.

Challenges and opportunities

This Draft Plan identifies, qualifies and proposes responses to the key challenges that have been prioritised as a result of engagement and analysis. These challenges are listed below.

- The population across the region is increasing along with road congestion and lower travel speeds across key parts of the network. Bus service kilometres are not matched to population growth.
- Active and public transport usage remains low as people continue to prefer the flexibility of the private vehicle.
- Vehicular crashes are on the rise with a significant increase in people killed or seriously injured in 2022. Speeding is over-represented for the Hunter with 49 per cent of fatal crashes involving speed.
- Away from the main centres, public transport services are infrequent and limited, particularly on weekends and public holidays.
- Young people in the Hunter rely on private vehicle travel to access jobs, education and services. This is because high housing costs are resulting in them living further away from jobs and the University and public transport is not competitive or frequent.
- Passenger trains share the rail line with freight services during off-peak periods, impacting the ability to deliver additional services.
- More frequent and severe weather events impact the operation of the transport networks.



Passengers getting on bus at Newcastle Interchange

- New homes are being developed in locations of flood risk which may make enabling infrastructure more costly and more difficult to deliver.
- The delivery of homes is slower because of the 'missing middle' or need for improved major road investment to support regional growth and facilitate development.
- The Hunter is home to the largest collection of heritage listed timber truss bridges in the state which require continued, expensive maintenance.
- Workers and visitors travelling to tourism-related businesses, including to and from Newcastle Airport, have limited transport options, especially during off-peak hours.

There are also significant opportunities that the transport network is working to enable, as listed below.

- More homes served by public and active transport.
- The establishment of Renewable Energy Zones (REZ) and the transition away from a coal-based economy and the opportunities this presents for the reuse of land and existing networks.
- The growing tourism sector and how this can be supported by public transport.
- Supporting the growing demand for health and education trips with better public transport on the existing network.
- The Australian Government's plans for a High Speed Rail network.

Key directions

In summary, the key directions for the Draft Hunter Strategic Regional Integrated Transport Plan that will realise the vision and meet the objectives are shown below.

1. A transport network that supports the delivery of well-located homes

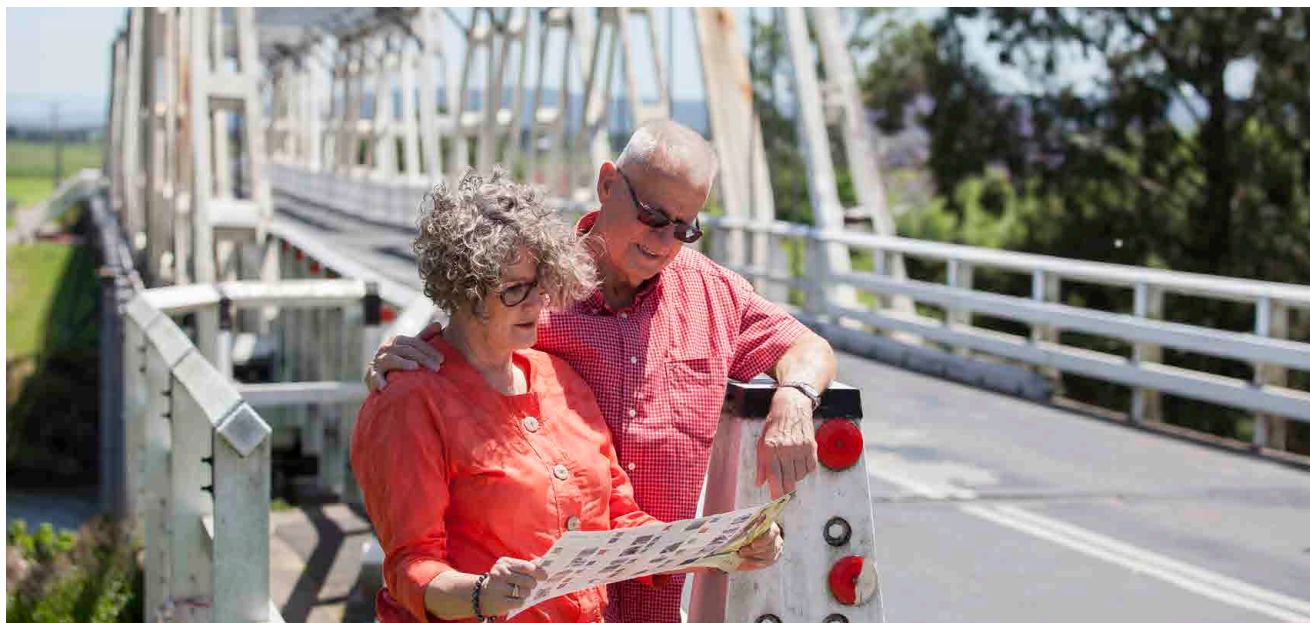
- a. Regionally significant growth areas:
 - roads to open doors
 - buses across the day and week to key destinations
 - transform the Hunter Line with more services, more stations and more locals.
- b. Transport Oriented Development:
 - Broadmeadow place strategy with public and active transport
 - improve Morisset Station
 - monitor and increase rail service capacity
 - local active connections.

2. Support the Electricity Infrastructure Roadmap

- a. Renewable energy zones – corridor planning for Oversize Overmass movements from Port to REZ.

3. Connecting essential workers and communities to essential services

- a. Health care and social assistance industry workers need real travel choices across the day and week
- b. Better active and public transport connections to schools, TAFE and the University.



Couple planning their route along the Morpeth Heritage Trail, Morpeth © Destination NSW

4. Tourism industry and the airport

- a. Bus services for tourism industry workers and tourists to:
 - cellar doors
 - airports
 - shopping centres
 - beaches.
- b. Airport connections:
 - public transport to more centres
 - road access
- c. Shiraz to Shore rail trail.

5. Local Aboriginal transport and service planning with communities

6. Nationally significant transport routes and local communities

- a. Access and interchanges – M1 Pacific Motorway, M15 Hunter Expressway
- b. Lower Hunter Freight Corridor
- c. Leverage the High Speed Rail Authority's future investment programs to deliver for the communities in the Hunter.

7. A safer transport system that is more resilient to shocks and stresses

- a. Safety improvements at Pacific Highway intersections
- b. Replace ageing timber bridges
- c. Addressing crash clusters.

Future investment

In terms of future investments for the Hunter region, the Draft Plan identifies a range of draft initiatives to meet our objectives and realise the vision.

Selected draft initiatives have been listed below against key growth areas or precincts within the Hunter region.

In the Newcastle and Lake Macquarie metropolitan areas, the following transport draft initiatives are seen as key drivers of housing growth and facilitating the renewable energy outcomes:

- commencing upgrades to the Newcastle Link Road and Minmi Road intersection to facilitate housing growth in and around Minmi and Cameron Park
- upgrades to Industrial Drive and Hexham Straight to facilitate the movement of materials associated with REZ in the New England and Central West Orana regions
- upgrades to Speers Point roundabout to address safety and congestion in the North West Lake Macquarie area.

In the Lower Hunter the following transport draft initiatives are seen as key drivers of housing growth:

- developing a solution for a westbound flyover at the Cessnock Road and New England Highway roundabout in Maitland
- developing a solution for upgrades to the Thornton Bridge, including potential upgrades along Thornton Road to address congestion and access to the Thornton rail station

Identifying a suite of multimodal infrastructure upgrades in collaboration with Councils to support the Anambah to Branxton regionally significant growth area.

- upgrades to Lochinvar rail station to facilitate increased passenger services and provide appropriate travel choice to the surrounding residential growth areas in Lochinvar.

In the Upper Hunter the following transport draft initiatives have been identified to facilitate freight movements as well as increased tourism around the Hunter Vineyards:

- implementing incremental safety and efficiency works to the New England Highway between Belford and Muswellbrook
- partnering with councils in delivering parts of the Shiraz to Shore rail trail, facilitating cycle tourism around the Hunter Vineyards, and connecting strategic cycle routes to the coast.

In the MidCoast and Dungog area, the following transport draft initiatives have been identified to address safety, facilitate housing growth and provide greater travel choice:

- implement safety upgrades to the Lakes Way and Failford Road intersection
- develop a preferred option and timeframe for the upgrade of the Forster-Tuncurry Bridge to address maintenance issues and facilitate housing growth
- implement bus and coach service improvements to better connect regional communities to key health and employment hubs and Newcastle Airport.

Field worker undertaking environmental inspections of protected habitat on Raymond Terrace construction site



Definitions

Term	Definition
Aboriginal Community-Controlled Organisations	<p>Aboriginal and Torres Strait Islander community control is an act of self-determination. Under the National Agreement on Closing the Gap 2020, an Aboriginal and/or Torres Strait Islander Community-Controlled Organisation delivers services, including land and resource management, that builds the strength and empowerment of Aboriginal and Torres Strait Islander communities and people and is:</p> <ol style="list-style-type: none"> incorporated under relevant legislation and not-for-profit controlled and operated by Aboriginal and/or Torres Strait Islander people connected to the community, or communities, in which they deliver the services governed by a majority Aboriginal and/or Torres Strait Islander governing body.
Active transport	Transport that requires individual physical effort to provide mobility. For personal travel, this includes walking, use of a wheelchair or mobility aid, cycling using a bicycle (without power assistance) and power-assisted micromobility. Active forms of transport for freight delivery include both pedal-powered and electric-power-assisted cargo bikes.
CALD	Culturally and linguistically diverse.
Department of Planning, Housing and Infrastructure (DPHI) region	Geographic administration for the Department of Planning, Housing and Infrastructure regions which comprises the Central Coast, Central West and Orana, Hunter, South East and Tablelands, Far West, Illawarra Shoalhaven, New England North West, North Coast, Riverina Murray. For more information go to DPHI's Regional plans .
Discrete Aboriginal community (DAC)	A discrete community is a geographic location which is inhabited by Aboriginal or Torres Strait Islander peoples, with housing or infrastructure (power, water, sewerage) that is managed on a community basis. Services such as schools, health clinics, shops and council depots are usually present.
EV	Electric vehicle.
Employment land	Land that is zoned for industrial or similar purposes in planning instruments. These uses include manufacturing; transport and warehousing; service and repair trades and industries; integrated enterprises with a mix of administration, production, warehousing, research and development and urban services and utilities.
EnergyCo	Energy Corporation of NSW is a State Government agency developed to oversee the development and implementation of renewable energy zones.
Freight	Goods or cargo transported by heavy vehicles, light commercial vehicles (e.g. vans and utes), cycle couriers, rail, aircraft, or ship.

Term	Definition
Hunter Valley Coal Network (HVCN)	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.
Higher productivity vehicles (HPV)	Higher productivity vehicles are truck and trailer combinations that provide the ability to move freight more efficiently.
LALC	Local Aboriginal Land Council.
Public transport accessibility level (PTAL)	A metric to measure the frequency and reliability of public transport services.
LGA	Local government area.
Local strategic planning statement (LSPS)	A statement prepared by councils which sets out the planning priorities which meet their community's needs and deliver key state and regional planning objectives. The council's LSPS sets out a 20-year vision for land use in the local area, the shared community values to be maintained and enhanced, how future growth and change will be managed and the special characteristics which contribute to local identity.
Oversize and/or overmass (OSOM)	An oversize and/or overmass vehicle is a heavy vehicle that is carrying or specifically designed to carry a large indivisible item.
Renewable energy zones (REZ)	Renewable energy zones (REZ) are the equivalent of modern-day power stations. They combine new renewable energy infrastructure, including generators (such as solar and wind farms); storage (such as batteries and pumped hydro); and high-voltage transmission infrastructure.
Regionally significant growth area (RSGA)	Identified in the Hunter Regional Plan 2041 as areas that will enable the vision for the regional plan to be delivered through investment in key places and areas of growth. These regionally significant areas or places require a collaborative approach to deliver residential, employment or other land use change.
Road user movement (RUM)	The road user movement code describing the first impact for a road crash.
Strategic centre	Strategic centres (regional) are centres with significant commercial components and range of higher-order services.
Strategic Regional Integrated Transport Plan (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.
Transport	Transport for NSW.
Transport Connected Bus (TCB)	A bus that includes vehicle tracking and automatic passenger counting technology.
Transport Oriented Development (TOD)	Transport Oriented Development is a NSW Government program to encourage sustainable and mixed-used development around existing rail stations.
Zero Emission Bus (ZEB)	A bus powered by energy from renewable sources and which does not release carbon emissions or pollutants into the air.

01 Starting with Country and Closing the Gap

The Hunter region includes the Country of the Awabakal, Birpai, Darkinjung, Geawegal, Gomeroi, Guringai, Wiradjuri, Worimi and Wonnarua peoples. As the traditional custodians of these lands, these groups of people each have distinctive laws and customs and responsibilities to care and speak for Country.

The region is rich in diversity, with an abundance of flora and fauna and pristine land. The traditional custodians of these lands played a significant part in shaping the environment of their region. There is still evidence in the landscape today of the many various forms of cultural practices which assisted in hunting, gathering and to navigate throughout Country. There are many significant cultural landscapes and important spiritual areas within the Hunter region.

The Hunter region is part of a major migration route for Aboriginal people travelling from the north to south and west to east. They are also part of ancient Songlines of epic mythological events that connect right across Australia. These travelling routes contain many layers of stories, they are physical they are spoken and sung while travelling along these Songlines.

From Mooney Mooney to Watagans to Mount Sugarloaf to Newcastle Foreshore down to Glenrock State Conservation area and Lake Macquarie, Mount Yengo to Wollombi to Milbrodale to Mount Wingen to Barrington Tops, Middle Brother Mountain and many more; these are just an example of some of the most significant spiritual areas for First Nations people, as they hold important cultural living values in terms of creation, ritual and ceremonial lore still practised today.

Gum leaves for Aboriginal smoking ceremony

Transport acknowledges that many of the transport routes we use today were influenced by First Nations' pathways from rail lines to roads, to water crossings that follow the traditional Songlines, trade routes and ceremonial paths in Country that our First Nations people followed for tens of thousands of years. The Pacific Highway, New England Highway and Golden Highway all follow ancient Songlines.

Transport champions the NSW Government Ochre Initiative and the Connecting with Country approach to give effect to statutory objectives that require Aboriginal culture and heritage to be sustainably managed in the built environment. Using comprehensive and respectful approaches, planning for the Hunter region can build capacity and pathways for knowledge sharing between Aboriginal and non-Aboriginal communities.

The Draft Hunter Strategic Regional Integrated Transport Plan (the Draft Plan) provides a shared vision for how the transport network, infrastructure and services will be managed and developed over time to realise community aspirations. Aboriginal people maintain a strong belief that if we care for Country, it will care for us. This requires Country to be cared for throughout the process of design and development.

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, they achieve better life outcomes.

The five key reform areas are following.

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

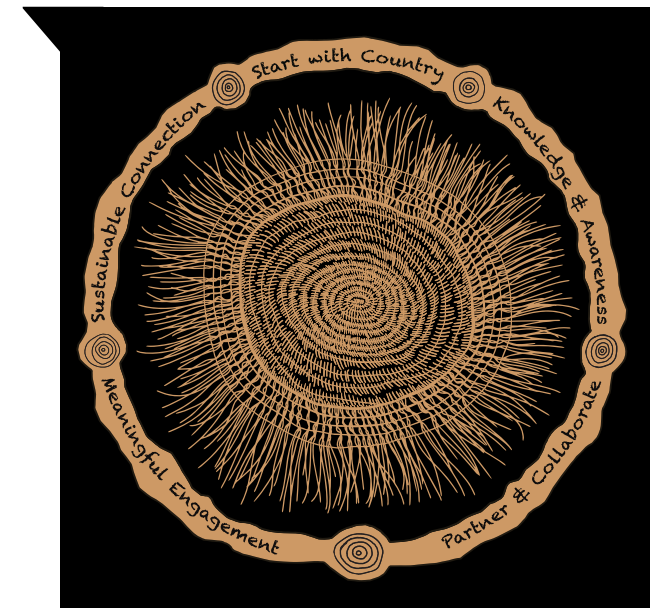
The Draft Plan has adopted four Aboriginal result statements to guide how we respond to the National Agreement on Closing the Gap. The four statements are below.

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

Development of this Draft Plan has been guided by the Transport for NSW Planning with Country framework and informed by preliminary engagement with Aboriginal stakeholders from across the Hunter region. The stories and messages they shared have helped to shape the narrative, challenges, and opportunities.

Planning with Country is Transport's response to the Department of Planning, Housing and Infrastructure's 'Our Place on Country' and provides a flexible set of guidelines and principles, to ensure emerging and consistent Planning with Country approaches are embedded within Transport's processes.

The framework provides a set of guidelines with five key principles and 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.



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 this Draft Plan



The Draft Hunter Strategic Regional Integrated Transport Plan (the Draft Plan) is one of nine regional transport plans. The Draft Plan evaluates the transport needs of the Hunter's distinctive subregions and local government areas to support the specific needs of communities across the region.

2.1 What is a Strategic Regional Integrated Transport Plan

2.1.1 Purpose

The Draft Plan provides a 20-year vision and key transport priorities to support broader NSW strategic transport planning and land use goals. The Draft Plan aims to streamline the transport project planning process and provide regional stakeholders and communities an understanding of short to medium-term transport priorities for the Hunter. The Draft Plan provides staged timing for the planning of government-led service and infrastructure responses based on the 20-year vision.

Transport is a social determinant that can influence the physical and mental health and overall wellbeing of communities and individuals.

Transport is crucial in providing access to essential services such as healthcare, education, employment, social services and significant cultural locations. Improving connectivity and ensuring transport is accessible, inclusive, reliable and safe within the Hunter can reduce disadvantage and improve the physical and mental health and overall wellbeing of communities.

The Draft Plan provides draft initiatives to inform funding decisions based on regional priorities. Work will commence immediately after the final release to provide Hunter region stakeholders and communities with assurance around the short to medium term transport priorities.

The Draft Plan includes a detailed evaluation of the community's transport needs now and into the future, guiding the delivery of Transport's services and infrastructure delivery program in alignment with government priorities. In developing the Draft Plan, Transport has worked in partnership with councils, industry and communities, leveraging insights heard through extensive engagement to inform the vision, priorities and outcomes for the region.

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



Look for this icon to learn more about the [data informing the Plan](#)

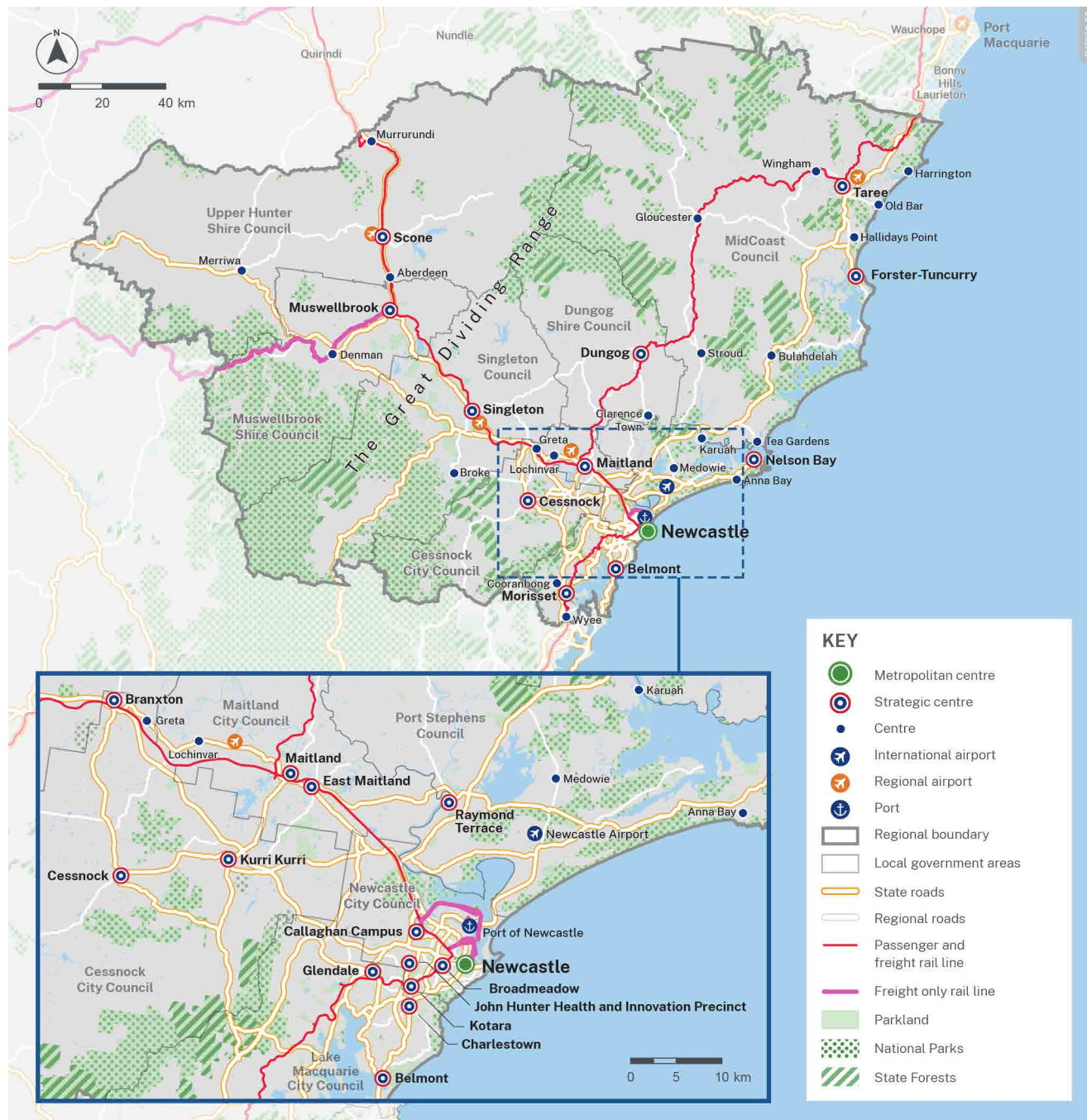


Figure 2. Hunter region extent. For more detail visit the [StoryMap](#) which includes interactive data and insights for the region

2.1.2 Extent

The region comprises the local government areas (LGA) of Cessnock, Dungog, Lake Macquarie, Maitland, MidCoast, Muswellbrook, Newcastle, Port Stephens, Singleton and Upper Hunter. It includes the Country of the Awabakal, Birpai, Darkinjung, Geawegal, Gomeroi, Guringai, Wiradjuri, Worimi, and Wonnarua peoples. The region borders the Central Coast and Greater Sydney to the south, Central West and Orana to the west, New England North West to the north-west and North Coast to the north.

2.2 Strategic context

The NSW Government develops plans and strategies that set priorities and strategic direction to inform future planning and set the direction for improving the transport system to benefit the community and the economy. This includes improving connectivity, enabling multimodal mobility, providing equitable access and supporting safer journeys.

2.2.1 Land use and development infrastructure

The Department of Planning, Housing and Infrastructure (DPHI) has broad responsibilities for planning and development in NSW, including developing and implementing policies; assessing state-significant infrastructure projects; rezoning land for more housing, jobs and recreation; coordinating with other government agencies and partnering with councils, stakeholders and the community. DPHI works to ensure jobs, infrastructure and housing are delivered.

Commuter waiting for train at Newcastle Interchange



DPHI identifies, programs and collects state infrastructure contributions, including negotiating agreements for the direct delivery of state infrastructure and on behalf of the Department of Education, NSW Health and Transport. DPHI oversees the Housing and Productivity Contribution, a development charge that will help fund the delivery of infrastructure in high-growth areas. DPHI also administers grant funding to help councils and NSW agencies improve essential infrastructure and create or enhance public and green spaces. These programs include the Regional Housing Fund to fast-track supply of land and deliver more homes across regional NSW.

The Draft Plan responds to the NSW Government priorities and is the Transport response to the Department of Planning, Housing and Infrastructure's [Hunter Regional Plan 2041](#).

2.2.2 Transport

Transport for NSW works closely with other government agencies and independent entities to support the safe and seamless movement of people and goods across NSW. Transport manages the planning, policy, strategy, regulation, resourcing and other delivery functions for all modes of transport in NSW.

Transport operates within a complex strategic, policy, legislative and regulatory environment and delivers outcomes aligned with the Government's commitments and priorities.

Table 1. Key land use and transport legislation, strategies and plans.

Planning scale	Land use	Transport
Federal and State	<ul style="list-style-type: none"> • Environmental Planning and Assessment Act 1979 • Local Government Act 1993 • Heritage Act 1977 • Environment Protection and Biodiversity Conservation Act 1999 • Native Title (New South Wales) Act 1994 No 45 • National Agreement on Closing the Gap 2020 	<ul style="list-style-type: none"> • Transport Administration Act 1988 • Roads Act 1993 • Future Transport Strategy • Net Zero and Climate Change Policy 2023 • Active Transport Strategy • Towards Net Zero Emissions Freight Policy • Planning for Culture • NSW Public Spaces Charter • Movement and Place Framework • Design of Roads and Streets • Road User Space Allocation Policy • Safe Systems Approach • Guide to Transport Impact Assessment 2024 • State Infrastructure Strategy 2022 • 2026 Road Safety Action Plan • Maritime Safety Plan 2026
Region	<ul style="list-style-type: none"> • Hunter Regional Plan 2041 • Lower Hunter and Greater Newcastle City Urban Development Program • Upper Hunter and Mid-Coast Urban Development Program 	<ul style="list-style-type: none"> • Draft Strategic Regional Integrated Transport Plan (this Plan)
Local or precinct	<ul style="list-style-type: none"> • Hunter Joint Organisation Strategic Plan • Local Strategic Planning Statements (LSPS) • Place Strategies 	<ul style="list-style-type: none"> • Local integrated transport plans • Transport Management and Accessibility Plans

03 Vision for the Hunter



Couple walking along the Newcastle Memorial Walk, The Hill
© Destination NSW

3.1 Transport vision

Starting with Country, our Transport vision for the Hunter region is one where communities are well connected by high quality infrastructure and services to allow people to walk, ride, catch public transport or use their private vehicle safely.

Transport is supporting the delivery of housing and a growing population by providing additional capacity in the system to support this growth sustainably, in close collaboration with other State government agencies and local councils. New homes will increasingly be located close to key public and active transport corridors to support more people walking, riding or using public transport as the mode of choice, creating a more sustainable network for everyone.

Key Transport Oriented Development sites and regionally significant Growth Areas will be supported by improved transport connectivity including Broadmeadow, Morisset, Anambah to Branxton, Maitland, North West Lake Macquarie and Cockle Creek. Transport will support local road permeability to enable this growth and ensure sufficient capacity on the state road network to connect places and allow efficient movement of people and goods.

Connecting essential workers to essential services is a priority requiring investment in our public transport services across the day and week, focusing on key

destinations such as John Hunter Hospital and the new Maitland Hospital, medical centres, schools, the University of Newcastle and TAFE campuses across the Hunter region.

Transport will support the Electricity Infrastructure Roadmap through the management of movements across the road network for the establishment and maintenance of the Central-West Orana and Hunter-Central Coast Renewable Energy Zones ensuring that the needs and safety of the community are balanced with this task.

Major investment in transport infrastructure will continue to support nationally significant freight and passenger movements, increase supply chain efficiencies and competitiveness for goods travelling across the region, connect local industries and provide effective access to the international gateways of the Port of Newcastle and Newcastle Airport. The connectivity between local communities and the major transport network will continue to improve supporting tourism opportunities and trip choice for visitors to the Hunter Valley vineyards and beachside locations including Port Stephens and Forster-Tuncurry.

The resilience of the network will be increased to better withstand natural events that disrupt services and operations and be constructed in a way that provides value for money to Regional NSW. The transport system will recognise places and contribute to liveable communities, optimising connections by services and infrastructure to move people and goods for a sustainable future.

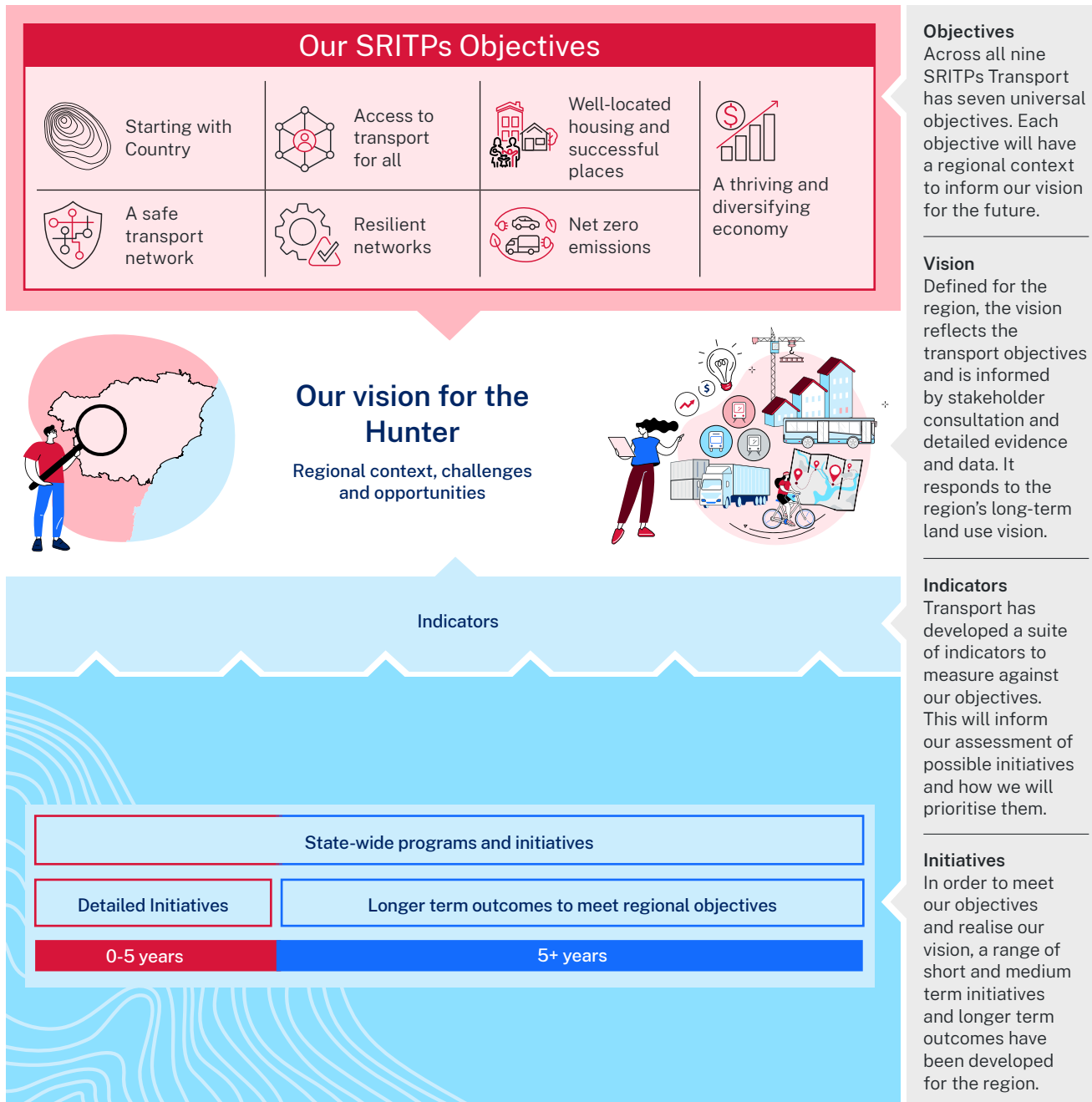
The vision for the Hunter was developed to respond to the long-term land use vision, in close collaboration with our stakeholders and influenced by engagement on previous work.

It is detailed and specifically defined for the Hunter. It has been informed by global context set by the United Nations, 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 **Hunter Regional Plan 2041**, Transport's Outcomes Framework and NSW Government Priorities.

This Draft Plan sets out future travel needs against existing transport networks 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 the behavioural and policy change.

In this way the Draft Plan recognises and prepares for growth to meet the vision. The vision is validated through a process of identifying future transport networks and services that respond to land use change, are consistent with the Draft Plan vision and meet future demand.

This approach recognises that continuing to accept current mode share particularly in urban areas, towns and centres, and specifically, high levels of private car use, is not going to realise the vision. Rather, it will lead to increased road congestion and reduced accessibility for local residents, workers and visitors.



3.2 Objectives and outcomes

The objectives are key concerns fundamental to strategic transport planning and, when met, 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 are how initiatives are chosen based on how they perform against an objective and to realise the long term vision.

The challenges and opportunities, identified through engagement with our broad range of stakeholders as well as data and analysis, are the validation for our priorities for action. A series of initiatives are identified for the short term, 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.

Figure 3. Vision, objective and outcomes approach

3.2.1 Starting with Country



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

The Transport outcomes for achieving this objective will support Aboriginal economic independence by:

- increasing opportunities for Aboriginal Community-Controlled Organisations' ownership, access, management and/or use of land and waterways
- increasing the number of Aboriginal businesses on approved prequalified panels and schemes, delivering greater employment and business opportunities in communities to build a sustainable future
- achieving greater Aboriginal driver license independence and support.

Transport will work to ensure that Aboriginal people are connected safely to the economy and socially, through transport solutions by:

- addressing Aboriginal road trauma incidents occurring on NSW roads and achieving safer transport outcomes for Aboriginal communities
- addressing both physical safety and psychosocial incidents occurring on public transport services, so Aboriginal people feel safe and included when travelling.

Transport drives transformative action to deliver systemic change by:

- delivering regional Aboriginal transport data to spotlight where transport needs to be improved for our Aboriginal communities.

Transport will work towards embedding cultural awareness and inclusiveness training programs across our transport industry partners, in delivering lasting cultural change.

In addition, through transport planning and placemaking, Transport will ensure our community and Country are healthy and strong through:

- embedding Aboriginal outcomes within each Strategic Regional Integrated Transport Plan, supported by flexible transport solutions that prioritise improved access to education, health, employment, and cultural places for Aboriginal communities
- delivering a program of Aboriginal placemaking activities including cultural landscapes management, asset access parity and all-encompassing transport asset Aboriginal branding that supports story telling.

Challenges we will face to meet this outcome:

- supporting trips for health and education and to points of significance
- access to discrete communities
- delivering a program of Aboriginal place making activities.

These challenges will be discussed further in [Section 5](#).

Transport will measure the success and prioritise actions for achieving these objectives using key metrics including:

- increasing the engagement of Aboriginal Community-Controlled Organisations
- increasing Aboriginal businesses on approval prequalification panels and schemes
- increasing the number of Aboriginal people with drivers' licences
- decreasing Aboriginal road trauma incidents and safety incidents on public transport.

A full list of indicators is included the [Appendix](#).

3.2.2 Access to transport for all



A transport network that provides a range of travel choices to all people living, working in or visiting the Hunter region.

Transport will work to achieve this objective by ensuring transport disadvantage is reduced across the entire Hunter region and all people are able to seamlessly access all their regular destinations with a variety of transport choices for all trip purposes.

To achieve this, public and active transport choices will be provided where they are currently absent for regional and rural communities including Discrete Aboriginal Communities at Karuah, Purfleet, The Farm and Cabarita.

By achieving this objective, a reduction in transport disadvantage will be achieved in the Hunter region and all people will be able to seamlessly access their regular destinations through a variety of transport choices.

Key transport services will be delivered to reduce transport disadvantage with a focus in the Upper Hunter, Dungog and MidCoast local government areas.

Challenges we will face to meet this outcome:

- public transport infrastructure and service availability and quality between key destinations
- providing services and infrastructure to match the needs of a changing and growing population
- providing services in small, geographically dispersed locations.

These challenges will be discussed further in [Section 5](#).

Transport will measure the success and prioritise actions for achieving these objectives using key metrics including:

- increasing the length of footpath kilometres near or associated with access to existing services
- increasing the length of separated cycleways creating a strategic connection
- increasing public transport services and span of hours as well as increasing day return services to regional and rural areas
- closing gaps in the strategic road network addressing community and centre connections
- increasing public transport service frequencies to hospitals, universities and TAFEs, shopping centres
- increasing the proportion of new residential developments serviced by public transport.

A full list of indicators is included the [Appendix](#).

Intercity V Set train going through Lake Macquarie Region

3.2.3 Well-located housing and successful places



Support the delivery of well-located housing and successful places through sustainable transport options to address growth in the Hunter.

The key outcomes for achieving this objective will see growth in identified Transport Oriented Development locations and the delivery of sustainable low and mid-rise housing near train stations, commercial centres and local centres.

In addition, for key established centres, towns and villages:

- housing land and employment land in established areas will be serviced by sustainable transport options including public transport, walking and cycling infrastructure with a resultant reduction in private vehicle use
- centres will be vibrant and accessible with strong social connectivity
- we will improve the liveability of towns and villages with enhanced social connectivity of communities, improved amenity, balanced with the movement needs for all road users.

Specifically for the regionally significant growth areas in the Hunter:

- early provision of public transport and improvement to road network infrastructure that increases transport access to housing and employment land in regionally significant growth areas
- walking and cycling infrastructure will be available from day one.

Challenges we will face to meet this outcome:

- delivering upgrades to existing networks to support housing growth
- location of new housing centres
- prioritising improvements to local transport networks to support established towns and smaller centres.

These challenges will be discussed further in [Section 5](#).

Transport will measure the success and prioritise initiatives for achieving these objectives using key metrics including:

- increasing the number of new residents within 800m of a public transport service
- increasing the number of people with improved walking and cycling connections to urban centres
- stabilising traffic volumes in urban areas and regional centres
- increasing public and active transport usage rates in new growth areas.

A full list of indicators is included the [Appendix](#).

3.2.4 A thriving and diversifying economy



Provide an efficient transport network to support a diversifying and growing economy including tourism, freight movements and enabling renewable energy zones.

The outcomes for achieving this objective will focus on supporting the increasing and changing freight demand across the Hunter region. Key outcomes are below.

- the energy transition will trigger new users for existing rail and transport assets
- the transport network effectively supports the international, national and state gateways serviced by Newcastle Airport and the Port of Newcastle
- Transport monitors and plans for continuing growth in heavy and commercial vehicle movements required to support economic activity, specifically the major movement corridors to the Port of Newcastle including the M1 Pacific Motorway and the M15 Hunter Expressway.
- Transport identifies existing non-compliant heavy vehicle rest stops, areas required for heavy vehicles, including oversize and overmass (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 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
- key freight corridors are protected and preserved for dedicated freight movements
- freight users are aware of network availability and rest stops to support safe and efficient freight journeys.

Tourism creates a significant economic contribution in the Hunter region and will continue to expand into the future. Key outcomes to achieve this objective and enable the growing tourism economy including the following.

- Transport supports the tourism industry with improved public transport connections for visitors as well as service workers for the Hunter Valley, key tourism destinations and Newcastle Airport
- tourism and employment industries are aware of transport options and utilise these to promote their services for both employees and visitors
- public transport, cycling and walking become the preferred choice for employment travel and tourism sectors.

Challenges we will face to meet this outcome:

- supporting the energy transition
- supporting tourism sustainably
- supporting the safe and efficient movement of all freight on roads and rail.

These challenges will be discussed further in [Section 5](#).

Transport will measure the success and prioritise initiatives for achieving these objectives using key metrics including:

- increasing walking, cycling and public transport choices available to key locations including Newcastle Airport, Hunter Valley and Port Stephens tourism destinations
- increasing heavy vehicle access to renewable energy zones, including OSOM
- increasing capacity for key freight road and rail corridors across the Hunter and increasing the volume of freight moved by rail
- increasing heavy vehicle rest areas to meet requirements of the freight industry.

A full list of indicators is included in the [Appendix](#).

3.2.5 A safe transport network



Reduce fatal and serious injuries on the transport network and address safety concerns for public transport passengers.

The outcomes for achieving this objective in the short-term include:

- existing high risk crash locations are addressed
- consistent safety treatments are rolled out across the regional road network
- safer speeds are implemented on local and low-volume rural roads (80km/h)
- the speed limit on country roads is observed
- customer personal safety is improved on the public transport network.

Intermediate safety outcomes include:

- reduce fatalities on the network by 50 per cent by 2030
- reduce serious injuries on the network by 30 per cent by 2030.

Long-term outcomes include:

- achieving zero trauma on the road network by 2050.

Challenges we will face to meet this outcome:

- run off road and single vehicle crashes on rural roads
- targeting locations of higher crash risk
- safety and perceived safety concerns on public transport and at stops and stations
- improve safety for navigable waterways in the Hunter.

These challenges will be discussed further in [Section 5](#).

Transport will measure the success and prioritise initiatives for achieving these objectives using key metrics including:

- reducing the number of people killed and seriously injured in crashes in the Hunter region
- reducing the number of people killed and seriously injured in crashes involving vulnerable road users, in speed-related crashes and in run off road crashes across the Hunter
- reducing the number of people killed and seriously injured on navigable waterways in the Hunter
- reducing public transport safety incidents and increasing the number of public transport stops or stations with lighting, wayfinding and surveillance
- increasing the AusRAP star rating on state roads.

A full list of indicators is included in the [Appendix](#).

3.2.6 Resilient networks



Reduce the impact of transport network shocks and stresses to service and network interruptions and proactively plan for future impacts.

The outcomes for achieving this objective in the Hunter will improve the resilience of the transport network through:

- identifying time and cost exposure to shocks and stresses on critical areas of the network
- identifying vulnerability of the network and undertaking risk assessment
- identifying appropriate treatment on critical areas of the network
- supporting and educating transport network users in planning for shocks and stresses.

Challenges we will face to meet this outcome:

- responding to more frequent and severe weather events
- ageing infrastructure assets
- aligning network expansion with the growing population and economy.

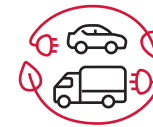
These challenges will be discussed further in [Section 5](#).

Transport will measure the success and prioritise initiatives for achieving these objectives using key metrics including:

- increasing availability of network connections during flood and bushfire events
- ensuring real time journey information is available and accessible
- reducing the number of public transport service disruptions.

A full list of indicators is included in the [Appendix](#).

3.2.7 Net zero emissions



Contribute to the net zero 2050 target.

Transport will work to achieve this objective in the Hunter by aligning with key targets including:

- 100% renewable energy for all operational electricity for the rail, light rail and metro train network by 2025
- 50% of Transport's light rail passenger vehicle fleet procurement transitioning to all-electric by 2026
- 100% of Transport's light passenger vehicle fleet procurement transitioning to all-electric by 2030
- 65% reduction in Transport's operational emissions by 2030 (compared to 2018–19)
- net zero in Transport's operational and fleet emissions by 2035

- 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 2060.¹

This objective will enable increasing uptake of low emissions travel modes including walking, cycling, e-bikes, shared or on-demand services that are provided on continuous well-lit transport networks.

Uptake of emerging technologies that support a move to lower emissions modes will increase, for example connected and automated vehicles and e-aviation. Transport will work towards enabling the rapid electrification of the NSW regional private vehicle fleet, with supporting infrastructure including the strategic regional EV charging network.

In the longer term Transport will work towards achieving this objective by supporting sustainable private modes including low emission freight transport, more active transit and improved public transport, including planning for electrification of the Hunter rail network.

Specifically within the Hunter, renewable energy zones (REZ) will be supported with reliable heavy vehicle access across and within the Hunter enabling REZs in Central West and Orana, New England and Hunter-Central Coast.

Freight truck on Hunter expressway

¹ NSW Government, 2023, Climate Change (Net Zero Future) Act

Challenges we will face to meet this outcome:

- electric vehicle uptake and low emission technologies and infrastructure
- improving active and public transport choices in centres.

These challenges will be discussed further in [Section 5](#).

Transport will measure the success and prioritise initiatives for achieving these objectives using key metrics including:

- increasing the percentage of Zero Emission Buses serving the Hunter
- increasing the percentage of total trips by public transport, cycling and walking
- increasing the availability of the transport network to REZs and oversize overmass (OSOM) movements.

A full list of indicators is included in the [Appendix](#).

04 Understanding the Hunter region



Friends cycling along Macquarie Pier at Nobbys Beach, Newcastle © Destination NSW

4.1 People and communities of the Hunter

The Hunter region is a globally connected region which is home to 760,000 people and a key destination for visitors. Featuring stunning landscapes of national parks, beaches and rivers, it is a region of considerable natural beauty.

In addition to being home to diverse communities and productive agricultural lands, the Hunter also has the leading regional economy in NSW, driven by mining, energy and manufacturing with opportunities to transition towards renewable energy.

The Hunter region is home to the Awabakal, Birpai, Darkinjung, Geawegal, Gomeroi, Guringai, Wiradjuri, Worimi, and Wonnarua people who have been the land's traditional custodians for thousands of years. These communities have a rich cultural heritage and strong connections to the land and waterways.

At its heart, the region includes the Global Gateway city of Newcastle with most of the current population residing in the key urban centres of Newcastle, Lake Macquarie and Maitland. Outside of these areas, there are many centres and regional towns along the coastline, such as Nelson Bay and Forster-Tuncurry, as well as inland communities, including Singleton, Taree, Kurri Kurri and Dungog. The Hunter region also has many smaller, more dispersed rural and remote communities.

The Hunter region is growing with a projected overall population increase of up to 950,000 by 2041. As a result of this growth more people will be using the transport network and there is a need for additional 101,800 dwellings into the future to accommodate this growth²

The region has a large Aboriginal population, with approximately 7.5 per cent of the population identifying as Aboriginal or Torres Strait Islander. This varies across the region from 5 per cent of the

² Department of Planning, Housing and Infrastructure, 2022. Hunter Regional Plan 2041. NSW Government

City of Newcastle population to 13.8 per cent in Muswellbrook Shire.³ There are four discrete Aboriginal communities in the Hunter: Purfleet and Cabarita in MidCoast LGA, and the Karuah Aboriginal Reserve and The Farm in Port Stephens LGA.

While there are areas in the region that are some of the most advantaged in New South Wales, such as within the Newcastle LGA, there are also high proportions of populations within the region that experience socio-economic disadvantage. These include Cessnock with 58 per cent of the population considered the most disadvantaged in New South Wales and Muswellbrook with 56 per cent of the population. Other areas of disadvantage include populations in Tuncurry, Wingham, Raymond Terrace and Hexham, creating barriers to possible employment and education opportunities.

Most of the Hunter region's non-English-speaking population reside in Newcastle LGA, with 16,775 people or 10 per cent of the population from a non-English-speaking country.

The region is home to key public hospital health hubs, smaller health services and community hospitals. The largest of these is the John Hunter Hospital located in New Lambton Heights, the region's major tertiary hospital and the only major trauma centre outside of a capital city. The Hunter Medical Research Institute also in New Lambton Heights is Australia's largest regional medical research institute supporting health and wellbeing for the region. Calvary Mater located in Newcastle and the new Maitland hospital also provide key

health services to the community as well as seven additional hospitals run by NSW Health. The University of Newcastle has two campuses in the Hunter located in Callaghan and Newcastle City and there are over a dozen TAFE campuses distributed across the region.

Some areas in the region will experience an increase in the working population in employment sectors such as health, knowledge-based, industrial and population serving requiring reliable, convenient, and accessible transport to enable people to get to their jobs. The age profile of different areas within the region will also have an effect on the mobility needs and behaviours of the population.

The median age in the Hunter region is 41 years. The population of working-age and retirement-age adults has been steadily increasing, while the rate of increase in the number of children has been declining. The number of young adults has remained relatively stable since 2016, with a small decline each year. Maitland is the youngest locality in the Hunter region, with a median age of 36, while MidCoast is the oldest, with a median age of 53.⁴

In 2021, the Hunter region had a 20 per cent population aged 60 or older. The old age dependency ratio is 33 per cent in 2021 and is expected to rise to 39 per cent in 2031 and 41 per cent in 2041. This indicates the number of old-age to working age demographic is increasing. Muswellbrook Council is projected to experience the sharpest increase in the old-age dependency ratio, reaching 48 per cent in 2041.⁵

Table 2. Key urban centres and localities in the Hunter region (ABS Census 2021).

Centres	Population (2021 Census)
Newcastle	348,511
Maitland (NSW)	89,567
Cessnock	23,214
Morisset - Cooranbong	22,139
Forster - Tuncurry	20,566
Kurri Kurri	19,986
Taree	18,118
Nelson Bay	14,609
Singleton	14,222
Raymond Terrace	14,076
Muswellbrook	10,898
Medowie	10,006
Salamander Bay - Soldiers Point	5,604
Scone	5,004
Wingham	4,551

In 2021, 97.6 per cent of people in the Hunter region resided in private dwellings. The region had 211,011 resident families, with 51.1 per cent being two-person families, 20.6 per cent three-person families, and 18.4 per cent four-person families.⁶

³ Australian Bureau of Statistics, Data by region (2021 Census), accessed August 2024.

⁴ Department of Planning, Housing and Infrastructure, 2022 NSW Common Planning Assumption Projections for year ending 30 June

⁵ Department of Planning, Housing and Infrastructure, 2022 NSW Common Planning Assumption Projections for year ending 30 June

⁶ Australian Bureau of Statistics 2021 Count of persons in family by LGA, accessed August 2024.

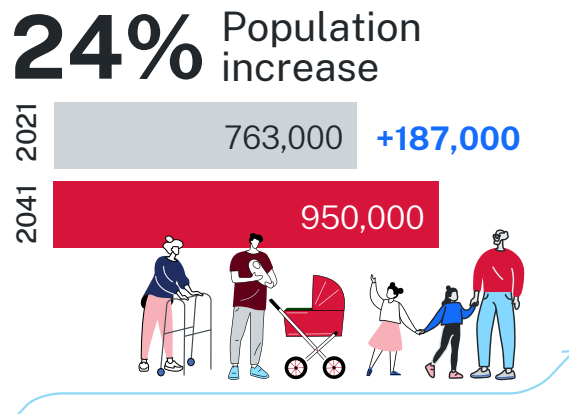
4.1.1 Key growth areas

The Hunter Regional Plan 2041 identifies regionally significant growth areas across the Hunter region planned to accommodate the population and employment growth.

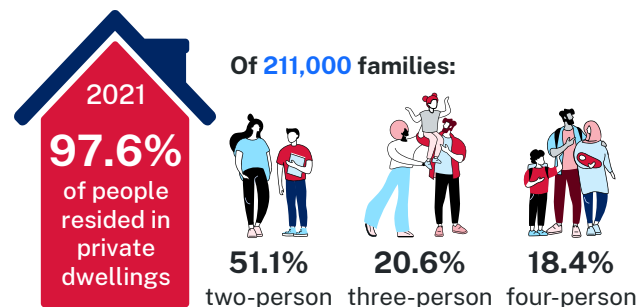
A significant proportion of projected population and employment growth will be accommodated in Maitland, Lake Macquarie and the City of Newcastle LGAs. Newcastle City Centre is the economic and service hub of the Hunter region and features extensive cultural attractions including galleries, theatres and creative enterprises with the city centre undergoing revitalisation and transformation along the waterside.

Broadmeadow is a key developing precinct with plans for 20,000 homes and 15,000 new jobs, leveraging strong public transport connections with Broadmeadow Station⁷. The precinct includes the Hunter Park Urban Regeneration Program which aims to transform underutilised government-owned lands into a nationally significant sporting centre within a new urban precinct.

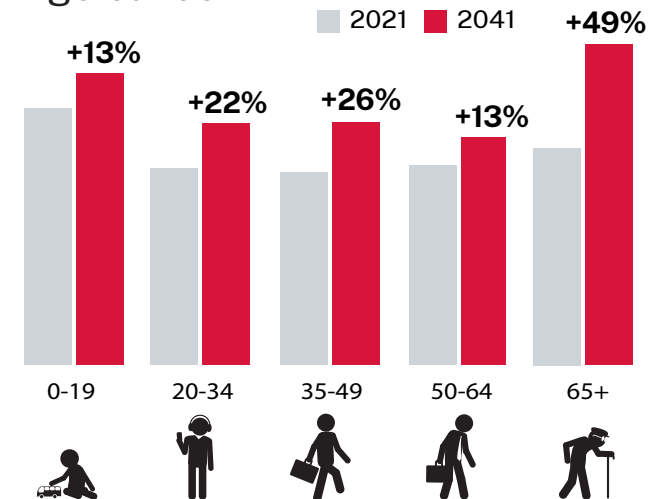
The North West Lake Macquarie growth area, located south west of the Newcastle City Centre, will also evolve into a key housing and employment hub. This area includes key areas of urban development and growth and re-use of mining lands to support economic activity.



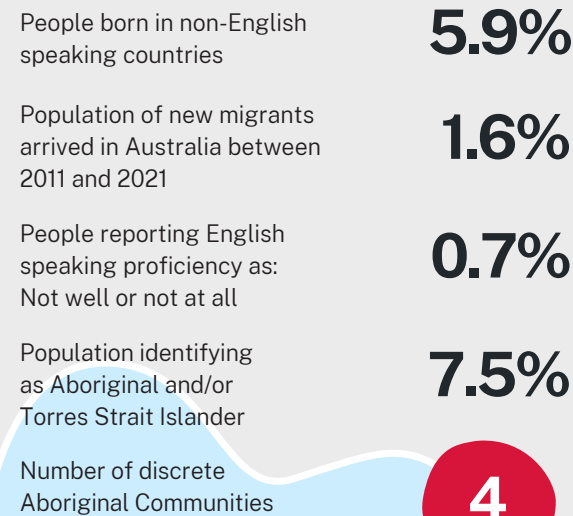
LGA	Projected additional residents by 2041	Growth 2021-41 %
Cessnock	27,000	➔ +43.1%
Dungog	4,500	➔ +45.6%
Lake Macquarie	35,400	➔ +16.9%
Maitland	54,800	➔ +61.1%
MidCoast	13,700	➔ +14.4%
Muswellbrook	1,000	➔ +6.0%
Newcastle	34,200	➔ +20.4%
Port Stephens	18,400	➔ +24.5%
Singleton	-1,100	➔ -4.8%
Upper Hunter	-800	➔ -6.0%



Age bands



Cultural Diversity 2021



Sources: TZIP22 Population, Housing and Dwelling dataset, Census 2021 Data, ERP (ABS2021) and NSW Population Projections-NSW Planning and Environment

Figure 4. Population demographics for the Hunter

Port Stephens local government area includes the key centres of Williamtown, Raymond Terrace, Medowie, Anna Bay and Nelson Bay. This area supports a range of economic activities including agriculture, manufacturing, tourism and defence. Newcastle Airport at Williamtown provides a global gateway for the region and is home to the Royal Australian Air Force Base Williamtown and associated aerospace and aviation support services. Newcastle Airport is expanding with a new terminal and plans to support larger aircraft.

Maitland is a growing metropolitan area with key strategic centres situated on the New England Highway Growth Corridor north-west of Newcastle. A key growth area, the centre services the hinterland, rural villages and rural areas of Dungog as well as several large urban release areas. East Maitland is emerging as a centre for health and retail and will accommodate future housing growth and Western Maitland will provide residential and employment growth between Rutherford and Lochinvar.

Growth along the Anambah to Branxton corridor centres on the New England Highway, Hunter Expressway and Main North Rail Line. These arteries provide key accessibility to employment in Greater Newcastle and the Upper Hunter. As a result, the area is expanding rapidly in areas such as Huntlee.

Morriset is a regionally significant growth area in the Lake Macquarie LGA. This centre is emerging as a key mixed-use centre with strong transport connections due to access to the M1 Motorway and Main North railway.

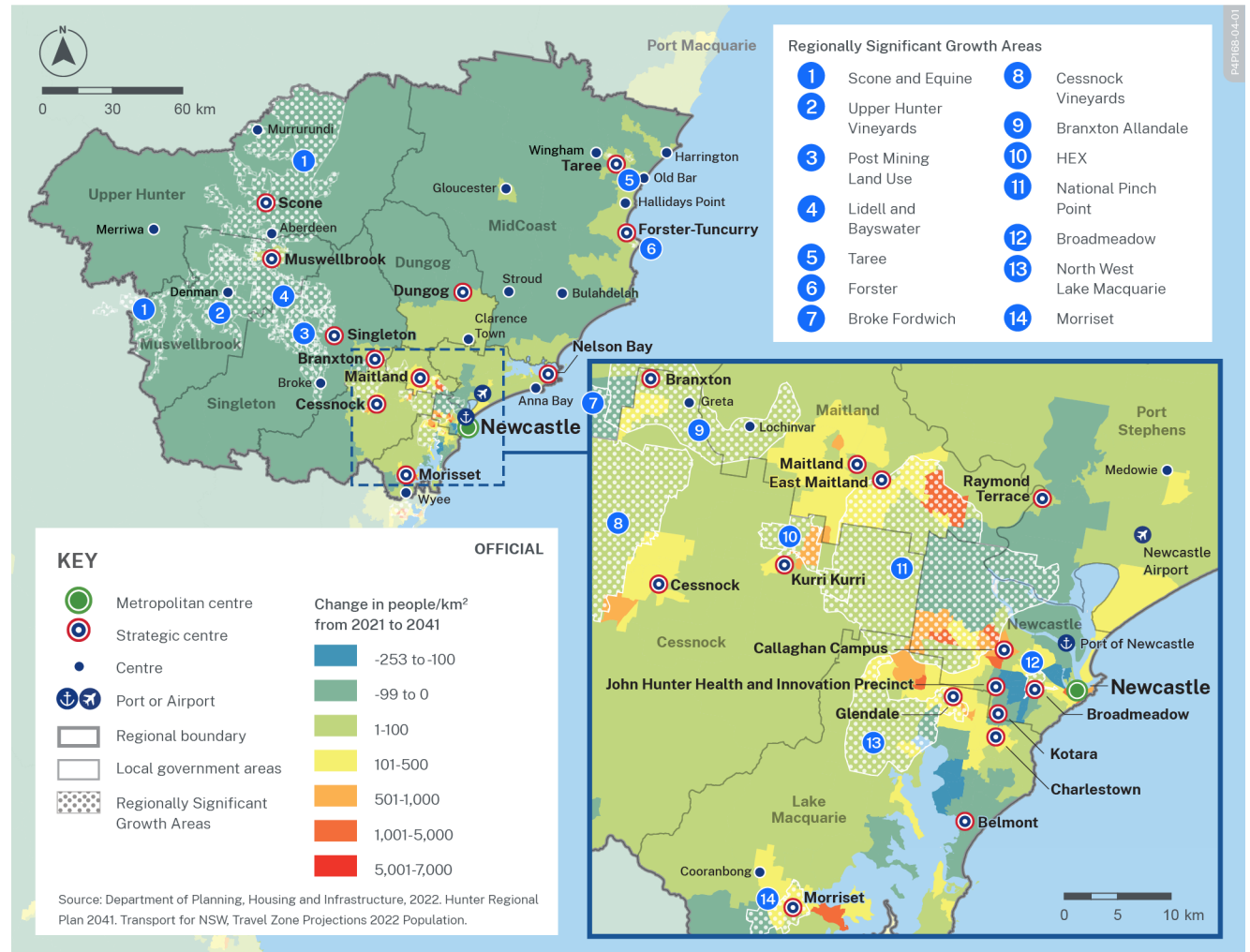
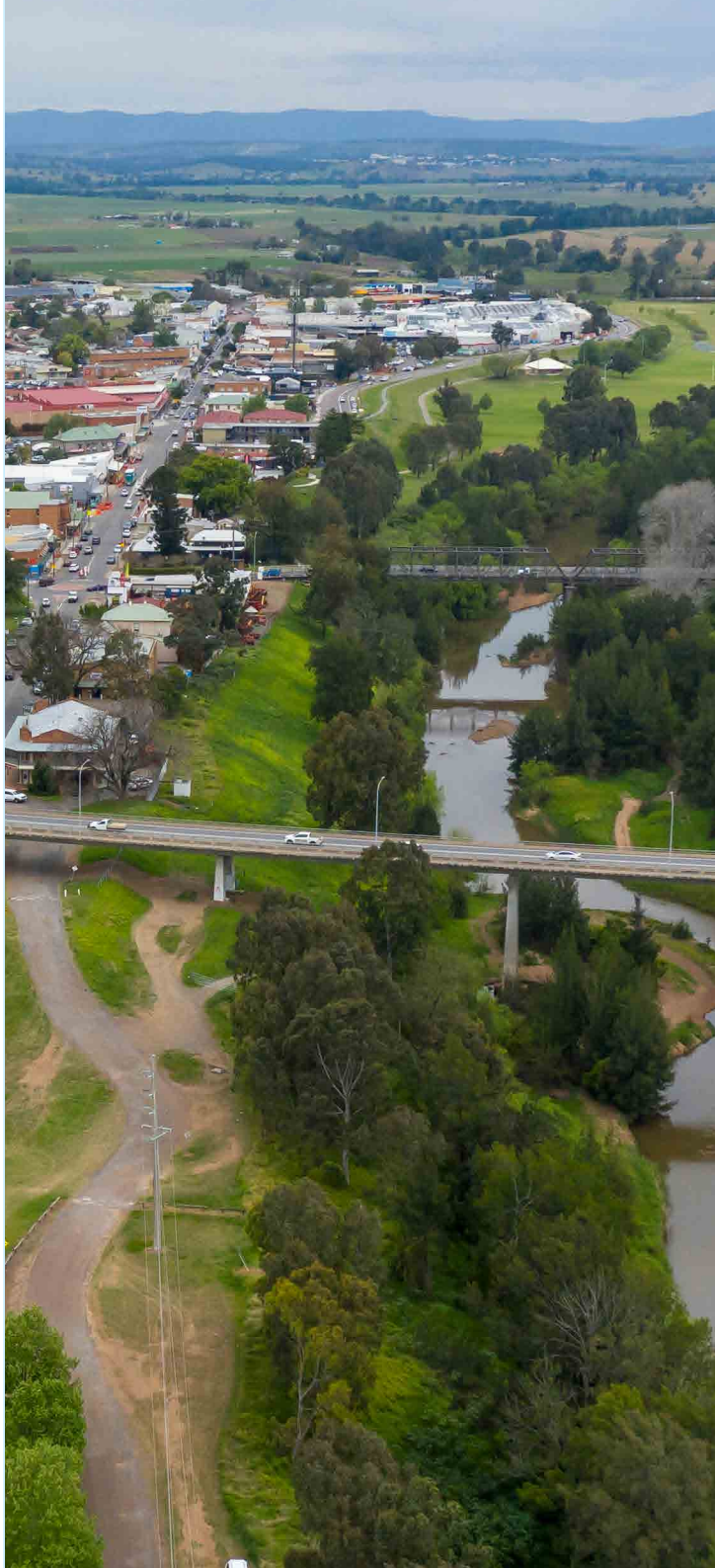


Figure 5. Hunter regionally significant growth areas and population change 2021 to 2041

Agriculture and nature-based tourism are common across Cessnock and Port Stephens LGAs, which feature a number of rural towns and villages. The World Heritage listed Barrington Tops National Park in the MidCoast LGA is a key tourism destination and the key population areas are focussed on the strategic centres of Dungog and Taree. Driven by improvements to the M1 Pacific

Motorway, opportunities for industries including agriculture and industrial enterprise to access markets in Greater Newcastle and Sydney have resulted in new economic opportunities. Taree is a key location for health services with the Manning Base Hospital and allied health facilities and employment opportunities for the district as well as coastal communities.



The coastal areas north of Newcastle are characterised by rural and natural landscapes including the Myall Lakes System and feature several dispersed towns and villages east of the Pacific Highway including the strategic centre of Forster-Tuncurry. The area is a popular tourist destination and has one of the oldest populations as it is a popular choice for retirees. Currently the district is largely car reliant resulting in many residents facing mobility and access challenges

The Upper Hunter includes the inland LGAs of Singleton, Muswellbrook and Upper Hunter Shire. This area has strong connections to the Central West, New England and North Coast via the New England and Golden Highways. It features agriculture, tourism and mining sites as well as significant natural areas such as the World Heritage listed Wollemi National Park and a significant equine sector and viticulture. The Upper Hunter Shire accounts for approximately a quarter of the Hunter region's total land area although it accommodates only three per cent of its population.

Aerial view of the township of Singleton in the Hunter Valley
© Phillip Wittke/Shutterstock.com

Private vehicle ownership

The development of car dominant urban growth areas in the past has resulted in dispersed settlement patterns compounded by challenging topography around waterways and national parks. As a result, these areas are difficult to serve with public transport due to low density and dispersed trips leading to high car dependency.

The majority of households in the Hunter (59 per cent) own two or more vehicles. Despite this, 5.5 per cent of households do not own a motor vehicle, which is similar to the regional NSW average. However, this is higher for households with at least one Aboriginal and/or Torres Strait Islander person (6.4 per cent).⁸ Key reasons for households having no motor vehicle could be due to personal choice, lack of need due to good access to public and active transport and/or economic concerns relating to affordability, maintenance and fuel costs.



Learn more on our
[Hunter StoryMap](#)

⁸ Australian Bureau of Statistics, 2021 Census.

4.2 The changing economy of the Hunter

Regional economy

The Hunter region has the largest regional economy of all the regions in NSW (not including Greater Sydney), comprising nine per cent of the state economy. In 2022/23, Newcastle LGA had the highest contributing economy within the region, followed by Lake Macquarie.⁹ The Hunter drives around 28 per cent of regional NSW's total economic output, \$23 billion of which is attributed to coal exports.¹⁰

Employment

Employment in the Hunter region is projected to increase accommodating an extra 119,000 jobs by 2041.¹¹ Like the expected population growth, all Local Government Areas (LGA) in the Hunter region are also anticipated to experience employment growth. Although Maitland has the highest forecast population growth in the Hunter region, at 29 per cent, Newcastle is expected to have the highest employment growth, at 42 per cent.¹²

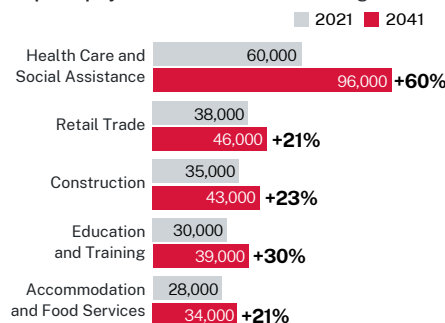
The Hunter region has varying levels of labour force participation, with Singleton having the highest rate at 64.5 per cent and MidCoast the lowest at 43.9 per cent. In 2021, 60,757 people in the region were employed in the Health Care and Social Assistance sector, making it the largest employer.¹³

33% Employment increase

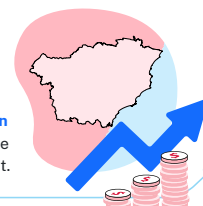


LGA	Projected growth in employment by 2041	Growth 2021-41 %
Cessnock	8,300	+44.3%
Dungog	900	+32.4%
Lake Macquarie	19,500	+26.2%
Maitland	19,000	+55.5%
MidCoast	1,900	+5.7%
Muswellbrook	1,200	+10.0%
Newcastle	52,300	+41.9%
Port Stephens	13,300	+38.5%
Singleton	1,000	+5.0%
Upper Hunter	900	+14.9%

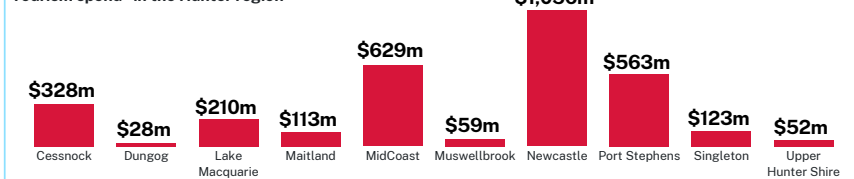
Top 5 employment industries in the Hunter region



In 2021 Mining contributed \$11.56b, Health Care and Social Assistance contributed \$5.33b and Construction contributed \$4.57b to the Hunter's economic output.



Tourism spend* in the Hunter region

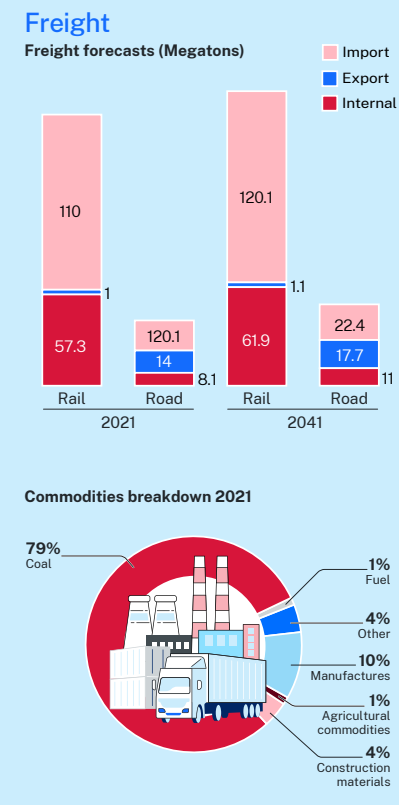


*Data is from 2016-2019 (PRE COVID). Sources: TZP22 Employment Projections dataset, id.com 2024, the online local government area profile dashboards tra.gov.au and NSW Freight Forecasts.

Figure 6. Economy summary for the Hunter (note freight forecast to be validated)

This sector experienced significant growth of 46 per cent from 2006 to 2021 and is expected to continue growing by 38 per cent from 2021 to 2041.¹⁴ The professional, technical, and scientific services industry is also predicted to grow by 30 per cent during the same period. However, the mining industry is forecast to contract by nearly 20 per cent between 2021 and 2041. A breakdown of the top five employment industries is shown in Figure 6.

The Hunter region is also home to several major shopping centres and commercial precincts providing strong employment and continued economic growth. Key retail destinations include Newcastle CBD, Charlestown Square, Westfield Kotara, Stockland Green Hills in East Maitland as well as those within centres including Newcastle West, Glendale, Maitland, Toronto and Cardiff.



9 Informed Decisions, 2023 NIEIR State of the Region Economic Indicators, accessed August 2024
 10 Hunter Joint Org., A Blueprint for Evolving the Hunter's Economy, accessed August 2024
 11 Transport for NSW, TZP 2022 Forecasts, NSW Government, accessed August 2024
 12 Transport for NSW, TZP 2022 Forecasts, NSW Government, accessed August 2024
 13 Australian Bureau of Statistics, 2021 Census, Australian Government, accessed August 2024
 14 Transport for NSW, TZP 2022 Forecasts, NSW Government, accessed August 2024

Port diversification

The Hunter region is also home to the Port of Newcastle, located north of the Newcastle urban area. The Port of Newcastle is the world's largest coal export port and also handles a range of imports. It currently handles over 4,400 ship movements annually and over 150 million tonnes of cargo and in 2023 it contributed over \$35 billion to the Australian economy!¹⁵

Exports from the Port of Newcastle in 2023 included:

- coal, accounting for 94 per cent of exports
- wheat, meals and grains combined making up less than 2 per cent of exports
- other commodities including aluminium, pitch and tar products, machinery/project cargo and vehicles, concentrates and other trade, combining to contribute less than 1 per cent.¹⁶

The port is well supported by the Country Regional Network (CRN) which interfaces with the Hunter Valley Coal Network leased by ARTC to the port. In addition, the port is well serviced by the Hunter Rail line.

With the expected reduction in coal export over the next 20 years, the Port of Newcastle is positioning to diversify its operations by introducing cruise ships and handling various types of freight including containerised goods and renewable energy components. Additionally,

the Port is developing a clean energy precinct and hydrogen production facility on land that was originally proposed as a coal storage area.

Around a third of grain grown annually in NSW is exported (mostly in bulk), and the Port of Newcastle handles approximately half of this export task!¹⁷ Recent bumper harvests have seen some of the largest quantities of bulk grain exported through the port on record, mostly moved by rail. Almost two million tonnes of wheat and over 600,000 tonnes of meals and grain were handled in 2023!¹⁸

Airport growth

The Newcastle Airport expansion will support growing domestic and international tourism to the region, with forecast passenger movements through Newcastle Airport to double by 2036.

The upgraded runway and terminal at Newcastle Airport link the Hunter region to further global opportunities, including new markets for tourism and air freight. The runway allows for wide bodied commercial aircraft which carry in excess of 250 passengers and significant freight load. Such aircraft can also undertake long-haul flights into North Asia, the Middle East and Americas.

Over the next 20 years, the upgrade of the airfield and terminal at Williamtown, coupled with a planned cargo precinct will generate 4,400 extra full-time jobs and \$6.5 billion in additional business activity through increased freight access!¹⁹

Size of the freight task

Key freight commodities in the region include coal, manufactures, construction materials, fuel and alumina/aluminium. Coal is currently the largest commodity of freight transported in the Hunter region.

Freight volumes are projected to grow by 2041. Planned growth in overall population will increase the demand for delivery and servicing activity as well as the construction freight task.

The delivery and coordination of large-scale infrastructure projects including renewable energy zones and road projects, like the M1 Pacific Motorway extension to Raymond Terrace and bypasses of Singleton and Muswellbrook, will generate a large construction freight task with a higher volume of OSOM movements than currently occur on the network.

Along with aggregate, sand, machinery and equipment, other key commodities such as grain move through region. Grain is transported over longer distances to access Port of Newcastle from adjacent regions, such as Central West and Orana.

¹⁵ Port of Newcastle, Trade Report 2023, accessed November 2024

¹⁶ Port of Newcastle, Trade Report 2023, accessed November 2024

¹⁷ Transport for NSW, *Freight Policy Reform: Consultation Paper*, NSW Government, April 2024

¹⁸ Port of Newcastle, Trade Report 2023, accessed November 2024

¹⁹ Newcastle Airport, 2036 Newcastle Airport Vision Delivering the Airport the region deserves, 2018

Tourism and the visitor economy

The Hunter region is a diverse tourism region with experiences that include cultural, leisure, food and wine, rural, coastal, nature and adventure. Some of the region's key attractions include:

- the Hunter Valley Wine Region which is known for its vineyards, wineries and gourmet food
- Forster-Tuncurry which are known for their beaches, lakes and water activities
- Port Stephens which is known for its beaches, marine activities and sand dunes
- Barrington Tops National Park which is known for hiking, wildlife and natural beauty.

Tourism provides a significant economic contribution in the Hunter region with visitor numbers increasing year on year. The total value added by tourism activity in the Hunter in 2022/23 was over \$2.5 billion.²⁰

Average visitor spend varies depending on the local government area and whether the visitor is domestic or international. However, for the year ending March 2024, the average spend per visitor for a domestic overnight trip in the region was \$655, compared to the regional average of \$698.²¹

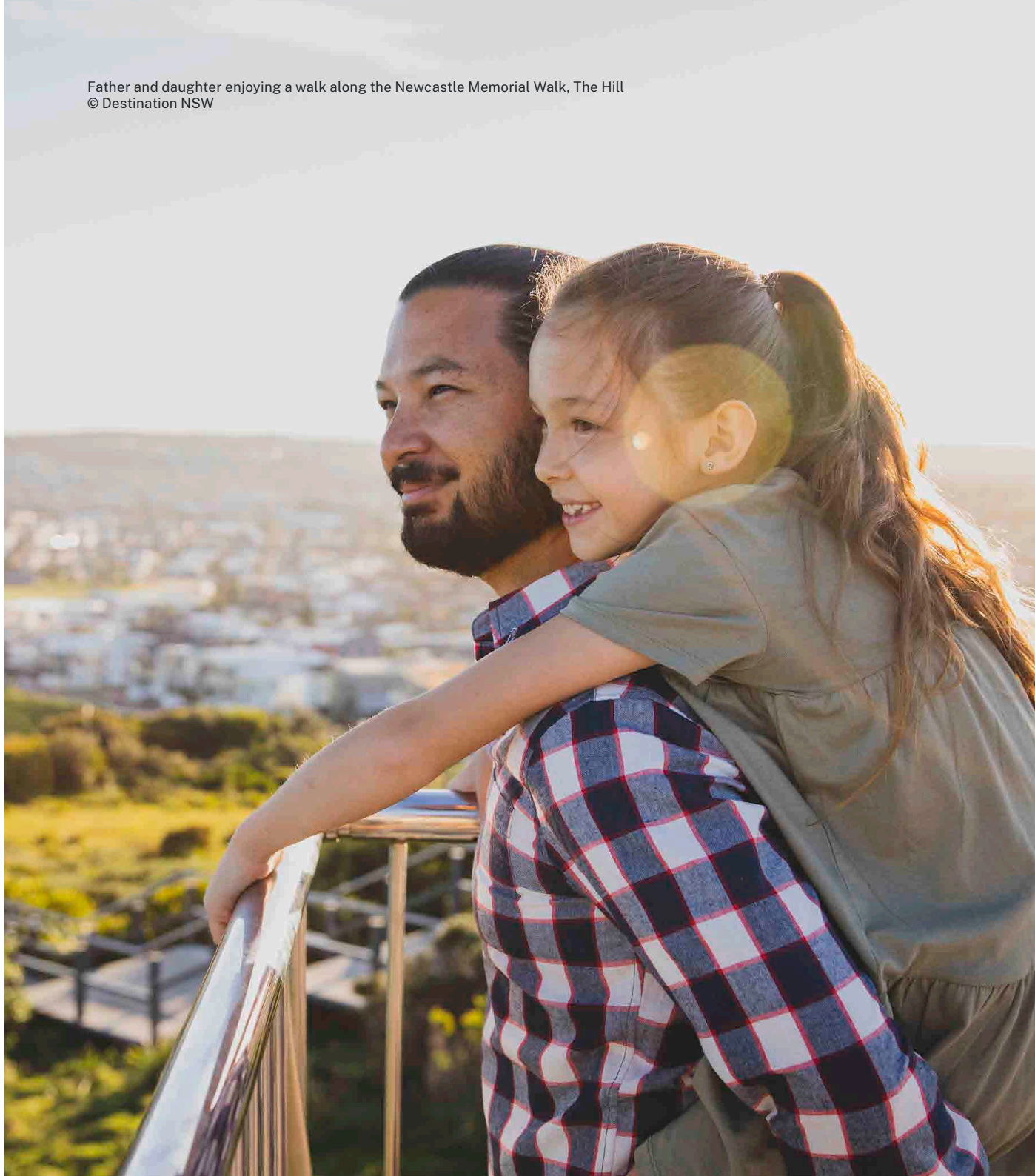
In the Hunter region, tourism supports an estimated 15,600 jobs, which accounts for 4 per cent of total employment. The largest subsector is accommodation and food services, which sees around 9,500 jobs supported by tourist expenditure.²²

²⁰ Australian Trade and Investment Commission, Tourism Research Australia, Regional Tourism Satellite Account, Hunter Regional Data Table 2022/23, Australian Government, accessed November 2024

²¹ Destination NSW, Hunter Visitor Profile, Year ending June 2024, NSW Government, accessed December 2024

²² Australian Trade and Investment Commission, Tourism Research Australia, Regional Tourism Satellite Account, Hunter Regional Data Table 2022/23, Australian Government, accessed November 2024

Father and daughter enjoying a walk along the Newcastle Memorial Walk, The Hill
© Destination NSW



Tourism in the Hunter region is returning to pre-pandemic numbers with overnight trips in 2023 surpassing 2019 (pre-COVID) numbers by around 210,000; however, day trips in 2023 are at 86 per cent of 2019 trips. Self-drive vehicles are overwhelmingly the most common transport mode to attractions, with 94 per cent of day trip visitors using a private vehicle, followed by rail (4 per cent) and bus/coach (2 per cent).²³

Move away from mining

The Hunter's economy is transitioning away from its dependence on coal and diversifying into a broader range of industries including the renewable energy industry, technology and scientific services as well as the growing defence, manufacturing, health and education industries.

Across the Hunter Valley there are 22 active coal mine sites with Mount Arthur known as the biggest mine in the Hunter Valley area.

The decline in coal mining is likely to be concentrated between 2030 to 2040, with 18 coal mines and three power stations expected to close during this time.²⁴ Several parcels of land at existing Upper Hunter coal mines have been identified to be repurposed for other industries, in particular renewable energy.²⁵

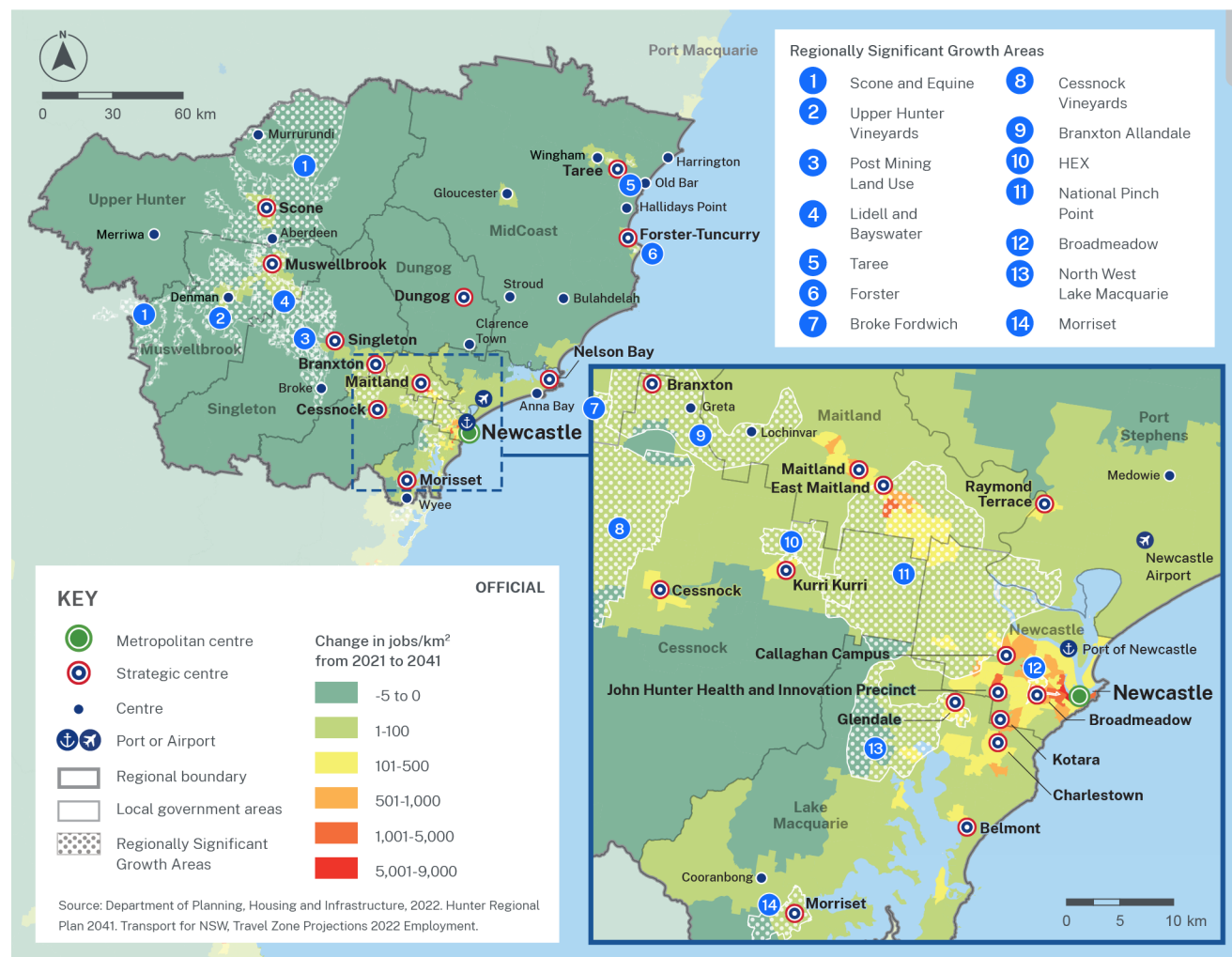


Figure 7. Hunter region employment change 2021 to 2041

²³ Australian Trade and Investment Commission, Tourism Research Australia, Local Government Area profiles 2019, Australian Government, accessed November 2024

²⁴ Department of Regional NSW, *Future Jobs and Investment Authorities*, Issues paper, May 2024

²⁵ NSW Government, *Upper Hunter Strategic Regional Land Use Plan*, 2012

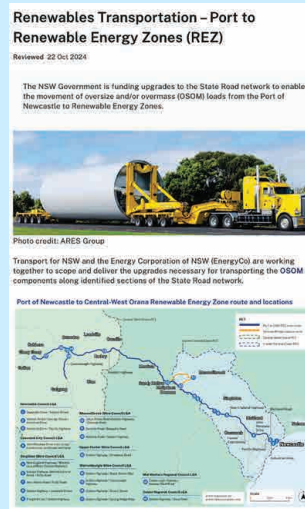
The Hunter-Central Coast Renewable Energy Zone

The NSW Government is investing in renewable energy zones (REZ) which combine renewable energy infrastructure, storage and transmission infrastructure to deliver cheap, reliable and clean electricity for homes and businesses across NSW.

Planning for a REZ in the Hunter and Central Coast is underway to capitalise on existing transmission infrastructure, strong transport links to the Port of Newcastle and an existing skilled workforce. The Hunter-Central Coast REZ covers Muswellbrook, Cessnock, Singleton, Maitland, Newcastle and Lake Macquarie. It will support economic growth in emerging technologies such as green hydrogen, ammonia and metal production, offshore wind, electric vehicle fleet operators and electrification of industrial processes.

Improving infrastructure to support heavy vehicle access and productivity will have a significant ongoing role in supporting the growing freight task and enabling the development of the Hunter-Central Coast REZ.

[Renewables Transportation – Port to Renewable Energy Zones \(REZ\) | Transport for NSW](#)



4.3 Travel in the Hunter

4.3.1 How people travel

Across the Hunter, private vehicles are the dominant mode of travel. A number of key roads in the region experience congestion and are at or approaching capacity in peak periods. Unless traffic volumes are stabilised, traffic is projected to increase into the future. Attractive and feasible alternatives to private vehicle usage will result in improved outcomes for communities, choices for how people travel, increased network redundancy and greater accessibility for communities.

It is expected that without intervention to improve public and active transport usage across the Hunter, congestion in the region will continue to worsen, particularly on key corridors such as the Pacific Highway, Newcastle Link Road and Newcastle Inner City Bypass.

The Hunter region public transport network consists of TrainLink trains and coaches, two intercity rail lines, several bus routes, a light rail and a ferry. The network is most developed in the Lower Hunter and Newcastle metropolitan area. Despite this, public transport usage in the region is low with only 1.7 per cent of trips to work by public transport. In contrast, private vehicles account for over 94 per cent of journeys to work.²⁶

Renewable energy zones

Planning for a renewable energy zone (REZ) in the Hunter region is currently in the early stages. The region has been selected for a REZ because it has excellent renewable energy resources and can utilise existing power stations, rehabilitated mining land, electricity network infrastructure, port, and transport infrastructure as well as a skilled workforce.

The REZ will have a key role in the region and will include investment in emerging technology in green hydrogen, ammonia and metal production, offshore wind, electric vehicle fleet operators and electrification of industrial processes.

Delivery of REZ projects in the adjoining Central West and Orana and New England North West regions require the transportation of large renewable energy components from the Port of Newcastle, such as wind turbine components and transformers for transmission.

These loads are transported using oversize and overmass (OSOM) vehicle movements, generally along the state road network including sections of the New England Highway, the Golden Highway and Pacific Highway within the Hunter region. Transport is working closely with EnergyCo to deliver the required transport network to support this growing task.

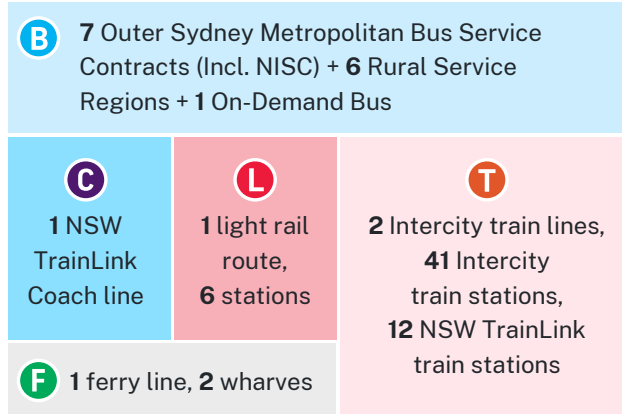
In the Hunter region people typically travelled most often for social or recreational purposes, to serve passengers such as to pick-up or drop-off a child to school, shopping and commuting, as shown in Figure 8.

Across the region, access to public transport is poor with most areas away from the major public transport corridors having poor accessibility. Service levels decline outside of peak times and on weekends, leading to long wait times and uncompetitive travel times when compared to driving and parking.

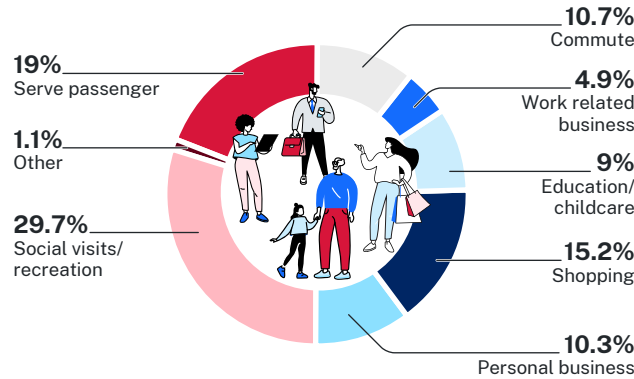
The Public Transport Accessibility Mapping in Figure 9 shows that the Hunter region's public transport provision is poor in locations outside of centres. Travel in the Hunter region is also currently largely self-contained with more than 90 per cent of trips having an origin and destination within the region. The majority of trips are short local trips between nearby centres. For the Greater Newcastle area, around 20 per cent of all trips are less than two kilometres long and 45 per cent less than five kilometres, highlighting the opportunity for improved walking and cycling mode share.

Travel in the Hunter region is also highly impacted by the time of year. While demand for travel on the Intercity rail lines typically reduces around public holidays and school holidays, key roads such as the Pacific Highway can often be significantly busier during holidays.

Hunter public transport network

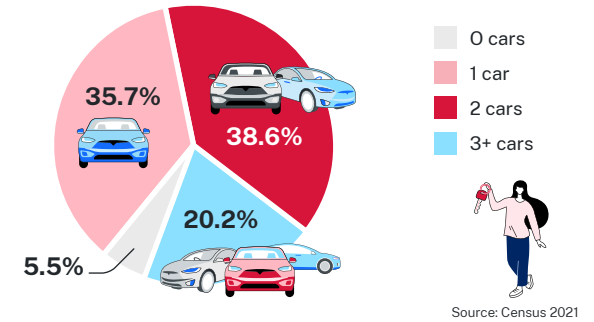


Travel purpose



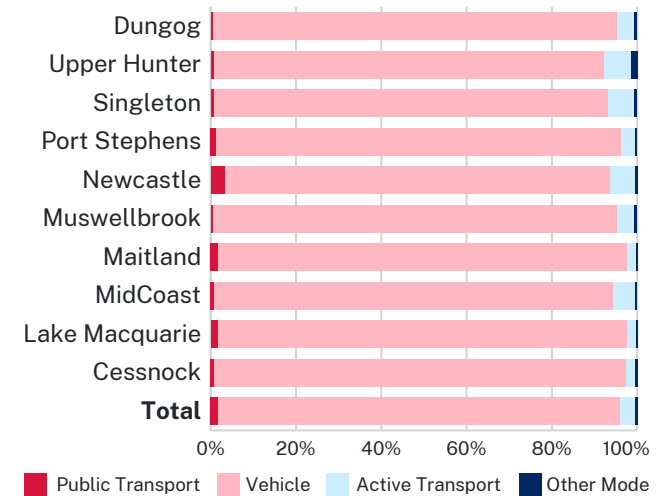
Source: Household Travel Survey - Newcastle, Lake Macquarie, Cessnock, Maitland, Port Stephens, Dungog and Singleton LGAs.

Vehicle ownership per household



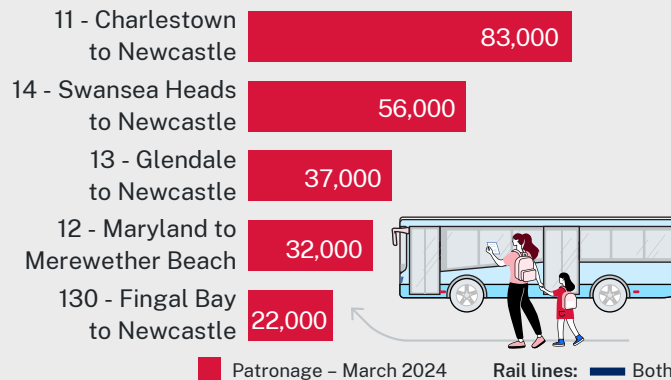
Source: Census 2021

Journey to work mode share



Source: Census 2021

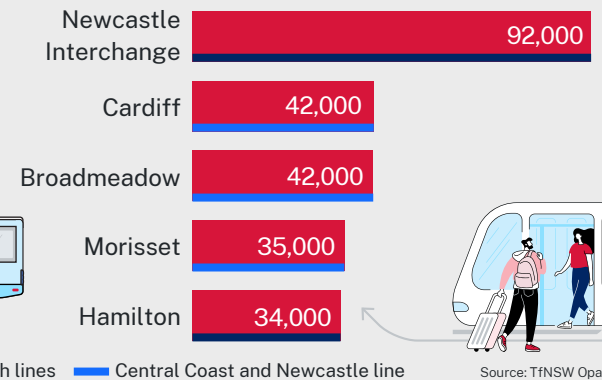
Top 5 patronised bus routes



Patronage - March 2024

Rail lines: Both lines, Central Coast and Newcastle line

Top 5 train station entries and exits



Source: TfNSW Opal data

Figure 8. How people travel in the Hunter

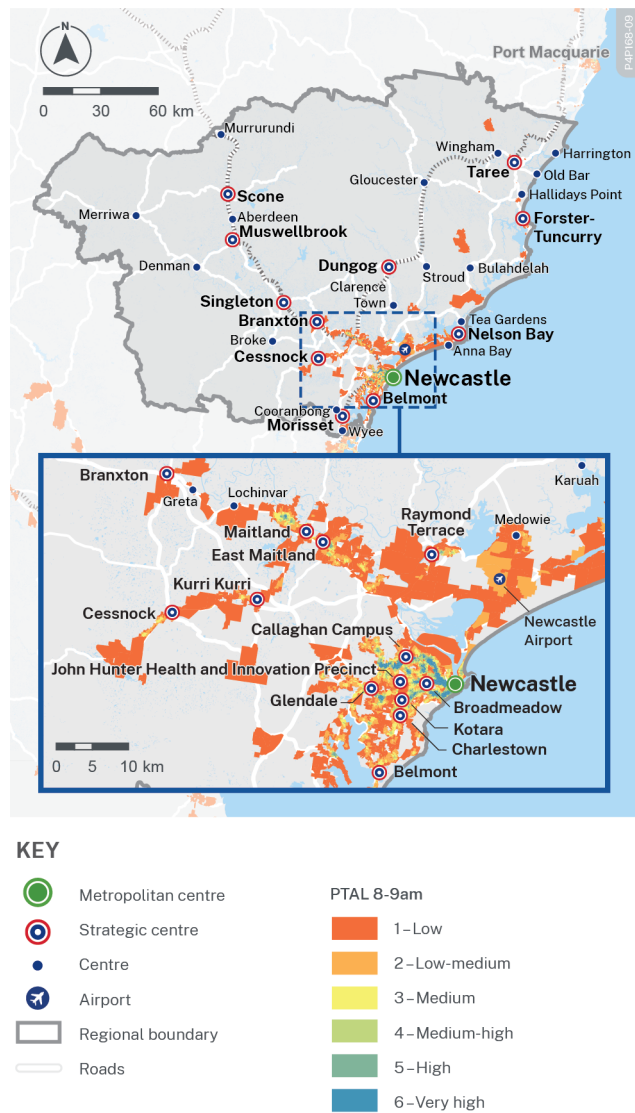


Figure 9. Public Transport Accessibility Level for the Hunter region, Public Transport Accessibility Level (PTAL) 8-9am

Key roads

There are approximately 1135km of state roads in the Hunter region and approximately 70,000 light and heavy vehicles travel each day along the primary north-south M1 Pacific Motorway corridor between the Hunter, Central Coast and Sydney. State Road corridors in the Hunter region are shown in Figure 10 and include:

- M1 Pacific Motorway
- A1 / A43 Pacific Highway
- M15 Hunter Expressway
- A15 New England Highway
- The Golden Highway
- Newcastle Inner City Bypass
- Newcastle Link Road – Newcastle Road
- City Road (Pacific Highway)
- Charleston Road – Lookout Road
- Lake Road
- Main Road
- Maitland Road
- Hillsborough Road
- Industrial Drive
- John Renshaw Drive
- Wine Country Drive (Toronto–Branxton)
- Cessnock Road – Mulbring Kurri Kurri
- The Lakes Way
- Nelson Bay Road
- Raymond Terrace Road.

These state roads serve a critical movement function, but where they pass through town centres the movement and place needs of the communities must be balanced. There are also several road projects currently underway, including the Singleton bypass, M1 Extension to Raymond Terrace, extension of the Newcastle inner city bypass to Jesmond and planning for the Muswellbrook bypass.

Rail and coach network

The Hunter region is served by two intercity rail lines. The Central Coast & Newcastle line connects Newcastle Interchange to Sydney and is the busiest intercity line in NSW. Trains typically run in either direction at a frequency of twice per hour throughout the day. The Hunter Rail line connects the Upper Hunter region to Newcastle Interchange. It is comparatively less well patronised and trains are less frequent, particularly at outlying stations such as Singleton and Muswellbrook.

The Hunter region has a well-developed freight rail network. While coal services are the primary user of freight rail, other uses include grain, general and bulk freight. These rail services help keep millions of tonnes of freight off the road network.

Sydney Trains manages the fully electrified line between Sydney and Newcastle. Australian Rail Track Corporation (ARTC) also operates several lines in the Hunter region.

These lines are not electrified and are used by both passengers and freight services. The Sandy Hollow to Merriwa rail line is the only non-operational rail line in the region. The South Maitland Railway is privately owned and connects Cessnock to the Main North Line at Maitland, a corridor that has attracted high community interest and is the subject of engagement and a submission from the Train to Cessnock Group.

The Hunter region is also served by NSW TrainLink regional trains which provide connectivity to locations outside of the region such as Sydney, Central Coast, North Coast, Brisbane and New England North West. Broadmeadow, Taree and Maitland are the most well patronised stations in the Hunter region. There is also a TrainLink coach line which runs from Broadmeadow to Taree and connects the communities in Port Stephens and MidCoast LGAs to the TrainLink network.

Buses and light rail

The train network in the Hunter region is supported by an extensive bus network. The Lower Hunter and Greater Newcastle region is served by buses administered under the Outer Sydney Metropolitan Bus Contracts (OSMBC) 1–4 (as well as partially by OSMBC 6 & 11) and the Newcastle Integrated Services Contract (NISC). The most well patronised routes typically connect the outlying suburbs of Greater Newcastle to the Newcastle City Centre, such as Route 11 – Charlestown to Newcastle.

An on-demand bus service also operates in Lake Macquarie between Charlestown and Belmont and is run by Newcastle Transport. There are several Rural Service Region contracts that serve areas including Taree, Muswellbrook, Scone, Denman,



Commuter tapping smart watch on Opal reader at Queens Wharf, Newcastle

Wingham, Gloucester and Forster-Tuncurry, among others. These rural service regions are not part of the Opal network but are part of the Transport Connected Bus program, with passengers able to see real-time trip updates to inform their journeys.

Newcastle CBD is serviced by light rail and ferry services. The Newcastle Light Rail connects Newcastle Interchange to Newcastle Beach along a 2.7 km alignment, which takes approximately 12 minutes from end to end and has been a catalyst for urban transformation in the Newcastle CBD.

Newcastle also has a ferry connecting Stockton to Queens Wharf. It operates at a 15 to 20-minute headway seven days a week.

Walking and cycling

The Hunter region has a network of cycling infrastructure, including a number of rail trails such as the Fernleigh Track. The cycling network

tends to focus on recreational shared paths connecting waterways and nature reserves which often do not offer direct connections between residential areas, cities and strategic centres. There is also comparatively less dedicated infrastructure available outside of the Newcastle–Maitland corridor, making it difficult for people to use walking and cycling as a means to commute or access everyday goods and services. This is reflected in the low mode share of walking and cycling of less than 4 per cent of journeys to work.

Airports

There are several airports in the Hunter region, however, only Newcastle Airport is served by regular passenger planes which fly to key domestic locations such as Melbourne, Canberra and Brisbane, as well as seasonal international flights to Auckland.



Figure 10. Hunter key roads and freight network



KEY

- Metropolitan centre
- Strategic centre
- Centre
- Regional boundary

- International airport
- Regional airport
- Port
- State roads
- Regional roads

- Existing passenger networks
- Passenger rail
 - NSW TrainLink coach
 - Bus
 - Bicycle/shared paths

- Light Rail
- Ferry
- Interchange

Bus trip frequency per day per route*

- 1-5 trips
- 6-10 trips
- 11-15 trips
- 16-21 trips

Interventions are shown indicatively and may not be to scale.

*Routes shown based on most trips per day. Source: Open data GTFS network, March 2024.

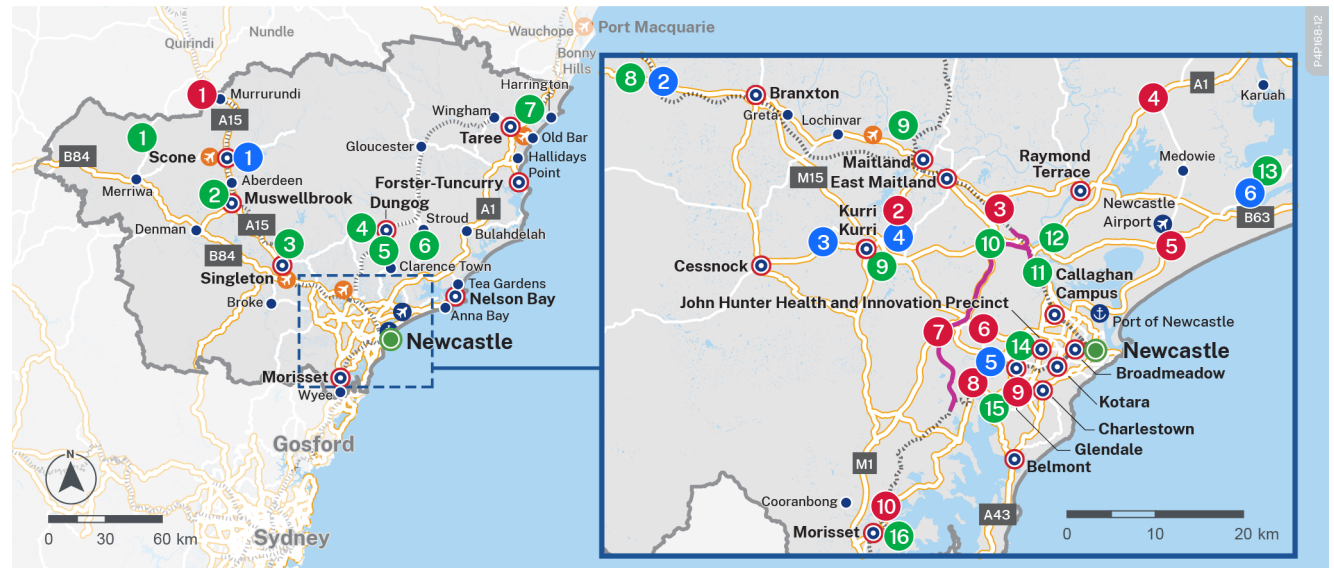
Figure 11. Hunter public transport network

4.3.2 Current, planned and committed projects

The NSW and Australian Governments have committed funding for a range of transport infrastructure and service improvements across the Hunter to maintain safe and efficient travel options and to serve the growing population of the area. Some key road projects are now under construction including:

- Rankin Park to Jesmond, new section of Newcastle Inner City Bypass, to be completed by late 2025
- Hexham Straight, allocated \$320 million for widening and improvements, to be completed in 2026
- M1 Pacific Motorway extension to Raymond Terrace, allocated \$1.91 billion, with completion in 2028
- Singleton Bypass, to be completed in 2026.

The benefits of these projects will be felt for decades to come. Transport is developing a range of projects to address identified problems on the network and to support government priorities including increasing housing supply. Projects in key areas such as Thornton, Speers Point, between Kurri Kurri and Maitland, Nelson Bay Road and Newcastle Link Road are progressing with community consultation planned or underway to keep people informed and to help refine the solution to better serve the community.



KEY

- Metropolitan centre
- Strategic centre
- Centre
- International Airport
- Regional Airport
- Port
- Regional boundary
- Lower Hunter Freight Rail Corridor Preservation
- State roads
- Regional roads
- Railway line

Interventions are shown indicatively and may not be to scale.

Transport projects

In planning

- 1 New England Highway upgrades Rocky Cut
- 2 Kurri to Maitland network upgrades
- 3 Thornton bridge duplication
- 4 Pacific Highway - Raymond Terrace to Karuah
- 5 Nelson Bay Road upgrade - Williamtown to Bobs Farm
- 6 Upgrade Newcastle Link Road/Minmi Road intersection
- 7 Lower Hunter Freight Rail Corridor Preservation
- 8 Speers Point network upgrades
- 9 Hillsborough Road upgrades
- 10 Upgrade to Main Road/ Dora Street, Dora Creek

In progress

- 1 Coulsons Creek Road Upgrade
- 2 New England Highway - Muswellbrook bypass
- 3 New England Highway - Singleton bypass
- 4 Upgrade of roads within Dungog Shire
- 5 Upgrade Clarence Town Road
- 6 Upgrade Bucketts Way
- 7 Cooperook to Harrington Interchange upgrade, Pacific Highway
- 8 New bridge over Mudies Creek
- 9 Upgrade Melville Ford Road and Maitland Vale road

- 10 John Renshaw Drive upgrade program
- 11 Pacific Highway upgrades at Hexham (Hexham Straight)
- 12 M1 Pacific Motorway extension to Raymond Terrace
- 13 Upgrade roads within Port Stephens Council area
- 14 Rankin Park to Jesmond - Newcastle Inner City Bypass new section
- 15 Hillsborough Road intersection with Crockett Street
- 16 Mandalong Road upgrade

Completed

- 1 New England Highway - Scone bypass
- 2 New England Highway upgrade between Belford and the Golden Highway
- 3 Cessnock Road/Orange Street intersection upgrade
- 4 Upgrade at Main Road and Heddon Street, Heddon Greta
- 5 Myall Road/Macquarie Road/Munibung Road intersection upgrade
- 6 Nelson Bay Road upgrade section 1

Figure 12. Hunter region current and planned projects

05 The transport opportunity and challenge



The Hunter is a diverse region with numerous challenges driving change over the next 20 years. The population is focused within Newcastle, the second largest city in NSW. The region is also seeing significant growth, particularly in Maitland, the largest growth area in regional NSW.

The transport network across the Hunter is under increasing pressure from multiple fronts. The level of transport network maturity across the region is variable, making it challenging to connect towns and centres, particularly for disadvantaged and ageing communities.

The population across the region is increasing, along with road congestion and lower travel speeds across key parts of the network. Despite this, active and public transport usage remains low as people continue to prefer the flexibility of the private vehicle. Vehicular crashes are on the rise following a low reached during COVID, with a significant increase in people killed or seriously injured in 2022.

Access to public transport in many places across the region is poor, with services often being infrequent or indirect. Buses can get stuck in traffic congestion due to the lack of priority. Away from the main centres, public transport services are limited, particularly on weekends and public holidays. Passenger trains share the rail line with freight services during off-peak periods impacting provision of additional services.

Intercity train is passing by a farmland near a freight corridor in the Lower Hunter

The Australian Government is planning for a future High Speed Rail Network to connect Brisbane, Sydney, Melbourne and regional communities across the east coast of Australia. The first stage is the Sydney to Newcastle connection.

Land use patterns continue to reflect a car-centric approach to planning, with low-density dwellings prevalent on city edges in Newcastle, Lake Macquarie, Maitland and Cessnock. The region includes a nationally and internationally recognised tourist economy featuring vineyards, entertainment destinations, national parks and popular coastal destinations.

Resilience of the network across the region is an issue with expected changes to weather patterns resulting from climate change impacting the operation of the transport network. Maintaining the transport networks is also an emerging issue as evidenced by the recent partial closure of the New England Highway at Tarro. The Hunter is home to the largest collection of heritage listed timber truss bridges in the state. Many of these bridges are in poor condition with significant work required to bring them up to a suitable standard.

There are ongoing challenges associated with the increasing and evolving freight demand and changes to the workforce with the shift away from coal mining, the closing of power stations, and the move towards renewable energy production. The Port of Newcastle is diversifying its operations and the airport is expanding with long-haul freight opportunities, requiring freight transport corridors that are equipped to manage the diverse and increased freight movements. The transport sector

is also moving towards net zero emissions, requiring planning for infrastructure improvements, policy interventions and behavioural change.

These transport opportunities and challenges for the Hunter were identified through extensive engagement across the region together with data and analysis to validate the priorities for action and delivering change. Change will be achieved through an action plan of draft initiatives identified for short term, medium term and outcomes for the longer term.

5.1 Starting with Country



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

Many of the transport routes we use today, from rail lines, to roads such as the Pacific, New England and Golden Highways, to water crossings follow the 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 Plan is to develop a local transport and services plan, written in partnership with local Aboriginal communities, that ensures that the right services are connecting to the right places at the right times. This process will be transparent, co-designed and identify tangible improvements.

5.1.1 Supporting trips for health and education and to points of significance

Aboriginal people experience disadvantage at higher rates than other communities, not just from a lack of access to transport and longer distances but also through poorer health, increased unemployment, higher incarceration rates and lower education levels.

Transport will work towards facilitating accessible, affordable, and safe transport options for Aboriginal communities across the Hunter, ensuring Aboriginal communities are not disadvantaged when accessing transport. This includes:

- providing reliable and culturally sensitive transport options, especially in relation to maintaining connections to heritage and cultural traditions
- addressing the cost of transport
- coordinating services between transport and healthcare or educational services
- promoting community led services for transport solutions, providing a collaborative approach for flexibility and catering to the needs of the community.

5.1.2 Access to discrete communities

Discrete Aboriginal communities are specific areas for Aboriginal people to live and maintain their cultural practices and traditions. These communities provide cultural continuity, ensuring residents stay connected to their heritage and land. Reliable transport supports cultural and social activities, enabling community members to stay connected to their broader cultural networks. Transport is also vital for these communities to access education, healthcare and employment opportunities.

Transport will work towards enhancing connectivity to remote and discrete Aboriginal communities in the Hunter as shown in Figure 13, including:

- Cabarita – Forster LALC
- Purfleet – Purfleet / Taree LALC
- The Farm – Worimi LALC
- Karuah – Karuah LALC.

Transport will work towards enabling residents to move safely around their community and improve travel choices to connect into local centres, specifically:

- facilitating better access to essential services thereby creating stronger community links and enabling opportunities for employment and education
- delivering roads, footpaths, cycleways, and public transport services that meet the community's needs.

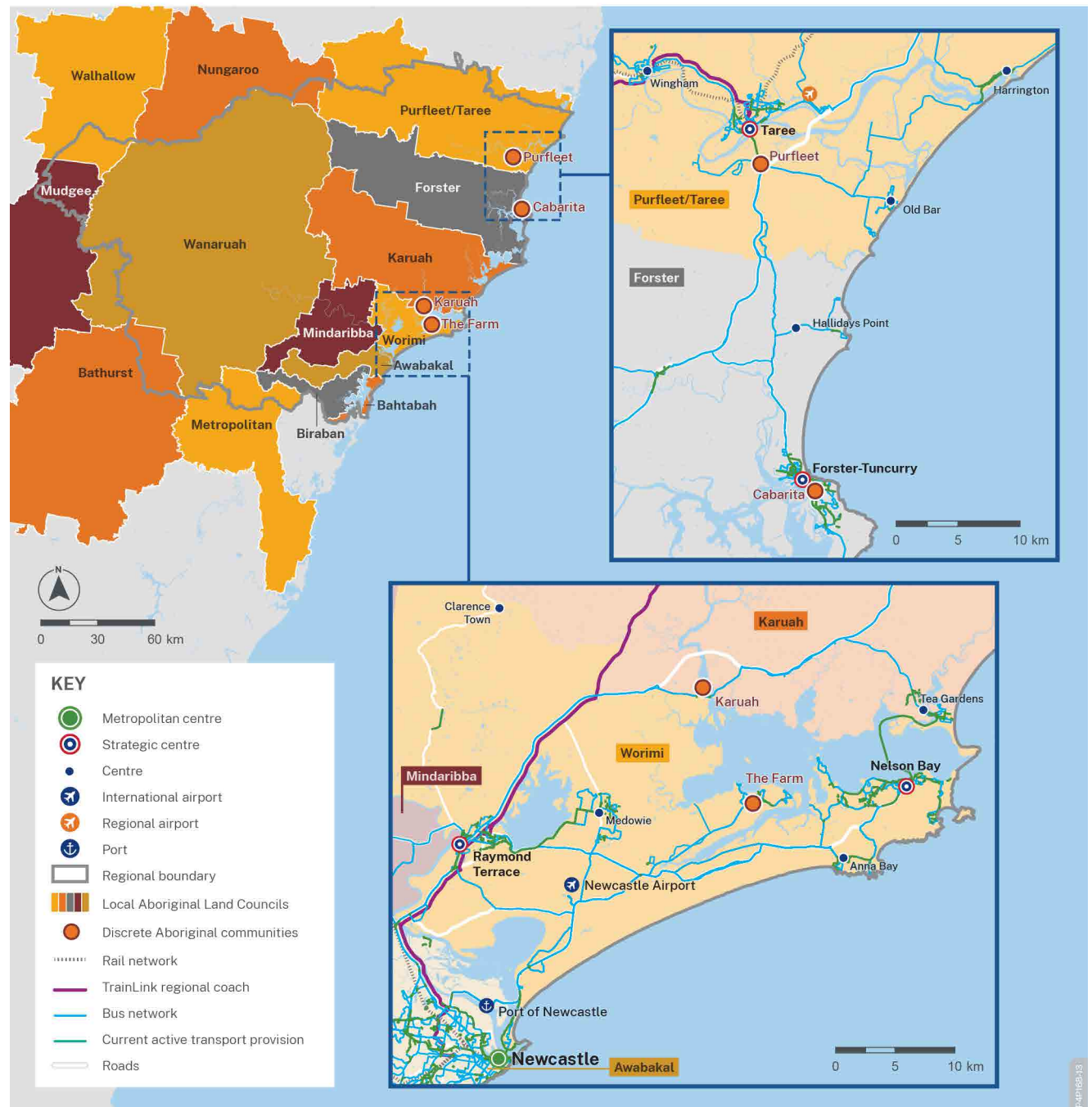


Figure 13. Hunter region Aboriginal Land Councils and Discrete Aboriginal Communities

5.1.3 Delivering a program of Aboriginal place making activities

In 2021, QR codes were rolled out on trains between Sydney and Newcastle allowing travellers to access up to 13 Aboriginal stories that tell some of the history of the Awabakal and Darkinjung lands. As well as relating to places connected with the train's journey, the stories also reflect the broader theme of Country, and the important link between Aboriginal culture, nature and land.

What we heard

- There is a need to identify local places of significance and connect with public transport services and active transport.
- There is a need to engage with the Aboriginal community to provide transport services directly to Aboriginal communities and connect transport infrastructure into major Aboriginal land interests such as in Dora Creek and Mandalong.
- There is a need for clarity on the long-term management and archiving of Aboriginal artefacts that are discovered on Transport sites.
- Consider development of a mapping tool for Aboriginal communities to assist with planning multimodal journeys.

Key opportunities for this program include:

- identifying cultural landscapes
- achieving asset access parity
- all-encompassing transport asset Aboriginal branding that supports story telling.

5.2 Access to transport for all



A transport network that provides a range of travel choices to all people living, working in or visiting the Hunter region.

Barriers to accessing transport can significantly impact a person's ability to participate in employment, education, social, healthcare, and leisure activities. Examples of those who face significant barriers include older people, residents in rural and regional areas, individuals with disabilities or temporary injuries, culturally and linguistically diverse (CALD) communities, and people travelling with dependents. Improved transport access and choice can play a transformational role in improving the wellbeing of these groups across the Hunter region.

The Lower Hunter region, as well as the Newcastle to Maitland corridor, have a well-developed public transport network, however services can often be infrequent, indirect, or not adequately meet customer needs. In the Upper Hunter region, there are gaps in public transport services and some fail to provide a competitive alternative to private vehicles. This is reflected in the fact that only 1.7 per cent of journeys

to work in the Hunter region are carried out using public transport, while private vehicles account for over 90 per cent of trips.²⁷

One in five workers in the Hunter works in health care or social assistance and one in 10 works in education and training.²⁸ These essential workers must be supported with travel choices in their journeys to workplaces in hospitals, schools, local medical centres, TAFE and university.

Improving the service offering and attractiveness of the active and public transport networks are key to reducing car dependency in the region. These services need to meet customer needs more directly, particularly for vulnerable customers and in remote and rural communities.

The Hunter region is home to some of the most disadvantaged communities in Australia, with over 50 per cent of the population of the Cessnock and Muswellbrook LGAs ranking in the most disadvantaged fifth of the NSW population.²⁹ Areas with the highest level of disadvantage typically have low public transport accessibility, while areas with the highest levels of public transport accessibility are typically areas with higher levels of advantage.

The Hunter region's community is also forecast to rapidly change in coming decades, including a growing and ageing population and a transforming and diversifying economy.

The future productivity, liveability, health and sustainability of the Hunter region depends upon a transport network that provides a range of travel choices to people, regardless of where they live or their circumstances.

²⁷ ABS 2021 Census

²⁸ ABS 2021 Census

²⁹ SEIFA Index of Relative Socio-economic Advantage and Disadvantage (IRSAD)

5.2.1 Public transport infrastructure and service availability and quality between key destinations

The Hunter region public transport network, whilst comprehensive, sees very low mode share across the region. Even in Newcastle LGA where the public transport network is well-established, it accounts for only 3.2 per cent of trips to work.³⁰ When looking at all trip purposes, rather than just journey to work, public transport only accounts for 3.3 per cent of trips across the Lower Hunter.³¹

Key challenges with the current system include low service frequency, limited availability outside peak hours, minimal/nil weekend services and indirect routing, particularly between key destinations. Compared to driving and parking, public transport can often take significantly longer. For example, to get from Medowie to Newcastle Interchange takes approximately 1 hour and 10 minutes by bus or 35 minutes by private vehicle. In regional areas of the Hunter this is particularly an issue, as long travel times and limited services prevents the ability for passengers to undertake day return journeys on public transport.

The low public transport accessibility can be measured through PTAL.³² High numbers of residents fall into PTAL band 1 (low accessibility) and 2 (low-medium accessibility) within Lower Hunter and Newcastle City. This reveals that a high

proportion of the Hunter population lives within 400 to 800m of a bus stop or train station but frequency of services at these stops is low.

In particular, areas with poor PTAL include Weston, Kurri Kurri, Heddon Greta, Milfield, Paxton, Bellbird, Lochinvar, Tarro, Aberglasslyn, Hexham, Dora Creek, Awaba, Fassifern, Edgeworth/Wallsend, Williamtown, Nelson Bay, Medowie, Corlette, Tea Gardens and Forster-Tuncurry. Service planning is underway to improve accessibility levels in these destinations, as well as urban centres, areas with high levels of employment density, hospitals, schools, shopping precincts, TAFEs, university campuses, regional open spaces, key tourist attractors and Newcastle Airport.

To address these issues, Transport will focus on:

- increasing service frequency
- expanding service hours
- reducing travel times between key destinations such as schools, hospitals, grocery stores and other local services
- bus priority infrastructure to reduce the likelihood of buses being stuck in traffic
- improved public transport stops
- more walking and cycling first- and last-mile links
- better multimodal timetabling and interchanges.

What we heard

- Public transport is often significantly less competitive in comparison to driving particularly where there is ample parking available.
- The community want to see more direct express buses between key centres.
- Bus fare structures mean that public transport is often perceived as more expensive than driving, particularly where there is free parking available.
- A lack of first and last mile options such as walking and cycling paths prevent people from using public transport more.
- Greenfield growth areas such as Thornton and Chisholm currently have good active transport within the developments but have poor connectivity to established town centres or train stations.
- Footpaths can often be disjointed or missing and do not connect well to bus stops throughout the region.
- Long travel times, limited service coverage, and infrequent connections between towns make it difficult for youth in the Hunter to access opportunities from locations where they can afford homes.

³⁰ ABS 2021 Census

³¹ Household Travel Survey – FY2022/23. Excludes. Muswellbrook, MidCoast and Upper Hunter Shire LGAs

³² Public Transport Accessibility Level – December 2022

5.2.2 Providing services and infrastructure to match the needs of a changing and growing population

The Hunter region is home to around 760,000 people, making it the most populous region of NSW outside of Greater Sydney. By 2041, the population is expected to grow to approximately 950,000 people, an increase of almost 200,000 people. This growth will be distributed across all LGAs, with the exception of Singleton and Upper Hunter Shire which are expected to contract slightly. Similarly, employment is expected to grow by almost 120,000 jobs between 2021 and 2041.³³

Population and employment growth presents a vital opportunity to design transport infrastructure that promotes sustainable travel behaviour from the outset. Well-designed and integrated land use and transport infrastructure delivery, aligned with the Movement and Place framework, can enhance the liveability of the Hunter region and reduce dependency on private vehicles.

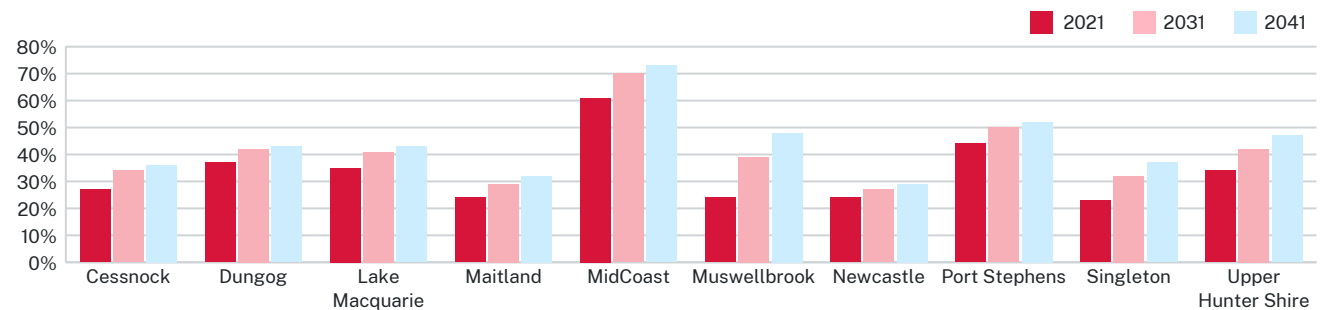
The population of the Hunter region is also changing and ageing. The aged dependency ratio, defined as the ratio of people over 65 to people aged between 15–64, is set to increase from 33 per cent in 2021 to 39 per cent by 2031 and 41 per cent by 2041. This is significantly higher than the statewide ratios of 27 per cent, 33 per cent and 36 per cent, respectively.³⁴ Supporting the ageing population requires a multifaceted approach that addresses the specific needs of these groups, particularly in areas such as Muswellbrook Council with an ageing population as shown in Figure 14.

Migration patterns have also shifted during the COVID-19 pandemic, with a notable influx of people moving to the area from other parts of NSW, while fewer people left. Additionally, the region's economy is transforming, with health, education, and technology emerging as the fastest-growing sectors.

As the population and economy transforms in coming decades across the Hunter region, transport infrastructure and service delivery will need to adapt to better serve the region's evolving needs. Examples of this could be:

- better public transport service provision in areas with the highest population growth including Broadmeadow, Charlestown, Glendale, Warners Bay, Cessnock and Maitland
- day return services for regional communities including the Upper Hunter to Tamworth and Newcastle
- investigation of new or upgraded stations in key growth areas such as Morisset and Cockle Creek

- more public transport services in areas with high concentrations of the fastest growing industries such as health, education and technology
- utilising the new capacity created by lower numbers of coal trains on the Hunter Line to provide additional passenger service frequency, especially to Singleton and Muswellbrook
- provision of public transport from 'day one' in greenfield areas to establish high patronage and reduce car dependency
- ensure public transport is physically accessible to all users and caters for a diverse range of older, mobility impaired or otherwise disadvantaged people
- ensuring well-lit, clearly signposted facilities, provision of ramps, elevators, tactile paving, accessible restrooms, seating, shelter, easy to read maps and timetables and prioritisation of relevant facilities such as healthcare providers or community facilities
- more bus services connecting smaller communities and essential services in different centres across the day and week.



Source: NSW 2022 Common Planning Assumption Projections

Figure 14. Aged dependency by local government area

³³ TZP22 Forecasts

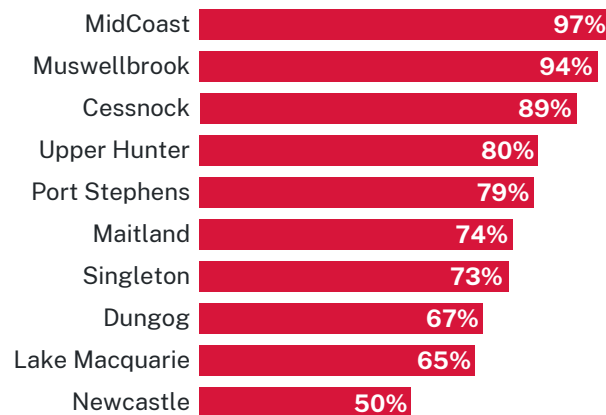
³⁴ 2022 Common Planning Assumption Projections

5.2.3 Providing services in small, geographically dispersed locations

Outlying and remote areas in the Hunter region, such as Muswellbrook LGA, are experiencing slower population growth, while others like Singleton and Upper Hunter Shire LGAs are forecast to experience population decline. Many of these areas have a high proportion of vulnerable customers who face combinations of both geographical isolation and personal challenges such as age, socioeconomic status, ability levels, and life circumstances. MidCoast, Muswellbrook, Cessnock, Upper Hunter and Port Stephens LGAs all have over 75 per cent of their populations in the bottom half in terms of advantage/disadvantage, as shown in Figure 15. The development and land use patterns of these areas has resulted in a high car dependency with limited alternatives to driving for many journeys.

Despite this, many households do not own a motor vehicle – including in Tomago (11 per cent), Taree (10 per cent), Forster-Tuncurry (7 per cent), Muswellbrook (7 per cent), Denman (7 per cent) and Murrurundi (7 per cent). Furthermore, households with Aboriginal and/or Torres Strait Islander Person(s) are approximately 20 per cent more likely not to have a motor vehicle than other households.³⁵

Smaller and geographically dispersed locations have low public transport usage and services are often slow, infrequent, inflexible in terms of timing or routing or completely unavailable.



Source: Socio-Economic Indexes for Areas (SEIFA) 2021

Figure 15. Percentage of LGA in the state's bottom half for advantage/disadvantage (based on SEIFA IRSAD score)³⁶

For example:

- the town centres of Merriwa in Upper Hunter LGA, Clarence Town in Dungog LGA and Broke in Singleton LGA currently have no public transport option
- the town of Tea Gardens only has two bus services connecting to Newcastle per day.

Many services in the region are day return services which operate one service into a centre in the morning and a return service in the other direction in the evening. Transport will continue to investigate provision of additional day return services, particularly where they are not currently available. Day return services provide a critical service for some customers, such as those travelling into town to visit friends and family or for a shopping trip. However, they can often result in long wait times, such as school students

and younger people arriving significantly early or waiting around much later after activities due to inflexible and infrequent public transport schedules. Higher service frequencies to key destinations, as well as increased flexibility in timing and routing, are critical to providing greater choice for these customers.

Public transport services can also be limited or absent in regional areas. For example, in the centres of Wingham, Harrington and Old Bar there are currently no services operational on weekends and public holidays.

Within the strategic centres of Taree and Forster-Tuncurry there are currently no town services operating on Sundays or public holidays and significantly reduced services on Saturdays.

Outlying towns and regional areas also have a high potential for walking and cycling for short trips. In the town of Merriwa, the majority of residents are within a 15 to 20 minute walk of the town centre on the Golden Highway. However, poor walking infrastructure such as the lack of footpaths or the inability to cross the major roads that often dissect smaller towns can make walking unattractive to the community. With a growing population and increasing traffic, higher prioritisation of walking infrastructure will become more important. Additionally, many Aboriginal communities are in these regional areas and would benefit significantly from improved roads, walking, cycling, scheduled and flexible transport services.

³⁵ 2021 Census

³⁶ Socio-Economic Indexes for Areas (SEIFA) 2021



Lake Macquarie on-demand service

On Demand buses

On Demand is a flexible public transport service designed to improve connections to transport hubs and popular destinations like shopping centres or hospitals.

On Demand is currently operational in Lake Macquarie where it runs alongside fixed route bus services to help connect residents and visitors to key activity centres such as Charlestown, Warners Bay, Mount Hutton and Belmont. It provides a more customised and flexible experience for customers and can also help reduce the amount of underutilised buses around the region. The Lake Macquarie On Demand service reported a total of 45,000 trips in 2023.³⁷

There are other On Demand services operating around NSW, including in Moree, Coffs Harbour, Northern Rivers, Sapphire Coast and South Coast / Canberra.

³⁷ Transport for NSW, 2024

Partnership between Transport and these communities, including community groups, community transport service providers and transport operators is critical to develop targeted transport solutions, ensuring that vulnerable populations receive adequate support.

In the long term, Transport will investigate the suitability of providing on-demand buses to service outlying regional areas. On-demand buses present a potentially transformational solution and could better meet customer needs through ensuring flexibility in routing and timing while also enhancing the financial sustainability of the system. Transport will continue to investigate the provision of adaptable and responsive transport options in the medium to long term to ensure all residents, regardless of their location or characteristics, have access to the services they need.

5.3 Well-located housing and successful places



Support the delivery of well-located housing and successful places through sustainable transport options to address growth in the Hunter.

The Hunter's population is expected to increase by 24 per cent to nearly 950,000 people by 2041, requiring an additional 101,800 dwellings.³⁸ Key feedback from stakeholders highlights the need for an integrated transport plan to facilitate

³⁸ Department of Planning, Housing and Infrastructure, 2022. Hunter Regional Plan 2041. NSW Government

housing development in the Hunter and the necessity for public transport services from the initial stages.

In the short-term, the greatest opportunity to deliver homes with the most travel choices is to focus development around existing transport infrastructure, as per the objectives of the Transport Oriented Development program and the low and midrise housing policy for the Greater Newcastle Area.

The [DPHI Hunter Regional Plan 2041](#) acknowledges the region's changing nature and emphasises sequential planning and infrastructure development. The plan prioritises infrastructure-led place-based planning for future growth, with district planning and growth areas overseen by Place Delivery Groups. Place strategies aim to provide certainty to the community regarding significant changes and identify essential infrastructure.

A Hunter Urban Development Program (UDP) committee has been established to aid infrastructure delivery, which also considers infrastructure contribution schemes where relevant. An Upper Hunter and MidCoast UDP also operates for the Singleton, Muswellbrook, Upper Hunter, Dungog and MidCoast LGAs.

Transport analysis indicates that many new residents must travel outside immediate growth areas to access employment, education, and essential services. As described in the earlier Challenge, for most of the Hunter there is not a fast, frequent public transport service to be used

by these new residents. The rapid demand for dispersed housing growth has increased reliance on existing road networks, resulting in congestion during peak times.

In response to the national housing crisis, the NSW Government has set five-year housing completion targets for 43 councils across NSW, including in the Lower Hunter and Greater Newcastle area, and one target for regional NSW. These targets prioritise the development of diverse and well-located homes in areas with sufficient existing infrastructure capacity, such as transport and water servicing.

The distribution of housing across the Lower Hunter and Greater Newcastle can be seen in Figure 16 based on the NSW Government housing targets. For Muswellbrook, Singleton, Upper Hunter, Dungog and MidCoast the additional five year target has not yet been broken down by LGA, but set at 55,000 dwellings across regional NSW.

5.3.1 Delivering upgrades to existing networks to support housing growth

The Hunter transport network needs to accommodate significant new development to meet the government's goals of delivering more homes, supporting economic growth, and diversifying the Hunter region. Rapid population and employment growth are projected, and plans are in place for new growth corridors separate from existing infrastructure. DPHI is planning for new housing areas, mainly across the Lower

Hunter and Greater Newcastle area, including the Metropolitan City of Newcastle and various towns and villages:

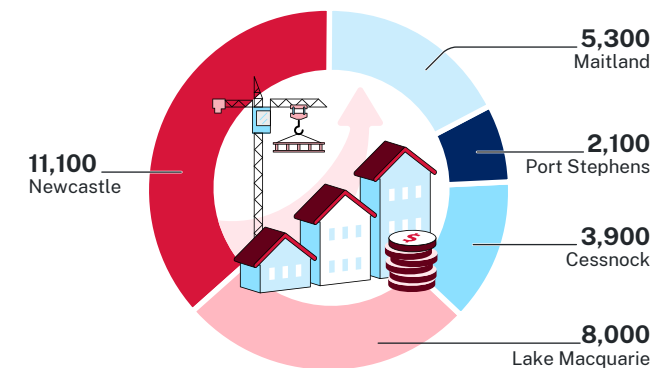
- **Maitland:** the Anambah to Branxton region, located between Greater Newcastle and Upper Hunter Districts, bounded by the strategic centres of Cessnock, Maitland, and Singleton
- **Lake Macquarie:** Morisset and the North West Lake Macquarie urban release area
- **Newcastle:** greenfield areas around Minmi lands adjoining the planned Newcastle Link Road and infill at Broadmeadow.

Many of the road corridors servicing these growth areas are already congested with some additional capacity required in the future, in particular the Newcastle Link Road, MR195 Cessnock Road and MR217 Main Road from the M1 Interchange at Morisset.

Improved road connections and safety upgrades to these key roads will support housing growth through safety and efficiency improvements, increased cross-connectivity and potential bus priority on major corridors. In addition to road infrastructure improvements, there is a need to refocus planning and increase investment around active and public transport infrastructure and services. This includes uplifting the quality and connectivity of active transport infrastructure and improving the competitiveness of public transport through the provision of frequent bus services across the day and week. Further improvements to the road infrastructure will support the delivery of housing which can access a well-functioning transport network.

A major opportunity exists to create transport-oriented communities along the Anambah to Branxton corridor with train station upgrades and service improvements. There is also a need to consider a range of policy changes in collaboration with councils. The cost of parking and of public transport and the provision of parking for new developments are factors that will influence how people will choose to travel in and around centres in the future.

The Hunter Rail Line presents an opportunity to redefine regional public transport travel. Though currently configured as a major strategic rail freight connection between coal mines and Newcastle, its role can be expanded to provide a fast, frequent, and reliable suburban passenger rail service for everyone in the Hunter region, especially new residents in the Anambah to Branxton growth area and the strategic centres of Singleton and Muswellbrook. Moreover, an upgraded passenger rail network and supporting station facilities would provide a more sustainable alternative mode of travel and address public transport access inequity across the region.



Source: NSW Government commitment under the National Housing Accord.

Figure 16. NSW Government 5-year housing targets for Hunter councils

Delivering the Lower Hunter Freight Corridor will benefit the supply of housing in the region through the removal of freight trains on the Main North Line between Fassifern and Newcastle. This would result in benefits to amenity through reduced rail noise and provide additional capacity for passenger train services.

The Kurri Kurri to Maitland corridor connects the suburbs of Heddon Greta, Cliftleigh and Gillieston Heights and is anticipated to accommodate a further 5,000 dwellings across the next 20 years.³⁹ Combined with the traffic growth on the corridor as a result of the opening of the Hunter Expressway, there is a clear need to invest in infrastructure and services to manage increasing trips in the future.

Already, Transport has invested significant funds along the corridor including increasing the flood resilience of Testers Hollow and improving traffic signals at the intersection of Main Road and Heddon Street. New investments in the area may include active transport connections between the suburbs and across to Kurri Kurri and faster, more frequent and direct bus services between Cessnock and Maitland.

Transport will work with relevant planning authorities including Cessnock and Maitland Councils and DPHI to improve access points into surrounding residential catchments and to ensure the connecting road between Gillieston Heights and the Hart Road interchange is delivered in a timely manner.

As the largest urban population in NSW outside of Sydney, a range of opportunities exist to transform the way people move around Greater Newcastle:

- Planning will continue on a future transit corridor from the Newcastle Interchange to Broadmeadow to enable growth, facilitate activation and connect the centre to more places in future.
- A review of the bus network will be undertaken to introduce a range of services including fast, frequent, direct services between strategic centres across the region.
- Transport will work with councils and key stakeholders to develop an active transport network to progressively provide a connected system physically separated from general traffic that can be safely used day and night.
- Key strategic road upgrades and improvements will also support and enable housing through safety and efficiency improvements, cross-connectivity and potential bus priority on major corridors.

5.3.2 Location of new housing centres

The Transport Oriented Development (TOD) program is a NSW Government initiative to deliver housing around key transport hubs. The TOD program aims to increase housing supply and density near existing and planned public transport locations, focusing on promoting the construction of affordable housing. Transport will collaborate

with councils and DPHI to address transport infrastructure planning, support master planning and infill developments, including TODs.

The stations in the Hunter region to which the TOD Provisions apply are as follows:

- Newcastle LGA: Adamstown, Hamilton, Kotara, Broadmeadow and the Newcastle Interchange stations.
- Lake Macquarie LGA: Booragul, Morisset, Teralba, Cockle Creek, and Cardiff stations.

Delivering new homes at established transport hubs can result in more sustainable travel choices, encouraging less private vehicle usage, reducing car ownership and reducing the demand for both road space and parking, thereby contributing to a reduction in the cost of development. Along the Hunter Line there is potential for new developments around stations served by frequent trains, and potentially more stations that could result in a more sustainable urban form.

Morisset is recognised as a location of strategic significance for population and jobs growth. A coordinated place-based approach to planning and infrastructure delivery is underway to guide future development and growth. Morisset has strong transport connections due to rail passenger services and its position on the M1 Pacific Motorway catering to projected housing and jobs growth. Planning is underway to redevelop Morisset Golf Course into a 30,000 person event centre for live entertainment, restaurants and an aquatic play park. In response to growth in and around Morisset, planning is

³⁹ Transport for NSW, August 2021



Newcastle Inner City Bypass upgrade

Roads to open doors

Transport will continue to work with DPFI, Councils and the development industry to support the delivery of housing.

In addition to supporting permeable local road networks, there is the need to have sufficient capacity on the state road network to connect between places and deliver adequate capacity for the movement of people and goods. This includes:

- pedestrian and cycling connections
- suitable bus stops and priority
- reliable travel times for freight and commercial vehicles
- safe and efficient movements for private vehicles.

This will include improvements to MR195 Cessnock Road, MR217 Main Road, New England Highway and Newcastle Link Road including Minmi Road.

underway to improve key transport connections including walking and cycling connections across Dora Creek to reconnect the community and deliver town centre amenity improvements. Morisset station will require upgrading to support increased residential development, jobs growth and event centre activities.

Facilitating well-planned last mile freight access will be important to service a growing population and new centres. Planning and approving authorities have an opportunity to secure economic, social and environmental benefits by ensuring that freight and servicing vehicle movements are well-planned and well-managed. The Last Mile Toolkit and Urban Freight Forecasting Model have been developed as resources to support this process.

Prioritising efficient construction traffic to support the delivery of new homes and places will support the development of new housing across the Hunter. The supply chain task to build new homes and commercial centres will substantially increase the transport and supporting industrial land task as well as generating further supply chain jobs. The transportation of construction materials will be significant. In addition, many of the identified TOD locations in the Hunter region interface with key freight infrastructure and active freight rail lines. These interfaces must be well planned to minimise potential amenity impacts for residents through appropriate setbacks and noise and vibration treatments.

5.3.3 Prioritising improvements to local transport networks to support established towns and smaller centres

Enhanced connectivity and competitive, comfortable transport are essential for making active and public transport an appealing and practical option compared to private vehicles. The challenge, particularly for smaller towns and centres is attracting the funding needed to make road user space allocation changes that will improve local amenity.

Roads and streets serve as vital transport routes but also need to cater to the diverse needs of different users and contexts. Transport is committed to accommodating all road users, prioritising pedestrians, cyclists and those who need to stop and stay.

In rural areas, many main streets are still identified as 'highways' or 'roads' despite serving different purposes. Examples in the Hunter region include Merriwa, Scone, Muswellbrook, Singleton, Cessnock and Greta.

The New England Highway passes through Singleton and is the main road access through town. Work is currently underway on the Singleton Bypass to remove high numbers of traffic including freight movements from this growing centre. There are key opportunities to leverage the bypass to improve liveability of the centre by improved walking and cycling networks, safety upgrades and improved travel choice to support a move away from private vehicles, particularly for short trips. Transport will work with Singleton Council to enable projected residential growth at Hunterview

and Singleton Heights through improvements to the transport network and supporting amenity improvements and place-making opportunities.

MidCoast LGA has a number of centres east of the Pacific Highway including the strategic centre of Forster-Tuncurry. Public transport services are limited and the district is largely car reliant, resulting in many residents facing mobility and access challenges. The opportunity to have more short, local trips made by walking and cycling must be a key consideration as new developments roll out.

Planning is underway to improve active transport links to key transport interchanges as well as public transport service improvements, including day return travel to key health and education hubs, between regional towns and villages and to strategic centres.

What we heard

- There is a ‘missing middle’ of network planning for growth.
- We need infrastructure to be identified, costed, planned and delivered to support the delivery of homes and jobs.
- The priority needs to be for homes and jobs with equal access for all.
- North-West Lake Macquarie growth area needs implementation of multimodal transport options to realise the Cockle Creek TOD precinct.
- Bus service improvements are needed to support population growth and provide new connections to underserved areas.
- Planning for strategic cycleway corridors is needed to prioritise cycling connections along key routes to open up housing potential for key areas such as Adamstown, Broadmeadow and Mayfield.

5.4 A thriving and diversifying economy



Provide an efficient transport network to support a diversifying and growing economy including tourism, freight movements and enabling renewable energy zones.

There are ongoing challenges and opportunities for the Hunter region’s economy, associated with increasing and changing freight demand and changes to the workforce as well as the development of renewable energy zones with the shift away from coal mining and closing of power stations. Ensuring freight transport corridors can handle the increased and varied freight traffic will also be key to supporting the Port of Newcastle diversification and long-haul freight opportunities from the airport.

Tourism makes a significant economic contribution in the Hunter region. To continue to grow domestic and international visitor numbers, transport in the Hunter will need to adapt to peak demands. Greater uptake of rail and bus trips by visitors and opportunities for active transport will assist with the current road congestion challenges.

Similarly, with employment progressively shifting away from the mining sector, strategically supporting employment growth areas by improving transport connectivity within and beyond the region is critical to facilitating the economic growth and diversification of the Hunter region.

5.4.1 Supporting the energy transition

The changing nature of the Hunter's coal industry towards renewables and the reduction of domestic coal demand provides an opportunity to diversify the range of freight transported on the Hunter Valley Coal Network (HVCN) including on the Hunter Rail Line and increase the public transport capacity. This shift allows for a greater volume of freight and passengers to be serviced. Additionally, repurposing existing infrastructure, such as freight train paths and mining haul roads, for transporting renewable energy components and other freight commodities extends the life of valuable infrastructure, creates green jobs and reduces carbon emissions.

However, this transport opportunity will be developed over the long-term. Currently, 98 per cent of current coal paths on the HVCN are designated for export⁴⁰ rather than domestic use meaning that the timing of coal decline and release of coal freight networks will be heavily influenced by external markets rather than Australia's net zero commitments.

During the decline in coal and reduction in coal related revenue, the HVCN may need to be considered for rationalisation where the opportunity to repurpose the infrastructure is not viable.

Establishing renewable energy zones (REZ) requires the transportation of infrastructure components from the Port of Newcastle to the REZ. Coordination with EnergyCo, industry, local government agencies and representative groups, will occur to identify the specific needs for safe and efficient oversize and overmass (OSOM) vehicle movements, particularly the highly impactful fan-blade movements, to support the sustainable energy transition in and through the Hunter region. The first approved REZ is in the neighbouring Central West and Orana (CWO) region and coupled with the proposed New England North West (NENW) REZ, the movement of OSOM vehicles within and through the Hunter region from the Port of Newcastle will require use of the state road network.



Windmill blade at Hexham, traveling to Rye Park

Renewable energy zones

Renewable energy zones (REZ) will group new wind and solar power generation into locations where it can be efficiently stored and transmitted across NSW. Three of the identified REZ areas will influence the transport network in the Hunter region. Hunter-Central Coast REZ includes areas of the Upper Hunter, Muswellbrook, Singleton, Dungog, Cessnock, Maitland, Port Stephens, Newcastle and Lake Macquarie within the Hunter region. Both the Central West and Orana and New England North West REZs are located adjacent to the Hunter region and will use the transport network within the Hunter region to establish these renewable power generation areas.

Windmill blades used in a REZ can be 80 to 100m long and have an estimated life of around 15 years before replacement is required. As a result, the oversize overmass transportation of this infrastructure will continue beyond the initial establishment.

⁴⁰ Transport for NSW, Open Data Hub and Developer Portal, Freight Data, accessed August 2024

Key OSOM routes to service these REZ include Industrial Drive, Pacific Highway and Maitland Road, the New England and Golden Highways and connections to the Hunter Expressway.

The initial establishment of these two adjacent REZs alone will result in an estimated 8000 OSOM movements for the CWO REZ and around 6000 OSOM movements for NENW REZ from the port within the next five years, placing additional demand on the state road network. The significant increase in OSOM movements provides an opportunity to experiment with a combination of regulatory adjustments, capital works, and alternative routes to meet the growing OSOM demand.

The region's employment needs are changing due to the transition from coal, the future establishment of the Hunter-Central Coast REZ and the emerging large agribusiness sector. Key road projects including bypasses of Singleton and Muswellbrook are in planning or underway. Completion of these bypasses will significantly reduce freight and general traffic travelling through these towns and allow existing roads to be re-imagined, supporting improved active and public transport connections.

In response to the transition away from coal mining, the Port of Newcastle is seeking to diversify its operations with the following measures:

- in the short term, through a completed multipurpose terminal to receive windfarm and renewable energy components

- in the future, a planned container terminal and by facilitating growth of other commodities such as bulk liquids, vehicles and general cargo
- developing a clean energy precinct covering onshore and offshore wind turbines, as well as hydrogen, ammonia and other energy sources
- potential facilitation of other maritime activities and increased cruise visitation.

A key catalyst to this transition and the augmentation of container freight will be the timing and intermodal connections of the Lower Hunter Freight Corridor, as well as its connection to Inland Rail. The dedicated freight line will bypass the urban area of Newcastle and provide the opportunity for more efficient and reliable freight movements. The corridor will provide a connected link between regional areas and major ports contributing to the overall seamless connectivity of the supply chain, including agricultural products and the renewable energy supply chain.

5.4.2 Supporting tourism sustainably

Newcastle Airport, serving a catchment area of approximately 1.1 million people,⁴¹ is rapidly becoming a crucial hub for the Hunter region, driving economic growth and global connectivity. The airport's expansion aims to boost tourism by attracting more visitors and facilitating easier travel. Providing accessible public transport connections to the airport is essential for maximising its potential and encouraging tourists to explore the Hunter's attractions. Additionally, workers commuting to tourism-related businesses,



The Levee, Maitland © Destination NSW

Shiraz to Shore Trail

The Shiraz to Shore rail trail, an initiative of the Hunter Joint Organisation, aims to boost cycle tourism and active transport and become a growing focus for tourism in the Hunter region. The proposed Shiraz to Shore Cycle Trail aims to connect the vineyards of the Hunter Valley with the scenic coastal areas, offering an eco-friendly travel option. Once completed, the cycleway will also serve as an alternative transport link, improving accessibility between rural and urban areas, providing opportunity for economic growth in smaller communities along the trail.

including Newcastle Airport, have limited transport options, especially during off-peak hours. Public transport services do not always align with shift work or tourism operating hours which often include early mornings, late nights, and weekends.

The aerospace precinct and RAAF operations at Williamtown are set to expand significantly. As the growth around the co-located Newcastle Airport and Williamtown RAAF Base increases, the at-grade Pacific Highway intersection at Meadowie Road will become a key connection, as will the roads and intersections at Cabbage Tree Road, Tomago Road and Masonite Road. Improved multimodal transport services will be needed to support the growing number of visitors and the expanding workforce at both Newcastle Airport and the RAAF Base Williamtown, thereby supporting the region's economic growth.

Currently, there are limited public transport options outside of the Newcastle metropolitan areas to service key tourist attractions such as the Hunter Valley wine region, Foster-Tuncurry and Barrington Tops areas. Many domestic visitors use private vehicles to visit and explore the region due to its proximity to Greater Sydney. A private vehicle offers flexibility in visiting dispersed attractions as well as the ability to select a more direct route to popular tourist destinations.

Seasonal demand on the transport network and major events, such as national and international sporting events at McDonald Jones Stadium (also known as Hunter Park) in Broadmeadow, are predictable forms of additional demand. Across the Hunter region, this demand is usually driven by



Freight train at Hexham train support facility

long weekends, school holidays, and major events. Enhancing accessibility and providing multimodal travel options for visitors and tourism workers especially during peak times, will improve visitor experience and boost the visitor economy. This is particularly important for easy access to the popular Hunter Valley vineyards and cellar doors.

The Broadmeadow precinct is currently undergoing planning for a state-led rezoning to reimagine the area for 20,000 new homes and 15,000 new jobs.⁴² This presents an opportunity to leverage from upgrades to Hunter Park and the relocation of existing sporting facilities to create a world-class sports, leisure and entertainment precinct supported by public transport. Broadmeadow Station presents an opportunity to improve active and public transport connections through new walking and cycling paths. High-frequency public transport in Broadmeadow will also support the increased seasonal demand during special events.

5.4.3 Supporting the safe and efficient movement of all freight on roads and rail

The Hunter is a significant generator and end destination of freight in the NSW freight network. Economic growth in the region relies on the movement of goods through efficient and reliable freight connections. The value of the Hunter region as a transport and logistics hub extends to wider NSW and indeed Australia. The region's market and distribution facilities service producers across NSW, including in parts of Western and Northern NSW, and enables the export of their products interstate and overseas. The ability of producers within the region's freight catchment to move agricultural, manufactured products and natural resources to domestic and export markets in a timely and efficient manner directly impacts productivity and is a major factor driving economic performance in the region.



What we heard

- The increased number of OSOM movements from the Port of Newcastle to REZs will need coordination and a streamlined process.
- There is an opportunity for additional passenger capacity and services on rail lines as freight diversifies and bulk coal haul reduces.
- Connections to key trip generators such as the Port and Airport need to be improved, including linking to the planned Lower Hunter Freight Corridor, to accommodate freight, employment opportunities and visitors.
- Cycle and active transport tourism is increasing in the Hunter region and the Shiraz to Shore cycleway will support economic growth in this area.
- Limited public transport options and services creates a barrier for access to employment.

Supporting well located industrial and freight activity precincts such as the Port of Newcastle, Newcastle Airport and surrounds, industrial lands at Black Hill, Beresfield and Tomago by improving connections to the network of nationally significant road and rail links will provide increased opportunity to strengthen supply chains across the construction, agriculture,

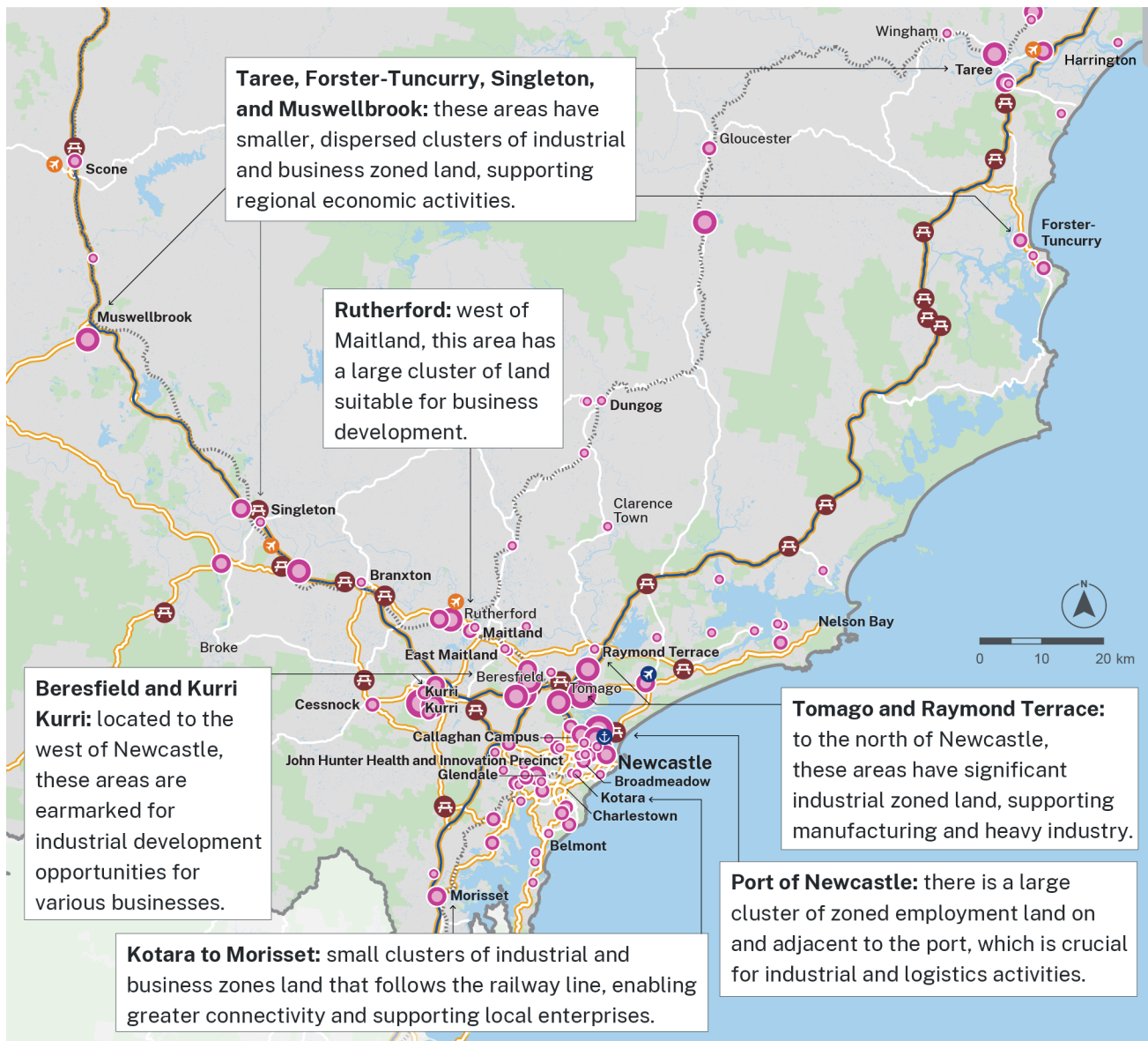
Aerial view of a truck loaded with construction supplies

First and last mile freight delivery is a significant consideration for enabling efficient 'farm gate to plate' or agricultural produce movements from the paddock to the desired destination markets particularly for the Upper Hunter and Barrington districts. In partnership with the Livestock, Bulk and Rural Carriers Association and NSW Government, a Farm Gate Access program has been developed to enable more productive vehicles to safely transport grain and livestock from the farm gate to market and reduce the red-tape for access permits for farmers and transport operators.⁴³

The changing freight task in the Hunter region presents several opportunities for the rail network, including potential diversification of

freight traffic and greater accessibility from connecting regions, offering increased flexibility, efficiency and versatility in freight handling. Furthermore, the proposed Lower Hunter Freight Corridor will provide for a future dedicated freight rail line between Fassifern and Hexham, bypassing the Newcastle urban area, easing congestion by separating most rail freight from the Main North Railway line and improving reliability and safety. This will not only enhance the efficiency of freight transport but also provide additional capacity on the Main North Line and opportunity for increased rail services to Newcastle, stimulating economic growth and job opportunities in the region.

⁴³ Farm Gate factsheet May 2022 (nsw.gov.au)



Heavy vehicle parking on the Golden Highway at Sandy Hollow

energy and manufacturing sector which are significant contributors to the region's economic competitiveness.

The National Land Transport Network within the Hunter region facilitates key freight movements, supports key industries through road and rail links to the Port of Newcastle and facilitates intra- and inter-regional freight movements. The Golden Highway, whilst not currently part of the National Land Transport Network, provides a strategic link to the Central West and there is scope to seek the route's inclusion in the network. Other corridors like Tomago Road, Newcastle Link Road, Lake Road and Cessnock Road support primary freight corridors by providing inter-regional connectivity to key centres and industrial precincts. In NSW, the heavy commercial vehicle fleet has grown by more than 60 per cent since 2000.⁴⁴

⁴⁴ Transport for NSW, NSW Heavy Vehicle Access Policy: Safe, sustainable and productive road freight, September 2024

Figure 17. Hunter freight network and employment lands

Moreover, there is a growth in the number of high productivity vehicles (HPV) to meet the growing consumer demand, particularly for HPVs enrolled in the Performance Based Standards (PBS) Scheme. The PBS fleet has doubled between 2019 and 2023. Under a high growth forecast, PBS vehicles could make up nearly half of the road freight task by 2030.

With this growth, including of low and zero emissions heavy vehicles, there is a significant opportunity for improved safety, sustainability and productivity outcomes.

However, as the region shifts towards using HPVs to meet growing freight demand, the local infrastructure connecting into the National Land Transport Network will need to adapt. This includes maintaining and upgrading roads and bridges to handle the increased weight and size of these vehicles, as well as ensuring there are adequate rest areas for truck drivers to manage fatigue.

There are 21 rest stops within the Hunter that accept both light and heavy vehicles. Heavy vehicle rest stops in the Hunter region face significant capacity issues, with existing stops often being full and inadequate facilities for drivers. Additionally, there is a lack of dedicated rest stops for heavy vehicles, forcing drivers to use informal or unsuitable locations.

As a minimum, major rest areas should be generally located at 100km intervals, on both sides of the road.⁴⁵ The Golden Highway Corridor Strategy released in 2016 has identified a gap in heavy vehicle rest areas around Sandy Hollow along the



Pilot escort vehicle and truck with oversized load travelling on Tourle Street Bridge

Golden Highway corridor. Drivers currently use the local service station amenities and park on the road shoulder as an informal rest stop.

The Hunter region has several proposed new employment lands aimed at supporting economic growth and diversification. Key zoned employment land locations are included in Figure 17. The development of these new employment lands in the Hunter is likely to impact on the transport network.

Increased freight and commuter traffic will place additional demands on existing road and rail infrastructure. Public transport options will be necessary to service these new employment areas for employees. Enhanced bus routes with improved connections to major employment

hubs can reduce congestion and provide reliable transport for workers. Additionally exploring rail connections to key industrial zones can offer a sustainable and continued efficient alternative to road transport. Investigating opportunities for fast, frequent and direct services to progressively connect to industrial growth areas, including a fast and frequent bus service connecting Rutherford into Maitland railway station, Newcastle to Kurri Kurri and the other key commercial areas and integrating active transport options that connect to employment areas will ensure that workers have transport choice and a safe and convenient access to their jobs, further supporting the region's economic growth.

⁴⁵ Austroads, Guidelines for the Provision of Heavy Vehicle Rest Area Facilities, Research Report AP-R591-19 (2019)

5.5 A safe transport network



Reduce fatal and serious injuries on the transport network and address safety concerns for public transport passengers

Transport is committed to achieving zero trauma on the road network by 2050 and zero trauma on waterways by 2056. The NSW Government has adopted the internationally recognised safe systems approach to transport safety. This approach recognises that users and those who design, maintain and regulate the transport network share responsibility for reducing risk. It acknowledges that people make mistakes and machines can fail and assists users in reducing both the risk of incidents and the consequences when they occur.

A safe transportation network is vital for providing mobility across the Hunter region. Transport’s 2026 Road Safety Action Plan aims to reduce fatalities from road crashes by 50 per cent and

serious injuries by 30 per cent (compared to average 2018–2020 levels) as part of the broader vision to eliminate road trauma by 2050.

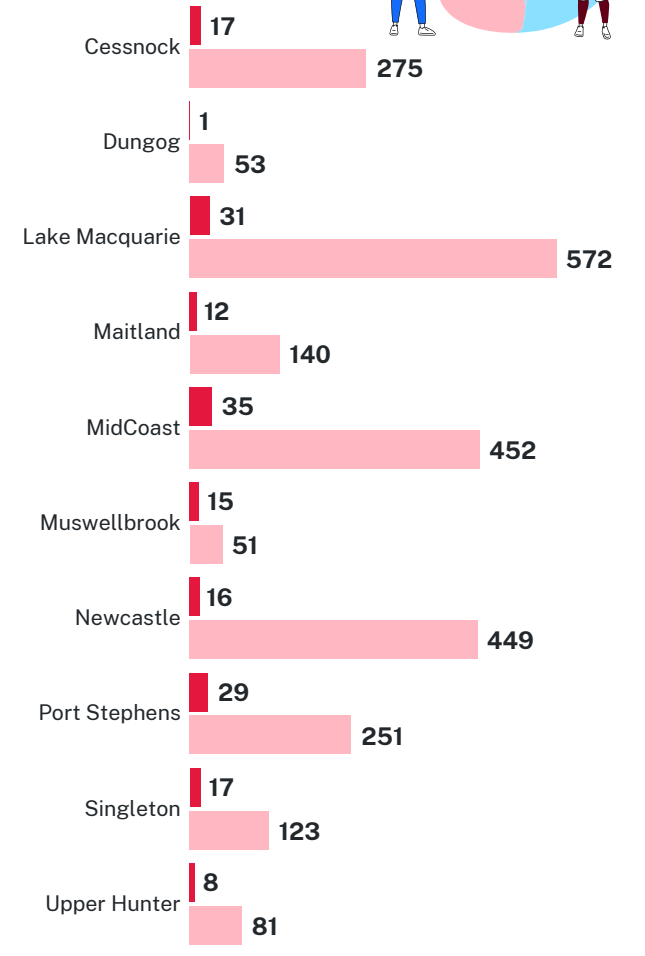
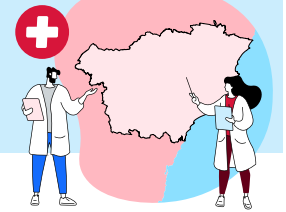
Transport’s Maritime Safety Plan 2026 seeks to reduce waterway fatalities and serious injuries by 30 per cent by 2026 (based on average 2019–2021 levels).

Across the Hunter region road network, a total of 181 people lost their lives and 2447 people suffered serious injuries in road crashes for the five year period 2018 to 2022. The two highest behavioural factors contributing to fatal crashes in the Hunter region were speeding with 49 per cent (NSW average of 40 per cent) and the use of illicit drugs with 33 per cent (NSW average of 23 per cent) from 2018 to 2022 (Figure 18). MidCoast reported the highest number of fatalities for Hunter LGAs with 35 during this five-year period followed by Lake Macquarie with 31 (Figure 19).

Safety is also a crucial element to encourage greater uptake of walking and cycling around public transport hubs.

Hunter fatalities and serious injuries by local government area, 2018 to 2022

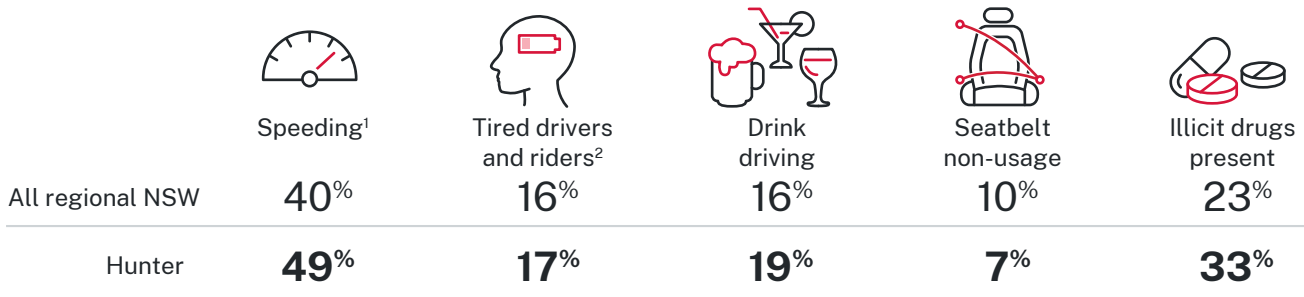
The Hunter region accounts for **17% of all fatalities** and **23% of all serious injuries** across Regional NSW.



■ Fatalities ■ Serious injuries (Matched)

Source: Transport for NSW

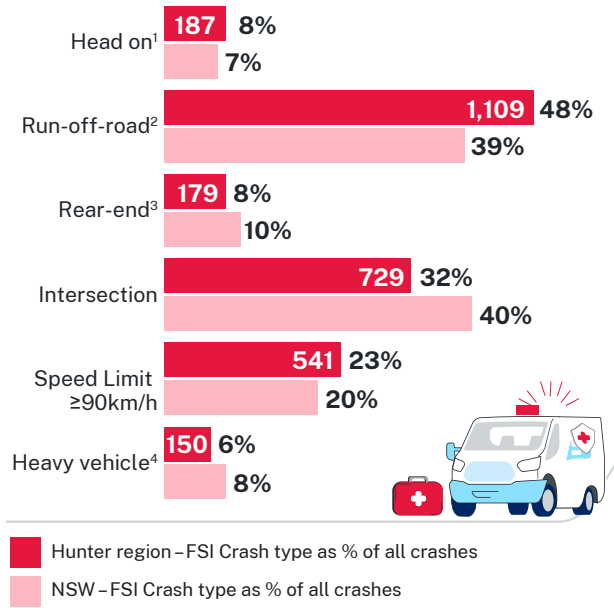
Figure 19. Fatal and serious injury crashes in the Hunter region, 2018 to 2022



¹ Speeding is recorded as a contributing factor in a crash if at least one motor vehicle in the crash was speeding.
² Fatigue is recorded as a contributing factor if at least one motor vehicle controller in a road crash was fatigued.

Source: Transport for NSW, 2022

Figure 18. Behavioural factors of fatal and serious injury crashes in the Hunter region, 2018 to 2022



1 RUM codes 20 & 50
 2 RUM codes 70-73 & 80-87
 3 RUM codes 30-32
https://www.transport.nsw.gov.au/system/files/media/documents/2023/definitions_notes_0.pdf
 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. Hunter fatal and serious injury (FSI) crash types for the Hunter region 2018–2022 (note Hunter FSI data to be validated)

5.5.1 Run off road and single vehicle crashes on rural roads

Most of the Hunter region’s rural road network maintains a speed limit of 100km/h by default. However, these roads often lack safety features such as crash barriers and guardrails, which are crucial for reducing the risk of fatal and serious injuries in the event of a collision. As a result, drivers and passengers utilising these roads are exposed to an increased risk of a crash.

The most common fatal and serious injury (FSI) crash type in the Hunter region for the five year period 2018 to 2022 was run off road crashes, accounting for 48 per cent of all FSI crashes. This is significantly higher than the NSW state average of 39 per cent (Figure 20). Nearly half of all reported FSI crashes (48.7 per cent) occurred on unclassified local roads in the Hunter region.

Opportunities exist to work with local government to improve the safety of key corridors and rural roads to minimise risks. Transport is looking to obtain funding for state and federal road safety programs to improve safety and efficiency of key links including The Bucketts Way and Thunderbolts Way.

Developing a priority program of safety and efficiency upgrades for Wine Country Drive or on the New England Highway between Belford and Muswellbrook will further support safe movement and better accommodate the mix of road users on high-speed rural roads, including heavy vehicles.

Transport will work with local government to create a safer road network through enhanced safety infrastructure and speed management. Proven treatments to improve safety on rural roads include median and roadside safety barriers, rumble strips (audio tactile line marking), and wide centrelines. Reviewing speed limits in high-risk areas on low-quality, high-speed country roads is also crucial in facilitating the safer movement of goods and people.

5.5.2 Targeting locations of higher crash risk

Transport will continue to work with local government to resolve crash clusters and priority sites across the Hunter to deliver sustainable and long-term reductions in road trauma. Transport currently has several projects and campaigns underway or planned in the Hunter to address behavioural issues as part of the ‘Towards Zero’ vision.

Intersections are high road safety risk locations due to potential road user conflicts. In the Hunter region, 32 per cent of all FSI crashes occur at intersections and this number increases to 47.5 per cent for the Newcastle LGA.

From 2018 to 2022, there were 177 FSI crashes involving pedestrians and a further 119 FSI crashes involving cyclists in the Hunter region, resulting in 26 fatalities and 277 serious injuries. Almost half of these crashes (47.5 per cent) occurred at intersections.



Safety for pedestrians and cyclists can be improved by providing safe crossing facilities at intersections. Transport will partner with local government to improve active transport connectivity in the Hunter region, such as improving intersections along Newcastle Link Road which also serve future residential growth areas. Upgrades to intersections around Cams Wharf and Flowers Drive in the Lake Macquarie LGA will provide safer crossing points for pedestrians and cyclists. Providing separated multimodal links to key corridors, including Hillsborough Road and Newcastle Inner City Bypass, will improve the attractiveness of regional travel by active modes.

Rural intersections also pose significant road safety challenges due to higher speeds and various vehicle types, including heavy vehicles. Safety upgrades will focus on identified high-risk locations in the Hunter region, such as intersections on the M1 between Raymond Terrace and Karuah, including The- Bucketts Way and Italia Road. Intersections on the Golden Highway will require upgrades to enhance heavy vehicle access to the renewable energy zone.

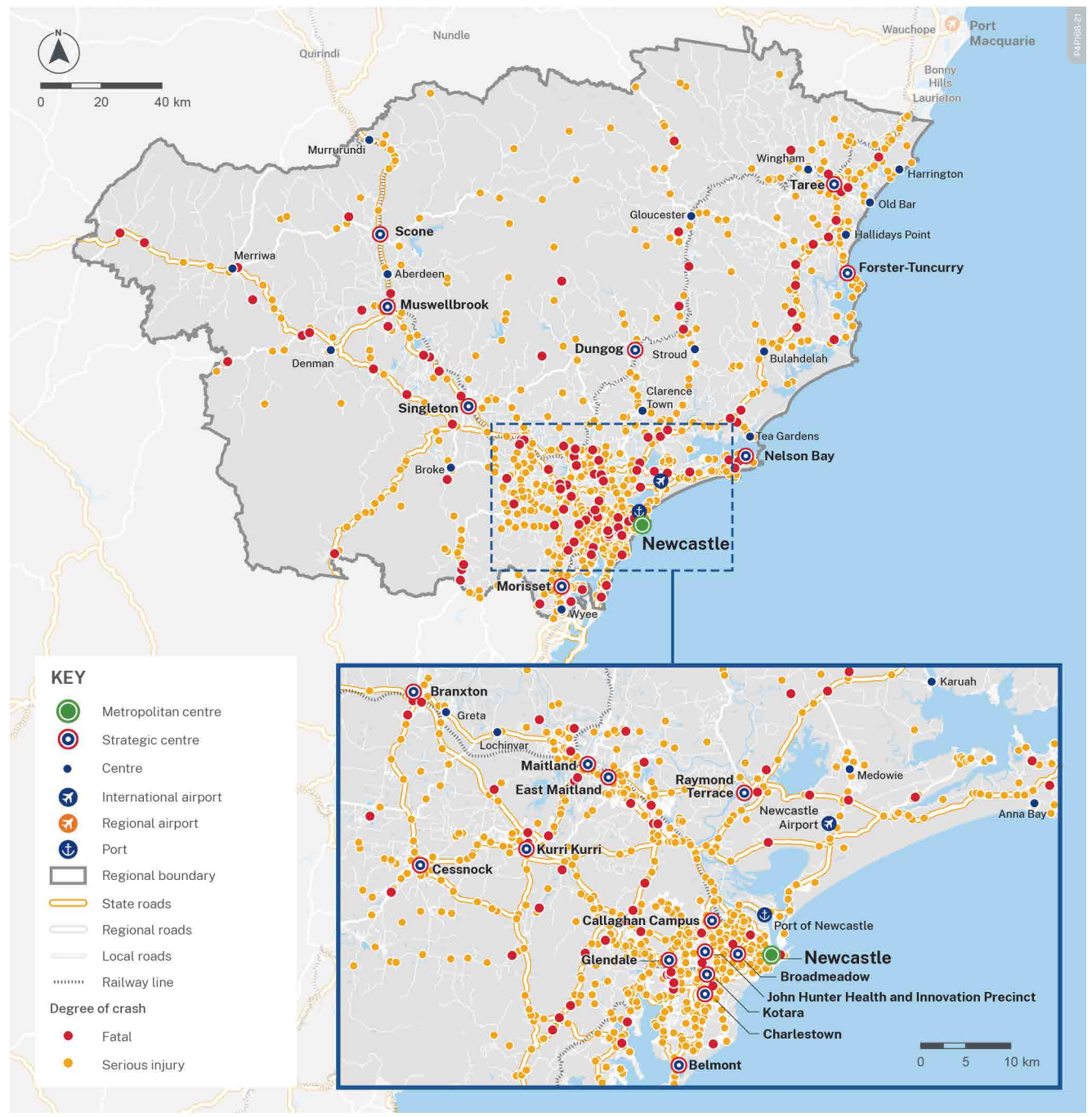


Figure 21. Fatal and serious injury crash locations in Hunter (2018–2022)

Motorcycle riders are unprotected in a crash event and vulnerable to serious and fatal injury outcomes in the event of a crash. In the Hunter region, almost a quarter (24 per cent) of all FSI casualties from 2018 to 2022 were motorcycle riders, higher than the equivalent statewide measure of 21 per cent. The Singleton and Cessnock LGAs are high-risk locations for motorcycle riders in the Hunter region. In Singleton, 44 per cent of all FSI crashes in the LGA were motorcycle crashes, and in the Cessnock LGA, 38 per cent of all FSI crashes were motorcycle crashes, compared to the regional NSW average of 22 per cent. Stakeholders have also shared concerns about the safety of popular motorcycle touring routes, including along the regional roads The Bucketts Way and Thunderbolts Way.

The most common type of crash involving motorcyclists is running off the road, accounting for 49.5 per cent of the total.

Speeding has been identified as the primary contributing factor in fatal motorcycle crashes.

5.5.3 Safety and perceived safety concerns on public transport and at stops and stations

Many people in the Hunter region rely on public transport for their daily commutes to school, work and public services. Feeling safe and secure while using public transport, waiting at stations and travelling to and from these areas is essential for an effective and accessible public transport system.

Around 45 per cent of young people surveyed⁴⁶ expressed feeling unsafe at night, highlighting the need to address safety in public transport services. Improving personal safety in public transport is crucial for building trust and increasing ridership in the Hunter region.

Public transport safety concerns are notable in the upper Hunter LGAs, particularly among younger people and individuals with disabilities. Safety solutions must be tailored to meet the specific needs of each community, including those with disabilities, limited mobility, customers with prams, and non-English speakers.

Safety concerns, especially for female travellers, restrict safe late-night travel options. Measures such as secure carriages, adequate station lighting and the presence of security personnel can address the safety needs of commuters, particularly those travelling at night.

Other measures include:

- working with transport operators to implement safety measures such as CCTV systems and crime prevention design features at train stations
- collaborating with local government to ensure safe and secure access to public transport stations
- expanding bus coverage and providing night services to improve the perceived safety and convenience of public transport
- balancing the safety concerns of essential public or community transport workers and staff.

What we heard

- Rail services need to be safer to encourage students to choose them over cars, eliminating a barrier to switching transportation modes.
- There are safety concerns when accessing stations at night, primarily affecting women.
- Anti-social behaviour onboard has worsened due to the perceived absence of staff.
- Station car parks are poorly lit and considered to be unsafe environments.



5.5.4 Improve safety for navigable waterways in the Hunter

The Hunter region reported 13 fatalities on its waterways from 2018 to 2023. Managing the state's waterways is crucial to ensuring their sustainability and the safety of people on the water. Transport recently updated the [Maritime Safety Plan 2026](#), which outlines the strategic direction for maritime safety for the next four years.

The plan aims to achieve zero fatalities and serious injuries on NSW waterways by 2056.

It focuses on four priority areas:

1. safer lifejacket wear and equipment
2. safer boating through technology
3. safer waterway access and infrastructure
4. growing our safety culture together.



Family enjoying Belmont Wharf, Belmont © Destination NSW

5.6 Resilient networks



Reduce the impact of transport network shocks and stresses to service and network interruptions, and proactively plan for future impacts.

The Hunter 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 with the ports and airports.

Flooding of the Hunter River caused significant disruption at Maitland in July 2022 by closing the New England Highway, Cessnock Road and the rail line at Telarah, isolating regional centres and severing connections to the east coast, disrupting freight routes and limiting access to Maitland hospital.

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 need for planning to consider its resilience, ensuring the safety and accessibility of the transport network for all our customers.

While planned disruptions are 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 Hunter 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) movements to support the development of renewable energy zones (REZ). Planning is required to accommodate these movements on key corridors such as the New England and Golden Highways to increase redundancy of the road network by building stopping bays and spreading loads across multiple routes to reduce impacts on communities.

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.

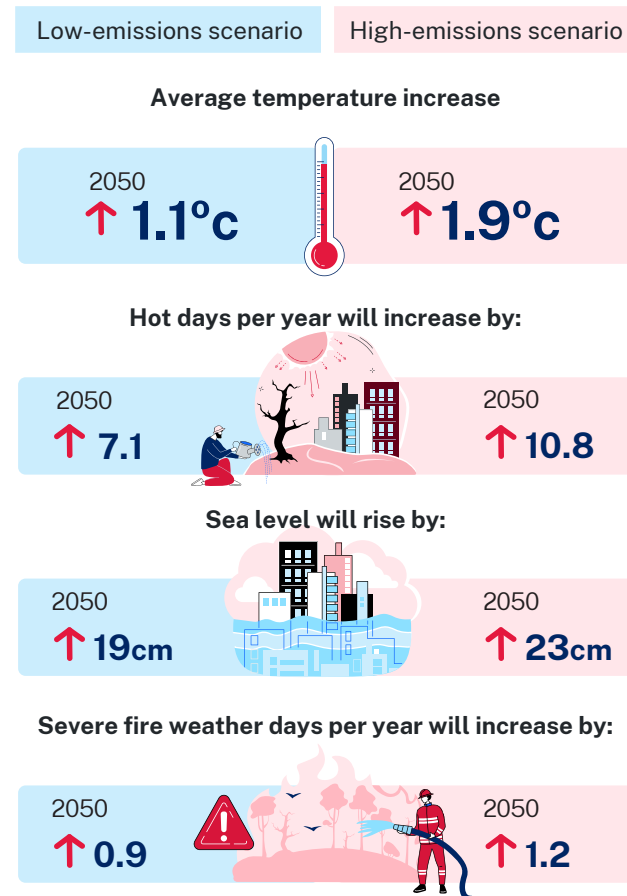
The Australian and NSW governments are providing funding through the *Regional Road and Transport Recovery* program to help communities become more resilient to natural disasters. Funding is available to repair or build-back an asset to better withstand future natural disasters.

5.6.1 Responding to more frequent and severe weather events

Significant events including bushfire, floods, heat waves and storms will become more frequent and intense. Climate change is increasing the severity and frequency of natural hazards and increased development in these areas means more people are exposed.⁴⁷ The Hunter region has experienced 21 natural disaster events between 2019–20 to 2023–24 financial years including 12 bushfire events and nine storm and flooding events.⁴⁸

The Hunter region is expected to continue to warm compared with recent years with temperatures projected to increase by around 1.1°C under a low emissions scenario and around 1.9°C under a high emissions scenario by 2050⁴⁹ (Figure 22). On average, the annual number of severe fire weather days is projected to increase for the Hunter with larger increases projected for the Upper Hunter.

The Hunter region is susceptible to challenges during significant climate and storm events. People must be kept safe and informed and transport networks must remain operational to keep people and goods moving. The 2019–2020 Bushfires closed the M1 Pacific Highway in both directions in November 2019 near Nabiac, effectively severing the major north-south route connecting Sydney and Brisbane.⁵⁰ There was no detour available, disrupting freight movements and emergency service access to support the local communities. Disruption to the movement of freight and the network available to heavy vehicles



Source: Data is based on NARCIIM2.0 (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 NARCIIM2.0 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. Sea-level rise data is from the IPCC's Sixth Assessment Report is presented relative to a baseline of 1995–2014.

Figure 22. Projected climate changes for Hunter

can be significant during times of disruption. Detours are often not available to heavy vehicles due to the size or weight of the vehicles or for freight rail.

47 NSW Reconstruction Authority, State Disaster Mitigation Plan 2024–2026, NSW Government, 2024

48 NSW Government, *Natural disaster declarations by financial year 2019 to 2024*, accessed August 2024

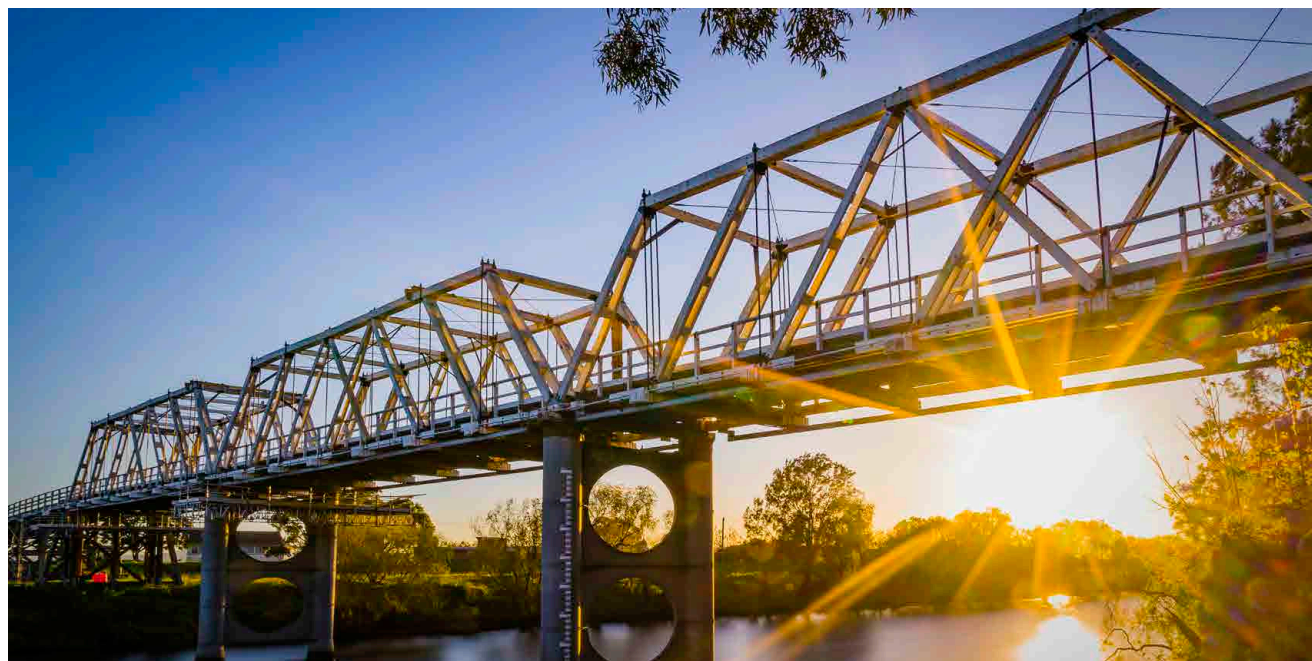
49 Department of Climate Change, Energy, the Environment and Water, *Hunter Region climate change snapshot*, NSW Government, 2024

50 Transport for NSW, *Live Traffic Data*, NSW Government, accessed August 2024

Significant areas of the Hunter are subject to flooding from the Hunter River catchment. During significant flood events, areas of East Maitland are inundated with key roads impassable and operational impacts on the Hunter Line at Metford and East Maitland as well as accessibility impacts for the rest of the rail network. Flood-impacted roads result in isolation of communities and limit safe evacuation. Building greater resilience into the transport network for events such as floods and fires will limit the vulnerability of network to future events and reduce time and cost exposure for the community.

Through programs such as the *Infrastructure Betterment Fund* and the *Regional Roads and Transport Recovery Package* funded by the Australian and NSW governments, infrastructure can be rebuilt to reduce vulnerability to future disasters. Projects such as the replacement of a suspension bridge in Dungog removing the need to use a natural river crossing have been funded through the program as well as road pavement upgrades and strengthening works in MidCoast and Muswellbrook council areas.⁵¹

While we cannot eliminate disruption, we can improve the resilience of passenger and freight transport and build redundancy into our network infrastructure and service provision. Transport has developed a Customer Journey Resilience Plan for the Hunter which will identify and assess areas of vulnerability, risk of natural hazards and the impact on natural disasters on journeys.



Morpeth Bridge over the scenic Morpeth River © Destination NSW

Climate and hazard resilience will be built into the network's infrastructure and supported by adaptive management strategies that maintain emergency access along key routes and bring the network back on-line quickly following planned and unplanned disruption. Delivering improved multimodal connections will be critical to enabling resilience of the network, driving productivity and supporting economic success.

Transport will also continue to investigate new tools and ways of communicating the status of network disruptions across the Hunter to enable customers to make more informed decisions about their travel needs and safety.

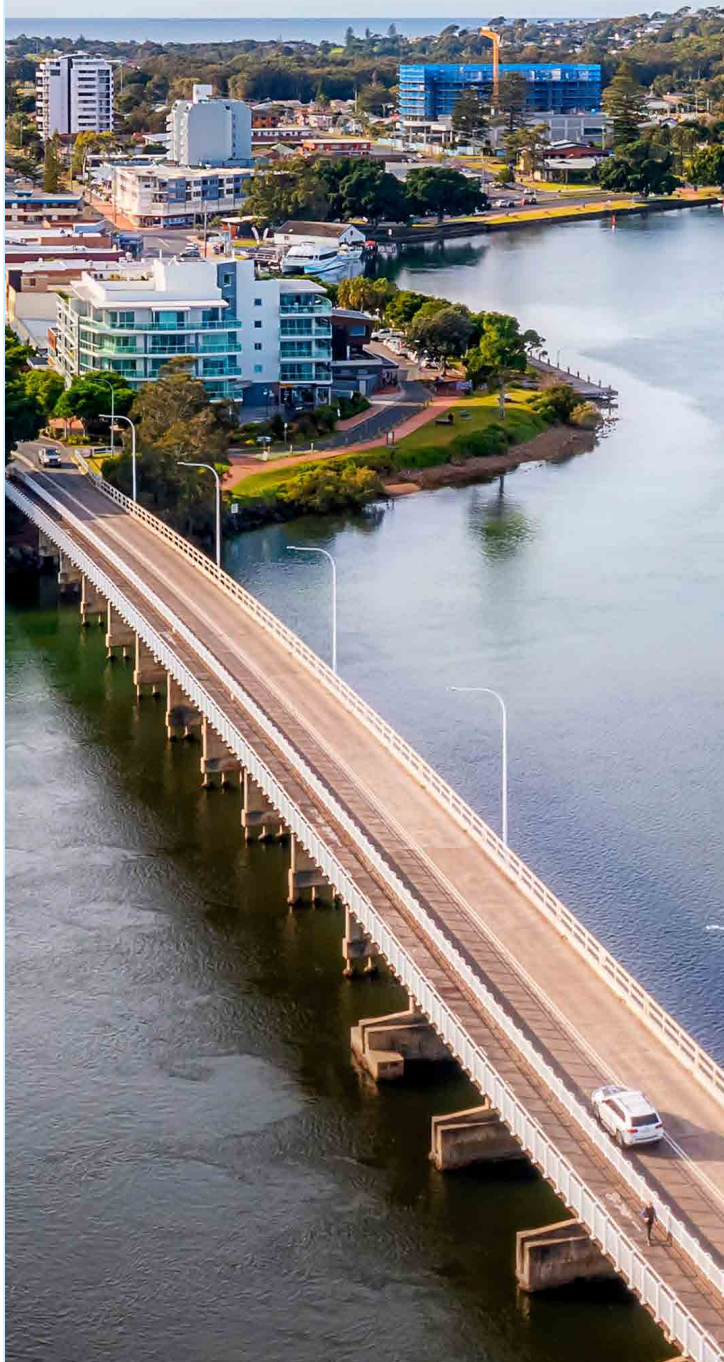
5.6.2 Ageing infrastructure assets

To support and ensure customer journey resilience across the Hunter region, transport assets must be maintained and improved, regardless of ownership, and provide alternative options for key journeys.

Ageing bridges cross the region can be susceptible to damage during natural disaster and weather events or require ongoing maintenance. Transport has been working with Dungog Council to replace ageing timber bridges throughout the shire to maintain road access and improve connectivity and safety for the community. Bridge replacements across MidCoast LGA are also ongoing due to flood damage. For example a

⁵¹ Transport for NSW 2024 Regional Roads and Transport Recovery Package, NSW Government, accessed August 2024

The Forster-Tuncurry Bridge across the Coolongolook River
© Taras Vyshnya/Shutterstock.com



single lane timber bridge at Firefly Creek will be upgraded to a concrete bridge at an increased height, improving long term resilience for the community.

Replacing or upgrading the infrastructure with modern materials improves their resilience and provides safer, more reliable travel and access for regional communities. The Forster-Tuncurry Bridge is an ageing asset that requires increasingly rigorous maintenance. Resilience of the network is a challenge due to these maintenance requirements and increasing congestion from local traffic, housing growth and tourists. This bridge asset is critical to connecting the local community and is a key tourist drawcard.

Capacity constraints on ageing bridge structures also impact the movement of higher productivity vehicles and freight to support the REZ in Central West and Orana. OSOM movements of wind turbine blades up to 100m will travel from the Port of Newcastle via the Golden Highway with access restrictions such as the Denman Bridge in Muswellbrook, requiring a detour for these vehicles of up to 50 kilometres. The social implications of these movements need to be considered with provision of facilities to reduce disruption to the community and minimise risk-taking behaviour. For example, the provision of over-taking lanes reduces inconvenience for the community by allowing safe passing opportunities.

Resilience of the regional and local road network, particularly for the Upper Hunter, Dungog and MidCoast LGAs is a key issue with numerous failures and closures occurring over the last few

years. There is a need to improve resilience of the road network by maintaining general traffic accessibility as well as closing gaps to ensure improved access for all within the community.

Maintenance issues and structural failures have the potential to disrupt customers and passengers on the transport network, resulting in economic and social impacts. In October 2023, the Tarro Road over Rail Bridge on the New England Highway connecting Maitland and Newcastle required lane closures and heavy vehicle restrictions due to structural concerns. Freight connectivity was impacted with long detours in place, resulting in economic impacts and disruption to the community⁵²

Transport will work with stakeholders to identify a maintenance pipeline across the region to improve resilience of the transport network for the community.

5.6.3 Aligning network expansion with the growing population and economy

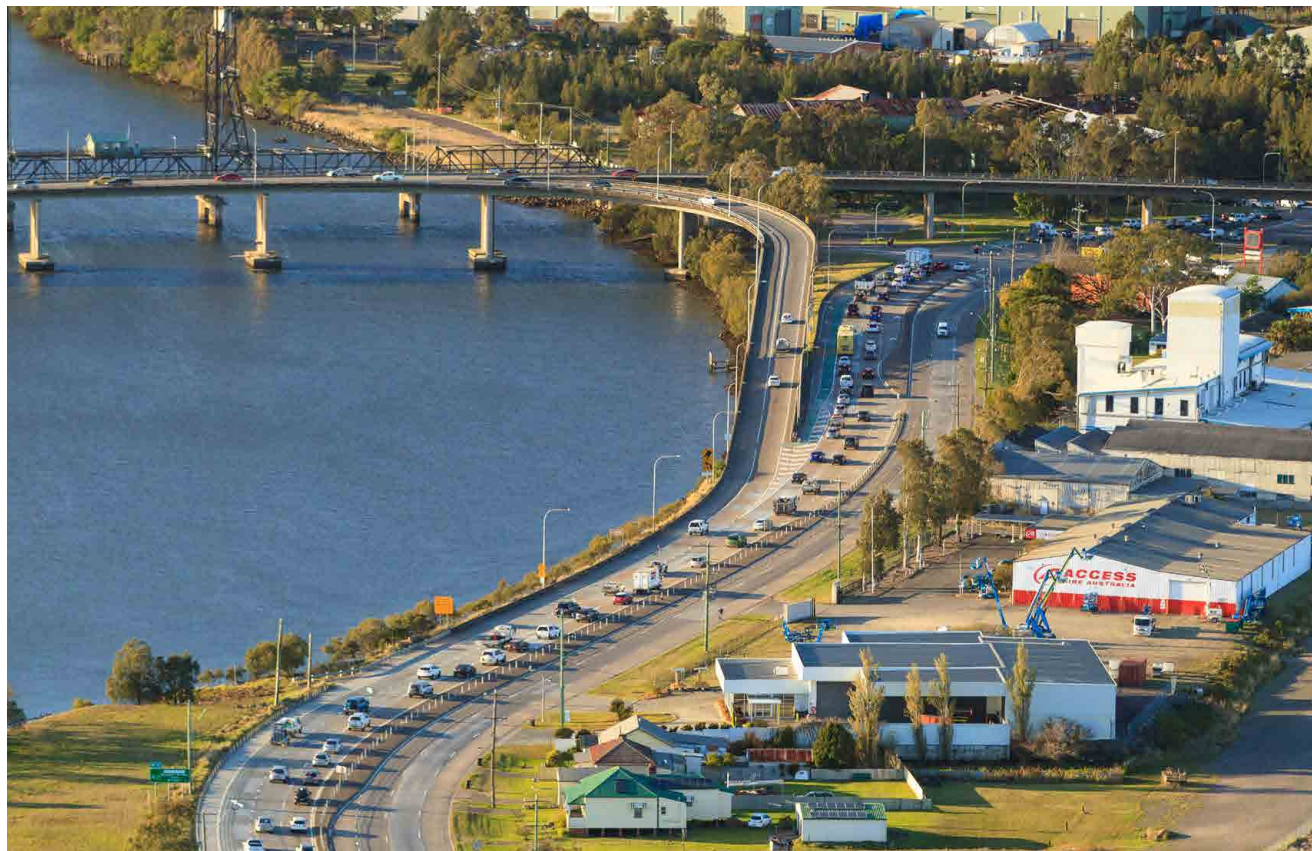
The population of the Hunter region is expanding and visitor numbers are increasing, placing additional demand on the transport network. Regional areas within the Hunter are particularly susceptible to flooding and planning of future growth areas must ensure these communities are not at increased risk of flood events or isolation and evacuation routes are identified. Rural towns and coastal towns that are only accessible via a single road are particularly susceptible to network

disruption, for example much of Port Stephens LGA is only accessible by Nelson Bay Road from the south. Maintaining general traffic network access in more regional areas will allow first and last mile access to public transport and local centres as well as access to employment areas.

Seasonal events are predictable forms of disruption usually driven by long weekends, school holidays and major events. The M1 Pacific Motorway is the major north-south route connecting Sydney and Brisbane and providing the key route for freight access to the Port of Newcastle. During peak holiday times, the M1 sees a significant increase in holiday traffic as people travel to and through regional areas. This increase in traffic volume results in challenges around crowding at rest stops, safety and congestion at key pinch points such as Hexham Bridge where works are currently underway to improve resilience and reduce congestion via the M1 to Raymond Terrace bypass.

Innovation and new technologies provide new tools and opportunities to benefit responders, decision-makers and the community in understanding and responding to network disruptions. The wider distribution of real-time information will support informed decision-making, improve safety, and create greater network resilience and freight efficiencies.

The Cessnock Road growth corridor from Kurri Kurri to Maitland demonstrates the need for transport to address growth whilst maintaining resilience for customers and the community. This corridor will see a significant increase in dwellings and employment across Maitland and Cessnock, resulting in increased traffic volumes.



Hexham Bridge and Hexham River

The corridor is also susceptible to flooding, resulting in significant disruption to traffic due to road closures and isolation of communities. For example, in 2022, Gillieston Heights was cut off by floods for more than a week, requiring supplies for the community to be brought in by boat. Transport has since invested significant funds along the corridor including increasing the flood resilience of Testers Hollow. New investments in the area may include active transport connections between the suburbs and across to Kurri Kurri and faster, more frequent

and direct bus services between Cessnock and Maitland. Planning is underway to ensure the network can meet this additional demand through infrastructure improvements, active transport initiatives to encourage mode shift away from private vehicles and delivery of public transport initiatives to provide trip choice.

By providing multimodal transport options for new and growing communities and delivering infrastructure to provide a higher level of flood immunity we are improving the resilience of the transport network as the region grows.

The Hunter Region has a growing tourism economy and the region offers a diverse range of visitor experiences and attractions including the Hunter Valley wine region, Forster-Tuncurry, Nelson Bay, Lake Macquarie and Barrington Tops National Park as well as live music events and major annual events. The opportunity to provide greater accessibility to visitors will help enhance visitor experience and access to attractions in the region.

Strategic centres such as East Maitland provide a range of retail, commercial and recreational services and are therefore the target for increased housing and employment. This centre is one of the fastest growing areas in regional NSW with key attractors such as the new Maitland Hospital. However, to facilitate successful growth, improved resilience of the transport network is needed during natural disaster events such as floods. Roads around Chisholm and Thornton are flood-impacted resulting in isolation for the community and limited windows for safe evaluation during significant flood events.

The resilience of the existing road network to floods is low for these new land release areas when compared with other areas in the East Maitland to Thornton area. As a result, Transport will be working to improve resilience through road improvements, catering to alternative modes and increased flood protection. Additional infrastructure costs and delivery challenges are experienced when

developing land in areas that are subject to frequent and severe weather events. Planning for resilience challenges is necessary to ensure growth can be accommodated without risk to the community.

By providing travel choice for visitors to access these locations and events, we will improve network resilience and support the growing tourism economy. Increasing public transport connections to key destinations such as the airport, Port Stephens and the Hunter Valley will build redundancy into the network through a more even distribution of trips across all modes. The growth of active tourism such as the Shiraz to Shore rail trail can be supported through improved travel choice offered by upgraded transport connections to the airport and public transport hubs.

The Hunter Line corridor has capacity constraints due to the sharing of lines for both passenger and rail services. West of Maitland, freight and passenger services share tracks reducing capacity and reliability of all services. There are opportunities to redefine how people move around Hunter in the future with potential to shift trips to rail by providing fast, frequent, and reliable services that support key growth areas such as Anambah to Branxton.

What we heard

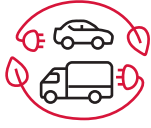
- Rail corridors carry both passenger and freight services, compromising capacity for both and influencing network resilience.
- Single access communities are vulnerable to disruptions which restrict access to key services such as health hubs.
- Regional councils have a backlog of maintenance and upgrades needed for ageing infrastructure.
- Flood-free access is required between Cessnock communities and the new Maitland Hospital to enable housing growth and improve resilience.

Delivering improved integrated multimodal connections in line with growth will be critical to enabling resilience across the network, driving productivity, and supporting economic success.

Transport will support growth in population and visitor numbers and diversification of businesses in the Hunter by providing resilient, viable options to travel and improved services.



5.7 Net zero emissions



Contribute to the net zero 2050 target.

In 2017, the transport sector was the second largest contributor to greenhouse gas emissions in NSW.⁵³ To reach net zero emissions by 2050, it is acknowledged the transport sector will need to play a key role in the transition towards a low emissions future.

Transport is committed to net zero emissions and contributing to the economic, social and environmental wellbeing of NSW.⁵⁴ Through a combination of infrastructure improvements, policy interventions and behavioural change, the transport sector will need to adapt over the next 20 years to meet both the interim 2030 target,⁵⁵ as well as drive the regional transition to a low emissions future.

The delivery of renewable energy zones (REZ) is supporting the net zero target and will deliver benefits such as emissions reduction from a cleaner energy sector and reliable energy from significant amounts of new energy supply.

53 Net Zero Plan Stage 1: 2020–2030, NSW Government, March 2020, p.11
54 Transport for NSW, Net Zero and Climate Change Policy, 2023
55 Department of Infrastructure, Transport, Regional Development, Communication and the Arts, "Towards net zero for transport and infrastructure", accessed August 2024.

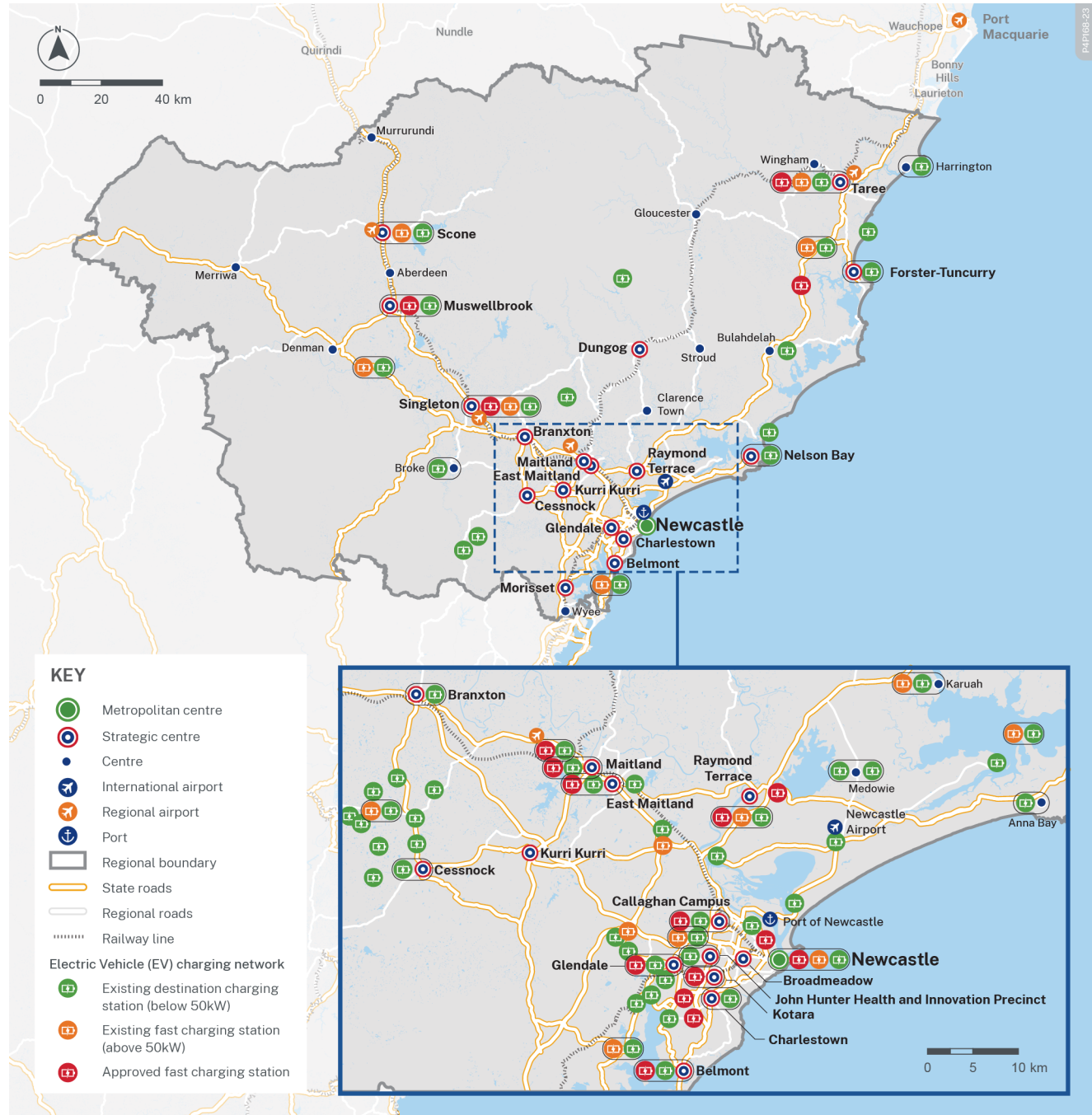


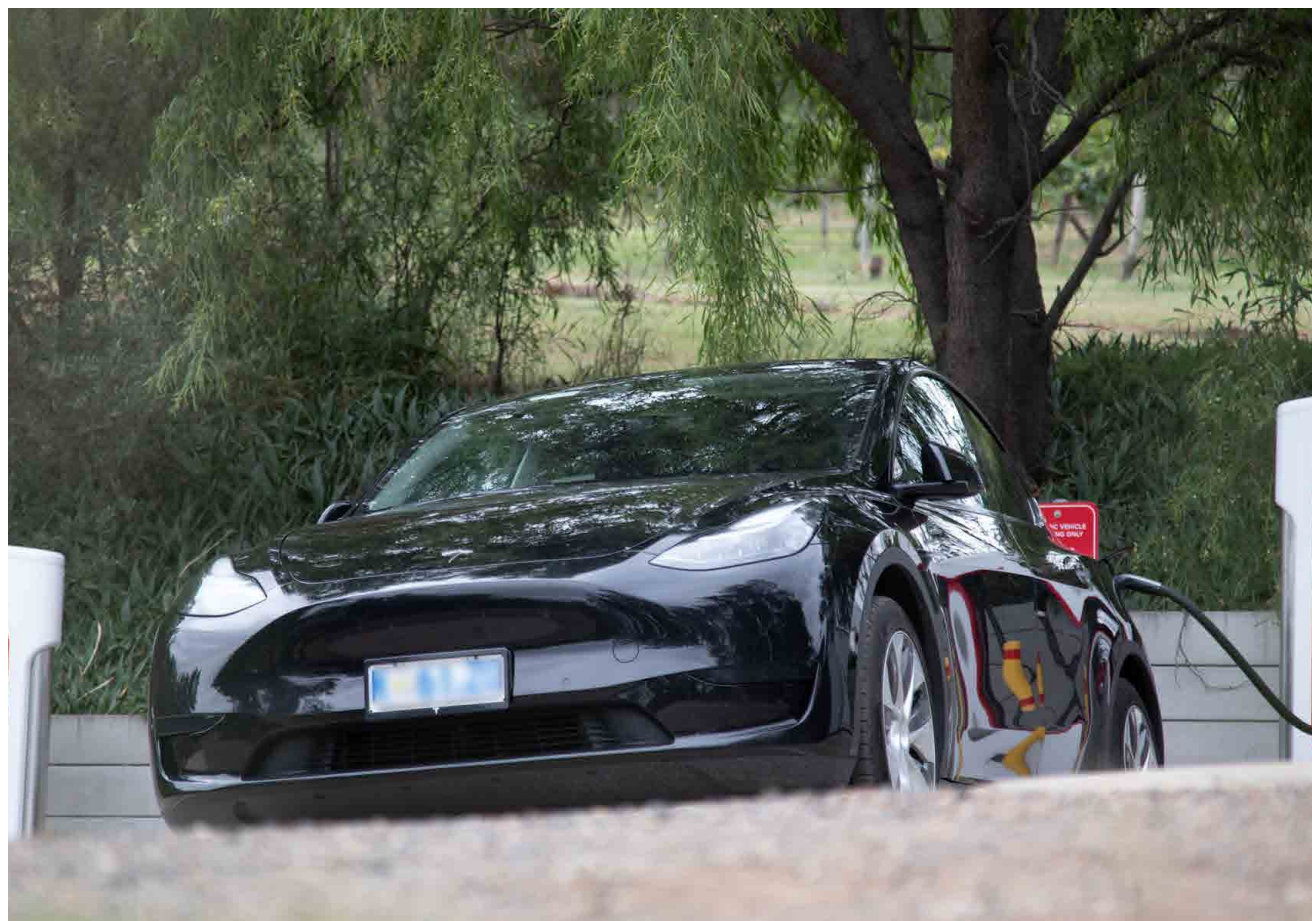
Figure 23. Electric vehicle charging network for Hunter region

5.7.1 Electric vehicle uptake and low emission technologies and infrastructure

To support the energy transition in the Hunter, accelerating the adoption of electric vehicles (EV) by private owners, fleets and public authorities and the roll out of charging infrastructure, can contribute to reducing emissions from light vehicles. In addition, increased use of renewable energy in transport operations and infrastructure construction is essential. By integrating renewable energy sources, the carbon footprint within the region can be significantly reduced, fostering sustainable transport development.

The NSW Electric Vehicle Strategy is the NSW Government's plan to accelerate the state's vehicle fleet of the future. Electric vehicle (EV) adoption across the transport network in the Hunter region is set to significantly increase over the next 50 years. However, there are several challenges to increasing EV uptake primarily due to the limited number of charging stations (including for heavy vehicles), a common issue in regional areas where the density of charging points is lower compared to urban centres (Figure 23).

The NSW Government has partnered with the NRMA to deliver at least 20 additional EV fast chargers along the state's major highways in regional NSW, including the Pacific, Golden and New England highways.⁵⁶ However, across the Hunter, current gaps in fast and moderate charging stations still occur particularly around



Car charging at the Hollydene Estate Wines electric vehicle charging station in Jerry Plains © Destination NSW

Kurri Kurri and more regional areas that are not connected by the state road network such as Dungog. This can lead to range anxiety where potential EV buyers are concerned about the availability of charging options during longer trips. In the case of heavy vehicles, the advent of more low and zero emissions heavy vehicles

into the market will require consideration and planning of access to heavy recharging and/or refuelling stations.

Additionally, the initial cost of EVs remains higher than traditional vehicles particularly for longer-range models, creating a barrier for many who cannot justify the investment.

⁵⁶ Transport for NSW, "More EV chargers connecting regional NSW", published 10 Nov 2024.

Public awareness and perception also play a crucial role in the low Zero Emission Vehicle ownership in the Hunter region, including for heavy vehicles. Many residents are not fully aware of the benefits of EVs, such as lower running costs and reduced environmental impact. Misconceptions about EV performance and reliability can further deter potential buyers.

Transport is working collaboratively with local governments, businesses and the community to support the development of a comprehensive Vehicle Charging Station Network across NSW, including the Hunter. Transport is also investigating opportunities to provide EV chargers in commuter car parks and increasing public awareness about the benefits of EVs and Zero Emissions Vehicles.

Additionally, for heavy zero emission vehicles, infrastructure planning will be required to consider the added mass of electric batteries. Zero emissions heavy vehicles are known to be heavier, especially on the steer and drive axles of the vehicle, which may require added asset maintenance and optimisation to support this growing fleet.

The electrification of the NSW Government passenger fleet is aiming for 12,000 cars by 2030.⁵⁷ Rapid electrification of the regional private vehicle fleet, including cars, trucks, maritime, and aviation, is crucial for achieving net zero transport sector emissions by 2050.⁵⁸

In June 2022, the NSW Government announced the rollout plan for Zero Emission Buses (ZEB) across the state. The plan will see the Lower Hunter's bus fleet transition to ZEBs by 2040 and the regional areas of the Upper Hunter by 2047.⁵⁹

The dominance of cleaner private, public, and freight transport modes, including investigating the use of net zero electricity to power the rail network and buses in the Hunter, will ensure a sustainable and resilient transport system for the future.

In addition, adopting circular economy principles in transport infrastructure projects is essential for minimising carbon use and promoting sustainability.

Transport is working with the Department of Climate Change, the Environment, Energy and Water to develop Net Zero and Circular Economy Guidelines for transport operations and transport infrastructure. Adoption of sustainability principles in infrastructure projects is already evident on the M1 extension to Raymond Terrace where innovations such as lighting design to reduce operational carbon emissions by 60 per cent; recycling temporary access track materials into the permanent road pavements reducing material usage and redirecting waste to divert almost 90 per cent of hazardous and construction materials away from landfill. These sustainable practices will further pave the way for future innovative, low emissions solutions in transport infrastructure and operations in the Hunter, including the use of low emissions fuels.

The Hunter hydrogen hub is the only Federal Hydrogen Hub declared in NSW. The Hunter Hydrogen Infrastructure Masterplan is focused on accelerating and scaling delivery of the Hunter hydrogen hub. Hydrogen produced in the region will be transported to formerly emissions intensive manufacturing facilities to be used for fuel, a reducing agent, industrial feedstock and provide reliable, low-cost renewable power to heavy industry and other users.⁶⁰

Muswellbrook is the centre of the hydrogen industry in the Upper Hunter, linked to REZs to produce and store hydrogen in clean energy precincts at former coal fired power stations and mine sites. Hydrogen is transported to domestic users and the Port of Newcastle for export.

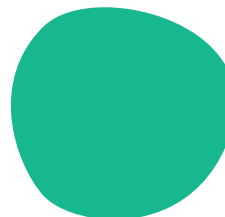
Hydrogen transport will likely evolve over time to become more efficient and economically viable. While the initial pilot projects may rely on road transport, transitioning to alternative methods such as pipelines will be crucial for large-scale deployment and cost-effectiveness. As outlined in the NSW Hydrogen Strategy, road transport will be supported by updated legislation including the Dangerous Goods (Road and Rail) Act (2008) which is anticipated to better facilitate the distribution of hydrogen at scale.

⁵⁷ Electrifying the NSW Government fleet | NSW Government

⁵⁸ NSW EPA, "Transport", accessed August 2024.

⁵⁹ Transport for NSW, Zero Emission Buses factsheet, published Jun 2022.

⁶⁰ Committee for the Hunter, The Hunter Hydrogen Infrastructure Masterplan, Jan 2024.



The National Hydrogen Infrastructure Assessment anticipates that by 2030, the first pipelines will be commissioned to enable the bulk transfer of hydrogen and its derivatives, with this number increasing out to 2050.⁶¹

Emerging technologies, such as connected and autonomous vehicles (CAV) and e-aviation, offer promising solutions for lower emissions. These innovations can transform the transport landscape, making it more efficient and environmentally friendly. Working with industry partners, local government and community, the combined purchasing power of the public sector can help provide the market with confidence to supply more affordable, low emissions products and services to the wider market.

5.7.2 Improving active and public transport choices in centres

Shifting behaviour from relying on private vehicle use can contribute to more sustainable travel. By enhancing the accessibility and reliability of public transport, the Hunter region can significantly reduce its reliance on private vehicles. The shift not only helps in reducing overall emissions but also alleviates traffic congestion, leading to more sustainable and efficient urban centres.

The National Walking and Cycling Participation Survey 2023 revealed that while 88 per cent of Regional NSW residents rode for recreation, only 32 per cent do so for transport.⁶² Looking to 2041, strategic centres and clusters are projected to be the focus for more intensive



Couple riding their bicycles past the Welcome to Maitland Sign on Elgin St, Maitland © Destination NSW

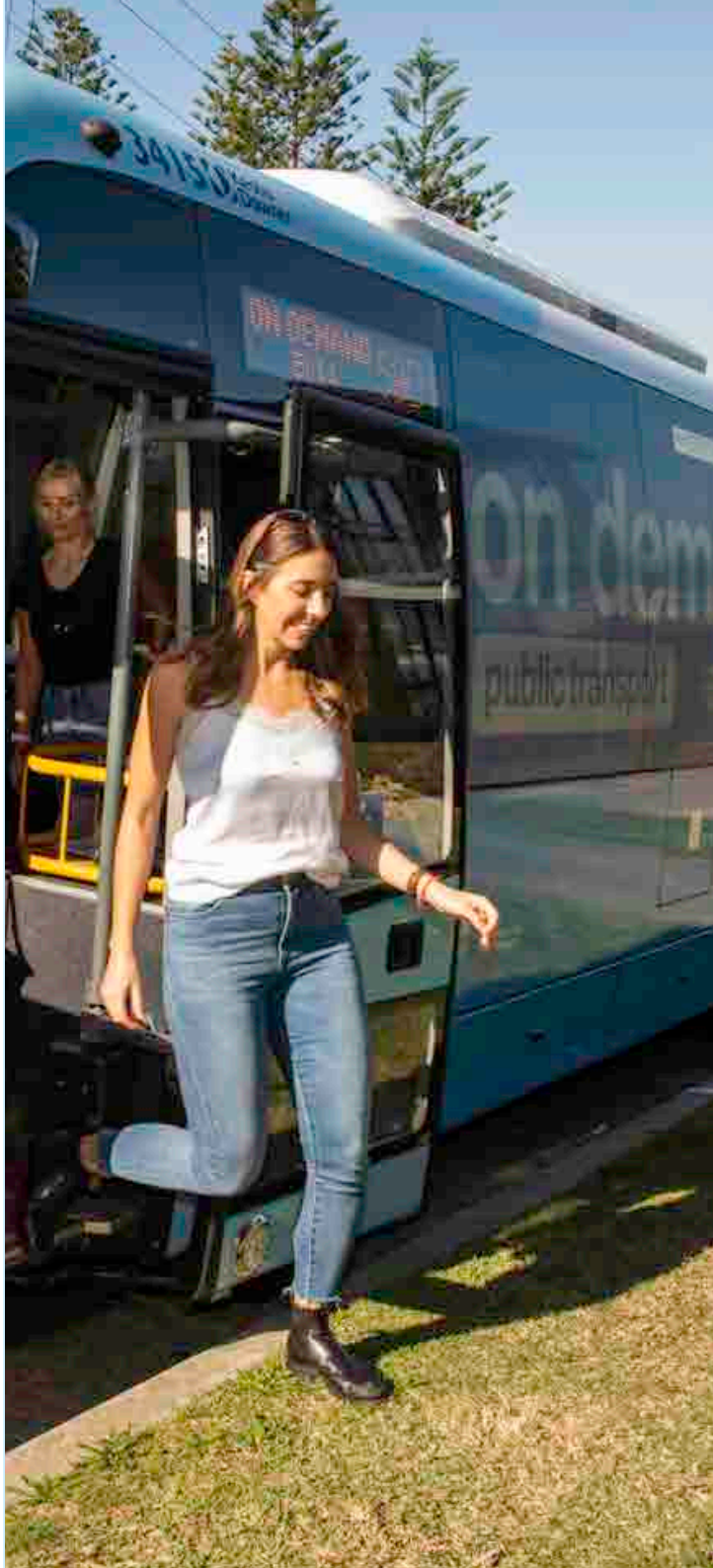
employment uses, housing renewal and public space improvements, requiring more sustainable transport improvements for walking and cycling in their planning.

Opportunities exist in the Hunter for mode shift for shorter journeys under 2km or for outdoor recreation activities. Reallocating road space to walking

and cycling on main streets and high pedestrian activity areas enhances liveability and safety. Main Road and Cessnock Road between the strategic centres of Kurri Kurri and Maitland is a key growth corridor in the region and has already experienced significant population growth in the past 10 years with continued residential and commercial growth expected over the next 20 years.

⁶¹ ARUP, National Hydrogen Infrastructure Assessment, Final Report, 2022

⁶² Cycling and Walking Australia and New Zealand, National Walking and Cycling Participation Survey 2023, published September 2023



With the planned inclusion of schools, recreation facilities and employment lands, improvements to safe walking and cycling infrastructure including connections to these key active transport trip generators will encourage the take up of active modes for travel along the corridor and ultimately contribute to reduced vehicle emissions.

Infrastructure gaps, along with limited service frequency and coverage throughout the day and week, make public transport less convenient for many in the Hunter community. Transport is reviewing public transport services within the Hunter to increase service frequency within and to strategic centres. For key future growth areas and corridors, such as those between Cessnock, Kurri Kurri, Maitland and from Maitland, Branxton, Singleton, the creation of more frequent, direct routes will service existing and future residential developments. These routes will better connect to the Hunter line, key employment hubs and essential services such as the new Maitland Hospital, encouraging a shift to public transport for commuter trips.

Reviewing car parking provisions, especially within Newcastle and limiting parking in centres where strong public transport exists will encourage people to catch public transport or to walk and cycle to their destination. Exploring opportunities for park and ride, carpooling, on-demand buses, and car sharing services will further encourage the shift to public transport.

On Demand bus service

The integration of land use and transport planning will create opportunities to revitalise growth areas and centres and stimulate an increase in active and public transport across the Hunter region. Alternative choices for local trips will become increasingly important as the Hunter population grows. Providing multimodal travel options will help to support the regional community, in particular older people and youth as well as contribute toward the net zero emissions task.

What we heard


- Hunter hydrogen hub could contribute to the net zero target.
- Developing the required infrastructure, especially in rural areas will be essential for a greater take-up of EVs and the introduction of electric buses.
- Public transport is more efficient than cars but shifting behaviour change to more sustainable modes is challenging.


06 Realising the vision





Draft initiatives for the Hunter region have been identified to address the challenges of the region and to leverage current and future opportunities.


The draft initiatives are organised by time frame: ongoing (currently underway), short-term (0–5 year) and medium-term (5–10 year) timeframes. They are not committed and will be subject to future investment decisions. These draft initiatives respond to the challenges for the region discussed in [Chapter 7](#) and are aligned with the Objectives for the Draft Plan, visualised in the following pages.


-  Starting with Country


-  Access to transport for all

-  Well-located housing and successful places

-  A thriving and diversifying economy





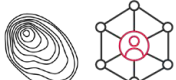
-  A safe transport network

-  Resilient networks





-  Net zero emissions







Aerial of ocean pool and coastline near Nobbys Head in Newcastle







6.1 Short term and in-flight draft initiatives (0–5 year timeframe)






#	LGA	Objective alignment	Draft initiative	Lead	Source
1	Dungog MidCoast Upper Hunter		Continue replacement of timber bridges to increase resilience of the road network and address first and last mile issues for agribusiness. (Ongoing*)	Transport for NSW	Fixing Country Bridges Dungog LSPS
2	All		Work with industry 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. (Ongoing*)	Transport for NSW	Zero Emission Buses Transition Plan
3	All		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 the port. (Ongoing*)	Transport for NSW	Maritime Safety Plan 2056
4	Cessnock Dungog Lake Macquarie Maitland MidCoast Muswellbrook Port Stephens Singleton Upper Hunter		Work with local governments to address pinch points on the network that inhibit movement of agricultural goods and services, including enabling farm gate to plate and addressing first and last mile constraints. (Ongoing*)	Transport for NSW Council	Internal Transport investigations Farm Gate Access Program
5	All		Develop Local Aboriginal Transport and Services Plans co-designed in partnership with Aboriginal Community-Controlled Organisations including LALCs, Aboriginal Medical Services and community transport providers to identify and deliver the best fit transport services for Aboriginal people for all trip purposes including health, employment, education and to places of significance.	Transport for NSW Aboriginal Community-Controlled Organisations Local Aboriginal Land Councils	Closing the Gap Transport's Aboriginal Outcomes Framework




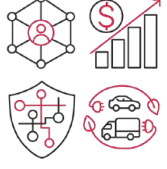


*Ongoing initiatives are currently in-flight.








#	LGA	Objective alignment	Draft initiative	Lead	Source
6	All		<p>Review and implement bus service improvements across the Hunter to provide better access to employment, healthcare, education, commercial, retail, leisure, tourism and connectivity to other transport modes. These include:</p> <ul style="list-style-type: none"> • frequent networks linking Newcastle, Broadmeadow, Charlestown, University of Newcastle Callaghan, John Hunter Hospital, Glendale, Belmont, Warners Bay and Maitland, Cessnock, East Maitland, Rutherford, Maitland Hospital • longer-distance connections between Taree and Forster to Newcastle, Hawks Nest to Raymond Terrace, Dungog and Clarence Town to Raymond Terrace • improved local buses including the Western Newcastle and Branxton, Lochinvar growth areas, Taree and Forster. 	Transport for NSW	<p>Internal Transport investigations</p> <p>Stakeholder engagement</p> <p>Bus Industry Taskforce final report</p>
7	Maitland Muswellbrook Singleton		<p>Commence implementation of strategy for increasing passenger rail services along the Hunter Rail Line that correlates with land release areas and establishes sustainable travel patterns, including:</p> <ul style="list-style-type: none"> • station upgrades • investigating electrification • additional train services to Singleton • new bus service from Muswellbrook to Singleton to fill gaps in the rail timetable. 	Transport for NSW	<p>Internal Transport investigations</p> <p>Stakeholder engagement</p>
8	All		<p>Review and implement coach service improvements across the Hunter including:</p> <ul style="list-style-type: none"> • weekend and public holiday services between Taree and Newcastle via Gloucester • day return services for Upper Hunter communities between Tamworth and Newcastle via a connection to train services at Muswellbrook. 	Transport for NSW	<p>Internal Transport investigations</p> <p>Stakeholder engagement</p>
9	Lake Macquarie		<p>Upgrade intersections along Pacific Highway around Cams Wharf and Flowers Drive to address safety and provide safe crossing points for pedestrians and cyclists.</p>	Transport for NSW	Internal Transport investigations






#	LGA	Objective alignment	Draft initiative	Lead	Source
10	All		Real time travel information across the state.	Transport for NSW	Transport Connected Buses Program
11	Lake Macquarie Newcastle		Review ferry service improvements to the Newcastle–Stockton ferry service and extending to Wickham (Newcastle Interchange), as well as Lake Macquarie, to enable future growth and increased connectivity.	Transport for NSW	Internal Transport investigations Lake Macquarie LSPS Stakeholder engagement
12	Newcastle		Preserve the transit corridor between Newcastle Interchange and Broadmeadow.	Transport for NSW	Hunter Regional Plan 2041 Ministerial commitment
13	Newcastle		Develop package of multimodal transport and service upgrades to facilitate housing, employment and event centre in Broadmeadow Catalyst area.	Transport for NSW Department of Planning, Housing and Infrastructure Council Development industry	Internal Transport investigations Stakeholder engagement
14	Lake Macquarie Maitland		Identify opportunities for cross connectivity to rail stations to reduce journey paths for pedestrians and cyclists with a focus on North West Lake Macquarie and East Maitland.	Transport for NSW Council	Internal Transport investigations
15	All		Implement cycle networks along with wayfinding connecting to train stations, employment centres and schools, including end of trip facilities and secure cycle parking.	Transport for NSW Council	Active Transport Strategy

#	LGA	Objective alignment	Draft initiative	Lead	Source
16	Cessnock Maitland		Initiate multimodal upgrades to Main Road / Cessnock Road and surrounding road network including a high-level flood route and connections to Hydro Employment area to facilitate housing growth in the Maitland to Cessnock growth corridor.	Transport for NSW Department of Planning, Housing and Infrastructure Council Development industry	Internal Transport investigations Stakeholder engagement
17	Cessnock Lake Macquarie Maitland Newcastle Port Stephens		Implement marketing strategy to provide up to date information of availability of public transport services and strategic cycleway networks to the Greater Newcastle community.	Transport for NSW	Internal Transport investigations Community feedback
18	Lake Macquarie Newcastle		Commence upgrades to Newcastle Link Road including Minmi Road to provide safe and efficient cross connectivity, facilitate housing growth along the corridor and provide for an urban arterial east-west connection between Wallsend and the M1 Pacific Motorway, including bus priority measures along the corridor.	Transport for NSW Department of Planning, Housing and Infrastructure Council Development industry	Hunter Regional Plan 2041 State Voluntary Planning Agreement funding
19	MidCoast Port Stephens		Commence upgrades to intersections on M1 Pacific Motorway between Raymond Terrace and Karuah including Medowie Road, The Bucketts Way and Italia Road.	Transport for NSW	Stakeholder engagement Community feedback
20	Newcastle		Initiate early upgrades to Industrial Drive to facilitate OSOM trips from Newcastle Port, including those associated with the REZ areas.	Transport for NSW EnergyCo	EnergyCo engagement Stakeholder feedback
21	Lake Macquarie		Apply Road User Space Allocation policy to the Pacific Highway between Belmont and Charlestown to increase priority for buses and active transport.	Transport for NSW	Internal Transport investigations


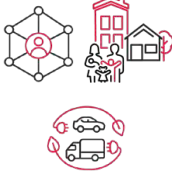

#	LGA	Objective alignment	Draft initiative	Lead	Source
22	Lake Macquarie		Commence station upgrades, in particular to support Transport Oriented Development outcomes at Morisset and Cockle Creek stations.	Transport for NSW	Internal Transport investigations NSW Government Transport Oriented Development Program
23	Lake Macquarie		Plan for service and infrastructure upgrades including strategic cycleway networks to facilitate place making around the Morisset town centre, including connections to the event centre.	Transport for NSW Council Development industry	Internal Transport investigations Lake Macquarie LSPS
24	Maitland		Investigate west-bound grade separation of New England Highway at Cessnock Road roundabout, Maitland.	Transport for NSW	Internal Transport investigations
25	Lake Macquarie Newcastle		Develop Lower Hunter Freight Corridor including undertaking concept and detailed design to inform delivery.	Transport for NSW	Lower Hunter Freight Corridor Report Stakeholder engagement
26	Lake Macquarie		Implement upgrades to key intersections to address safety for vulnerable road users and congestion. This includes Hillsborough Road, Speers Point roundabout and Main Road, Dora Creek.	Transport for NSW	Internal Transport investigations Community feedback







#	LGA	Objective alignment	Draft initiative	Lead	Source
27	Lake Macquarie Newcastle		Identify bus priority measures and cycle infrastructure upgrades along Newcastle Link Road.	Transport for NSW	Internal Transport investigations
28	Cessnock Lake Macquarie Maitland		Preserve opportunities for re-use of mining infrastructure including the rail corridor between Maitland and Cessnock and the Western Lake Macquarie Coal Haulage Road.	Transport for NSW Council	Internal Transport investigations Stakeholder engagement
29	Lake Macquarie Maitland Newcastle		Implement opportunities for park and ride, car-pooling and car sharing services at key transport interchanges, including improved safety and access for commuters using these facilities.	Transport for NSW Council	Internal Transport investigations
30	Cessnock Lake Macquarie Newcastle Singleton		Work with State Government agencies and councils to support implementation of tourism infrastructure and services including converting non-operational railways into rail trails (such as Shiraz to Shore) and providing safe cycling connections to these rail trails from nearby towns. This will include working with Councils on project development to understand the detailed scope of the work, opportunities for staging and the ability to seek funding.	Transport for NSW Council	Hunter Joint Organisation of Councils Draft Hunter Regional Transport Plan Stakeholder engagement
31	Port Stephens		Investigate options to upgrade the Nelson Bay Road corridor between Fern Bay and Williamtown to address the efficiency of the through movements as well as cross connectivity for the growing residential communities either side of the arterial road corridor.	Transport for NSW	Internal Transport investigations Safety investigations
32	All		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 investigations





#	LGA	Objective alignment	Draft initiative	Lead	Source
33	All		Identify and implement additional opportunities to support the safe and efficient movement of heavy vehicles (including OSOM vehicles) across the network with a focus on the Golden and New England Highways. This may include heavy vehicle rest stops, compliance and decoupling facilities.	Transport for NSW EnergyCo	EnergyCo engagement Internal Transport investigations Stakeholder engagement
34	Muswellbrook Port Stephens Singleton		Partner with councils on place-making for bypassed towns to improve active transport networks and improve economic opportunities consistent with objectives of Highway Bypass projects. Includes Singleton, Muswellbrook and Heatherbrae.	Transport for NSW Council	Internal Transport Investigations Stakeholder engagement
35	MidCoast		Develop option for Forster-Tuncurry Bridge to minimise longer term significant maintenance costs, facilitate housing development in Tuncurry and increase resilience of the road network connecting the two centres.	Transport for NSW	Internal Transport Investigations
36	MidCoast		Develop package of incremental safety improvements on The Lakes Way and Failford Road to address safety issues on high-speed regional roads.	Transport for NSW Council	Internal Transport investigations
37	Upper Hunter		Develop a priority program of safety and efficiency upgrades on the New England Highway between Belford and Muswellbrook to support safe movement of freight and OSOM vehicles.	Transport for NSW EnergyCo	Internal Transport investigations Stakeholder engagement
38	All		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 investigations
39	All		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 Investigations Customer Coordination Centre State Disaster Mitigation Plan 2024–2026

#	LGA	Objective alignment	Draft initiative	Lead	Source
40	MidCoast Newcastle Port Stephens		Improve public transport services to better connect the Hunter with Newcastle Airport, in particular from Newcastle, Port Stephens, Forster and Taree. Provide luggage carrying capacity to Newcastle Airport in line with expected growth in the short to medium term.	Transport for NSW	Stakeholder engagement
41	Cessnock Lake Macquarie Maitland Newcastle		Improve safety at rail stations and on public passenger transport to address passenger behaviours and safety at community car parking.	Transport for NSW	Internal Transport investigations Stakeholder engagement
42	Lake Macquarie Newcastle		Work with the High Speed Rail Authority to plan for future high speed rail between Sydney and Newcastle.	High Speed Rail Authority	High Speed Rail Authority
43	All		Complete the consolidated freight study and update the demand forecasts for modelling input into the Hunter Freight Study, to inform planning for the required future freight network.	Transport for NSW	Internal Transport investigations
44	Cessnock Lake Macquarie Maitland MidCoast Muswellbrook Singleton Upper Hunter		Develop and deliver improved rest stop opportunities across the region to support the safe and efficient movement of heavy vehicles.	Transport for NSW	Transport Heavy Vehicle Rest Stop Implementation Plan Transport Heavy Vehicle Rest Stop Improvement Program

6.2 Mid-term draft initiatives (5–10 year timeframe)

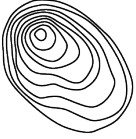

#	LGA	Objective alignment	Draft initiative	Lead	Source
45	Cessnock Lake Macquarie Maitland MidCoast Muswellbrook Newcastle Port Stephens Upper Hunter		<p>Continue to review and implement bus service improvements across the Hunter to provide better access to employment, healthcare, education, commercial, retail, leisure, tourism and connectivity to other transport modes. These include:</p> <ul style="list-style-type: none"> • frequent services linking Newcastle, Raymond Terrace and Newcastle Airport • longer-distance connections between Gloucester to Forster, Taree and Port Macquarie, Merriwa/Scone to Muswellbrook • improvements to services in Port Stephens, Maitland, Cessnock, Toronto, West Wallsend, Minmi, Newcastle suburban, Western Lake Macquarie, Eastern Lake Macquarie, Muswellbrook and Wingham. 	Transport for NSW	Internal Transport investigation NSW Government Transport Oriented Development Program Stakeholder engagement
46	Cessnock Dungog Lake Macquarie Maitland MidCoast Muswellbrook Newcastle Singleton Upper Hunter		<p>Continue to review and implement train service improvements across the Hunter. These include:</p> <ul style="list-style-type: none"> • Central Coast & Newcastle Line – improved local services and with a focus on supporting TOD developments • Hunter Line – service improvements with focus on the growth areas between Anambah to Branxton as well as improving services to Muswellbrook and Dungog • Regional Rail – introduce a new daily regional rail service between Tamworth and Newcastle via the Upper Hunter, to facilitate day return trips in Newcastle. 	Transport for NSW	Internal Transport investigation NSW Government Transport Oriented Development Program Stakeholder engagement
47	Dungog MidCoast Muswellbrook Singleton Upper Hunter		<p>Continue to review and implement coach service improvements across the Hunter. These include:</p> <ul style="list-style-type: none"> • Newcastle to Taree via Gloucester – new daily coach service, targeted at providing day return trips to Taree particularly for Gloucester • Muswellbrook to Tamworth – new daily coach service, providing Upper Hunter communities with a day return journey to Tamworth. 	Transport for NSW	Internal Transport investigation Stakeholder engagement


#	LGA	Objective alignment	Draft initiative	Lead	Source
48	Newcastle		Continue to investigate extensions to ferry services based on future growth opportunities.	Transport for NSW	Internal Transport investigation Lake Macquarie LSPS Stakeholder engagement
49	Newcastle		Implement services and infrastructure upgrades along the mass transit corridor connecting Newcastle Interchange to Broadmeadow.	Transport for NSW	Broadmeadow Place Strategy Internal Transport investigations
50	Cessnock Maitland		Progress upgrades in and around MR195 that support active transport, passenger transport and increase journey resilience.	Transport for NSW	Internal Transport investigations
51	Port Stephens		Implement upgrades to M1 Pacific Motorway between Raymond Terrace and Karuah.	Transport for NSW	Internal Transport investigations Stakeholder engagement
52	Lake Macquarie		Investigate options for crossing of Dora Creek to address a missing link on the strategic cycleway network.	Transport for NSW Council	Internal Transport investigations
53	Lake Macquarie Newcastle		Commence delivery of Lower Hunter Freight corridor including enabling increased passenger trips on the Central Coast and Newcastle & Hunter rail lines; and facilitate increased freight access to and from the Newcastle Port.	Transport for NSW	Lower Hunter Freight Corridor Report Stakeholder engagement



#	LGA	Objective alignment	Draft initiative	Lead	Source
54	MidCoast		Implement preferred option for Forster-Tuncurry Bridge to facilitate housing development in Tuncurry and increase resilience of the road network connecting the two centres.	Transport for NSW	Internal Transport Investigations
55	Port Stephens		Investigate improvements to Tomago Road from Pacific Highway to Williamtown post completion of M1 Pacific Motorway extension to Raymond Terrace.	Transport for NSW	Internal Transport Investigations Stakeholder engagement
56	Lake Macquarie Newcastle		Continue to work with High Speed Rail Authority as project development continues.	High Speed Rail Authority	High Speed Rail Authority Stakeholder engagement
57	Singleton Upper Hunter		Implement a priority program of safety and efficiency upgrades on the New England Highway between Belford and Muswellbrook to support safe movement of freight and OSOM vehicles.	Transport for NSW EnergyCo	Internal Transport investigations


6.3 Longer term outcomes


The longer-term outcomes or responses identify how Transport can address the challenges for the Hunter region through implementation of policy, delivering services or infrastructure. Triggers could lead to a change in priorities for the longer term or reprioritise an initiative to bring it forward in time.

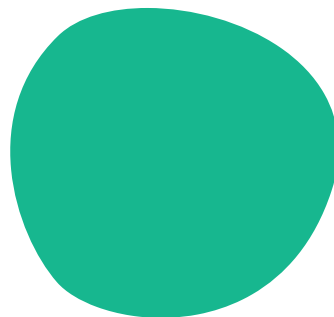
Challenge	Longer term outcomes	How we make it happen	Triggers that would change priority
 <p>Starting with Country</p> <p>All investment in the transport network, services, policy and technology take a Country-centred design approach.</p>	<p>Embedding Planning with Country practices at every stage of planning, development and delivery to result in Country-centred design</p>	<p>Policy</p> <ul style="list-style-type: none"> • delivering regional Aboriginal transport data through open-source dashboard sharing • increase the number of Aboriginal businesses on approved prequalified panels and schemes <p>Services</p> <ul style="list-style-type: none"> • improved access to education, health, employment and cultural places for Aboriginal communities 	
 <p>Access to transport for all</p> <p>A transport network that enhances liveability and connects communities</p>	<p>Improved connections to key health and education hubs</p>	<p>Policy</p> <ul style="list-style-type: none"> • Utilise the Road User Space Allocation Policy to prioritise more sustainable travel modes <p>Services</p> <ul style="list-style-type: none"> • Better bus and coach services connecting to health services in different towns • Bus services support more school travel <p>Infrastructure</p> <ul style="list-style-type: none"> • Connected active transport network for regional centres • Bypassing key town centres to deliver improved place outcomes (for example Singleton and Muswellbrook) 	<ul style="list-style-type: none"> • Bypass delivered • New hospital • New schools



Challenge	Longer term outcomes	How we make it happen	Triggers that would change priority
 <p>Access to transport for all</p> <p>The need for infrastructure and services to support growth and development</p>	<p>Appropriate infrastructure and services for new and existing growth areas to:</p> <ul style="list-style-type: none"> enable Transport Oriented Development build Transport networks that respond to changing employment patterns such as the move away from mining <p>An integrated public transport network with frequent and reliable services including journey information</p>	<p>Policy</p> <ul style="list-style-type: none"> input to strategic land use planning support design that encourages sustainable travel patterns: <ul style="list-style-type: none"> walkable communities connected cycleways commercial station precincts <p>Services</p> <ul style="list-style-type: none"> bus service kilometres increase in line with population and employment growth, particularly for regionally significant growth areas including: <ul style="list-style-type: none"> Anambah to Branxton West Lake Macquarie services into train stations real time travel information across the state increased train services <p>Infrastructure</p> <ul style="list-style-type: none"> local walking and cycling infrastructure road network improvements: <ul style="list-style-type: none"> allocation of space to on road public transport intersection improvements road widening Hunter Rail Line: <ul style="list-style-type: none"> corridor crossings station access on both sides additional stations 	<ul style="list-style-type: none"> Project work for a high speed rail is announced Significant changes to freight movements, for example early date for container movements at the Port of Newcastle


Challenge	Longer term outcomes	How we make it happen	Triggers that would change priority
 <p>Access to transport for all</p> <p>The need for a transport network that reduces disadvantage</p>	<p>Improved accessibility to public transport:</p> <ul style="list-style-type: none"> improving public transport connections to and from, through and within the region (connected networks and day return services) reduced dependence on private vehicles action on all Transport's Aboriginal Outcomes connecting Discrete Aboriginal Communities <p>Active transport and micromobility are available and utilised</p>	<p>Policy</p> <ul style="list-style-type: none"> prioritise initiatives designed to enact Transport's Aboriginal Outcomes Framework integrated electronic ticketing across the state <p>Services</p> <ul style="list-style-type: none"> more frequent bus services. Expand the bus network to service key locations including: <ul style="list-style-type: none"> hospitals schools TAFEs Discrete Aboriginal Community access Day return services for regional locations <p>Infrastructure</p> <ul style="list-style-type: none"> Discrete Aboriginal Community access 	<ul style="list-style-type: none"> Change to micromobility access policy
 <p>Well-located housing and successful places</p> <p>A transport network that enhances liveability and connects communities</p>	<p>An integrated public transport network to achieve a 30-minute city through:</p> <ul style="list-style-type: none"> frequent and reliable public transport services to access health, education, employment and key tourism locations. deliver a connected active transport and micromobility network. <p>First and last mile freight access</p>	<p>Services</p> <ul style="list-style-type: none"> Better bus services supporting university travel Increased bus and rail services across the day and week Ensure that if vehicle travel is stabilised in Newcastle and centres that there is sufficient capacity to support travel demand for all trip purposes <p>Infrastructure</p> <ul style="list-style-type: none"> Roads to open doors including: <ul style="list-style-type: none"> local connections as part of the development connections to the key road corridors network capacity monitoring as a result of growth local cycleways and footpaths to support short trips sustainably Public transport infrastructure: <ul style="list-style-type: none"> additional stations bus priority measures train station, bus stop, light rail stop and ferry wharf upgrades, including accessibility, information and corridor crossings 	<ul style="list-style-type: none"> Rapid uptake of midrise housing around train stations

Challenge	Longer term outcomes	How we make it happen	Triggers that would change priority
 <p>A thriving and diversifying economy</p> <p>Enabling safe and efficient freight</p>	<p>Improved road and rail freight network efficiency to support and enable economic growth</p>	<p>Policy</p> <ul style="list-style-type: none"> • Protect key freight corridors: <ul style="list-style-type: none"> - Port land SEPP - land use development along key freight routes limits encroachment by sensitive land uses • 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 key freight corridors across the Hunter ensuring connectivity to key centres, such as Newcastle and strategic hubs such as the Port of Newcastle, Newcastle Airport, Tomago Industrial Park, Freeway Business Park in Beresfield, Black Hill Employment Precinct, and the Hunter-Central Coast Renewable Energy Zones including: <ul style="list-style-type: none"> - Pacific Highway, South of Newcastle PBS 2 and North of Newcastle PBS 3 access - Hunter Expressway, M1 Pacific Motorway and Golden Highway PBS 3 access - The Bucketts Way, PBS 2 access - John Renshaw Drive, PBS 3 access between the M1 Pacific Motorway and Hunter Expressway <p>Infrastructure</p> <ul style="list-style-type: none"> • Infrastructure that enables the diversifying and growing demand for freight including: <ul style="list-style-type: none"> - investigating route options for a fuel pipeline corridor to connect the Port of Newcastle fuel import terminals to Central Western NSW via the Hunter - OSOM - heavy vehicle rest areas - protect land for future freight corridors • Increased network access for high productivity vehicles <ul style="list-style-type: none"> - network and structure improvements to support this 	<ul style="list-style-type: none"> • Planning advances faster for the Central Coast-Hunter REZ

Challenge	Longer term outcomes	How we make it happen	Triggers that would change priority
 <p>A thriving and diversifying economy</p> <p>The need for a transport network that supports the visitor economy</p>	<p>Transport networks connect visitor and tourism destinations including:</p> <ul style="list-style-type: none"> • access to airports • transport that responds to seasonal demands • services and infrastructure that improve the uptake of public transport 	<p>Services</p> <ul style="list-style-type: none"> • Bus services to Newcastle Airport: <ul style="list-style-type: none"> - increase frequency - connections to the Hunter Valley and Forster-Tuncurry • Bus connections to support tourism workers to workplaces in the Hunter Valley <p>Infrastructure</p> <p>Public transport infrastructure including:</p> <ul style="list-style-type: none"> • bus priority measures, including at Newcastle Airport • train station, bus stop, light rail stop and ferry wharf upgrades, including accessibility and information about accessing tourism area • consider vehicles suitable for the needs of tourists, including luggage 	<ul style="list-style-type: none"> • High speed rail project announcement



Challenge	Longer term outcomes	How we make it happen	Triggers that would change priority
 <p>A safe transport network</p> <p>Reduce fatal and serious injuries on the transport network and address safety concerns for public transport passengers</p>	<p>Safer roads, transport and waterways:</p> <ul style="list-style-type: none"> • Reduced road and waterway trauma • Safer level crossings • Improved safety for vulnerable users • Improved personal safety and security for transport users • Improved perceived personal safety for transport users 	<p>Policy</p> <ul style="list-style-type: none"> • Safer vehicles • Safer drivers • Lower speed limits in targeted locations • Public transport station/stop location activation (passive surveillance/activity) <p>Services</p> <ul style="list-style-type: none"> • Onboard surveillance and safety <p>Infrastructure</p> <ul style="list-style-type: none"> • Rail level crossing safety improvements • Road safety network improvements • Train station and bus stop lighting 	<ul style="list-style-type: none"> • Changes to crash patterns • New crash clusters
 <p>Resilient networks</p> <p>The need to build and maintain a resilient transport network</p>	<p>Maintaining and improving transport networks in a changing climate:</p> <ul style="list-style-type: none"> • continuous improvement of asset management processes • journey reliability in response to external events 	<p>Policy</p> <p>Continually review asset management processes:</p> <ul style="list-style-type: none"> • asset problem identification and response procedures • community information about asset practices <p>Infrastructure</p> <ul style="list-style-type: none"> • Infrastructure is designed for a changed climate, more extreme weather and temperatures • Resilience (alternative routes/paths) is a determinant in prioritising delivery programs 	<ul style="list-style-type: none"> • Extreme weather events occur more frequently than forecast and require a reprioritisation of response

Challenge	Longer term outcomes	How we make it happen	Triggers that would change priority
 <p>Net zero emissions</p> <p>Contribute to the net zero 2050 target</p>	<p>Net zero:</p> <ul style="list-style-type: none"> • 100% renewable energy for all operational electricity for the rail, light rail and metro train network by 2025 • 50% of Transport's light rail passenger vehicle fleet procurement transitioning to all-electric by 2026 • 100% of Transport's light passenger vehicle fleet procurement transitioning to all-electric by 2030 • 65% reduction in Transport's operational emissions by 2030 (compared to 2018-19) • net zero in Transport's operational and fleet emissions by 2035 • 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 	<p>Policy</p> <ul style="list-style-type: none"> • Support freight industry's moves to decarbonise <p>Infrastructure</p> <ul style="list-style-type: none"> • Support EV charging infrastructure delivery • Support Hunter-Central Coast REZ • Transition Transport fleet to zero emissions (including ZEB roll out) 	<ul style="list-style-type: none"> • Faster uptake of electric vehicles: <ul style="list-style-type: none"> - cars - buses - trucks

07 Next steps and implementation



Transport wants to hear from communities, stakeholders, businesses and transport operators who live, work or travel through the Hunter region.

7.1 Community engagement and Plan finalisation



What we hear during engagement will influence the final plan content. The final list of initiatives will be refined and further

developed to ensure that what is shown in the Plan can be delivered in the timeframes we are working towards.

If necessary, additional funding will be sought as part of Plan finalisation.

7.2 Plan governance



Establishing a transport vision for Hunter and identifying priority initiatives to deliver the vision are the first steps in the planning process.

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, and industry and community representatives.

7.3 Progress reporting



The Final Plan will be a 'living' document to be continually updated as the area changes, technology evolves, legislation adjusts, and new opportunities emerge. Transport will provide status updates on the initiatives every 12 months and undertake a review of the Final Plan every five years to ensure the long-term outcomes are realised.

Field workers undertaking environmental inspections in a mangrove environment adjacent to the Hunter River, Tarro to Raymond Terrace M1 Extension

The refresh will consider progress on the initiatives, as well as identify potential new initiatives and consider triggers that may be necessary to respond to future user needs, emerging technologies, changing land uses, or new service and/or infrastructure commitments proposed over the next five years.

The refresh will also provide an opportunity to review progress towards the long-term outcomes.

7.4 Funding and delivery



The Draft Plan comprises a total of 57 initiatives. While some initiatives are already in planning, new initiatives will require further

investigation to determine their feasibility.

Transport will work collaboratively with key stakeholders to identify opportunities to fund the initiatives outlined in the Draft Plan, including possible Australian Government and private sector financing. This includes ensuring private development and industry operations align with the long-term outcomes for Hunter region.

08 Appendix



Objectives and outcomes


The following tables include detail on the objectives for the Draft Hunter Plan that address the characteristics of the Hunter 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.

Lower Hunter rail tracks




Table 4. Objectives and indicators

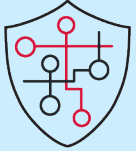

Objective	Outcomes	Indicators
<p data-bbox="165 228 327 292">Starting with Country</p>  <p data-bbox="165 496 394 743">All investment in the transport network, services, policy and technology take a Country-centred approach</p>	<p data-bbox="432 228 1178 260">Aboriginal economic independence supported by Transport</p> <ul data-bbox="432 280 1532 528" style="list-style-type: none"> <li data-bbox="432 280 1532 344">• Increase opportunities for Aboriginal Community-Controlled Organisations ownership, access, management and / or use of land and waterways <li data-bbox="432 368 1532 472">• 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 <li data-bbox="432 496 1532 528">• Achieve greater Aboriginal driver license independence and support <p data-bbox="432 552 1391 616">Aboriginal people are connected safely to the economy and socially, through transport solutions</p> <ul data-bbox="432 639 1532 799" style="list-style-type: none"> <li data-bbox="432 639 1532 703">• Address Aboriginal road trauma incidents occurring on NSW roads and achieve safer transport outcomes for Aboriginal communities <li data-bbox="432 727 1532 799">• Address both physical safety and psychosocial incidents occurring on public transport services, so Aboriginal people feel safe and inclusive when travelling <p data-bbox="432 823 1256 855">Transport drives transformative action to deliver systemic change</p> <ul data-bbox="432 879 1532 943" style="list-style-type: none"> <li data-bbox="432 879 1532 943">• Deliver regional Aboriginal transport data, to spotlight where Transport needs to be improved for our Aboriginal communities <p data-bbox="432 967 1491 1031">Embed cultural awareness and inclusiveness training programs across our transport industry partners, in delivering lasting cultural change</p> <p data-bbox="432 1054 1429 1118">Our community and Country are healthy and strong, through transport planning and placemaking</p> <ul data-bbox="432 1142 1532 1246" style="list-style-type: none"> <li data-bbox="432 1142 1532 1246">• 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 <p data-bbox="432 1270 1532 1374">Delivering a program of Aboriginal placemaking activities including cultural landscapes management, asset access parity, and all-encompassing transport asset Aboriginal branding that supports story telling</p>	<ul data-bbox="1543 228 2139 991" style="list-style-type: none"> <li data-bbox="1543 228 2139 292">➤ Engagement of Aboriginal community controlled organisations <li data-bbox="1543 316 2139 379">➤ Aboriginal businesses on approval prequalification panels and schemes <li data-bbox="1543 403 2139 435">➤ Aboriginal people with driver licences <li data-bbox="1543 459 2139 563">➤ Aboriginal outcomes embedded into project initiatives as part of project scope and assessment <li data-bbox="1543 587 2139 619">➤ Number of Aboriginal placemaking activities <li data-bbox="1543 643 2139 675">➤ Aboriginal road trauma incidents <li data-bbox="1543 699 2139 762">➤ Aboriginal safety incidents on public transport <li data-bbox="1543 786 2139 818">➤ Data sharing with Aboriginal communities <li data-bbox="1543 842 2139 906">➤ Inclusiveness training participation for Transport staff and industry partners <li data-bbox="1543 930 2139 994">➤ Number of Discrete Aboriginal Communities within 800m of a public transport service

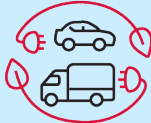
Objective	Outcomes	Indicators
<p data-bbox="165 164 367 228">Access to transport for all</p>  <p data-bbox="165 416 398 703">A transport network that provides a range of travel choices to all people living, working in or visiting the Hunter region</p>	<p data-bbox="432 164 1274 268">Transport disadvantage is reduced across the entire Hunter region and all people are able to seamlessly access all their regular destinations with a variety of transport choices for all trips purposes</p> <p data-bbox="432 292 1263 395">Public and active transport choices are provided where currently absent for regional and rural communities including Discrete Aboriginal Communities at Karuah, Purfleet, The Farm and Cabarita</p> <p data-bbox="432 419 1294 451">A reduction in transport disadvantage is achieved in the Hunter region</p> <p data-bbox="432 475 1279 539">All people can seamlessly access all their regular destinations with a variety of transport choices</p> <p data-bbox="432 563 1290 667">More transport services are delivered to reduce transport disadvantage with a focus in the Upper Hunter, Dungog and MidCoast local government areas</p>	<ul style="list-style-type: none"> <li data-bbox="1312 164 2119 228">➤ Length of footpath kilometres where there currently is no footpath (near or associated with access to existing services) <li data-bbox="1312 252 1877 316">➤ Length of separated cycleways creating a strategic connection <li data-bbox="1312 339 2119 371">➤ Service provided where there was no public transport service <li data-bbox="1312 395 1861 427">➤ Frequency of services and span of hours <li data-bbox="1312 451 2047 515">➤ Community and centre connections filling in gaps in the strategic road network <li data-bbox="1312 539 1951 571">➤ Public transport service frequency to a hospital <li data-bbox="1312 595 2074 627">➤ Public transport service frequency to a university or TAFE <li data-bbox="1312 651 2029 683">➤ Public transport service frequency to shopping centre <li data-bbox="1312 707 1935 738">➤ Day return services to regional and rural areas <li data-bbox="1312 762 2051 826">➤ Proportion of new residential developments serviced by public transport

Objective	Outcomes	Indicators
<p>Well-located housing and successful places</p>  <p>Support the delivery of well-located housing and successful places through sustainable transport options to address growth in the Hunter</p>	<p>Growth in identified Transport Oriented Development locations and sustainably delivered low and mid-rise housing near train stations, commercial centres and local centres</p> <p>Established centres, towns and villages</p> <ul style="list-style-type: none"> • Housing land and employment land in established areas, towns and villages are serviced by sustainable transport options including public transport and cycling and walking infrastructure with a resultant reduction in private vehicle use • Centres are vibrant and accessible with strong social connectivity • An improvement to the liveability of towns and villages with improved social connectivity of communities, improved amenity, balanced with the movement needs for all road users <p>Regionally significant growth areas</p> <ul style="list-style-type: none"> • Early provision of public transport and improvement to road network infrastructure that increases transport access to housing and employment land in regionally significant growth areas • Walking and cycling infrastructure available from day one 	<ul style="list-style-type: none"> ➤ Number of new residents (net travel zone increase from 2021 to 2036) within 800m of a public transport service ➤ Number of people with improved walking and cycling connections to urban centres ➤ Number of people living within a 15-minute walk to a local centre — Traffic volumes in urban areas and regional centres [stabilise] ➤ Number of people in regionally significant growth areas within 800m of a bus stop or train station ➤ Public and active transport usage rates in new growth area ➤ Number of residents across the Hunter within 400m to 800m of a train station (day/time dependent)



Objective	Outcomes	Indicators
<p data-bbox="165 162 344 268">A thriving and diversifying economy</p>  <p data-bbox="165 491 407 852">Provide an efficient transport network to support a diversifying and growing economy including tourism, freight movements and enabling renewable energy zones</p>	<p data-bbox="430 162 1128 229">Energy transition triggers new users for existing rail and transport assets</p> <p data-bbox="430 252 1214 319">Transport network supports international, national and state gateways serviced by Newcastle Airport and Port of Newcastle</p> <p data-bbox="430 341 1263 450">Transport supports the tourism industry with improved public transport connections for visitors as well as service workers for the Hunter Valley, key tourism destinations and Newcastle Airport</p> <p data-bbox="430 472 1290 612">Transport monitors and plans for continuing growth in heavy and commercial vehicle movements required to support economic activity including the major movement corridors to the Port of Newcastle including the M1 Motorway and the Hunter Expressway</p> <p data-bbox="430 635 1272 813">Transport identifies existing non-compliant heavy vehicle rest stops, areas required for heavy vehicles, including oversize and overmass (OSOM) and higher productivity vehicles, to ensure adequate safe breaks as well as pinch points or constraints on the network for freight accessibility</p> <p data-bbox="430 836 1254 944">Tourism and employment industries are aware of transport options and utilise these to promote their services for both employees and visitors</p> <p data-bbox="430 967 1258 1034">Public transport, cycling and walking become the preferred choice for employment travel and tourism sectors</p> <p data-bbox="430 1056 1249 1123">Heavy vehicle operators are adequately satisfied with the network and rest stops are available</p> <p data-bbox="430 1145 1290 1254">There is adequate capacity for all freight (including high capacity and OSOM) vehicles to traverse the network safely, efficiently and stop along their journey</p> <p data-bbox="430 1276 1218 1343">Key freight corridors are protected and preserved for dedicated freight movements</p> <p data-bbox="430 1366 1218 1433">Freight users are aware of network availability and rest stops to support safe and efficient freight journeys</p>	<ul style="list-style-type: none"> <li data-bbox="1312 162 2074 229">➤ Walking, cycling and public transport choices available to Newcastle Airport <li data-bbox="1312 252 2074 319">➤ Walking, cycling and public transport choices available to Hunter Valley tourism destinations <li data-bbox="1312 341 2074 408">➤ Walking, cycling and public transport choices available to Port Stephens <li data-bbox="1312 430 1975 497">➤ Heavy vehicle access to renewable energy zones, including OSOM <li data-bbox="1312 520 2024 587">➤ Capacity for key freight road and rail corridors across the Hunter <li data-bbox="1312 609 1751 644">➤ Volume of freight moved by rail <li data-bbox="1312 667 2069 702">➤ Heavy Vehicle rest areas sufficient to meet requirements <li data-bbox="1312 724 2101 791">➤ Customers have choices for how they travel to major events and tourist destinations

Objective	Outcomes	Indicators
<p>A safe transport network</p>  <p>Reduce fatal and serious injuries on the transport network and address safety concerns for public transport passengers</p>	<p>Short-term changes</p> <ul style="list-style-type: none"> Existing high risk crash locations are treated Consistent safety treatments rolled out across regional road network Safer speeds on local and low-volume rural roads (80km/h) People drive observing the speed limit on country roads Customer personal safety is improved on the public transport network <p>Intermediate changes</p> <ul style="list-style-type: none"> Reduce fatalities by 50% (≤ 164 fatalities by 2030) Reduce serious injuries by 30% ($\leq 7,796$ serious injuries by 2030) <p>Long-term changes</p> <ul style="list-style-type: none"> Zero trauma on the road network by 2050 Zero trauma on waterways by 2056 	<ul style="list-style-type: none"> Number of people killed and seriously injured in run-off-road crash types Number of people killed and seriously injured in speed-related crash type Number of people killed and seriously injured in crashes in the Hunter region Number of people killed and seriously injured in crashes involving vulnerable road users across the Hunter region Number of people killed and serious injured on navigable waterways Public transport safety incidents Public transport stops or stations receive lighting, wayfinding, and surveillance AusRAP star rating on state roads
<p>Resilient networks</p>  <p>Reduce the impact of transport network shocks and stresses to service and network interruptions and proactively plan for future impacts</p>	<p>Time and cost exposure to shocks and stresses are identified on critical areas of the network</p> <p>Vulnerability of the network is identified, and risk assessed</p> <p>Transport identifies appropriate treatment on critical areas of the network</p> <p>Transport network users know how to plan for shocks and stresses</p>	<ul style="list-style-type: none"> Network connections remain available through flood events Network connections remain available through bushfire events Real time journey information is available and accessible Number of public transport service disruptions

Objective	Outcomes	Indicators
<p data-bbox="165 165 421 197">Net zero emissions</p>  <p data-bbox="165 379 421 480">Contribute to the net zero 2050 target</p>	<p data-bbox="434 165 1301 229">Alignment with the NSW Government Climate Change (Net Zero Future) Act⁶³ including:</p> <ul data-bbox="434 252 1301 847" style="list-style-type: none"> <li data-bbox="434 252 1301 320">• 100% renewable energy for all operational electricity for the rail, light rail and metro train network by 2025 <li data-bbox="434 343 1301 411">• 50% of Transport's light passenger vehicle fleet procurement transitioning to all-electric by 2026 <li data-bbox="434 434 1301 502">• 100% of Transport's light passenger vehicle fleet procurement transitioning to all-electric by 2030 <li data-bbox="434 525 1301 593">• 65% reduction in Transport's operational emissions by 2030 (compared to 2018-19) <li data-bbox="434 616 1301 647">• Net zero in Transport's operational and fleet emissions by 2035 <li data-bbox="434 662 1301 694">• Fossil fuel-free Transport construction and maintenance by 2040 <li data-bbox="434 708 1301 740">• Net zero in Transport's annual embodied emissions by 2045 <li data-bbox="434 754 1301 786">• Net zero in transport sector emissions by 2050 <li data-bbox="434 801 1301 833">• Net negative transport sector emissions by 2060 <p data-bbox="434 863 1301 895">Specifically for the Hunter:</p> <ul data-bbox="434 917 1301 1493" style="list-style-type: none"> <li data-bbox="434 917 1301 986">• Increased uptake of low emissions travel modes: walking, cycling, e-bikes, shared/on-demand on direct, continuous, well-lit networks <li data-bbox="434 1008 1301 1109">• Increased uptake of emerging technologies that support a move to lower emissions modes, for example connected and automated vehicles and e-aviation <li data-bbox="434 1131 1301 1232">• Rapid electrification of NSW regional private vehicle fleet with supporting infrastructure, for example the strategic regional EV charging network <li data-bbox="434 1254 1301 1355">• Dominance of cleaner private transport with more active modes, cleaner public transport including planning for electrification of the Hunter rail network and freight transport <li data-bbox="434 1377 1301 1493">• Renewable energy zones are supported with reliable heavy vehicle access across and within the Hunter including the Central West and Orana REZ, New England REZ and Hunter-Central Coast REZ 	<ul data-bbox="1314 165 2154 671" style="list-style-type: none"> <li data-bbox="1314 165 2154 234">➤ Projects demonstrating carbon was a factor in options assessment <li data-bbox="1314 248 2154 280">➤ Number of Zero Emission Buses serving the Hunter <li data-bbox="1314 295 2154 327">➤ Percentage of trips by public transport, cycling and walking <li data-bbox="1314 341 2154 373">➤ Percentage of Government fleet as EVs <li data-bbox="1314 387 2154 419">➤ Emissions reduction per tonne kilometre per mode <li data-bbox="1314 434 2154 466">➤ Low emission freight kilometres <li data-bbox="1314 480 2154 580">➤ Transport network available to renewable energy zones, including OSOM <li data-bbox="1314 595 2154 671">➤ Proportion of state road network covered by EV charging infrastructure

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

Draft Hunter Strategic Regional Integrated Transport Plan

December 2024. P4P168.

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