Transport for NSW

Hunter

Strategic Regional Integrated Transport Plan









Acknowledgement of Country

Transport for NSW 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 are a group of First Nations people, located along the coastal area of the Hunter and Lake Macquarie regions of NSW. In the Awabakal language, Awaba is the word used for Lake Macquarie, one of the largest saltwater lakes in the southern hemisphere.

The Awabakal are bounded to the north-west by the Wonnarua, the Worimi and Guringai to the north-east and the Darkinung 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.

Left: Gum leaves in hand of an Aboriginal boy performing a dance © Clare Seibel-Barnes, used under license from Austockphoto Cover: A family using the light rail to explore Newcastle © Destination NSW



Minister's foreword



I am pleased to present the 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 Lower Hunter and Greater Newcastle 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 workforce with, for example, 17 per cent working within healthcare growing to 21 per cent over the life of the Plan. Connecting these workers and communities to the vital services

they provide through viable transport options will improve access for all. Improved transport services linking visitor economy employees and tourists 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 (REZ).

The development of REZs is 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 Orana REZ as well as the development of the Hunter-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 presents. Every death on our road is one too many. Every person who dies on our road network matters. 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, visitors, 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, Members of Parliament, 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 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
Minister for Roads and Minister for Regional Transport



To the reader of this 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 Hunter Strategic Regional Integrated Transport Plan (the 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 statewide planning and its context within a regional application.

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

A unique aspect to the development of this Plan has been the ongoing and meaningful engagement with stakeholders, councils and communities. During development and public consultation Transport received more than 1500 pieces of feedback to help inform the Plan.

Overall response to the Plan was positive, and community engagement highlighted a broad range of transport challenges and opportunities across the Hunter region. These reflect the diverse needs and growing demands of the area and reinforce the need for a coordinated, multimodal approach to transport planning and investment to support the region's growth and future development.

Additional resources that support the Plan include:

- the Consultation summary report outlining who we talked to and what we heard through detailed engagement, workshops and public exhibition of the draft Plan
- the StoryMap to share accessible data and insights that have been used to understand current and future transport requirements
- a Have Your Say portal for all nine plans.



Early engagement

Transport hosted 17
workshops, briefings and
meetings providing more than 500 ideas
and suggestions, logged 442 map pins via a
Have Your Say portal offering local transport
feedback and insights and received six written
submissions. This engagement then informed
the development of a Draft Hunter Plan.

Public exhibition

The Draft Plan was placed on public exhibition from 16 December 2024 until 28 February 2025.

During this time, Transport hosted workshops, drop-in sessions and briefings with key stakeholders providing more than 250 pieces of feedback. Transport received 68 formal submissions, 380 survey responses and more than 140 map pins in response to the Draft Plan.

Read all about what we heard during public exhibition.

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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 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 the Hunter's 960,000 residents and 450,000 workers by 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 (DPHI) forecast 30.000 new homes for Lower Hunter and Greater Newcastle under the five-year national housing target with housing growth to continue in the longer term.

This 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.

Commuter waiting for light rail at Newcastle Interchange



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, visitor economy workers and tourists to key destinations such as beaches in the MidCoast, Port Stephens and Newcastle local government areas (LGA) as well as vineyards in 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 for the Hunter region

This 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.
- Fatal and serious injury crashes and casualties are on the rise with 2023 marked with solemn significance due to the tragic Hunter Valley bus crash on June 11 which killed 10 people and injured 26 others. Speeding is over-represented for the Hunter with 50 per cent of fatal crashes involving speed (2019 to 2023).
- 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.



Passengers getting on bus at Newcastle Interchange

- More frequent and severe weather events impact the operation of the transport networks.
- 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 an extensive network of timber bridges which require continued, expensive maintenance.
- Visitor economy workers and tourists travelling to key tourism destinations and 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, including:

- more homes being served by public and active transport
- the establishment of REZs and the transition away from a coal-based economy and the opportunities this presents for the re-use of land and existing networks
- the growing visitor economy 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 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
- local planning for Morisset
- 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 RE7.
- 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.



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

4. Visitor economy 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 Cycle Trail (including the Richmond Vale Rail Trail).
- 5. Local Aboriginal transport and service planning with communities

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.

Implementation

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

Selected initiatives have been listed below against local government areas (LGAs) within the Hunter region.

In the Newcastle and Lake Macquarie LGAs, the following transport 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 the New England REZ and Central-West Orana REZ
- upgrades to the road corridor between Morisset and Glendale starting with the Speers Point roundabout to address safety and congestion in the North West Lake Macquarie area.

In the Cessnock, Maitland and Port Stephens LGAs the following transport initiatives are seen as key drivers of housing growth and tourism:

- improvements to the MR195 Main Road/ Cessnock Road corridor as well as developing a solution for a westbound flyover for the roundabout at the northern end
- partnering with councils in delivering parts
 of the Shiraz to Shore Cycle Trail, facilitating
 cycle tourism around the Hunter vineyards, and
 connecting strategic cycle routes to the coast

- identifying a suite of multimodal infrastructure upgrades in collaboration with councils to support the Anambah to Branxton regionally significant growth area
- investigating options to upgrade the Nelson Bay Road corridor between Fern Bay and Williamtown.

In the Muswellbrook, Singleton and Upper Hunter LGAs the following transport initiatives have been identified to facilitate freight movements as well as improve the place value of bypassed towns:

- implementing incremental safety and efficiency works to the New England Highway between Belford and Muswellbrook
- partnering with councils on place making for bypassed towns such as Singleton and Muswellbrook to improve active transport networks and economic opportunities.

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

- implementing safety upgrades to the Lakes Way and Failford Road intersection
- developing a preferred option and timeframe for the upgrade of the Forster-Tuncurry Bridge to address maintenance issues and facilitate housing growth
- implementing bus and coach service improvements to better connect regional communities.



Transport for NSW

Definitions

Term	Definition
Aboriginal community-controlled organisations	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:
	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 DPHI 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 and Riverina Murray. For more information go to DPHI's regional plans .
Discrete Aboriginal Community	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.
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.
EV	Electric vehicle

Term	Definition
Freight	Goods or cargo transported by heavy vehicles, light commercial vehicles (such as vans and utes), cycle couriers, rail, aircraft, or ships.
High productivity vehicles (HPV)	HPVs are truck and trailer combinations that provide the ability to move freight more efficiently.
Hunter Valley Coal Network (HVCN)	The Hunter Valley Coal Network is a major coal transportation system that moves coal from the mines in the Hunter Valley region to the Port of Newcastle for export and to domestic power stations.
LALC	Local Aboriginal Land Council
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.
LZEV	Low and zero emission vehicles
Lower Hunter and Greater Newcastle	Area of the Hunter including the local government areas of Cessnock, Lake Macquarie, Maitland, Newcastle and Port Stephens.
Outer Metropolitan Bus Service Contracts (OMBSC)	Contracts issued by the Transport for NSW to bus operators in NSW to operate its public bus route network. There are three types:
	Sydney Metropolitan Bus Service Contracts
	Outer Metropolitan Bus Service Contracts
	Rural and Regional Bus Service Contracts
	More information can be found at: <u>transport.nsw.gov.au/operations/buses-and-coaches/bus-contracts</u>
Oversize and/or overmass (OSOM)	An OSOM vehicle is a heavy vehicle that is carrying or specifically designed to carry a large indivisible item.

Term	Definition
Public transport accessibility level (PTAL)	A metric to measure the frequency and reliability of public transport services.
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.
Renewable energy zones (REZ)	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.
Road user movement (RUM)	The RUM code describing the first impact for a road crash.
Strategic centre	Strategic centres (regional) are centres with significant commercial components and a range of higher-order services.
Strategic Regional Integrated Transport Plan (SRITP)	SRITPs 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 program that equips buses with 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.
Upper Hunter	Area of the Hunter including the local government areas of Muswellbrook, Singleton and Upper Hunter Shire.
Zero emission bus (ZEB)	A bus powered by energy from renewable sources and which does not release carbon emissions or pollutants into the air.



The Hunter region includes the Country of the Awabakal, Birpai, Darkinung, 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 Hunter 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 various forms of cultural practices which assisted in hunting, gathering and to navigate throughout Country. Across the Hunter there are many significant cultural landscapes and important spiritual areas.

The Hunter region is part of a major migration route for Aboriginal people travelling from the north to south and west to east. These travelling routes form part of ancient Songlines of epic mythological events that connect right across Australia. Layered stories can by physical, spoken and sung while travelling along these Songlines.

From the Watagans to Mount Sugarloaf through Burraghihnbihng (Hexham wetlands) to the 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 an Aboriginal smoking ceremony

Transport acknowledges that many of the transport routes we still use 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 Hunter Strategic Regional Integrated
Transport 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 planning, 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 genuine involvement 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.

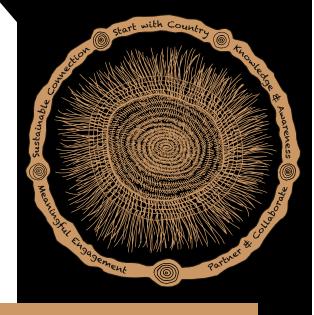
The Plan has adopted four Aboriginal result statements to guide how we respond to the National Agreement on Closing the Gap. The four statements are below.

- 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 place making.
- Aboriginal economic independence is supported by Transport.
- Transport drives transformative action to deliver systemic change.

Development of this 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 to 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)

About the Plan



The Hunter Strategic Regional Integrated Transport Plan is one of nine regional transport plans. The 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 Plan provides a 20-year vision and key transport priorities to support broader NSW strategic transport planning and land use goals. The Plan aims to streamline the transport project planning process and provide regional stakeholders and communities with short to medium-term transport priorities for the Hunter. The 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 visitor and 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 Plan provides initiatives to inform funding decisions based on regional priorities. The 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 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 Plan, Transport has developed an interactive StoryMap for the Hunter. This data-rich tool offers valuable insights that inform the vision, challenges and opportunities within the Hunter region.



Look for this icon to learn more about the <u>data</u> 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 LGAs of Cessnock, Dungog, Lake Macquarie, Maitland, MidCoast, Muswellbrook, Newcastle, Port Stephens, Singleton and Upper Hunter as shown in Figure 2. It includes the Country of the Awabakal, Birpai, Darkinung, 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 context 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.

A commuter waiting for a 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 housing and productivity contributions, 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 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.

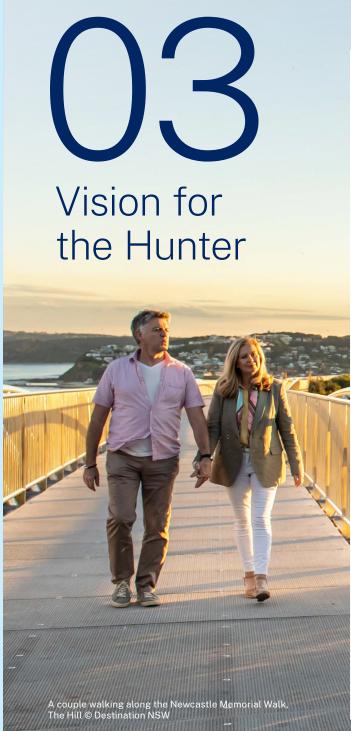
2.2.2 Transport

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 across 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
State and federal	 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 NSW Critical Minerals and High-Tech Metals Strategy 2024–35 	 Transport Administration Act 1988 Roads Act 1993 Future Transport Strategy Net Zero and Climate Change Policy 2023 Active Transport Strategy Heavy Vehicle Access Policy Towards Net Zero Emissions Freight Policy Biodiversity 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 Providing for Walking and Cycling in Transport Projects Policy 2021 Walking Space Guide 2020 Cycleway Design Toolbox 2020 Network Planning in Precincts Guide 2022 Regional and Outer Metropolitan Cycling and Micromobility Plan 2025–2035
Region	 Hunter Regional Plan 2041 Lower Hunter and Greater Newcastle City Urban Development Program Upper Hunter and Mid-Coast Urban Development Program 	Strategic Regional Integrated Transport Plan (this Plan)
Local or precinct	Hunter Joint Organisation Strategic PlanLocal strategic planning statements (LSPS)Place strategies	Local integrated transport plansTransport management and accessibility plans



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 REZs 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 visitor economy 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 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 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 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

Transport objectives provide a strategic foundation for guiding investment, planning, and policy decisions across the region.

They reflect a holistic, place-based approach that balances community needs, economic growth, environmental sustainability, and cultural respect. The SRITP objectives for the Hunter are shown in table 2.

These seven interconnected objectives articulate how the long-term vision will be realised at both regional and local levels. Figure 3 indicates the vision-led transport planning approach undertaken for each SRITP.

Table 2. The seven interconnected objectives.

Objectiv	re	Description
	Starting with Country	All investment in the transport network, services, policy and technology take a Country-centred design approach
	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
	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
	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
	A safe transport network	Reduce fatal and serious injuries on the transport network and address safety concerns for public transport passengers
	Resilient networks	Reduce the impact of transport network shocks and stresses to service and network interruptions, and proactively plan for future impacts
	Net zero emissions	Contribute to the net zero 2050 target

While the objectives are consistent across regions, the outcomes are tailored to reflect the unique challenges and opportunities of each place—such as population growth, housing pressures, economic diversification, and climate resilience.

A suite of indicators has been developed. These indicators ensure that actions align with the vision and respond to priorities validated through stakeholder engagement, data, and analysis.

Initiatives are identified across short-, medium-, and long-term horizons, enabling a staged implementation program. Progress will be monitored and reported to the community, ensuring transparency and accountability as we build a safe, inclusive, resilient, and futureready transport system.



Our SRITP Objectives





Access to transport for all



Well-located housing and successful places



A thriving and diversifying economy



Resilient networks



Met zero emissions

Vision

Objectives

Across all nine SRITPs, Transport

has seven universal

objectives. Each

objective will have

a regional context

for the future.

to inform our vision

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

Indicators

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

Initiatives

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



Starting with

Country

A safe

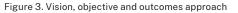
transport

network

Our vision for the Hunter

Regional context, challenges and opportunities









4.1 People and communities of the Hunter

The Hunter region is a globally connected region which is home to 775,000 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, Darkinung, 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 of up to 960,000 by 2041! As a result of this growth more people will be using the transport network.

The region has a large Aboriginal population, with 7.5 per cent of the population identifying as Aboriginal or Torres Strait Islander. This varies across the region from five per cent of the City of Newcastle population to 13.8 per cent in Muswellbrook Shire?

Department of Planning, Housing and Infrastructure, 2024 NSW Common Planning Assumption Projections for year ending 30 June

² Australian Bureau of Statistics, Data by region (2021 Census), accessed August 2024

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 NSW, 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 NSW 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.³

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.⁴

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.



Civic Station, in front of the University of Newcastle City campus © Shutterstock.com

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 influence the mobility needs and behaviours of the population.

The median age in the Hunter region is 37 years. The population of working-age and retirementage 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 35, while MidCoast is the oldest, with a median age of 53.5

The Hunter region had 21 per cent of the population aged 65 or older in 2021. The aged dependency ratio, measuring the number of older persons relative to those of working age, is increasing across the region. In 2021, the aged dependency ratio was 33 per cent and this is expected to rise to 37 per cent in 2031 and 39 per cent in 2041. Muswellbrook Council is projected to experience the sharpest increase in the aged dependency ratio, reaching 35 per cent in 2041.

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?

³ Australian Bureau of Statistics 2021 Index of Relative Socio-economic Advantage and Disadvantage (IRSAD) ranking within state by SA1, accessed August 2024.

Public Health Information Development Unit (PHIDU), Torrens University Australia. Social Health Atlas of Australia 2023.

⁵ Department of Planning, Housing and Infrastructure, 2024 NSW Common Planning Assumption Projections for year ending 30 June

Department of Planning, Housing and Infrastructure, 2024 NSW Common Planning Assumption Projections for year ending 30 June

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

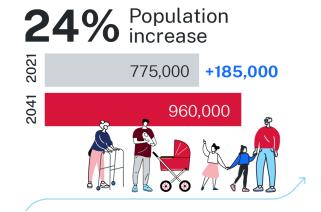
4.1.1 Key growth areas

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

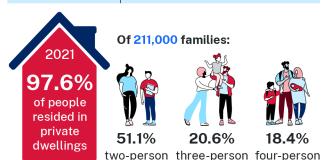
A significant proportion of projected population and employment growth will be accommodated in Maitland, Lake Macquarie and the City of Newcastle LGAs. Newcastle City Centre is the economic and service hub of the Hunter region and features extensive cultural attractions including galleries, theatres 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 Station. The precinct includes the Hunter Park Urban Regeneration Program which aims to transform underused government-owned lands into a nationally significant sporting centre within a new urban precinct.

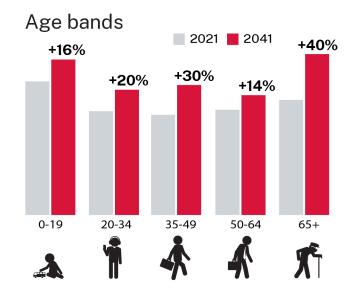
The North West Lake Macquarie growth area, located south west of the Newcastle City Centre, will also evolve into a key housing and employment hub. This area includes key areas of urban development and growth and re-use of mining lands to support economic activity.



LGA	Projected additional residents by 2041	2	Growth 021-41 %
Cessnock	25,900	7	+40%
Dungog	2,000	7	+21%
Lake Macquarie	45,200	7	+21%
Maitland	44,200	7	+49%
MidCoast	8,900	7	+9%
Muswellbrook	1,200	7	+7%
Newcastle	39,100	7	+23%
Port Stephens	13,400	7	+18%
Singleton	3,600	7	+15%
Upper Hunter	1,000	7	+7%



18.4%



Cultural diversi	ty 2021
People born in non-English speaking countries	5.9%
Population of new migrants arrived in Australia between 2011 and 2021	1.6%
People reporting English speaking proficiency as: Not well or not at all	0.7%
Population identifying as Aboriginal and/or Torres Strait Islander	7.5%
Number of discrete Aboriginal communities	4

Sources: ABS 2021 Census [General Community Profile], Department of Planning, Housing and Infrastructure, 2024 NSW Common Planning Assumption Projections for year ending 30 June

Figure 4. Population demographics for the Hunter

Port Stephens LGA 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 West 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 Newcastle and Maitland and north west to Singleton and Muswellbrook LGAs. As a result, the area is expanding rapidly in areas such as Huntlee.

Morisset 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.

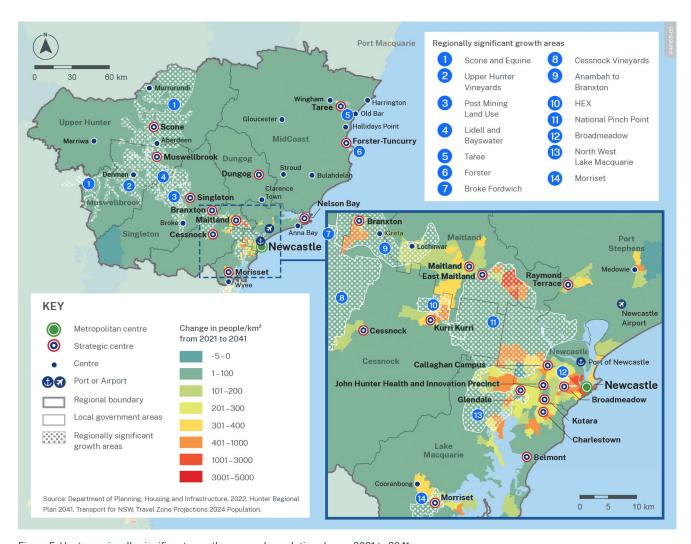
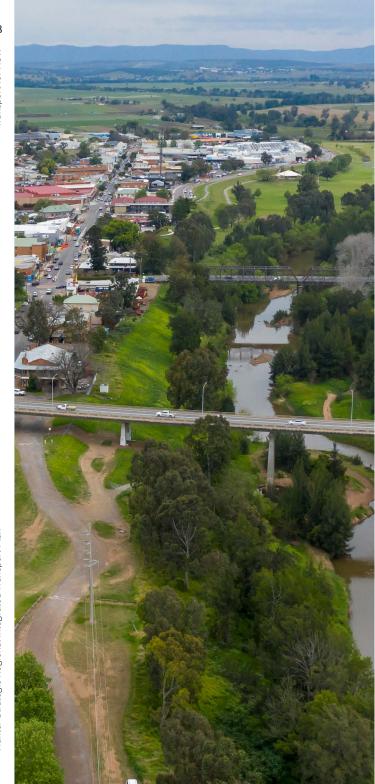


Figure 5. Hunter regionally significant growth areas and population change 2021 to 2041

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 popular destination for visitors. Within this district of the Hunter, key population areas are focussed on the strategic

centres of Dungog and Taree. Dungog is a smaller administrative centre servicing residents, business and tourism. 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 key tourist destination and is a popular choice for retirees and as a result the MidCoast LGA has one of the oldest populations in the region. Currently this area is largely car reliant resulting in many residents facing mobility and access challenges.

The Upper Hunter area includes the inland LGAs of Singleton, Muswellbrook and Upper Hunter. This area has strong connections to the Central West, New England and North Coast via the New England and Golden highways. Agriculture, tourism and mining sites feature across this part of the region as well as significant natural areas including the World Heritage listed Wollemi National Park and a significant equine sector and viticulture. The LGAs of the Upper Hunter including Singleton, Muswellbrook and Upper Hunter account for 50 per cent of the total land area of the Hunter region whilst only accommodating seven per cent of the population.

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).9 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

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

⁹ Australian Bureau of Statistics, 2021 Census

4.2 The changing economy of the Hunter

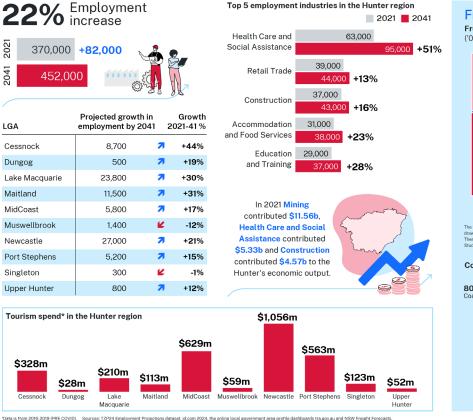
Regional economy

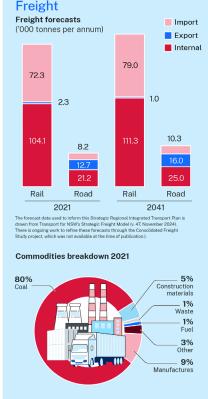
The Hunter region has the largest regional economy of all the regions in NSW (not including Greater Sydney), comprising nine per cent of the state economy. In 2022/23, Newcastle LGA had the highest contributing economy within the region, followed by Lake Macquarie. The Hunter drives around 28 per cent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

Employment

Employment in the Hunter region is projected to increase accommodating an extra 82,000 jobs by 2041. Like the expected population growth, all LGAs in the Hunter region are also anticipated to experience employment growth. Although Maitland has the highest forecast population growth in the Hunter region, at 49 per cent, Cessnock is expected to have the highest employment growth at 44 per cent.

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.¹⁴





To the country of the

Figure 6. Economy summary for the Hunter

This sector experienced significant growth of 46 per cent from 2006 to 2021 and is expected to continue growing by 50 per cent from 2021 to 2041.¹⁵

The professional, technical, and scientific services industry is also predicted to grow by 35 per cent during the same period. However, the mining industry is forecast to contract by nearly 47 per cent between 2021 and 2041. A breakdown of the top five employment industries is shown in Figure 6.

The Hunter region is 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.

⁰ Informed Decisions, 2023 NIEIR State of the Region Economic Indicators, accessed August 2024

¹¹ Hunter Joint Org., A Blueprint for Evolving the Hunter's Economy, accessed August 2024

¹² Transport for NSW, TZP 2024 Employment, NSW Government

¹³ Transport for NSW, TZP 2024 Forecasts, NSW Government

⁴ Australian Bureau of Statistics, 2021 Census, Australian Government 5 Transport for NSW, TZP 2024 Forecasts, NSW Government

Transport for NSW

Hunter Strategic Regional Integrated Transport Plan

Port diversification

The Hunter region is 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. In 2024 it handled over 2,200 vessel visits and over 155 million revenue tonnes of cargo.16

Exports from the Port of Newcastle in 2024 included:

- coal, accounting for 95 per cent of exports by volume
- wheat, meals and grains combined making up around one per cent of exports, with agricultural volumes having higher volatility year on year due to the seasonal impacts to crop production
- other commodities including aluminium, pitch and tar products, machinery/project cargo and vehicles, concentrates and other trade. combining to contribute less than one per cent.¹⁷

The port primarily relies on the Hunter Valley Coal Networks, leased by the Australian Rail Track Corporation (ARTC) to facilitate rail access. The Country Regional Network interfaces with the Hunter Valley Coal Network, but sees fewer trains travelling to the port. In addition, the port is well serviced by the Hunter Rail Line, which ARTC also incorporates as part of the Hunter Valley network.

With the expected reduction in coal export over the next 20 years, the Port of Newcastle is positioning to diversify its operations. Cruise operations is one such diversified trade at Port of Newcastle, with the Port Authority of NSW responsible for managing

cruise operations. Port Authority of NSW will continue to work closely with Port of Newcastle to facilitate growth and demand of the cruise market in Newcastle.

The Port of Newcastle's diversification strategy includes handling various types of freight, 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.

One third of grain grown annually in NSW is exported (mostly in bulk), and the Port of Newcastle handles approximately half of this export task.¹⁸ Recent harvests have seen some of the largest quantities of bulk grain exported through the port on record, mostly moved by rail. Almost 600,000 tonnes of wheat and over 850.000 tonnes of meals and grain were handled in 2024!9

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 4400 extra full-time jobs and \$6.5 billion in additional business activity through increased freight access.²⁰

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.

Port of Newcastle, Trade Report 2024, accessed March 2025

Port of Newcastle, Trade Report 2024, accessed March 2025

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

Port of Newcastle, Trade Report 2024, accessed March 2025

²⁰ 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:

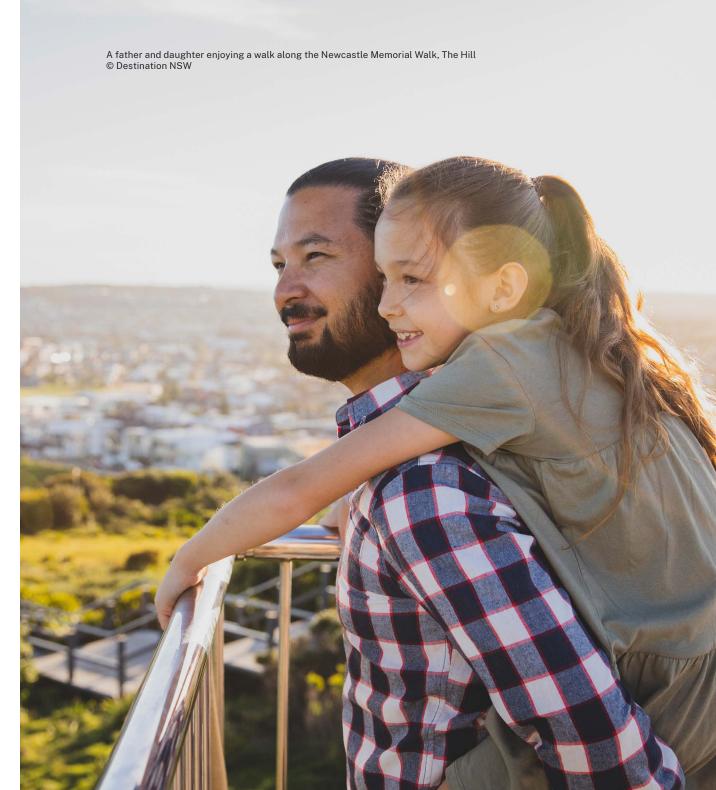
- the Hunter Valley Wine Region which is known for its vineyards, wineries and gourmet food
- Forster-Tuncurry which are known for their beaches, lakes and water activities
- Port Stephens which is known for its beaches, marine activities and sand dunes
- Barrington Tops National Park which is known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

Tourism provides a significant economic contribution in the Hunter region with 11.3 million visitors for year ending September 2024.²¹

Average visitor spend varies depending on the LGA and whether the visitor is domestic or international. However, for the year ending September 2024, Hunter led domestic day trip expenditure for all regional NSW, with day trip visitors spending \$997 million and the average spend per visitor for a domestic overnight trip in the region was \$675, compared to the regional average of \$715.22

In the Hunter region, tourism supports an estimated 15,600 jobs, which accounts for four per cent of total employment. The largest subsector is accommodation and food services, which sees around 9500 jobs supported by tourist expenditure.²³

²³ 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 September 2024, NSW Government, accessed March 2025

²² Destination NSW, Hunter Visitor Profile, Year ending September 2024, NSW Government, accessed March 2025

Tourism in the Hunter region is returning to pre-pandemic numbers with overnight trips in 2023 surpassing 2019 (pre-COVID-19) 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 (four per cent) and bus/coach (two per cent).²⁴

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.²⁵ Several parcels of land at existing coal mines across the Upper Hunter have been identified to be repurposed for other industries, in particular renewable energy.²⁶

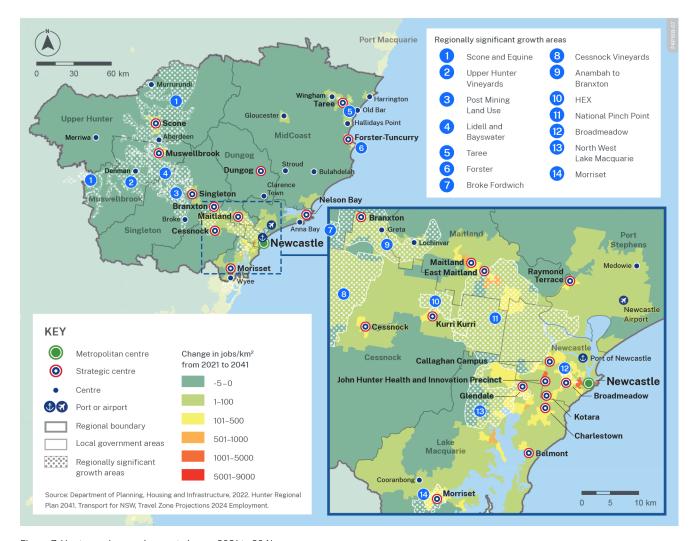


Figure 7. Hunter region employment change 2021 to 2041

²⁴ Australian Trade and Investment Commission, Tourism Research Australia, Local Government Area profiles 2019, Australian Government, accessed November 2024

²⁵ Department of Regional NSW, Future Jobs and Investment Authorities, Issues paper, May 2024

²⁶ NSW Government, Upper Hunter Strategic Regional Land Use Plan, 2012

Transport for NSW

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

Renewable energy zones

Planning for a 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 use 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.

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 public transport network in the Hunter region includes TrainLink trains and coaches, two intercity rail lines, various bus routes, a light rail system, and a ferry service. The most extensive coverage is in Lower Hunter and Greater Newcastle and specifically the Newcastle metropolitan centre. Despite this, public transport use remains low, with only 1.6 percent of work trips made via public transport. Census statistics show that the Newcastle LGA has the highest public trasport usage rate in the Hunter at 2.9 per cent, compared to a state-wide average of 4.0 per cent.²⁷

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.

6 Outer Metropolitan Bus Service Contracts O cars (Incl. NISC) + 6 Rural Service Regions 1 car 35.7% + 1 On-Demand Bus 2 cars 38.6% 3+ cars C 20.2% 1NSW 1 light rail 2 Intercity train lines. TrainLink route. **41** Intercity Coach line 6 stations train stations. 12 NSW TrainLink Journey to work mode share train stations 1 ferry line, 2 wharves Dungog **Upper Hunter Travel purpose** Singleton 10.7% Port Stephens Commute 19% 4.9% Newcastle | Serve passenger Work related Muswellbrook business 1.1% Maitland 9% Other Education/ MidCoast childcare 29.7% Lake Macquarie Social visits/ 15.2% recreation Cessnock Shopping Total 10.3% 20% 40% 60% 80% 100% Public transport Vehicle Active transport Other mode Source: Household Travel Survey-Newcastle, Lake Macquarie, Cessnock, Maitland, Port Stephens, Dungog and Singleton LGAs. Source: Census 2021 Top 5 patronised bus routes Top 5 train station entries and exits 11 - Charlestown Newcastle 92.000 83,000 to Newcastle Interchange 14 - Swansea Heads 56,000 Cardiff 42.000 to Newcastle 13 - Glendale 37,000 Broadmeadow 42,000 to Newcastle 12 - Maryland to Morisset 35.000 Merewether Beach 130 - Fingal Bay

Hamilton

Rail lines: — Both lines — Central Coast and Newcastle line

34.000

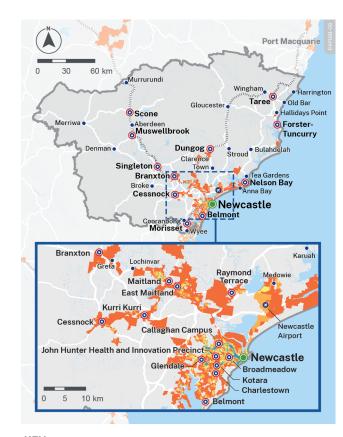
Vehicle ownership per household

Figure 8. How people travel in the Hunter

Patronage – March 2024

to Newcastle

Hunter public transport network







*Where an area does not show a PTAL score, the implication is that there is no public transport coverage for the given hour band.

Figure 9. Public Transport Accessibility level for the Hunter region, 8–9am

Key roads

There are 1135 kilometres of state roads in the Hunter region and 70,000 light and heavy vehicles travel each day along the primary northsouth 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)
- · Charlestown Road Lookout Road
- Lake Road
- Main Road
- Maitland Road
- · Hillsborough Road
- Industrial Drive
- · John Renshaw Drive
- Wine Country Drive (Cessnock-Branxton)
- Leggetts Drive 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 Pacific Motorway extension to Raymond Terrace, extension of the Newcastle Inner City Bypass to Jesmond, and early works for 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 area 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. The ARTC operates the majority of the Hunter Rail Network which comprises several non-electrified lines 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. Additionally, the Port of Newcastle is supported by an extensive on-site rail network.

Buses and light rail

The train network in the Hunter region is supported by an extensive bus network. Lower Hunter and Greater Newcastle is served by buses administered under the Outer Metropolitan Bus Service Contracts (OMBSC) 1–4 (as well as partially by OMBSC 6) 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, 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.



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

Newcastle CBD is serviced by light rail and ferry services. The Newcastle Light Rail connects
Newcastle Interchange to Newcastle Beach along a 2.7 kilometre alignment, which takes 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. Safety and a lack of suitable connections are major barriers to more people choosing to ride.

Accessing and using public transport via bike can also be challenging, particularly in regional and outer metropolitan NSW.

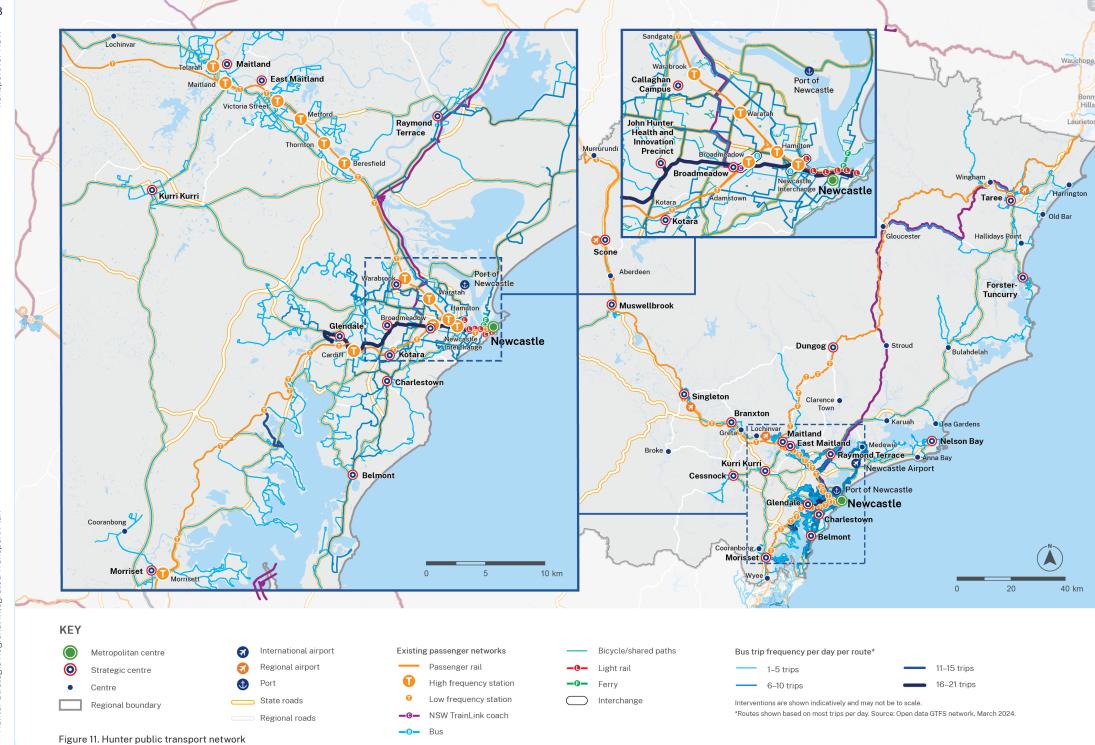
There is also comparatively less dedicated infrastructure available outside of the Newcastle–Maitland corridor, making it difficult for people to use walking and cycling as a means to commute or access everyday goods and services. This is reflected in the low mode share of walking and cycling of less than four 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



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 widening and improvements to be completed in 2026 and M1 Pacific Motorway extension to Raymond Terrace to be completed in 2028, with a combined cost of \$2.24 billion
- 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.



Transport projects

In planning

1 Kurri to Maitland network upgrades

Metropolitan centre

Strategic centre

- 2 Thornton bridge duplication Pacific Highway -
- 3 Raymond Terrace to Karuah
- 4 Upgrade Newcastle Link Road/Minmi Road intersection
- Hillsborough Road upgrades
- 6 Upgrade to Main Road/ Dora Street, Dora Creek

Port

In progress

1 Coulsons Creek Road Upgrade

International airport

Regional airport

- New England Highway -Muswellbrook bypass
- New England Highway -Singleton bypass
- 4 Upgrade of roads within Dungog Shire
- Upgrade Clarence Town Road
- 6 Upgrade Bucketts Way
- Coopernook to Harrington Interchange upgrade, Pacific Highway
- New bridge over Mudies Creek
- Upgrade Melville Ford Road and Maitland Vale Road
- Nelson Bay Road upgrade-Williamtown to Bobs Farm

John Renshaw Drive

Regional boundary

Lower Hunter Freight Corridor

- upgrade program

 Pacific Highway upg
- Pacific Highway upgrades at Hexham (Hexham Straight)
- M1 Pacific Motorway extension to Raymond Terrace
- Upgrade roads within
 Port Stephens Council area
- Rankin Park to Jesmond-Newcastle Inner City Bypass new section
- 16 Hillsborough Road intersection with Crockett Street
- 17 Mandalong Road upgrade
- Speers Point network upgrades
- 19 New England Highway upgrades Rocky Cut

Completed

State roads

.......... Railway line

1 New England Highway -Scone bypass

Interventions are shown indicatively and may not be to scale

Regional roads

- New England Highway upgrade between Belford and the Golden Highway
- 3 Cessnock Road/Orange Street intersection upgrade
- Upgrade at Main Road and Heddon Street,
 Heddon Greta
- Myall Road/Macquarie Road/Munibung Road intersection upgrade
- 6 Nelson Bay Road upgrade section 1
- 7 Lower Hunter Freight Rail Corridor Preservation

Figure 12. Hunter region current and planned projects

The transport challenge and opportunity



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-19, 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.

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 visitor 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 an extensive network of timber bridges with many in poor condition requiring significant work 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 initiatives 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 Countrycentred 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
- 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.

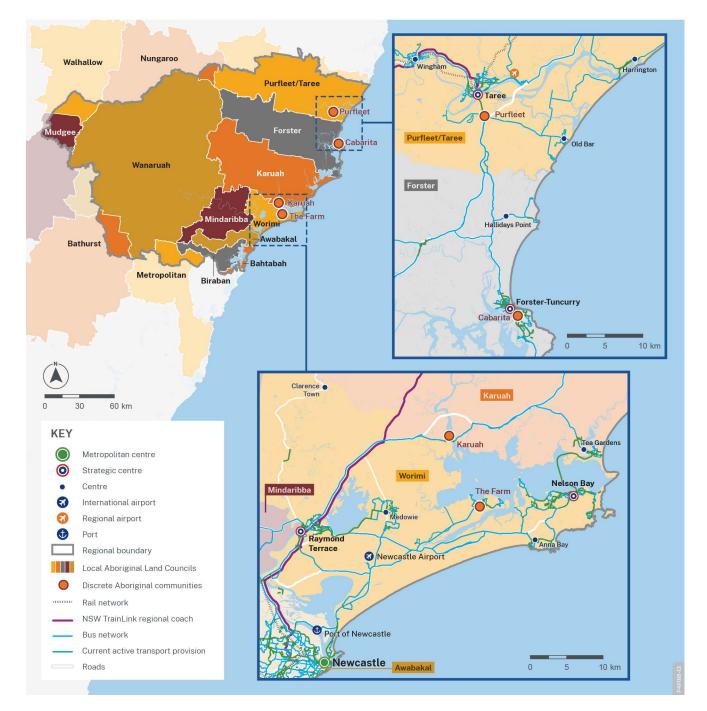


Figure 13. Hunter region Aboriginal Land Councils and discrete Aboriginal communities

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 Darkinung 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.

Key opportunities for this program include:

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

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 longterm 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.

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 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 and Greater Newcastle area, including the Newcastle to Maitland corridor, has a well-developed public transport network, however services can often be infrequent, indirect, or not adequately meet customer needs. Across the Upper Hunter area 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.²⁸

One in five workers in the Hunter works in health care or social assistance and one in 10 works in education and training.²⁹ These essential workers must be supported with travel choices in their journeys to workplaces in hospitals, schools, local medical centres, TAFE and university.

Safe Accessible Transport Program

The Safe Accessible
Transport Program
aims to improve public
transport safety and
increase accessibility
for all passengers
including people with a



Newcastle foreshore walkway © Shutterstock.com

disability, older people, those travelling with prams or luggage and others experiencing mobility challenges.

Through this program, Transport will make public transport options safer and more accessible by upgrading stations and wharves, improving the built environment through the installation of more lifts, widening platforms and improving signage and wayfinding. Improving safety particularly for women, girls and gender diverse peoples is also a key aim of the program including improving lighting and active and passive surveillance at transport hubs.

The priority of upgrades is determined using evidence-based criteria including:

- · the needs and demographics of passengers
- proximity to services such as hospitals and education facilities
- current and future patronage
- impacts of other constructure projects
- · accessibility of nearby transport.

The Safe Accessible Transport Program is funded by the NSW Government.

²⁸ Australian Bureau of Statistics, Census 2021

²⁹ Australian Bureau of Statistics, Census 2021

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.³⁰ 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.

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

The Hunter region public transport network, while 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. When looking at all trip purposes across the Lower Hunter and Greater Newcastle area, rather than just journey to work, public transport only accounts for 3.3 per cent of trips. 32

Key challenges with the current system include low service frequency, limited availability outside peak hours, minimal or no 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 one 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 Public Transport Accessibility Level (PTAL) metric can be used to indicate how well people are served by public transport (shown previously in Figure 9).³³ High numbers of residents fall into PTAL band 1 (low accessibility) and 2 (low-medium accessibility) within Lower Hunter and Greater Newcastle. This reveals that a high

proportion of the Hunter population lives within 400 to 800 metres 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, Millfield, 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 accessibly 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 provide faster journey times
- improved public transport stops
- · more walking and cycling first and last-mile links
- better multimodal timetabling and interchanges.



³⁰ Australian Bureau of Statistics, Socio-Economic Indexes for Areas (SEIFA) Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD), 2021 31 Australian Bureau of Statistics, Census 2021

³² Household Travel Survey - FY2022/23. Includes HTS Hunter area of Cessnock, Dungog, Lake Macquarie, Maitland, Newcastle, Port Stephens LGAs

³³ Public Transport Accessibility Level - December 2022

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.
- Need for a network plan that serves key retail, health, education and employment precincts in Newcastle and the Hunter.

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

The Hunter region is home to 775,000 people, making it the most populous region of NSW outside of Greater Sydney. By 2041, the population is expected to grow to 960,000 people, an increase of 185,000 people. This growth will be distributed across all LGAs. Similarly, employment is expected to grow by almost 82,000 jobs between 2021 and 2041.³⁴

Population and employment growth present 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.

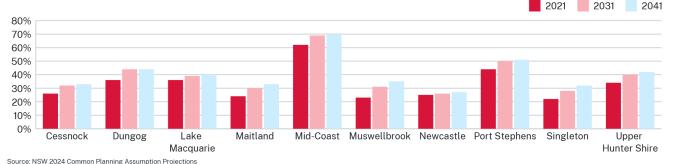
The population of the Hunter region is also changing and ageing. The aged dependency ratio, defined as the ratio of people over 65 to people aged between 15–64, is set to increase from 33 per cent in 2021 to 37 per cent by 2031 and 39 per cent by 2041.

This is significantly higher than the statewide ratios of 27 per cent, 33 per cent and 36 per cent, respectively. Supporting the ageing population requires a multifaceted approach that addresses the specific needs of these groups, particularly in areas such as Muswellbrook LGA 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



ource. Now 2024 common r tanning Assumption Projections

Figure 14. Aged dependency by local government area

³⁴ Transport for NSW, TZP 2024 Forecasts, NSW Government

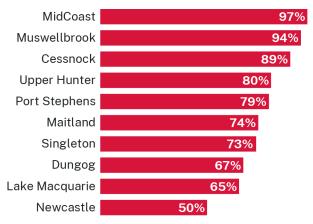
³⁵ Department of Planning, Housing and Infrastructure, 2024 NSW Common Planning Assumption Projections for year ending 30 June

- day return services for regional communities including the Upper Hunter area to Tamworth and Newcastle
- investigation of new or upgraded stations in key growth areas along both existing rail corridors
- more public transport services in areas with high concentrations of the fastest growing industries such as health, education and technology
- using 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
- ensuring 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.

5.2.3 Providing services in small, geographically dispersed locations

Outlying areas and remote parts of the Hunter are experiencing slower population growth including the Muswellbrook, MidCoast and Upper Hunter LGAs. 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. Cessnock, MidCoast, Muswellbrook, Port Stephens and Upper Hunter 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 have 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 (seven per cent), Muswellbrook (seven per cent), Denman (seven per cent) and Murrurundi (seven per cent). Furthermore, households with Aboriginal and/or Torres Strait Islander Person(s) are 20 per cent more likely not to have a motor vehicle than other households.³⁶



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)³⁷

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. 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.

³⁶ Australian Bureau of Statistics Census 2021

³⁷ Australian Bureau of Statistics, Socio-Economic Indexes for Areas (SEIFA) Index of Relative Socio-Economic Advantage and Disadvantage (IRSAD), 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 underused buses around the region. The Lake Macquarie On Demand service reported 45,000 trips in 2023.38

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

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.

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



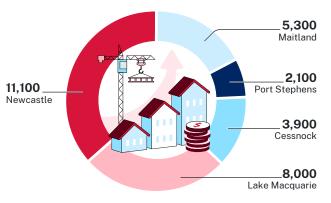
Support the delivery of welllocated housing and successful places through sustainable transport options to address growth in the Hunter

The Hunter's population is expected to increase by 24 per cent to nearly 960,000 people by 2041, requiring additional homes to accommodate this increase. Key feedback from stakeholders highlights the need for an integrated transport plan to facilitate 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 DPHI has recently reviewed its planning functions to ensure greater alignment in delivering the NSW Government priorities for future growth, including delivering housing and building great communities.

Urban Development Program (UDP) committees have been established to aid infrastructure delivery, which also considers infrastructure contributions



Source: NSW Government commitment under the National Housing Accord

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

schemes where relevant. The Lower Hunter and Greater Newcastle UDP includes Cessnock, Lake Macquarie, Maitland, Newcastle and Port Stephens LGAs. An Upper Hunter and MidCoast UDP also operates for the Dungog, MidCoast, Muswellbrook, Singleton and Upper Hunter 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 Lower Hunter and Greater Newcastle, 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 Dungog, MidCoast, Muswellbrook, Singleton and Upper Hunter LGAs 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, including the Metropolitan City of Newcastle and various towns and villages:

- Maitland: the Anambah to Branxton region, located between Greater Newcastle and the Upper Hunter area, 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 transportoriented 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.

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 5000 dwellings across the next 20 years. 40 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 the 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, crossconnectivity 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.

The Low and Mid-Rise Housing Policy is part of the State Environmental Planning Policy (Housing) 2021. The policy changes planning controls to encourage more low and mid-rise housing (dual occupancies, terraces, townhouses, apartments and shop-top housing) to be built within 800 metres walk from certain nominated town centres and transport hubs. The policy applies to certain town centres within Cessnock, Lake Macquarie, Maitland, Newcastle and Port Stephens LGAs as shown in Figure 17. DPHI provide an indicative map of low and mid-rise housing areas and centre locations to support the policy.

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. In response to growth in and around Morisset, planning is underway to improve key transport connections including walking and cycling connections across Dora Creek to reconnect the community and deliver town centre amenity improvements.

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. Transport has developed the Last Mile Toolkit and Urban Freight Forecasting Model as resources to support this process.



Newcastle Inner City Bypass upgrade

Roads to open doors

Transport will continue to work with DPHI, 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, Wine Country Drive, New England Highway and Newcastle Link Road including Minmi Road.

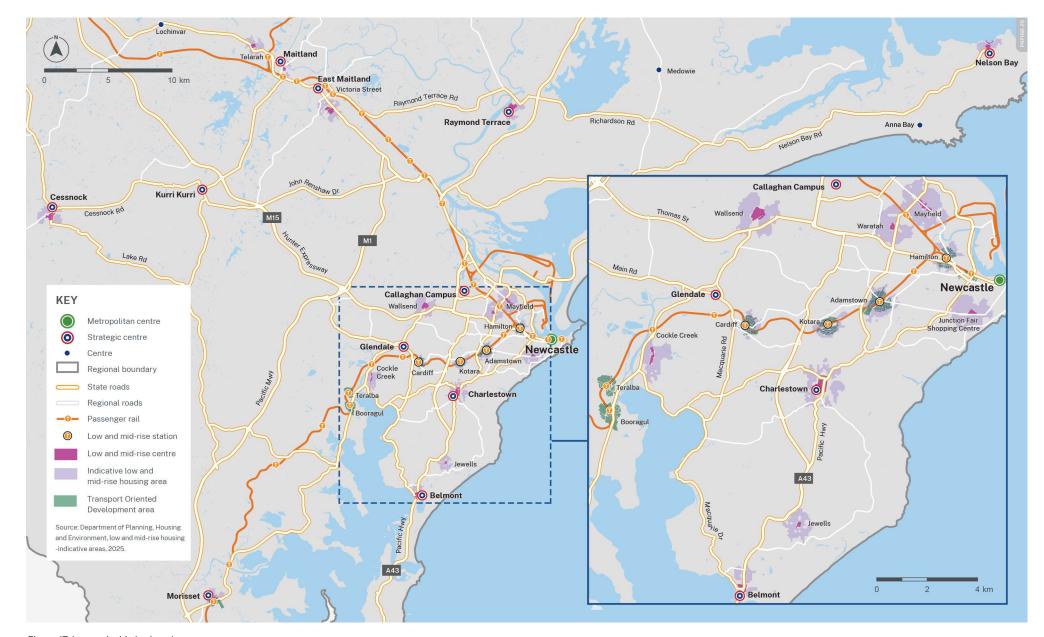


Figure 17. Low and mid-rise housing

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.
- The growth area at North West Lake Macquarie needs 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 export⁴¹ 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 REZs requires the transportation of infrastructure components from the Port of Newcastle to the location of the REZ. Coordination with EnergyCo, industry, local government



Windmill blade at Hexham, traveling to Rye Park

Renewable energy zones

REZs will group new wind and solar power generation into locations where it can be efficiently stored and transmitted across NSW. Three of the identified REZs will influence the transport network in the Hunter region. Hunter-Central Coast REZ includes areas of the Cessnock, Dungog, Lake Macquarie, Maitland, Muswellbrook, Newcastle, Port Stephens, Singleton and Upper Hunter LGAs. Both the Central-West Orana REZ and New England REZ 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 100 metres long and have an estimated life of 15 years before replacement is required. As a result, the oversize overmass transportation of this infrastructure will continue beyond the initial establishment.

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 region and coupled with the proposed New England 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.

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 REZ alone will result in an estimated 8000 OSOM movements for the Central-West Orana REZ and around 6000 OSOM movements for New England 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 also consider the transport need for mineral projects and 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 underway. Completion of these bypasses will significantly reduce freight and general traffic travelling through these towns and allow existing roads to be reimagined, 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 much of urban 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 the visitor economy sustainably

Newcastle Airport, serving a catchment area of 1.1 million people, 42 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 businesses supporting the visitor economy, including Newcastle Airport, have limited transport options, especially during off-peak hours. Public transport services do not always align with shift work or visitor economy 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 RAAF Base Williamtown increases, the at-grade Pacific Highway intersection at Medowie 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.



Transport for NSW



Hunter Valley winery © Destination NSW

Currently, there are limited public transport options outside of the Newcastle metropolitan areas to service key visitor economy destinations 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 long weekends, school holidays, and major events. Enhancing accessibility and providing multimodal

travel options for tourists and visitor economy 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. 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.



Shiraz to Shore Cycle Trail sections

Shiraz to Shore Cycle Trail

The Shiraz to Shore Cycle Trail (including the Richmond Vale Rail Trail from Kurri Kurri to Fletcher), 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.



A freight train at the Hexham train support facility

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.

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 Dungog, MidCoast, Muswellbrook, Singleton and Upper Hunter LGAs. In partnership with the Livestock, Bulk and Rural Carriers Association and NSW Government, the 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.⁴⁴

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 Rail 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 north of Fassifern and the potential for increased passenger rail services to Newcastle, stimulating economic growth and job opportunities in the region.

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, 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, while not currently part of the National



Aerial view of a truck loaded with construction supplies

Land Transport Network, provides a strategic link to the Central West and Orana 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.

From a freight network perspective the Hunter offers important market and distribution facilities for producers in Western and Northern NSW to export their products to Sydney, interstate and overseas. There is scope to grow this capacity over time by enhancing east-west connectivity to and through the Hunter, the Newcastle Airport and Port of Newcastle. The Regional Network East/

West Uplift (RNEW) Program is looking at enhancing east–west rail links. The Inland Rail project will also create opportunities for the region's rail network by providing capacity to service freight generators to the north and west of the region.

Transport is also analysing the interface opportunities associated with the Inland Rail including enhanced rail connectivity with the Central West and Orana which may provide opportunities for the Port of Newcastle to diversify its freight task and an alternative route for access to Sydney. The freight rail capacity of the Hunter Valley Coal Network will be considered in the Consolidated Freight Studies and ongoing discussions will be held with ARTC in relation to diversifying rail freight transported on the network.

What we heard

- The increased number of OSOM movements from the Port of Newcastle to REZ 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 Cycle Trail, including the Richmond Vale Rail Trail will support economic growth in this area.
- Limited public transport options and services creates a barrier for access to employment.

⁴⁵ Transport for NSW, NSW Heavy Vehicle Access Policy: Safe, sustainable and productive road freight, September 2024

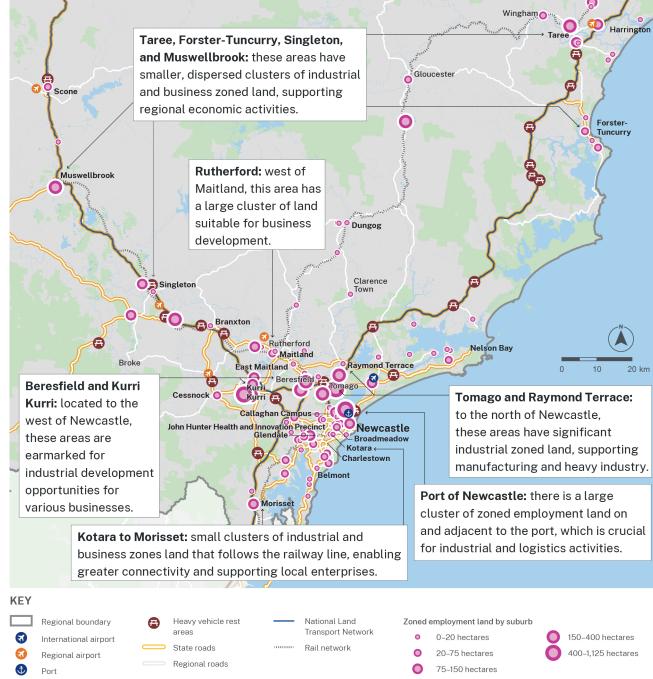




Figure 18. Hunter freight network and employment lands



Heavy vehicle parking on the Golden Highway at Sandy Hollow

Moreover, there is 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 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



Branxton rest area

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.

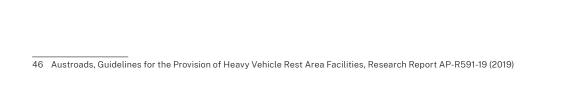
As a minimum, major rest areas should be generally located at 100 kilometre intervals, on both sides of the road.⁴⁶ The Golden Highway Corridor Strategy released in 2016 has identified a gap in heavy vehicle rest areas around Sandy Hollow along the

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 18. 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.



5.5 A safe transport network



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

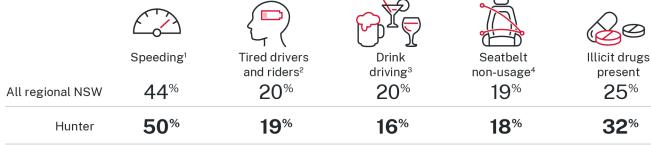
Transport is committed to achieving zero trauma on the road network by 2050 and zero trauma on waterways by 2056. The NSW Government has adopted the internationally recognised Safe Systems approach to transport safety. This approach recognises that users and those who design, maintain and regulate the 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 transport 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 174 people were killed and 2434 people were seriously injured in road crashes for the five year period from 2019 to 2023. The year 2023 is marked with solemn significance due to the tragic Hunter Valley bus crash on June 11, which killed 10 people and injured 26 others.

A number of high-risk behaviours contribute to fatal crashes and speeding consistently remains the highest contributing to 50 per cent of fatal crashes in the Hunter region from 2019 to 2023. This is above the NSW average of 41 per cent. The use of illicit drugs is also a significant contributing factor in 32 per cent of fatal crashes in the Hunter, above the NSW average of 24 per cent for 2019 to 2023. Behavioural factors contributing to fatal and serious injury crashes in the Hunter are shown in Figure 19. Fatal and serious injury crashes by LGA are shown in Figure 20 for 2019 to 2023.



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

Source: Transport for NSW, 2023

Hunter fatal and serious injury crash casualties by local government area, 2019 to 2023 The Hunter region accounts for 16% of all fatalities and 24% of all serious injuries across Regional NSW. 282 Lake Macquarie 572 449 Muswellbrook Newcastle 441 23 Port Stephens 234 Singleton **Upper Hunter** Fatalities Seriously injured

Figure 20. Fatal and serious injury crash casualties in the Hunter region, 2019 to 2023

Source: Transport for NSW

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

 $^{{\}tt 3\ Determined\ by\ whether\ any\ of\ the\ vehicle\ drivers\ or\ riders\ in\ the\ crash\ had\ an\ illegal\ level\ of\ alcohol.}$

⁴ Vehicle occupant fatalities.

Safety is also a crucial element to encourage greater uptake of walking and cycling around public transport hubs. The community need to feel safe while using public transport, waiting at stations and travelling to and from stations and interchanges in order to achieve an accessible and effective public transport system.

5.5.1 Run off road and single vehicle crashes on rural roads

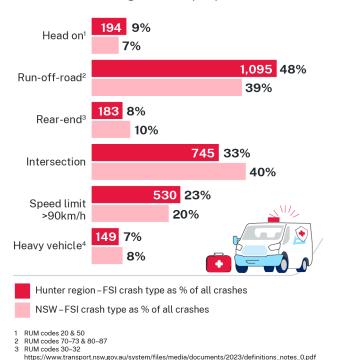
Most of the Hunter region's rural road network maintains a speed limit of 100 km/h by default. These roads often lack safety features such as crash barriers and guardrails, which can reduce the risk of fatal and serious injuries in the event of a crash. High speed rural roads often include curves as well as roadside hazards such as trees that can increase crash severity. As a result, drivers and passengers travelling on these roads are exposed to an increased risk of a road trauma.

The most common fatal and serious injury (FSI) crash type in the Hunter region for the five year period from 2019 to 2023 involved vehicles leaving the road (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 21). Nearly half of all reported FSI crashes (48 per cent) occurred on unclassified local roads in the Hunter region.

To address the risk of road trauma on high speed rural roads across the Hunter, Transport will work with local government to develop a program of safety and efficiency upgrades for key corridors. This will include Nelson Bay Road, The Lakes Way, Failford Road, Wine Country Drive and the New England Highway between Belford and

Muswellbrook to support safe movements and better accommodate the mix of road users on high-speed rural roads, including heavy vehicles.

Transport will continue to work with local government to create a safer road network through enhanced safety infrastructure and speed management. Proven treatments to prevent crashes and reduce trauma on rural high speed roads include flexible barriers to separate traffic and protect vehicles from roadside hazards, audio tactile line marking (rumble strips) and wide centrelines. Transport will also continue to review speed limits for lower-quality, high-speed rural roads to facilitate the safer movement of goods and people.



- 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/
- Figure 21. Hunter fatal and serious injury (FSI) crash types for the Hunter region 2019 to 2023

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 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 have increased risk of conflict with 33 per cent of all FSI crashes in the Hunter occurring at intersections (2019 to 2023) increasing to 49 per cent for the Newcastle LGA. Safety of intersections can be improved through turn restrictions, right turn arrows to reduce risk taking and improved priority for people crossing the road. Between 2019 and 2023, there were 163 FSI crashes involving pedestrians and a further 113 FSI crashes involving cyclists across the Hunter region. Of these crashes, 47 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.



Darby Street Newcastle

Speed management can improve road safety, enhance liveability and reduce the environmental impact of road traffic. Lower speed limits can prevent crashes and protect vulnerable road users by minimising injuries when crashes occur. Implementing safer speed settings also presents a significant opportunity to improve road safety for people walking, riding or using mobility devices in urban areas. Darby Street in Newcastle is a successful example of a low speed urban environment funded through the NSW Government Streets as Shared Spaces Program.

This project implemented a speed reduction to 30 km/h with additional safety infrastructure and improved accessibility for the community.

Rural intersections pose significant road safety challenges due to higher speeds and various vehicle types, including heavy vehicles. Safety upgrades will focus on identified highrisk locations in the Hunter region, such as intersections on the M1 Pacific Motorway between Raymond Terrace and Karuah, including Medowie Road, The Bucketts Way and Italia Road. Safety

opportunities will also be identified for the Golden and New England highways to facilitate movements and access to REZs.

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.

Motorcycle riders are generally unprotected in the event of a crash and are vulnerable to serious injury or death. In the Hunter region, 25 per cent of all FSI casualties from 2019 to 2023 were motorcycle riders, higher than the equivalent statewide measure of 22 per cent. The Singleton and Cessnock LGAs are high-risk locations for motorcycle riders in the Hunter region. Between 2019 and 2023 motorcycle FSI crashes were over-represented for Singleton LGA at 44 per cent of all FSI crashes and 38 per cent for Cessnock LGA. Both are above the NSW average of 23 per cent.

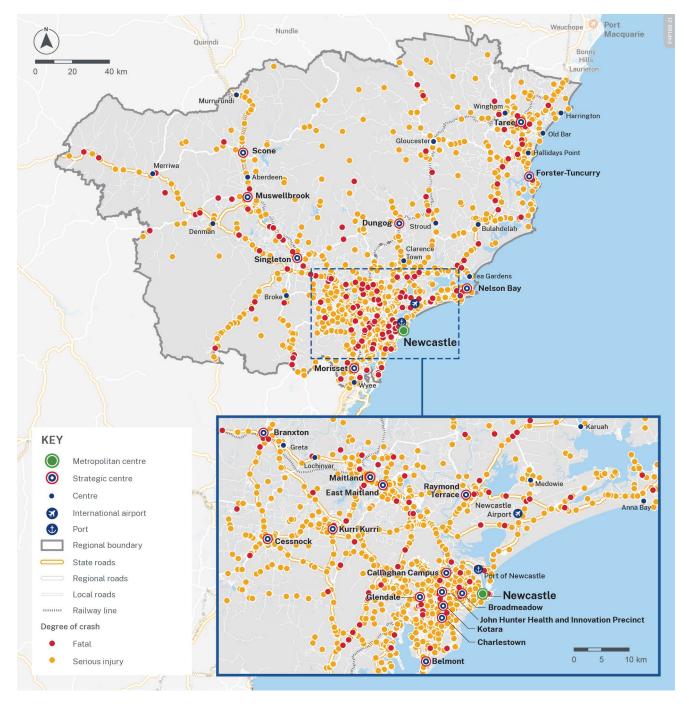


Figure 22. Fatal and serious injury crash locations in Hunter, 2019 to 2023

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

In the Hunter region, many individuals rely on public transport for their daily commute to school, work, and to access essential services. It is crucial for the community to feel safe and secure while using these services, waiting at stations, and commuting to ensure an effective public transport system. Improving safety and security for our passengers on the public transport network will lead to increased mode shift towards this sustainable transport option.

Approximately 45 per cent of surveyed young people in the Hunter reported feeling unsafe at night, 47 highlighting the need to improve safety on public transport services and at stops and stations. Ensuring personal safety on public transport is vital for building trust and increasing ridership in the Hunter. Safety issues are particularly prevalent for LGAs across the Upper Hunter, especially among younger populations and individuals with disabilities. Safety solutions must be tailored to the specific needs of each community, considering individuals with disabilities, those with limited mobility, parents with prams, and non-English speakers.

Transport's Safer Cities Program engages with women, girls and gender diverse people to improve perceptions of safety when walking to, through and within public spaces and streets. Research undertaken through this program via the Safer Cities Survey⁴⁸ provides insights on perceptions of safety for people across NSW when going about their day-to-day travel. A summary of key insights is shown in Figure 23.

Concerns surrounding safety—particularly for women—limit safe late-night travel options. Features such as secure carriages, appropriate lighting at stations and surrounding areas, real-time transport service information, and the presence of security personnel can significantly boost commuters' safety and perceived safety, especially during nighttime travel.

Only Only 12% of women

feel safe at bus stops after dark, compared to 42% during the daytime.

consider train stations safe at night, while 38% do during the day.

In regional areas

58%

of women

are less likely to use public transport even if they feel safer, compared to those in metro areas (72%). **During the daytime**

24%

of women

in regional areas feel unsafe at bus stops, increasing to 74% after dark. Similarly, 33% of respondents feel unsafe at train stations during the day, with this figure rising to 74% at night.

A significant

92%

of women

and girls in NSW aged 16 to 25 would be more likely to walk, use public transport, and go out at night with friends if they felt safer, a finding that applies statewide.

Residents in regional areas always feel more vulnerable in public space with

68%

of women

and **44%** of regional men feeling unsafe especially after dark, compared to **57%** of metro women and **28%** of metro men.

Figure 23. Key insights from the Safer Cities Survey noting that regional data may differ from outer metropolitan figures

⁴⁷ Committee for the Hunter, Going Places, Transport & accessibility for young people in the Hunter, July 2024

⁴⁸ Safer Cities Survey Report: Perceptions of safety in public spaces and transport hubs across NSW, TfNSW, July 2023

One example of this initiative is set to take shape in Bernie Goodwin Park Morisset, early next year. This project includes the installation of social seating, hammocks, inlaid trampolines, feature lighting, landscaped gardens, and new trees, creating a welcoming space for teenage girls and the wider community to enjoy. The new area will be a valuable addition to Bernie Goodwin Park, chosen for its proximity to Morisset High School, public transport, shops, and sporting facilities.

Additional measures to increase safety and perceived safety for passengers on public transport and at stops and stations include:

- working with transport operators to implement safety measures such as CCTV systems and crime prevention design features and perceptions of safety design measures such as lighting and amenities at train stations
- collaborating with local government to ensure safe and secure access to public transport stations and supporting vibrant public spaces that connect people to and from transport
- expanding bus coverage and providing night services, and ensuring waiting areas like bus stops and interchanges consider perceptions of safety 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.
- We seek service provision of public transport that is safe, reliable and accessible, particularly in supporting school students and essential workers.
- The Hunter region is facing economic and social struggles, and requires specific solutions to address violence and maintain a positive social atmosphere on public transport.
- There are safety concerns when accessing stations at night, primarily affecting women.
- Anti-social behaviour on board has worsened due to the perceived absence of staff.
- Station car parks are poorly lit and considered to be unsafe environments.



A family enjoying Belmont Wharf, Belmont © Destination NSW

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.

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 visitor economy 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 REZs and associated extractive industries. 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 and remote 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.⁴⁹ 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.⁵⁰

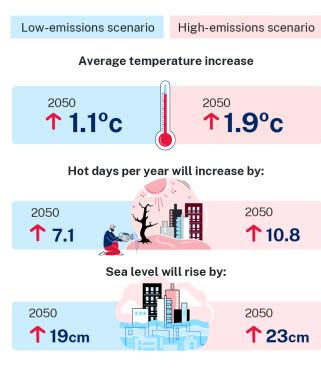
The Hunter region is expected to continue to warm compared with recent years with temperatures projected to increase by around 1.1°C under a low emissions scenario and around 1.9°C under a high emissions scenario by 2050⁵¹ (Figure 24). On average, the annual number of severe fire weather days is projected to increase for the Hunter with larger increases projected for the Upper Hunter area.



⁵⁰ NSW Government, Natural disaster declarations by financial year 2019 to 2024, accessed August 2024



⁵¹ Department of Climate Change, Energy, the Environment and Water, Hunter Region climate change snapshot, NSW Government, 2024



Severe fire weather days per year will increase by:



Source: Data is based on NARCliM2.0 (2024) projections for SSP1-2.6 (low-emissions) and SSP3-7.0 (high-emissions) and is presented relative to the historical climate baseline of 1990–2009. The projections for 2050 represent averaged data for 2040–2059. Values presented are averages across the NARCliM2.0 model ensemble, and do not represent the full range of plausible climate futures. Regional climate change impacts are used to highlight how the region is likely to be affected by climate change, and impacts are not limited to the examples provided. Sea-level rise data is from the IPCC's Sixth Assessment Report is presented relative to a baseline of 1995–2014.

Figure 24. Projected climate changes for 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.⁵² 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 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.

Significant areas of the Hunter are subject to flooding from the Hunter River catchment. During significant flood events, areas of 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.⁵³

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 the 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.

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 online 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.

⁵² Transport for NSW, Live Traffic Data, NSW Government, accessed August 2024

⁵³ Transport for NSW 2024 Regional Roads and Transport Recovery Package, NSW Government, accessed August 2024

Transport for NSW



Morpeth Bridge over the scenic Morpeth River © Destination NSW

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 across 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 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 high productivity vehicles and freight to support the Central-West Orana REZ. OSOM movements of wind turbine blades up to 100 metres 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. Transport and EnergyCo are delivering pullover bays along the Golden Highway to reduce inconvenience for the community by allowing motorists to pass OSOM vehicles and to support fatigue management for heavy vehicle drivers.

Resilience of the regional and local road network, particularly for Dungog, MidCoast and Upper Hunter 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.

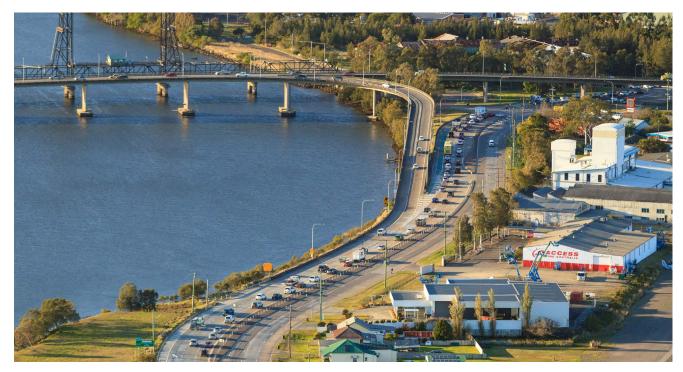
Maintenance issues and structural failures have the potential to disrupt customers and passengers on the transport network, resulting in economic and social impacts. In October 2023, the Tarro Road over-rail bridge on the New England Highway connecting Maitland and Newcastle required lane closures and heavy vehicle restrictions due to structural concerns. Freight connectivity was impacted with long detours in place, resulting in economic impacts and disruption to the community.⁵⁴

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. Similarly improving resilience for remote and isolated communities is crucial for local communities to access healthcare. Jobs and education and allow for safe evacuation routes regardless of road ownership. 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 holidays times, the M1 sees a significant increase in holiday traffic as people travel to and through regional areas. This increase in traffic volume



Hexham Bridge and Hexham River

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 Pacific Motorway extension to Raymond Terrace.

Innovation and new technologies provide 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 while 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.

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, Branxton 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 has a growing visitor 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 visitor 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 Cycle Trail (including the Richmond Vale Rail Trail section) 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 services and freight. 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.

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.

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.

Transport for NSW

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.⁵⁵ 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.⁵⁶ 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,⁵⁷ as well as drive the regional transition to a low emissions future.

This includes achieving climate change targets, supporting the transition to net zero and creating a transport network that can adapt to a changing climate. Transport has a role in embedding net zero principles in all areas of planning, construction, maintenance and operation of the network.

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.



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

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. 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 25).

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.⁵⁸ However, across the Hunter, current gaps in fast and moderate charging stations still occur particularly around 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

⁵⁵ Net Zero Plan Stage 1: 2020-2030, NSW Government, March 2020, p.11

⁵⁶ Transport for NSW, Net Zero and Climate Change Policy, 2023

⁵⁷ Department of Infrastructure, Transport, Regional Development, Communication and the Arts, "Towards net zero for transport and infrastructure", accessed August 2024.

⁵⁸ Transport for NSW, "More EV chargers connecting regional NSW", published 10 Nov 2024.

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.

Public awareness and perception also play a crucial role in the low and zero emission vehicle (LZEV) 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.

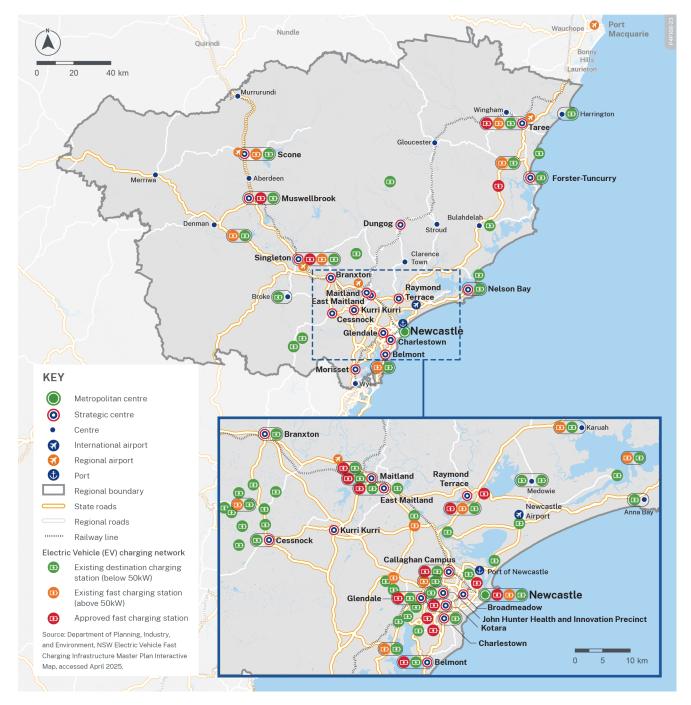


Figure 25. Electric vehicle charging network for the Hunter region

The electrification of the NSW Government passenger fleet is aiming for 12,000 cars by 2030.⁵⁹ Rapid electrification of the regional private vehicle fleet, including cars, trucks, maritime, and aviation, is crucial for achieving net zero transport sector emissions by 2050.⁶⁰

In June 2022, the NSW Government announced the rollout plan for zero emission buses (ZEB) across the state. The plan will see the bus fleet for Lower Hunter and Greater Newcastle transition to ZEBs by 2040 and the regional areas of the Hunter by 2047.

Decarbonising freight is critical to achieving net zero emissions. The NSW Towards Net Zero Freight Emissions Policy has been developed to support this transition. While battery electric and hydrogen comprise the predominant types of low and zero emission technologies available for freight, rapid innovation in this space means the Policy is open to considering new and emerging low and zero emission technologies and approaches that will help reduce road and rail freight transport emissions. Greater access for LZEVs has positive impacts on air quality and noise, facilitates direct business-to-consumer deliveries and creates seamless and more sustainable connections to local markets.

Access to charging and refuelling infrastructure across the entire NSW freight network is a critical challenge for decarbonising freight. Large-scale infrastructure solutions will require coordinated efforts with other NSW Government agencies, the Commonwealth and industry. Transport will continue to work with other partners to plan and co-deliver infrastructure initiatives.

Transport recognises that increasing the share of goods moved by rail can reduce congestion on roads and assist with the overall decarbonisation of freight. Freight rail mode share in the Hunter region is high due to the overall volume of coal moved by rail to the Port of Newcastle. Diversifying the range of freight on rail over time will be key to supporting ongoing rail mode share and greater inter-regional freight connectivity. Through the Towards Net Zero Freight Emissions Policy, Transport will undertake further research to understand the actual emissions impact of mode shift and feasible options to create impactful and long-lasting emissions reductions.

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.

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.⁶²

Muswellbrook is the centre of the hydrogen industry in the Upper Hunter area, linked to REZ 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 Transport) Act 2008* which is anticipated to better facilitate the distribution of hydrogen at scale.

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 2050.⁶³

Emerging technologies, such as connected and autonomous vehicles 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.



⁵⁹ Electrifying the NSW Government fleet | NSW Government

⁶⁰ NSW EPA, "Transport", accessed August 2024.

⁶¹ Transport for NSW, Zero Emission Buses factsheet, published Jun 2022.

² Committee for the Hunter, The Hunter Hydrogen Infrastructure Masterplan, Jan 2024,

⁶³ ARUP, National Hydrogen Infrastructure Assessment, Final Report, 2022

5.7.2 Improving active and public transport choices in centres

Shifting behaviour to public and active transport rather than relying on private vehicle use can contribute to more sustainable travel. By enhancing the accessibility and reliability of public and active transport, the Hunter region can significantly reduce its reliance on private vehicles. This 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) found that 18 per cent of regional residents had ridden in the last week for any purpose. Among them 88 per cent of residents rode for recreation while only 32 per cent did so for transport.⁶⁴ Looking to 2041, strategic centres and clusters are projected to be the focus for more intensive employment uses, housing renewal and public space improvements, requiring more sustainable transport improvements for walking and cycling in their planning. Recognising these changes, there is an opportunity to integrate cycleways with emerging growth areas, including existing or proposed public transport hubs to better connect communities across NSW.

Riding can be a fast and healthy way of travelling, especially for short trips, while e-bikes can help people ride longer distances and over steep routes with less effort.

Figure 26. Lower Hunter and Greater Newcastle mapped strategic cycleway network

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

Branxton Nelson Bay 6 Maitland Terrace Campyal Newcastle Airport Metropolitan centres, regional cities and strategic centres will develop a higher density Newcastle of cycleway connections. Fletch Callaghan Campus Newcastle esmond I**ohn Hunter** Newcastle Health and Innovation Broadmeadow Glendale (Precinct Kotara (0) Speers Poin ake Munmorah Charlestow To San Remo Teralba 10 km Warners Gateshea **KEY** Metropolitan centre Croudace Strategic centre Toronto Regional boundary Belmont (Recreational activity hub Mapped strategic cycleway corridor Corridor extension to link centres Future growth area (indicative) Blacksmiths *Local links developed by councils are not shown on the map. Exact routes will be subject to detailed design and collaboration with councils and the community.

The NSW Government Strategic Cycleway Corridor Program will establish safe and accessible cycleways that better connect centres and enable councils to progressively develop local bike networks. Transport has identified 32 strategic cycleway corridors across Lower Hunter and Greater Newcastle to better connect key centres, schools and points of interest and to support emerging centres. This network includes 134 kilometres of cycleway corridors with exact routes subject to detailed design and collaboration with councils and the community. The strategic cycleway corridor network map for Lower Hunter and Greater Newcastle is shown in Figure 26.

Corridor extensions have also been identified as part of the strategic cycleway corridor network. These link various centres across the region and provide further connectivity within cities including future growth areas, and in turn, help bike riding to become a preferred mode of choice over a wider area.

The strategic cycleway corridors will initially focus on facilitating connections between existing key centres and places within Lower Hunter and Greater Newcastle that will continue to serve an important function in the future. As the outer metropolitan area continues to grow and change, the strategic network will evolve to meet these changing needs and opportunities, as represented by the corridor extensions to connect communities in the wider area with jobs, health and education. Corridors will be developed in stages to progressively expand the connected network.



A couple riding their bicycles past the Welcome to Maitland sign on Elgin Street, Maitland © Destination NSW

For the Greater Newcastle area, 45 per cent of trips are under five kilometres, enabling opportunities for mode shift for these shorter journeys. Transport's Active Transport Strategy aims to promote walking and cycling by improving infrastructure and connectivity and the Get NSW Active Program supports this shift by funding projects that create safe, easy, and enjoyable walking and cycling trips. 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.



Opportunities exist in the Hunter for mode shift for shorter journeys under two kilometres or for outdoor recreation activities.

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 between 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.

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

- The 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.
- There are opportunities to trial bioenergy produced using regional resources to fuel electric buses.

5.7.3 Prioritising sustainable decision making and reducing Transport's construction emissions

To achieve Transport's net zero goals, Transport will need to change the way it plans, prioritises, designs, constructs, maintains and operates its infrastructure and services. Historically, Transport has focused on decarbonising components within a car-dependent infrastructure ecosystem. The Transport Net Zero and Climate Change Policy outlines that climate change risk needs to be considered in all key relevant decisions. Transport now has a role to play towards embedding net zero principles from the outset, such as designing a transport system that reduces the need for travel, improves access to key destinations, uses less materials and makes efficient and sustainable transport modes the preference for most trips rather than the minority.

Transport has committed to fossil fuel-free construction and maintenance by 2040 and net zero in Transport's annual embodied emissions by 2045.65 This includes emissions embedded during the production and transportation of materials, construction, maintenance and at the end of life of an asset. Transport, in partnership with Infrastructure NSW and Infrastructure Australia, is working to streamline and simplify decarbonisation and the circular economy through the Sustainable Infrastructure Program and 2026 Decarbonising Infrastructure Delivery Program.

Transport is working with the Department of Climate Change, Energy, Environment and Water to develop the 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 Pacific Motorway 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.

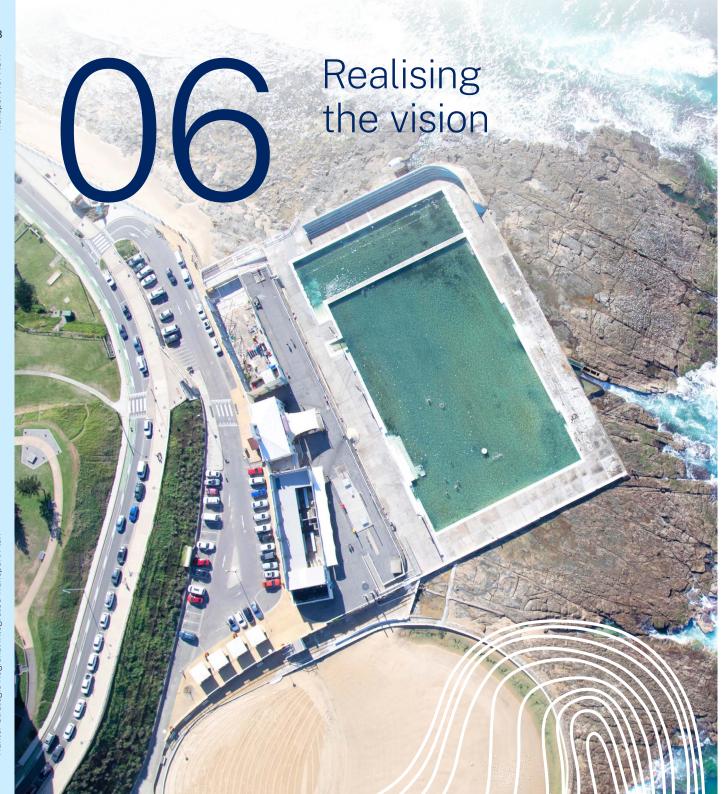
As part of sustainable decision-making, Transport will need to ensure that new infrastructure in the Hunter does not present a risk to biodiversity through habitat fragmentation or destruction. Projects will also need to optimise air quality, noise and human health impacts in all stages of the project.



Field workers performing inspections of sediment control measures installed to protect waterways during construction of M1 Raymond Terrace extension

Decarbonising Infrastructure Delivery Policy

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



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

The initiatives are organised by time frame: short-term (0–5 year) and medium term (5–10 year) timeframes, statewide initiatives, and longer-term outcomes. They are not committed and will be subject to future investment decisions. These initiatives and future outcomes respond to the challenges for the region discussed in <u>Chapter 5</u> and are aligned with the objectives of the Plan.



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 an ocean pool and coastline near Nobbys Head in Newcastle

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

#	LGA	Key objective alignment	Initiative	Lead	Source
1	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
2	Dungog MidCoast Upper Hunter		Continue replacement of non-heritage listed timber bridges (managed by councils) to increase resilience of the road network and address first and last mile issues for agribusiness and key tourism locations.	Transport for NSW Council	Fixing Country Bridges Dungog LSPS
3	Dungog Muswellbrook 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.	Council Transport for NSW	Internal Transport investigations Farm Gate Access Program

#	Key objective LGA alignment	Initiative	Lead	Source
4	All	Review and work towards implementing bus service improvements in alignment with the Medium Term Bus Plan. This will provide better access to employment, healthcare, education, commercial, retail, leisure, tourism and connectivity to other modes across Newcastle, Lake Macquarie, Port Stephens, Maitland, Cessnock and Singleton LGAs. Bus service improvements will work towards: services connecting strategic centres every 10-15 minutes in peak periods and every 20-30 minutes in off-peak periods services connecting growing residential populations to strategic centres every 20-30 minutes in peak periods and every 30-60 minutes in off-peak periods services connecting residents with local centres and interchanges every 30-60 minutes in peak periods and every 60 minutes in off-peak periods. Review and work towards implementing bus service improvements in alignment with the Medium Term Bus Plan. This will provide better access to employment, healthcare, education, commercial, retail, leisure, tourism and connectivity to other modes across MidCoast, Dungog, Muswellbrook and Upper Hunter LGAs as well as connections with outside of the Hunter Region. Bus service improvements will work towards: expanding day return opportunities across longer distances, especially on weekends and public holidays. Examples include: Taree to Newcastle via Forster and Hawks Nest-Tea Gardens Forster to Manning Base Hospital in Taree Gloucester to Forster via Nabiac Dungog to Raymond Terrace via Clarence Town Taree to Port Macquarie.	Transport for NSW	Bus Industry Taskforce final report Medium Term Bus Plan Internal Transport investigations Stakeholder engagemen

#	LGA	Key objective alignment	Initiative	Lead	Source
5	Cessnock Maitland		Develop a Hunter Rail Strategy and commence implementation of no-regrets decisions. This strategy will consider infrastructure, servicing, sequencing and prioritisation including:	Transport for NSW	Internal Transport investigations Stakeholder engagement
	Muswellbrook Singleton		 increasing passenger rail services along the Hunter Rail Line that correlates with land release areas and establishes sustainable travel patterns 		Ctartonotaer engagement
			station upgrades and station access		
			corridor capacity enhancements, co-designed with ARTC		
			crossings of the corridor		
			investigating electrification		
			additional train services to west of Maitland		
			 options to expand the rail network including consideration of the Lower Hunter Freight Corridor and new possible passenger connections including to Cessnock 		
			 broader rail considerations including regional and long distance connections. 		
6	All		Review and implement coach service improvements across the Hunter including:	Transport for NSW	Medium Term Bus Plan Internal Transport
			 weekend and public holiday services between Taree and Newcastle via Gloucester 		investigations Stakeholder engagement
			day return services for Upper Hunter communities between Tamworth and Newcastle via a connection to train services at Muswellbrook.		
7	Lake Macquarie		Upgrade intersection of Pacific Highway with Flowers Drive and Cams Wharf Road.	Transport for NSW	Internal Transport investigations
8	Newcastle		Review ferry operations and infrastructure for the Newcastle–Stockton ferry service.	Transport for NSW Council	Internal Transport investigations Stakeholder engagement

#	LGA	Key objective alignment	Initiative	Lead	Source
9	Newcastle		Preserve the transit corridor between Newcastle Interchange and Broadmeadow.	Transport for NSW	Hunter Regional Plan 2041 Ministerial commitment
10	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
11	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
12	All		Implement cycle networks along with wayfinding connecting to train stations, employment centres and schools, including end of trip facilities and secure cycle parking.	Council Transport for NSW	Active Transport Strategy
13	Cessnock Maitland		Initiate multimodal upgrades to MR195 (Main Road/Cessnock Road) and surrounding road network 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

#	LGA	Key objective alignment	Initiative	Lead	Source
14	Cessnock Lake Macquarie Maitland Newcastle		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
15	Port Stephens Lake Macquarie Newcastle		Commence upgrades to Newcastle Link Road including intersection with Minmi Road to provide safe and efficient cross connectivity, facilitate housing growth and provide for active transport and public transport improvements along the corridor.	Transport for NSW Department of Planning, Housing and Infrastructure Council Development industry	Hunter Regional Plan 2041 State Voluntary Planning Agreement funding
16	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
17	Newcastle		Initiate early upgrades to Industrial Drive to facilitate OSOM trips from Port of Newcastle, including those associated with the REZ areas.	EnergyCo Transport for NSW	EnergyCo engagement Stakeholder feedback
18	Lake Macquarie		Apply the Road User Space Allocation Policy between Belmont and Charlestown and between Wallsend and Broadmeadow to increase priority for buses and active transport.	Transport for NSW	Internal Transport investigations
19	Lake Macquarie MidCoast		Upgrade train stations to improve safety, amenity and accessibility for all passengers.	Transport for NSW	Internal Transport investigations Safe Accessible Transport Program

#	LGA	Key objective alignment	Initiative	Lead	Source
20	Lake Macquarie		Plan for service and infrastructure upgrades around the Morisset town centre. Key improvements to be progressed include an upgrade to Morisset station, an alternative route around Morisset CBD and an expansion of the cycling network to connect Morisset to Cooranbong, Dora Creek and Morisset Peninsula.	Transport for NSW Council Development industry	Internal Transport investigations Lake Macquarie LSPS
21	Maitland		Implement west-bound grade separation of New England Highway at Cessnock Road roundabout, Maitland.	Transport for NSW	Internal Transport investigations
22	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
23	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
24	Cessnock Lake Macquarie Maitland Singleton Upper Hunter		Preserve opportunities for re-use of mining infrastructure including road and rail corridors across the Hunter.	Transport for NSW Council	Internal Transport investigations
25	Cessnock Maitland		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

#	LGA	Key objective alignment	Initiative	Lead	Source
26	Cessnock Lake Macquarie Newcastle Singleton		Work with State Government agencies and councils to support implementation of visitor economy infrastructure and services including converting non-operational railways into cycle trails (such as Shiraz to Shore and Richmond Vale) and providing safe cycling connections to these 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	Hunter Joint Organisation of Councils Draft Hunter Regional Transport Plan Stakeholder engagement
27	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
28	Cessnock Muswellbrook Newcastle Singleton Upper Hunter		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
29	Muswellbrook Newcastle 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
30	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
31	MidCoast		Develop package of incremental safety improvements on The Lakes Way and Failford Road to address safety issues on high-speed regional roads and support housing growth and resilience for communities of Forster-Tuncurry.	Transport for NSW Council	Internal Transport investigations

#	LGA	Key objective alignment	Initiative	Lead	Source
32	Muswellbrook Singleton		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
33	All		Improve public transport services to better connect the Hunter with Newcastle Airport, including supporting customers travelling with luggage. Developed as part of a multimodal long-term Airport Precinct Access Plan.	Transport for NSW Newcastle Airport	Stakeholder engagement
34	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
35	All	\$11	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
36	Cessnock 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 Medium-term initiatives (5–10 year timeframe)

# LGA		Key objective alignment	Initiative	Lead	Source
Maitlan MidCo Muswe Newca Port Single	g Macquarie nd ast ellbrook astle tephens		Continue to review and work towards implementing bus service improvements in alignment with the Medium Term Bus Plan. This will provide better access to employment, healthcare, education, commercial, retail, leisure, tourism and connectivity to other modes across Newcastle, Lake Macquarie, Port Stephens, Maitland, Cessnock, and Singleton LGAs. Bus service improvements will work towards: • services connecting strategic centres every 10–15 minutes in peak periods and every 20–30 minutes in off-peak periods • services connecting growing residential populations to strategic centres every 20–30 minutes in peak periods and every 30–60 minutes in off-peak periods • services connecting residents with local centres and interchanges every 30–60 minutes in peak periods and every 60 minutes in off-peak periods. Continue to review and work towards implementing bus service improvements in alignment with the Medium Term Bus Plan. This will provide better access to employment, healthcare, education, commercial, retail, leisure, tourism and connectivity to other modes across MidCoast, Dungog, Muswellbrook and Upper Hunter LGAs as well as connections with outside of the Hunter region. Bus service improvements will work towards: • further expanding day return opportunities across longer distances, to fulfill multiple day return opportunities across a given day. Examples include: • Taree to Newcastle via Forster and Newcastle Airport • Hawks Nest-Tea Gardens to Raymond Terrace • Forster to Manning Base Hospital in Taree • Merriwa to Muswellbrook via Denman • Scone to Muswellbrook via Aberdeen. • expanding local bus service availability, targeting for services every 30–60 minutes. Examples include Taree, Forster and Muswellbrook.	Transport for NSW	Medium Term Bus Plan Internal Transport investigation NSW Government Transport Oriented Development Program Stakeholder engagemen

#	LGA	Key objective alignment	Initiative	Lead	Source
38	Cessnock Dungog		Continue to review and implement train service improvements across the Hunter. These include:	Transport for NSW	Internal Transport investigation
	Lake Macquarie Maitland MidCoast Muswellbrook Newcastle Singleton Upper Hunter		 Central Coast & Newcastle Line – improved local services with a focus on supporting Transport Oriented Developments Hunter Line – service improvements with focus on the growth areas between Anambah to Branxton as well as improving day return 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. 		NSW Government Transport Oriented Development Program Stakeholder engagement
39	Dungog MidCoast Muswellbrook Upper Hunter		 Continue to review and implement coach service improvements across the Hunter. These include: 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	Medium Term Bus Plan Internal Transport investigation Stakeholder engagement
40	Lake Macquarie Newcastle		Investigate new ferry services as well as extensions to existing ferry services based on future growth opportunities.	Transport for NSW	Internal Transport investigation Lake Macquarie LSPS Stakeholder engagement
41	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
42	Cessnock Maitland		Progress upgrades in and around MR195 (Main Road/Cessnock Road) and investigate upgrades for MR220 (including Wine Country Drive) that support active transport, passenger transport and increase journey resilience.	Transport for NSW	Internal Transport investigations

#	LGA	Key objective alignment	Initiative	Lead	Source
43	Port Stephens		Complete upgrades to M1 Pacific Motorway between Raymond Terrace and Karuah.	Transport for NSW	Internal Transport investigations
					Stakeholder engagement
44	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
45	Lake Macquarie Newcastle		Commence delivery of Lower Hunter Freight corridor enabling increased passenger trips on the Central Coast & Newcastle and Hunter rail lines; and facilitate increased freight access to and from the Port of Newcastle.	Transport for NSW	Lower Hunter Freight Corridor Report Stakeholder engagement
46	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
47	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

#	LGA	Key objective alignment	Initiative	Lead	Source
48	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
49	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 Statewide initiatives

Statewide priorities for action will be of benefit to our customers and communities across the Hunter, but do not currently have specifically identified projects within the region. Statewide initiatives will be delivered over the life of the Plan.

_#	Key objective alignment	Initiative	Lead	Source
i		Work with industry and the public research sector to support the transition of the NSW bus fleet to 100% zero emission buses by 2040 for outer metropolitan regions and by 2047 for regional NSW.	Transport for NSW	Zero Emission Buses Transition Plan
ii		Deliver on the four priority safety areas of the Maritime Safety Plan to guide the delivery of actions to work towards zero fatalities and serious injuries on NSW waterways by 2056, including reducing conflicts between recreational watercraft and access to ports.	Transport for NSW	Maritime Safety Plan 2056
iii		Real-time travel information across the state.	Transport for NSW	Transport Connected Buses Program
iv		Work with industry to increase the number of electric vehicle charging stations within regional areas to reduce the need for the community to purchase long range vehicles.	Transport for NSW EV industry	Internal Transport investigations
V		Establish an integrated ticketing solution to provide a consistent public transport payment system across the region. This is likely to require a statewide approach for an integrated system.	Transport for NSW	Internal Transport investigations
vi	€0}	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
				Customer Journey Resilience Plans

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

6.4 Longer-term outcomes

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
Starting with Country All investment in the transport network, services, policy and technology take a Country-centred design approach	Embedding Planning with Country practices at every stage of planning, development and delivery to result in Country-centred design	 Policy delivering regional Aboriginal transport data through open-source dashboard sharing increase the number of Aboriginal businesses on approved prequalified panels and schemes. Services improved access to education, health, employment and cultural places for Aboriginal communities. 	
Access to transport for all A transport network that enhances liveability and connects communities	Improved connections to key health and education hubs	 Policy use the Road User Space Allocation Policy to prioritise more sustainable travel modes. Services better bus and coach services connecting to health services in different towns bus services support more school travel. Infrastructure connected active transport network for regional centres bypassing key town centres to deliver improved place outcomes (for example Singleton and Muswellbrook). 	 Bypass delivered New hospital New schools.

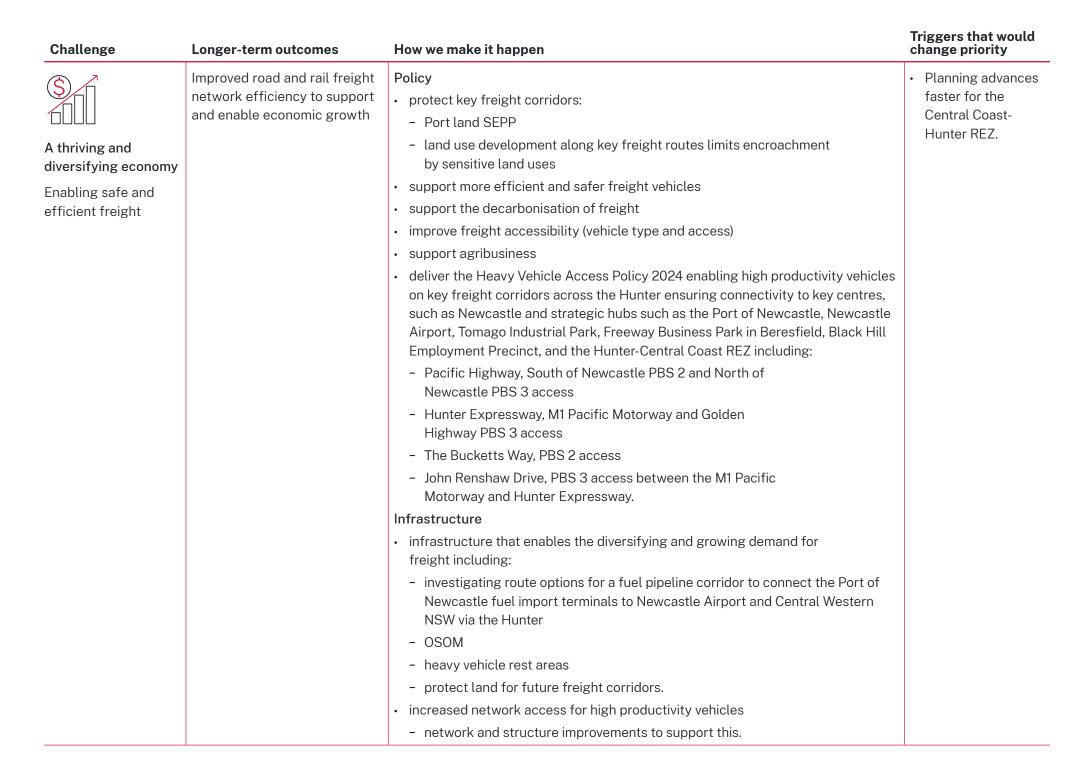
Triggers that would Challenge How we make it happen change priority **Longer-term outcomes** Appropriate infrastructure and Project work for Policy services for new and existing a high speed rail · input to strategic land use planning growth areas to: is announced • support design that encourages sustainable travel patterns: enable Transport Significant walkable communities Oriented Development changes to freight Access to transport - connected cycleways build Transport networks movements, for for all - commercial station precincts. that respond to changing example early The need for employment patterns such as Services date for container infrastructure the move away from mining. movements at the • bus service kilometres increase in line with population and employment and services to Port of Newcastle. An integrated public transport growth, particularly for regionally significant growth areas including: support growth network with frequent and - Anambah to Branxton and development reliable services including - West Lake Macquarie journey information - services into train stations real time travel information across the state increased train services. Infrastructure local walking and cycling infrastructure · road network improvements: - allocation of space to on-road public transport - intersection improvements - road widening. Hunter Rail Line:

- corridor crossings

- additional stations.

- station access on both sides

Challenge	Longer-term outcomes	How we make it happen	Triggers that would change priority
Access to transport for all The need for a transport network that reduces disadvantage	 Improved accessibility to public transport: 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. Active transport and micromobility are available and used 	Policy prioritise initiatives designed to enact Transport's Aboriginal Outcomes Framework integrated electronic ticketing across the state. Services more frequent bus services expand the bus network to service key locations including: hospitals schools TAFEs discrete Aboriginal community access day return services for regional locations. Infrastructure discrete Aboriginal community access.	Change to micromobility access policy.
Well-located housing and successful places A transport network that enhances liveability and connects communities	An integrated public transport network to achieve a 30-minute city through: • frequent and reliable public transport services to access health, education, employment and key tourism locations. • deliver a connected active transport and micromobility network. First and last-mile freight access	 Services 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. Infrastructure roads to open doors including: 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: additional stations bus priority measures train station, bus stop, light rail stop and ferry wharf upgrades, including accessibility, information and corridor crossings. 	Rapid uptake of midrise housing around train stations.



Challenge	Longer-term outcomes	How we make it happen	Triggers that would change priority
A thriving and diversifying economy The need for a transport network that supports the visitor economy	Transport networks connect visitor and tourism destinations including: access to airports transport that responds to seasonal demands services and infrastructure that improve the uptake of public transport.	Services • bus services to Newcastle Airport: - increase frequency - connections to the Hunter Valley and Forster-Tuncurry. • bus connections to support tourism workers to workplaces in the Hunter Valley. Infrastructure • public transport infrastructure including: - 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.	High speed rail project announcement.
A safe transport network Reduce fatal and serious injuries on the transport network and address safety concerns for public transport passengers	Safer roads, transport and waterways: 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.	Policy • safer vehicles • safer drivers • lower speed limits in targeted locations • public transport station/stop location activation (passive surveillance/activity). Services • onboard surveillance and safety. Infrastructure • rail level crossing safety improvements • road safety network improvements • train station and bus stop lighting.	 Changes to crash patterns New crash clusters.
Resilient networks The need to build and maintain a resilient transport network	Maintaining and improving transport networks in a changing climate: continuous improvement of asset management processes journey reliability in response to external events.	 Policy continually review asset management processes: asset problem identification and response procedures community information about asset practices. Infrastructure infrastructure is designed for a changed climate, more extreme weather and temperatures resilience (alternative routes/paths) is a determinant in prioritising delivery programs. 	Extreme weather events occur more frequently than forecast and require a reprioritisation of response.

Challenge	Longer-term outcomes	How we make it happen	Triggers that would change priority
Net zero emissions Contribute to the net zero 2050 target	Net zero: 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	Policy - support freight industry's moves to decarbonise. Infrastructure - support EV charging infrastructure delivery - support Hunter-Central Coast REZ - transition Transport fleet to zero emissions (including ZEB rollout).	Triggers that would change priority • Faster uptake of electric vehicles: - cars - buses - trucks
	-		
	 net negative transport sector emissions by 2060. 		



7.1 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 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. Reporting against the progress of the initiatives in this plan is a responsibility of the SRITP program governance.

Young people at the Merewether Aquarium mural painted in a pedestrian underpass leading to Merewether Beach © Destination NSW





7.2 Progress reporting



The 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 Plan every five years to ensure the long-term outcomes are realised.

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.

This is a commitment to:

- maintain a dashboard of Plan initiatives providing updates on key deliverables in real time
- provide annual progress updates on initiatives
- · conduct a full review after five years.

7.3 Funding and delivery



The Plan comprises a total of 49 initiatives for the Hunter region and an additional 12 statewide 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 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.

As part of plan finalisation, Transport has prepared an implementation plan that has costed and programmed the work to undertake the next step for each short-term initiative. As part of this internal activity, Transport has developed a process to prioritise the actions in the Plan either within the forecast Transport program budgets or to be ready to seek funding in future annual budget processes.

Appendix



Objectives and outcomes

The following tables include detail on the objectives for the Hunter Strategic Regional Integrated Transport 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 3. Objectives and indicators

Objective

Outcomes

Starting with Country



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

Aboriginal economic independence supported by Transport

- increase opportunities for Aboriginal community-controlled organisations ownership, access, management and/or use of land and waterways
- increase the number of Aboriginal businesses on approved prequalified panels and schemes, delivering greater employment and business opportunities in communities to build a sustainable future
- achieve greater Aboriginal driver licence independence and support.

Aboriginal people are connected safely to the economy and socially, through transport solutions

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

Transport drives transformative action to deliver systemic change

 deliver regional Aboriginal transport data, to spotlight where Transport needs to be improved for our Aboriginal communities.

Embed cultural awareness and inclusiveness training programs across our transport industry partners, in delivering lasting cultural change

Our community and Country are healthy and strong, through transport planning and place making

 Aboriginal outcomes are embedded within each SRITP, supported by flexible transport solutions that prioritise improved access to education, health, employment, and cultural places for Aboriginal communities.

Delivering a program of Aboriginal place making activities including cultural landscapes management, asset access parity, and all-encompassing transport asset Aboriginal branding that supports story telling

Indicators

- Engagement of Aboriginal community-controlled organisations
- Aboriginal businesses on approval prequalification panels and schemes
- Aboriginal people with driver licences
- Aboriginal outcomes embedded into project initiatives as part of project scope and assessment
- Number of Aboriginal place making activities
- Aboriginal road trauma incidents
- Aboriginal safety incidents on public transport
- Data sharing with Aboriginal communities
- Inclusiveness training participation for Transport staff and industry partners
- Number of discrete Aboriginal communities within 800 metres of a public transport service

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

Outcomes

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

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

A reduction in transport disadvantage is achieved in the Hunter region

All people can seamlessly access all their regular destinations with a variety of transport choices

More transport services are delivered to reduce transport disadvantage with a focus in the Dungog, MidCoast and Upper Hunter LGAs

Indicators

- Length of footpath kilometres where there currently is no footpath (near or associated with access to existing services)
- Length of separated cycleways creating a strategic connection
- Service provided where there was no public transport service
- Frequency of services and span of hours
- Community and centre connections filling in gaps in the strategic road network
- Public transport service frequency to a hospital
- Public transport service frequency to a university or TAFE
- Public transport service frequency to shopping centre
- Day return services to regional and rural areas
- Proportion of new residential developments serviced by public transport
- Passenger satisfaction for people with a disability using public transport



Outcomes

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

Growth in identified Transport Oriented Development locations and sustainably delivered low and mid-rise housing near train stations, commercial centres and local centres

Established centres, towns and villages

- 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.

Regionally significant growth areas

- 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.

- **Indicators**
- Number of new residents (net travel zone increase from 2021 to 2036) within 800 metres 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 800 metres of a bus stop or train station
- Public and active transport usage rates in new growth areas
- Number of residents across the Hunter within 400 metres to 800 metres of a train station (day/time dependent)





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

Outcomes

Energy transition triggers new users for existing rail and transport assets

Transport network supports international, national and state gateways serviced by Newcastle Airport and Port of Newcastle

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

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

Transport identifies existing non-compliant heavy vehicle rest stops, areas required for heavy vehicles, including OSOM and HPV, to ensure adequate safe breaks as well as pinch points or constraints on the network for freight accessibility

Tourism and employment industries are aware of transport options and use 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

Heavy vehicle operators are adequately 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 freight movements

Freight users are aware of network availability and rest stops to support safe and efficient freight journeys

Indicators

- Walking, cycling and public transport choices available to Newcastle Airport
- Walking, cycling and public transport choices available to Hunter Valley tourism destinations
- Walking, cycling and public transport choices available to Port Stephens
- Heavy vehicle access to renewable energy zones and mineral projects, including OSOM
- Capacity for key freight road and rail corridors across the Hunter
- Volume of freight, including for extractive industries, moved by rail
- Heavy vehicle rest areas sufficient to meet requirements
- Customers have choices for how they travel to major events and tourist destinations

future impacts

Indicators Objective Outcomes Short-term changes Number of people killed and seriously injured in run off road A safe transport network crash types · existing high risk crash locations are treated Number of people killed and seriously injured in speedconsistent safety treatments rolled out across regional related crash type road network Number of people killed and seriously injured in crashes in • safer speeds on local and low-volume rural roads (80 km/h) the Hunter region people drive observing the speed limit on country roads Reduce fatal and Number of people killed and seriously injured in crashes serious injuries customer personal safety is improved on the public involving vulnerable road users across the Hunter region on the transport transport network. Number of people killed and serious injured on network and Intermediate changes address safety navigable waterways concerns for reduce fatalities by 50% (≤ 164 fatalities by 2030) Public transport safety incidents public transport reduce serious injuries by 30% (≤ 7796 serious injuries by 2030). Public transport stops or stations receive lighting, passengers wayfinding, and surveillance Long-term changes AusRAP star rating on state roads zero trauma on the road network by 2050 · zero trauma on waterways by 2056. Network connections remain available through flood events Time and cost exposure to shocks and stresses are identified on Resilient networks critical areas of the network Network connections remain available through Vulnerability of the network is identified, and risk assessed bushfire events Transport identifies appropriate treatment on critical areas of Real time journey information is available and accessible the network Number of public transport service disruptions Reduce the impact Transport network users know how to plan for shocks and stresses of transport network shocks and stresses to service and network interruptions and proactively plan for

Outcomes

Net zero emissions



Contribute to the net zero 2050 target

Alignment with the NSW Government Climate Change (Net Zero Future) Act⁶⁶ including:

- 100% renewable energy for all operational electricity for the rail, light rail and metro train network by 2025
- 50% of Transport's light 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.

Specifically for the Hunter:

- increased uptake of low emissions travel modes: walking, cycling, e-bikes, shared/on-demand on direct, continuous, well-lit networks
- increased uptake of emerging technologies that support a move to lower emissions modes, for example connected and automated vehicles and e-aviation
- rapid electrification of NSW regional private vehicle fleet with supporting infrastructure, for example the strategic regional EV charging network
- dominance of cleaner private transport with more active modes, cleaner public transport including planning for electrification of the Hunter rail network and freight transport
- renewable energy zones are supported with reliable heavy vehicle access across and within the Hunter including the Central-West Orana REZ, New England REZ and Hunter-Central Coast REZ
- no net loss of biodiversity as a consequence of Tranport's infrastructure development activities.

Indicators

- 7 Projects demonstrating carbon was a factor in options assessment
- Number of zero emission buses serving the Hunter
- Percentage of trips by public transport, cycling and walking
- Traffic volumes in urban areas and regional centres [stabilise]
- Percentage of Government fleet as EVs
- Emissions reduction per tonne kilometre per mode
- Low emission freight kilometres
- Transport network available to renewable energy zones, including OSOM
- Proportion of state road network covered by EV charging infrastructure

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Transport for NSW 231 Elizabeth Street

Sydney NSW 2000

