



Wollongong City Council

Wollongong Transport Strategy

2025-2035





Acknowledgement of Country

We acknowledge the Traditional Custodians of the land in which our city is built, the Aboriginal people of Dharawal Country. We recognise and appreciate their deep connection to this land, waters and our greater community.

We pay our respects to Elders past, present and those emerging and extend our acknowledgement and respect to all Aboriginal and Torres Strait Islander peoples who call our city home.

We recognise Aboriginal and Torres Strait Islander people as the first people to live in the area. We respect their living cultures and recognise the positive contribution their voices, traditions and histories make to our city.

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Project and report	Date	Issue
Draft Integrated Transport Strategy 2024 (Background Report), Urbis	March 2024	Endorsed by Council for public exhibition 8 April 2024
Draft Wollongong Transport Strategy 2025-2035, Wollongong City Council	April 2025	For Council endorsement
Wollongong Transport Strategy 2025-2035, Wollongong City Council	September 2025	Adopted by Council 15 th September 2025

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Executive Summary

Our community told us they value affordable and accessible transport which is key to how we live, work and connect with each other. This priority is reflected in *Our Wollongong Our Future 2035 Community Strategic Plan* - Goal 2 - We have well planned, connected, and liveable places.

To support achieving this goal, the Transport Strategy sets out a 10-year plan to promote sustainable transport, enhance connectivity, and support economic viability, while creating liveable places integrated with the environment across the Local Government Area (LGA).

This Strategy provides a framework for Council to advocate for and implement better transport services and infrastructure upgrades to support the area's future. It supports the ways people move through the LGA –whether walking, rolling with mobility aids, cycling, driving, using micromobility, freight, and public transport.

Vision:

Wollongong is a liveable city where everyone has viable and sustainable transport choices that provide connected journeys across Traditional Lands that are safe, reliable and accessible.

Goals:

1. Achieve competitive public transport
2. Integrate sustainable transport and land use
3. Ensure all ages and abilities can get around with ease
4. Increase the use of active modes
5. Foster a connection to place.
6. Collaborate to deliver change

Why do things need to change?

Taking a 'vision and validate' approach (Figure 1), the Transport Strategy sets a clear direction for a more connected, inclusive, and sustainable future. This contrasts with the 'predict and provide' approach of the past, which often resulted in car-centric planning and limited transport choices.

Our community currently relies heavily on private car use, with 79% of trips made by car—including 55% of trips under 1 kilometre. These short journeys present an opportunity to shift toward more active, sustainable, and inclusive ways of getting around. This continued reliance on private cars, combined with a growing population is placing increasing pressure on our existing transport network, our environment, our economy, and the health and wellbeing of our community.

With finite space and a growing population, prioritising car use is unsustainable. We must invest in sustainable travel options and use the right policy levers to make sustainable transport choices easier, safer, and more attractive.

Without intervention, Wollongong's transport network will face increasing strain and longer journeys by 2036 including:

- 21% increase in delays resulting in congestion and increased travel times
- 13,000 more private car trips in Wollongong's City Centre in the morning peak, eroding amenity.

Realising the vision will require coordinated investment to improve infrastructure and public transport, alongside a shift in individual travel choices toward more active and inclusive modes.

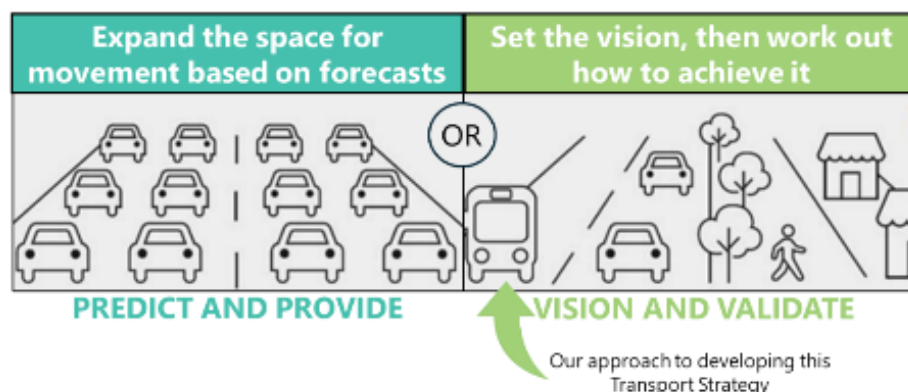


Figure 1 - Predict and Provide versus Vision and Validate approaches to transport planning

The future of transport in Wollongong

Overview of Strategic Directions guiding the future of transport in Wollongong

Movement and Place

- A connected and resilient region
- Enhance awareness and action 'Towards Zero'
- Streets and roads respond to their desired function
- Streets support a range of users and uses

Walking

- Walking is desirable for all ages, abilities and genders
- The environment for walking is comfortable
- The walking network is improved

Bike Riding and Scooting

- Safe, comfortable and convenient bike riding infrastructure
- Expand the bike riding network
- Grow bike riding tourism

Public Transport

- Competitive public transport services
- Improve public transport network planning within the LGA
- Integrate with other transport modes

Freight, Loading and servicing

- Protect and plan for resilient freight corridors
- Manage kerbside deliveries and servicing

Parking

- Manage parking demand and allocation
- Improve parking efficiency through system improvement

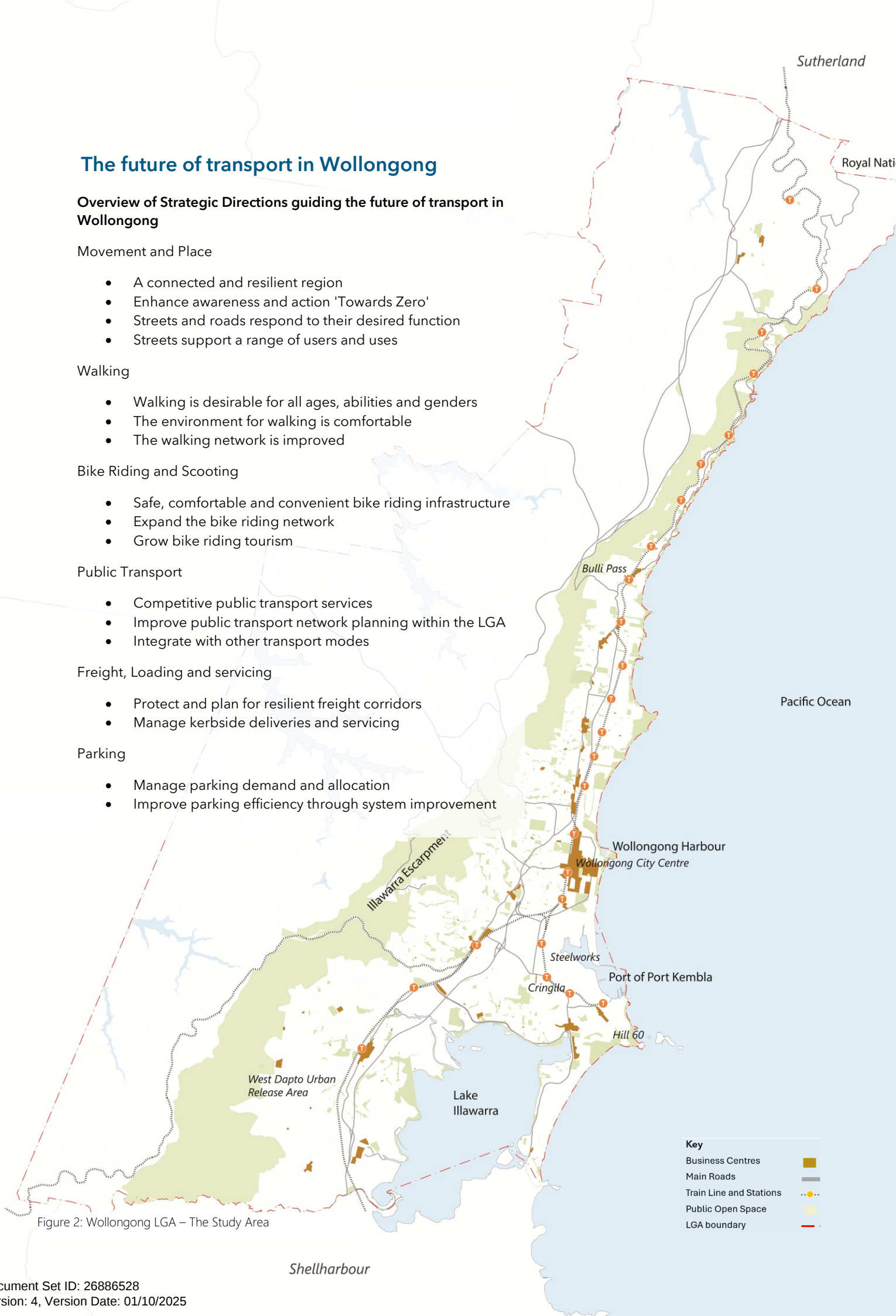


Figure 2: Wollongong LGA – The Study Area

1. Introduction

About the Wollongong Transport Strategy

The Wollongong Transport Strategy (the Strategy) sets the 10-year direction for planning, investing in, and improving transport infrastructure and services across the entire Wollongong LGA.

The Strategy emphasises collaboration across all levels of Government, including Transport for NSW and the NSW Department of Planning, Housing and Infrastructure, industry and business, the development industry, and the community.

The Strategy was informed by input from the community, key stakeholders, and transport and planning experts, alongside a review of current trends in the transport sector. It examines existing travel patterns within the Wollongong LGA, identifies key network deficiencies, and highlights areas requiring action across all levels of government. The Strategy sets out a clear vision to address Wollongong's transport challenges and opportunities.

The purpose of the Strategy is to provide safe, sustainable, accessible, and affordable transport options to support our city's growth and diversity. It aligns with and supports strategic plans and policies including:

- Mode-specific i.e., Wollongong Cycling Strategy 2030, City of Wollongong Pedestrian Plan 2017-2021
- Place-based i.e., Draft Wollongong City Centre Movement and Place
- Land Use i.e., Wollongong Local Strategic Planning Statement (2020), Wollongong Housing Strategy (2023), Masterplans and the Wollongong LEP and DCP.

Wollongong's population is projected to grow by 31% between 2025 and 2046 (.id Informed Decisions, 2025), making proactive transport planning essential. As Wollongong continues to evolve and grow, the current reliance on private cars- even for short trips- will lead to busier roads, longer travel times, and greater environmental impacts.

The community has consistently called for more inclusive and sustainable transport options, including walking, cycling, and public transport. While private vehicles remain a necessary mode of travel for many, they are not universally accessible. A diversified transport network will reduce dependence on private cars, enhance mobility for all residents, and deliver long-term social, environmental, and economic benefits. It will also improve the efficiency of the road network for those who rely on driving.

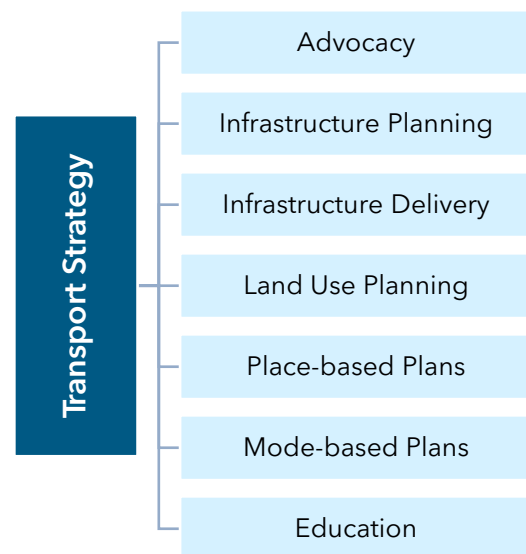


Figure 3: Areas of influence of The Strategy

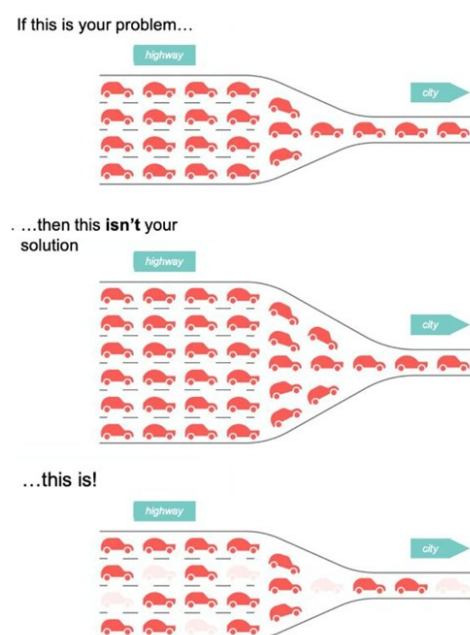


Figure 4: Road bottleneck diagram, Source - Brink, n.d

Developing the Transport Strategy

To develop this Strategy, Council adopted a combined quantitative and qualitative approach, incorporating the steps outlined below.

Data analysis	Using data available from Australian Bureau of Statistics (ABS), Transport for NSW including the Public Transport Accessibility Level (PTAL) and Household Travel Survey (HTS) and data held by the Council including geographic and parking data. Note: The analysis relies heavily on census data from 2016, as the more recent census in 2021 was undertaken during COVID-19 lockdowns and therefore did not provide data aligned with ongoing behaviours and demographics.
Transport modelling	Using the Vision and Validate approach, the transport and land use were modelled considering all modes. The modelling examined forecasts for what the region's transport would look like in 2041. It was based on land use and population projections to 2041 and included funded projects.
Research	Including critical policy documents at a State and Local Government level and examined Council's archives for transport changes in the Wollongong LGA.
Stakeholder workshops	Two structured stakeholder workshops were held in 2023 to develop the strategic framework for the strategy including Vision and Goals and to prioritise key issues to be addressed.
Community and industry feedback	In mid-2024, a draft Integrated Transport Strategy Background Report was exhibited and received 95 responses. Feedback from other Council engagements such as the Draft Community Strategic Plan, and Customer Requests provided guidance on sentiment.

Community and Stakeholder engagement

Community engagement plays a vital role in informing decision-making, fostering trust, and ensuring transparency. In the context of transport planning, it provides an opportunity to build shared understanding and deliver outcomes that reflect community needs and aspirations.

The Draft Wollongong Integrated Transport Strategy was endorsed by Council on 8 April 2024 for public exhibition from 30 April to 27 May 2024. Feedback was gathered through multiple channels, including an online survey, written submissions, face-to-face conversations, and online forums, ensuring a broad and inclusive consultation process.

1500 people visited the engagement page	808 people downloaded the draft Strategy	95 submissions were received	46 people attended drop-in sessions	2 Conversations Aboriginal elders
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Community feedback reflected a broad spectrum of views, ranging from concerns that the draft Strategy did not go far enough in shifting focus away from car dependency to apprehension that it placed too much emphasis on sustainable transport modes. In finalising the Strategy, Council carefully considered this feedback, incorporated nuanced community perspectives where possible, and balanced them with technical analysis and available data. The result is a Strategy designed to deliver the best possible outcomes for the Wollongong community. A summary of community sentiment is provided in the section below.

Overview of key themes from Public Exhibition

Readability and deliverability of the Strategy

- Concerns about implementing the proposed actions within the 10-year timeframe and available resources.
- Use of plain English language and a simpler layout requested.

Safety, accessibility and equity

- Safety and/or accessibility concerns for older people, people with disability, people with hidden disability, carers, women, and school children.

Infrastructure maintenance and needs

- Location specific infrastructure or maintenance requests for road, footpath, shared path, and cycleway networks and connections.

Integrated and coordinated planning:

- Support for integrated transport planning and the desire for ongoing collaboration and coordination between government, industry, and community.
- Calls to integrate land use planning with transport planning to maximize the effectiveness of the strategy.

Sustainable transport infrastructure for behaviour change:

- Calls for public transport service and infrastructure improvements.
- Calls to improve connectivity including east-west links, links to the city centre, educational institutions, healthcare precincts, industry and employment hubs, urban release areas and other growth areas.
- Suggestions for promoting sustainable transport options to drive behaviour change

Policy Framework

Strategic planning is set at both State and Local Government levels in New South Wales. At the state level, strategic plans address broader, long-term goals that impact the entire State or Regions, such as economic development, infrastructure projects, environmental sustainability, and social welfare. Whereas local government strategic plans respond to the state's strategic plans, at a local level and are tailored to the specific needs and priorities of individual communities, and environments.

At a State level, the Future Transport Strategy 2056 (TfNSW) shapes the future of mobility, connecting people, communities, and businesses to drive economic growth and improve the quality of life. It sets the direction for Transport for NSW, guiding investments, services, and policies to create a safe, healthy, sustainable, accessible, and integrated transport system and creates the basis for localised planning across the State. Sitting underneath this Strategy is the Illawarra Shoalhaven Regional Transport Plan (TfNSW), which focusses on the entire region. The Wollongong Transport Strategy aligns with the overarching direction of the NSW Future Transport Strategy and draws on priorities identified in the Illawarra Shoalhaven Regional Transport Plan. It establishes priorities for Wollongong, with a strong emphasis on expanding transport choice to meet the needs of a growing and diverse community (Figure 5).

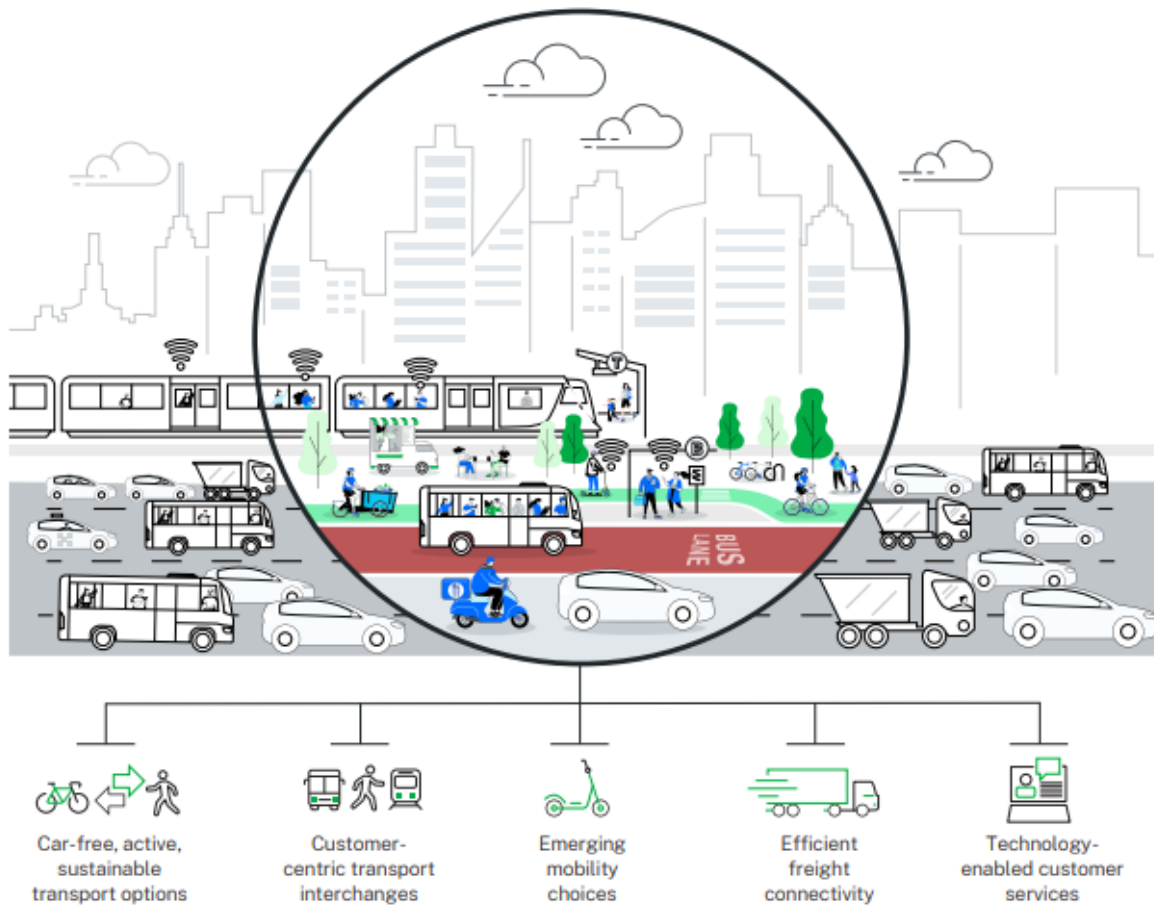


Figure 5: Future Transport Strategy - end to end transport choice

This Strategy forms part of Council's broader suite of integrated strategies, plans, and policies, and sits within an established planning framework that supports evidence-based decision-making across resource allocation, advocacy, and urban management. It aligns with *Our Wollongong, Our Future 2035*, Council's highest-level strategic document where the community identified transport and active transport as key priorities. As a critical policy lever, the Wollongong Transport Strategy directly

supports Goal 2: “We have well planned, connected, and liveable places” (Wollongong City Council, 2025).

The United Nations Sustainable Development Goals (SDGs), adopted by member states including Australia in September 2015 as part of the 2030 Agenda for Sustainable Development, provide a global framework for addressing key societal challenges. While some goals are more relevant to developing nations, others—such as Goal 11: *Sustainable Cities and Communities*—are directly applicable to local government. This goal emphasises inclusive urban planning, resilient infrastructure, and accessible transport systems, aligning closely with the objectives of the Wollongong Transport Strategy.



Figure 6: United Nations Sustainable Development Goals relevant to the Transport Strategy



Figure 7: Policy and Planning Context at Wollongong Council

Roles and Responsibilities:

Achieving sustainable and equitable transport outcomes requires the collective effort of government, businesses, developers, communities, and individuals, each playing a vital role in shaping a future where transport is accessible and fair to all. This includes embracing changes in behaviour and delivering well-informed, integrated transport infrastructure. By working together and rethinking our approach to transport, we can create a system that benefits both people and the country, ensuring a better future for everyone. A people and community-centric focus is essential, viewing the transport system as one network regardless of responsibility or ownership, which is critical for moving people and goods efficiently and sustainably within and throughout the Wollongong LGA. Delivering this integrated transport system will require joint leadership from Council, State and federal governments, and the private sector, with support from the community.

Government

In New South Wales, the division of responsibility for transport services and planning sits predominantly between State Government and Local Government and requires coordination across different projects and transport options. Table 1 provides an overview of the division of responsibility for transport between State and Local Government in New South Wales. There are many opportunities for advocacy and collaboration from Council such as:

- **Funding Partnerships:** The State Government often provides funding to local governments for local transport projects through grant programs.
- **Strategic Regional Integrated Transport Plans:** Local governments contribute to the development of strategic regional integrated transport plans led by Transport for NSW.
- **Public Transport Service Planning, Delivery and Operations:** Council contribution facilitates the integration of public transport with land use and other transport modes.
- **Joint Initiatives:** On occasion there are discrete projects which require collaboration (whether led by the State or local government), where responsibilities overlap.
- **Council's Infrastructure Delivery Program (IDP):** Council develops a 4-year infrastructure program to support the existing network of infrastructure and provide new infrastructure through evidence-based decision-making.

This Strategy recognises that aspects of Wollongong's transport network, such as public transport (buses, trains, and ferries) are under the jurisdiction of Transport for NSW - NSW Government. While Council does not have direct responsibility for these services, this Strategy takes a whole-of-network approach, spanning all modes of transport for a cohesive and integrated vision for the city. Council remains committed to ongoing advocacy and collaboration with Transport for NSW and other key stakeholders to help realise the shared vision for a connected, accessible, and sustainable transport future for Wollongong.

Developers, businesses, industry and landowners

Council requires developers to comply with local and State planning policy which sets design and compliance standards. Council also requires developers to support local essential infrastructure upgrades through development contributions and planning agreements. These agreements allow Council to fund and deliver, or for developers to complete infrastructure works directly, ensuring high-quality, fit-for-purpose public assets.

To support this growth, the NSW Government also levies the Housing & Productivity Contribution (HPC) which applies to the entire Wollongong LGA and levies contribution outside of the local framework to fund state infrastructure within the community.

Table 2 Overview of the division of responsibility for transport between State and Local Government in New South Wales

Responsibilities for Transport across NSW		
	Transport for NSW / State Agencies	Wollongong City Council
Roads	State Roads and Highways: Planning, funding, construction, and maintenance of major arterial roads, highways, and motorways. Ports: Management of key ports like the Port of Port Kembla, and Wollongong Harbour. Freight Corridors: Oversight of major freight routes and intermodal terminals. Traffic Management: Oversight of traffic signals, major intersections, and Intelligent Transport Systems. Road Safety: Developing and enforcing road safety policies, driver licensing, and vehicle registration. Road Rules: Implementation based on model Australian Road Rules, education and enforcement.	Local Roads: Maintenance, upgrading, and construction of local roads, streets, and associated infrastructure such as footpaths and street lighting. Regional Roads: Maintenance, upgrading, and construction of regional roads. Level of funding received on annual basis from NSW Government dependant on various factors. Parking Management: Regulating on-street parking, enforcing parking rules, and managing public parking facilities. Parking Rates: Setting fees for paid on street parking zones as well as leased and casual paid off street public car parks. Road Safety: Local programs targeting road safety education (jointly funded with Transport for NSW). Kerbside Management: Loading zones, pick up and drop off (No Parking) zones. Local Roads: Truck restrictions and load limits, approval of oversize and over mass heavy vehicle movements. Advocacy and collaboration with Transport for NSW
Public Transport - Rail	Train services: Management of Illawarra Shoalhaven train system including service planning. Train stations: Management of stations and master planning.	Train station linkages: Provision of connections to walking and bike riding network. Advocacy and collaboration with Transport for NSW
Public Transport - Bus	Bus services: Regulation and contracting of bus services, including metropolitan, regional, and school bus services. Bus stops: Designation of routes, bus stop locations and provision of bus stop poles. Community Transport: Supporting community transport services for people with limited mobility. Advocacy and collaboration with Transport for NSW and Federal Government	Bus Stops and Shelters: Provision of boarding point, connecting pathway, seating and shelter. Advocacy and collaboration with Transport for NSW
Walking, Rolling, Bike Riding and Scooting	Strategic Cycleway Corridor Planning and Infrastructure: Developing state-wide bike riding and pedestrian plans and infrastructure delivery. Strategic Cycleway Corridor Program currently underway. Funding: Providing grants and funding for local active transport infrastructure.	Local Bicycle and Pedestrian Infrastructure: Development and maintaining local bike paths, footpaths, shared paths, and crossing facilities. Local Programs: Encouraging active transport through local initiatives like bike share programs, walking groups, and educational campaigns. Advocacy and collaboration with Transport for NSW
E-mobility	Shared Scooter Trial Schemes: Administration, guidelines, approval of areas and evaluation. Road Rules: Amendment and enforcement of road rules as required to allow e-scooter schemes and address emerging technology including e-bikes.	Shared Scooter Trial Schemes: Planning of areas, monitoring, trial improvement, liaison and management of provider. Advocacy and collaboration with Transport for NSW

How to read this document

This document serves as a strategic guide for shaping the future of transport in Wollongong LGA. It is designed to be a practical resource for a diverse range of users, including Council staff, developers, State government agencies, and the community. By providing a clear structure for understanding key challenges and opportunities, this strategy supports decision-making and coordinated action across different sectors.

Analysis and Key Findings

Presents quantitative data that highlights significant trends alongside a summary of the key messages received from the community. It outlines the broader impetus for change, identifying macro trends such as cost-of-living pressures, climate change, population growth, and increasing congestion. Without improved choices, these will continue to impact the city's liveability, economic resilience, and environmental sustainability. This chapter provides the evidence base for the recommendations that follow.

Recommendations

Presents Strategic Directions and opportunities that set out a range of recommendations grouped under themes. These articulate high-level priorities for planning, while highlighting ways to implement change. This chapter is intended to guide the development of future projects, policy decisions, and infrastructure investments, ensuring alignment with the city's urban planning goals.

Chapter 3 should be referred to when planning and delivering new projects or policies to ensure they align with the identified strategic directions and opportunities. Government will use the recommendations to inform decisions, developers will integrate the recommendations into their projects, and the community can leverage the insights to advocate for and implement solutions that support Wollongong's long-term vision.

The following documents support the Transport Strategy:

Companion document

Transport Action Plan:

The 10-year Action Plan (Attachment 1) details priority projects and tasks that will deliver against the Transport Strategy.

ID	Action	Action Description	Responsibility (Lead)	Timing	Funding	Funding Source	Transport Strategy Goal Alignment	Modes Supported
1.	Advocate for an aligned Regional Transport Plan and delivery of actions	Ensure the Illawarra Shoalhaven Strategic Regional Integrated Transport Plan acknowledges and responds to the Wollongong Transport Strategy through the inclusion of projects in Council's Infrastructure Priority Plan. Advocate for accelerated funding to delivery actions, clear prioritisation and transparency for delivery and reporting.	TNHS Council	Short	External Funding	Operational	A B C D E F G H I J	Bus, Light Rail, Rail, Road, Sea, Air, Cycle, Pedestrian
2.	Adopt a 'new network' agreement between Council and TNHSW	Adopt a 'new network' approach through an amended agreement between Council and TNHSW including: • Data and information sharing capabilities to deliver integrated transport solutions • Project prioritisation of investment to address mode shift and public transport accessibility • Consider the role of the GPW and State Land planning approvals in the agreement	TNHS Council	Short	In Budget	Operational	A B C D E F G H I J	Bus, Light Rail, Rail, Road, Sea, Air, Cycle, Pedestrian
3.	Advocate for State and Federal transport investment	Advocate for the Wollongong and Region's fair and strategic share of transport investment, including the timely delivery of transport infrastructure and services and to support future planned growth and a redistribution of the community.	TNHS Council	Ongoing	In Budget	Operational	A B C D E F G H I J	Bus, Light Rail, Rail, Road, Sea, Air, Cycle, Pedestrian
4.	Advocate for legislative updates to support efficient, contemporary and best practice transport	Advocate for updates to legislation that reflect the Council's and 'new network' approach and make approval processes clearer and simpler for place-based users in Shire.	TNHS Council	Ongoing	In Budget	Operational	A B C D E F G H I J	Bus, Light Rail, Rail, Road, Sea, Air, Cycle, Pedestrian
5.	Advocate for improved access to TNHSW and State data	Advocate for the continued and improved access to data including crash statistics, Household Travel Survey, Business efficiency updates, and a consistent and recurring data update.	TNHS Council	Ongoing	Subject to funding	Operational	A B C D E F G H I J	Bus, Light Rail, Rail, Road, Sea, Air, Cycle, Pedestrian
6.	Advocate for the funding of the design and delivery of the Strategic Cycleway Corridor	Contribute to the design and delivery of the Strategic Cycleway Corridor as a connected network across council boundaries, and to local cycleways to make riding an attractive option for everyday use.	TNHS Council	Short	Subject to funding	Operational	A B C D E F G H I J	Bus, Light Rail, Rail, Road, Sea, Air, Cycle, Pedestrian
7.	Advocate for the transition to clean, renewable energy	Transition public transport fleets to cleaner energies that are sustainable and support the regional economy. Advocate for all new fleets in the region to be powered by renewable energy.	TNHS Council	Ongoing	Subject to funding	Operational	A B C D E F G H I J	Bus, Light Rail, Rail, Road, Sea, Air, Cycle, Pedestrian
8.	Advocate for ongoing funding for improved Public Transport Services	Fund and deliver on a Public Transport Service improvements that: • Supports mode shift – buses, train, car share and multimodality • Considers new or alternative modes such as road buses, trailable buses, on-demand buses	TNHS Council	Ongoing	Subject to funding	Operational	A B C D E F G H I J	Bus, Light Rail, Rail, Road, Sea, Air, Cycle, Pedestrian

Background document

Draft Wollongong Integrated Transport Strategy:

A technical report prepared by Urbis for Council in 2024. This draft was placed on public exhibition.



2. Analysis and key findings

This chapter integrates the key findings from the data analysis and community engagement. It presents stakeholder sentiments alongside a snapshot of Wollongong's current transport context, highlighting the challenges and opportunities facing the LGA. The analysis identifies broader drivers for change including cost-of-living pressures, climate change, population growth, and rising congestion which without change, will continue to impact the city's liveability, economic resilience, and environmental sustainability. This chapter provides the foundational evidence and rationale for the recommendations outlined in the Strategy.

Strategic Context

As the economic capital of the Illawarra-Shoalhaven Region, Wollongong's strategic location and strong economic ties to Greater Sydney and the Western Sydney Aerotropolis will require efficient and reliable transport connectivity for locals, visitors and freight as an international trade gateway through the Port of Port Kembla. Linking freight of all scales, through roads, rail, ports, and airports is critical for supporting economic growth and resilience. Investment in city shaping freight infrastructure has the potential to transform our economy.

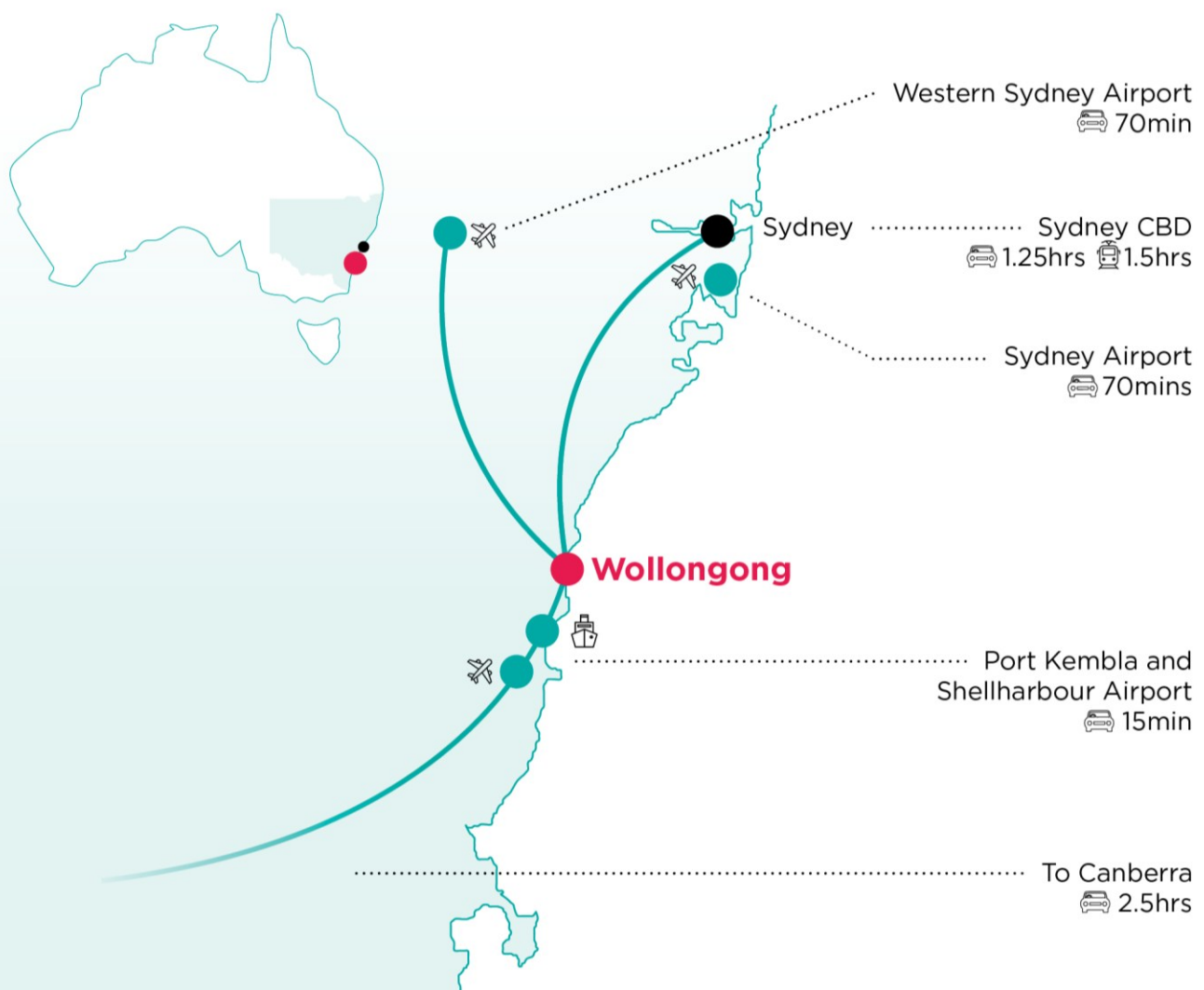


Figure 8: Strategic context of Wollongong

By 2046, the Wollongong LGA is projected to grow to over 288,000 residents, which is an increase of approximately 66,000 people and 32,000 new dwellings. Most of this growth is concentrated within the West Dapto and Tallawarra Urban Release Areas, and higher-density development focused within the Wollongong City Centre. Additional growth will be accommodated across existing urban areas through a mix of low-rise and denser dwelling types. This evolving urban form will require a transport network that supports increased demand, promotes accessibility, and aligns with sustainable development principles.

By 2041, Wollongong's daily population of visitors, workers, and residents is expected to grow to 362,000, significantly increasing the demand on transport and public spaces. This growth will require the expansion and maintenance of public transport services to accommodate the additional 74,000 daily users. As the population within Wollongong and its surrounds grows and diversifies, there will be increased use and demand for transport infrastructure.

This growth will bring activation and vibrancy but requires support from all levels of Government to expand and maintain public transport services, active transport infrastructure, reduce car dependence and support efficient freight movement. This improved connectivity is essential for facilitating economic growth, liveability and ensuring the city's transport network can support and capitalise on the increased demand.

Place context

Wollongong's current transport system is the result of decades of incremental decisions shaped by geography, industrial development, and urban growth. Understanding this legacy is essential to appreciating how the city is structured and how our community live and move today. The interplay between Wollongong's natural setting, historical land use patterns, and the dual passenger-freight corridor present ongoing challenges for planning future growth and economic development. As we look ahead, it is critical to acknowledge both the opportunities and constraints inherited from past infrastructure decisions. A future-focused approach must build on this context to deliver a transport network that is integrated, resilient, and responsive to the evolving needs of the Wollongong LGA.

Dharawal Country

Aboriginal people have been caring for Dharawal Country for tens of thousands of years, engaging in ceremony, trading and making efficient use of the area's resources. Camps, settlements and meeting places were located on the coast and near waterbodies, places which were rich in fish, crustacea and water birds, where fishing and trading activities occurred. There are many key transport routes that we use today on traditional routes. These routes should be identified and celebrated, and the story of their origins shared for generations to come.

Colonisation and Settlement

Europeans began to make their mark on Wollongong in the early 1800s. During this time the landscape began to change dramatically, as timber cutters, grazers, agriculturalists and later dairy farmers began

to use the area for its resources. Wollongong Township was planned in 1834, connecting business, government and community activities to the Wollongong Harbour. As the coal industry moved in during the 1840s, villages were established around mines, 'pit townships' were developed.

Mining establishment

From the 1860s a network of early tramway routes ran from the Escarpment Collieries east to jetties in harbours and ports, to allow for the transportation of raw materials to Sydney and beyond. These original railways have influenced our transport routes.

Urban settlement was expanded, and intercity connections strengthened, in the late 1880s when the Illawarra Railway was completed. A route dictated by topography and in most cases sat parallel and at a distance to established travel routes and towns. The

Railway also led to an increase in tourism to seaside towns and villages such as Austinmer and Thirroul which expanded as business boomed. Some townships originally situated along road travel routes such as in Bulli also began to shift towards railway stations.

Industrial expansion

In the 1920s steelmaking was added to Wollongong's industry with new towns created like Cringila (originally known as Steel Town). In 1913 Port Kembla was connected to Wollongong by rail, providing an important freight function and then a passenger service. The location of the stations focused on access to the steelworks and remain misaligned and disconnected from the town centres.

Overall, transport planning focused on industry – with roads and rail moving goods, and workers to mines, ports and steelworks across the extents of the LGA, with little attention to public transport, resulting in a fragmented urban form dominated by heavy industry and disconnected from some transport modes.

Urban Expansion

This industrial expansion led to significant growth in towns such as Port Kembla, along with surrounding communities including Lake Heights and Cringila. These areas developed in response to employment opportunities and infrastructure investment, shaping the social and cultural fabric of the region. Recognising the diverse histories and contributions of these communities is essential to inclusive transport planning that reflects both legacy and future needs.

During this time, private car ownership became increasingly obtainable to most and was reinforced by car-centric planning. New roads and road systems connected suburbs, and the transport network became heavily reliant on cars, with little focus on or understanding of, long-term social and health outcomes associated with that reliance. This enabled the urban growth in the 1960s and 70s, and growth on the edges of existing urban areas, through greenfield development.

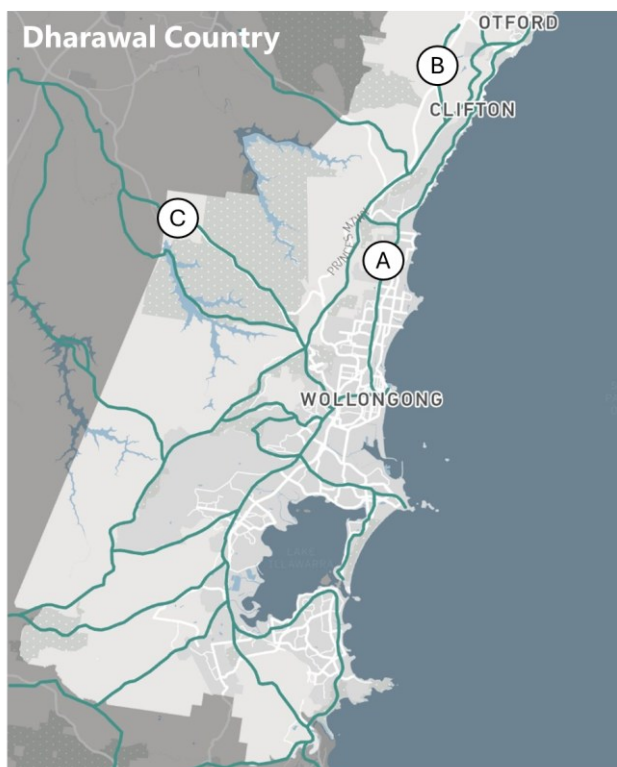
The rise of car dependence fundamentally reshaped urban development patterns, contributing to the decline of traditional high streets and the emergence of new commercial hubs. This shift facilitated the growth of shopping malls along major road corridors, capitalising on increased accessibility and consumer mobility. Warrawong Plaza, which opened in 1960, marked the beginning of this transformation in the Illawarra region. It was followed by the development of additional malls in Figtree, Dapto, Wollongong, and Corrimal throughout the 1970s and 1980s, reflecting a broader trend toward decentralised retail and car-oriented infrastructure.

A new millennium

From the 1970s and 80s, interest in sustainable development and a greater focus on public health led to changes in transport planning practices. Cycleway development began in the 1980s, and has accelerated since 2014, when Council adopted its first Bike Plan. Crown Street was pedestrianised in 1986 with the mall developed in 1987. This change followed other major projects that changed how people move to and through the city, largely focused on freight and private passenger vehicle movements like the development of the M1 Motorway and Masters Road.

While car dependence remains a defining characteristic of our community, a gradual shift in travel behaviour is underway. This change is being driven by targeted investments in active transport infrastructure and the growing accessibility of e-micromobility options. A key milestone in this transition was the launch of the free 'Gong Shuttle' in 2009. By offering a reliable alternative for short trips, the shuttle has played a significant role in reducing private car use and encouraging more sustainable travel choices.

Significant growth is being planned in West Dapto and Tallawarra, with detailed planning for these new communities. The Wollongong City Centre has seen significant high-density growth, however, the delivery of improved services in these areas to support a shift away from private vehicles has been slow, often following population density rather than acting as a catalyst for growth.



Examples of traditional travel routes used today as major travel routes:



Figure 9: Traditional travel routes in Wollongong (Based on NSW Department of Planning and Heritage, n.d.)



Figure 10: The M1 at Bulli Tops (From the collections of the Wollongong City Libraries and the Illawarra Historical Society, P21625,, 1979)

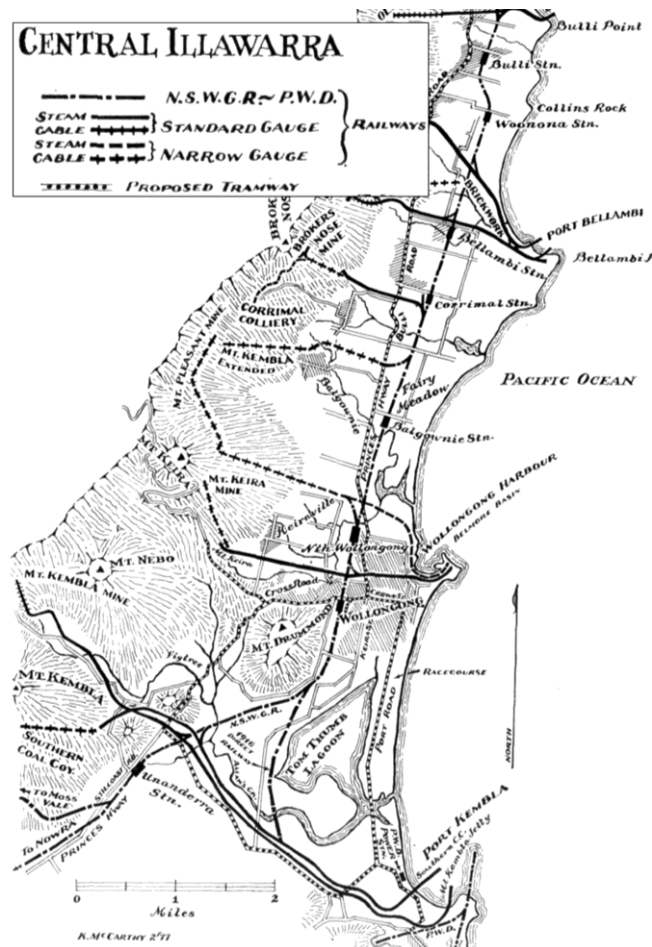


Figure 11: Central Illawarra Rail Network and planned tramways (1900-1910) (Sydney Tramway Museum, 1981)



Figure 12: Bike riding between Wollongong and Thirroul, 1980

Current transport trends

Current transport trends...		Transport implications in Wollongong
Wollongong residents travel for a wide variety of reasons 	26% of travel is social/recreational 20% of travel is to serve a passenger 17% of travel is for shopping 15% of travel is commuting 7% of travel is for education/childcare	- Transport planning needs to consider a wide variety of trips and a wider variety of people who make them. - Many commuter trips are predictable (times and destinations), whereas other trips are disparate across the day/night and to an array of destinations.
Wollongong serves both a local and regional role 	48% of people in Wollongong across the week are non-locals (places other than the Wollongong LGA).	- Wollongong has a local and regional role. - Consideration needs to be given to local trips within the LGA, but also people and goods travelling regionally.
Wollongong is an employment hub for the region 	25% of workers in Wollongong live outside the area and commute in (85% of these come from Shellharbour).	- Supporting an array of options for commuting from key destinations outside the LGA. - Consideration of workers in the 24-hour economy (including industrial, hospitality and medical industries).
Tourists use transport infrastructure and are a growing market 	37% of tourism is domestic day trips. 60% more tourism trips in 2024 compared to 12 years earlier.	- Wollongong serves a large domestic day trips role, particularly from Sydney. - Management of resources like parking and access to popular destination is required. - Tourism has increased significantly.
Port Kembla is an international trade gateway 	1st largest vehicle import port in NSW 1st largest grain export port in NSW 2nd largest coal export Port in NSW 72% Exports / 28% Imports	- There is a significant amount of freight that needs to access and be distributed from Port Kembla. - Many imports need to get to logistics centres in SE Sydney.
In the future (2046) ...		Transport implications in Wollongong
The population will be much larger 	36% more people living in Wollongong than in 2021.	- More demand for travel for everyday trips such as work, education, recreation and shopping. - More demand for freight deliveries.
There will be proportionally more older residents 	60% More senior and elderly residents - 70+ year olds in Wollongong than in 2021 (the population segments experiencing the largest proportional change)	- More demand for walking, rolling and bike riding infrastructure which is suitable for all ages and abilities. - Maintaining accessibility through better public transport provision for those who are unable to drive due to age.
There will be many more children and young people 	+15,730 more children and young people living in Wollongong in 2046 than in 2021	- More demand for access to schools and recreation facilities. - Creating more opportunities for independent travel (to ensure the burden of transport for parents).
Port Kembla will become even more significant 	Port Botany will reach capacity as a container terminal and Port Kembla will become NSW's second container terminal when capacity is reached. *Note: Between 2046-56.	- There will be more demand for freight access to and from Port Kembla. - Managing freight access efficiently will require additional infrastructure.

Public transport

Travel times on public transport lag too far behind car travel times

Public transport in Wollongong, especially buses, takes much longer than driving, even during peak hours.

While people don't expect public transport to be as fast as driving, the large gap in travel times often leads those with access to a car to choose driving instead.

Enhancing the competitiveness of public transport journeys is key to getting more people using public transport.

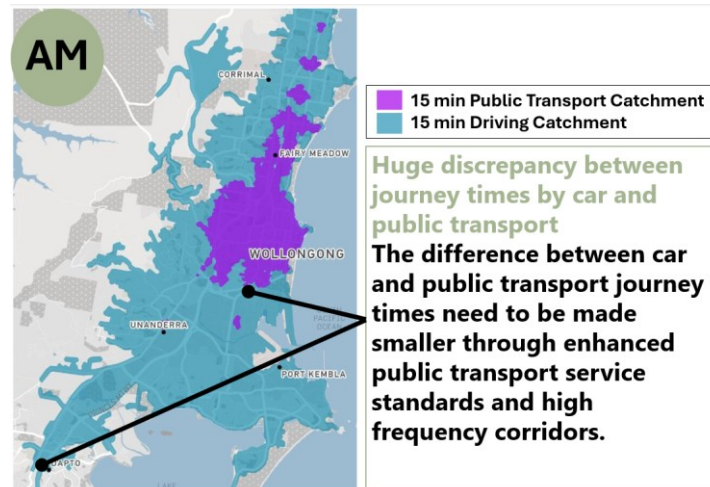


Figure 13: AM Peak travel time from City Centre: Car and public transport

"Enhancing the competitiveness of public transport is key to more use" - Resident.

Buses have good coverage but low service standards

The bus network operates on a coverage model. This means that for most people in Wollongong it's not far to walk to a bus stop. However, with high coverage there comes a high cost of delivering a desirable level of bus services. This includes low service frequency, span of hours and travel times not being competitive as routes are generally indirect.

Areas with highest service standards are concentrated towards the City Centre and key town centres in the north.

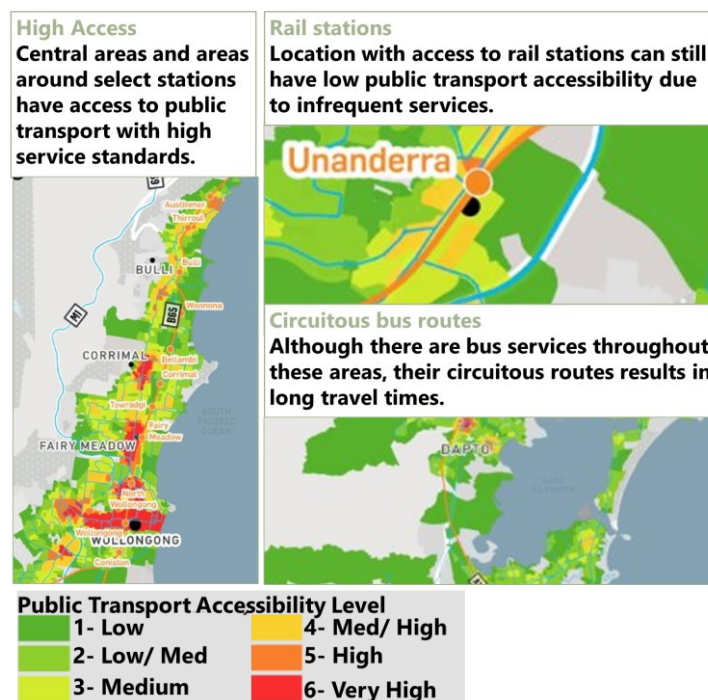


Figure 14: Public Transport Accessibility Level in Wollongong (Transport for NSW, 2019)

"Bus frequency increases would be great but also have them run later." - Resident.

Train services are skewed towards the north to Sydney, and don't support workers coming to our LGA

There are 21,500 workers in Wollongong who live outside the Wollongong LGA and 85% of these workers come from the south (predominantly Shellharbour).

The morning peak has frequent train services between Shellharbour and Wollongong, however there are infrequent services (roughly hourly) during the afternoon peak, and therefore this is not a viable commuter option, (Transport for NSW, October 2024).

Train services and connectivity improve north of the City Centre where trains are timetabled to favour the 50% of Wollongong LGA residents who travel outside the Wollongong LGA for work, 50% of whom travel north (predominantly to Sydney CBD) (Figure 15).

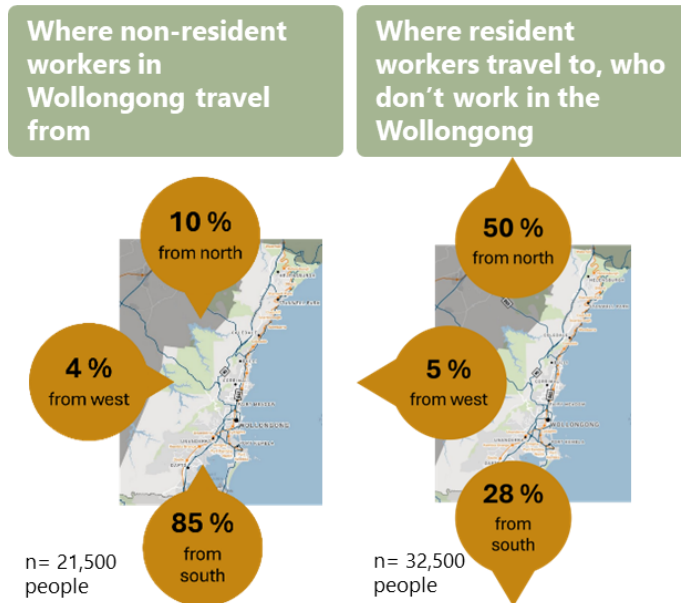


Figure 15: Inflow and outflow of workers to/from Wollongong (based on (ABS, 2016)).

There are low service standards, and low public transport use in the southern suburbs

The northern suburbs experience the highest proportion of public transport usage for work commutes, with the southern suburbs notably lower (ABS, 2016). Residential areas in the northern suburbs tend to be more concentrated around public transport.

Suburbs with high socioeconomic disadvantage in the south are being further disadvantaged by lower service standards (Figure 16). In turn, a larger portion of the household budget goes towards car ownership and usage.

"We do not want to see areas south of the city continue to be disadvantaged in terms of active transport and public transport options" - Resident

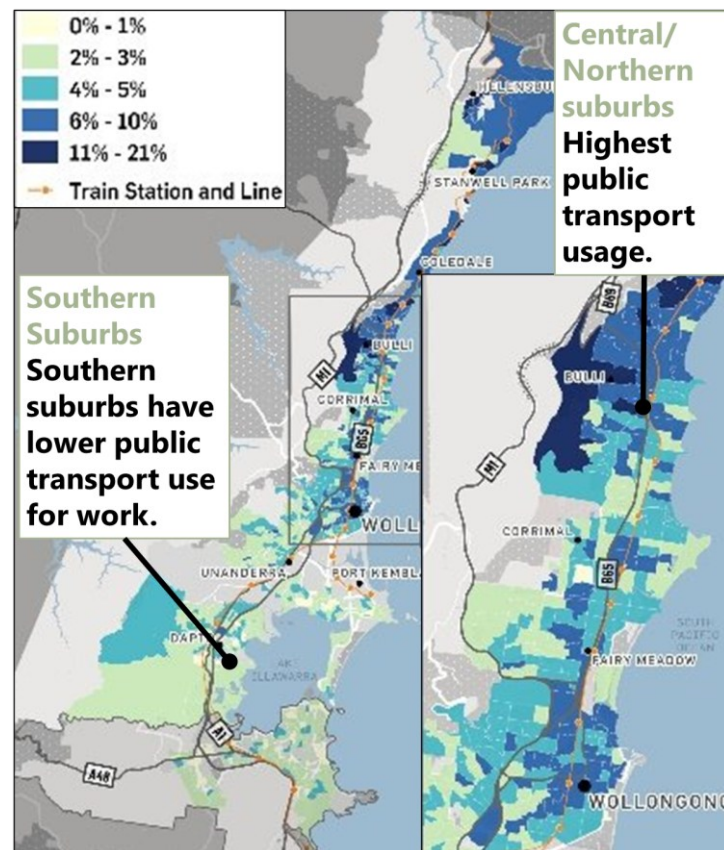


Figure 16: Public Transport Usage (ABS, 2016)

Public transport delivery in growth comes after the delivery of housing

We need to plan public transport to support a sustainable and growing population.

This will reduce dependence on cars and provide more options for travel for work, school, and leisure.

The West Lake Illawarra Growth Area represents a critical opportunity for State and Local Governments to provide a coordinated approach to transport planning and investment.



Figure 17: Housing development in West Dapto (part of West Lake Illawarra)

"We want less cars on M1. [Better public transport in West Lake Illawarra] will help keep traffic out of Central Dapto, off the M1. - Resident.

The Nighttime economy is not supported by public transport services

Our public transport network is geared to support commuting for 9-5 workers. Reliable, late-running public transport services support patrons to go out and stay out later, but it also provides access for nighttime workers.

Across NSW approximately 21% of workers are employed in the "Nighttime economy." (NSW 24-Hour Economy Commission, 2024) This includes retail, hospitality, and entertainment workers, but also shift workers like doctors, nurses, paramedics, police, cleaners, security guards, and workers in manufacturing and construction. The difference in volume between daytime and nighttime train services is not as stark as for bus services. In part, this is because the existing level of service is low in general. Outside of peak commuting hours, Wollongong Station only sees one or two services per hour, per direction.

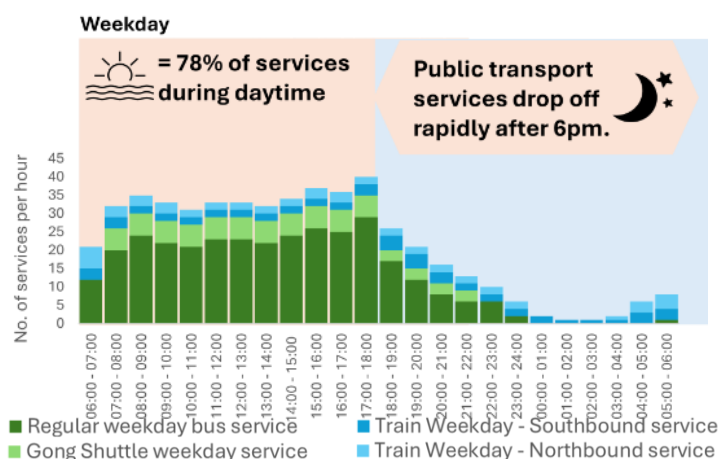


Figure 18: Number of public transport services servicing City Centre, over 24 hour period (Weekday and Saturday) Transport for NSW, 2025)

Note:

Bus services are taken from the stop at Burelli Street after Corrimal St as Burelli St is an important bus corridor, with twenty-two routes using this stop. The number of services per hour is indicative of services across the network, as the decline is due to services stopping rather than reducing frequency.

Data is correct as of March 2025.

"The Free Bus should [have extended hours] 7-days a week." - Resident

The experience of getting to and waiting for public transport can be poor

High-quality environments at train stations and bus stops play a crucial role in making public transport accessible and appealing.

Some important features missing at bus stops and train stations which make using these modes less appealing (and impact people with mobility issues) include seating, shelter and shade, real-time information, and connecting paths. There limited secure bike cages or sheds at any station in Wollongong compared to other stations within NSW.

"A good place to start is with pedestrian crossings [is] on the roads adjacent to stations." - Organisation (Wollongong)

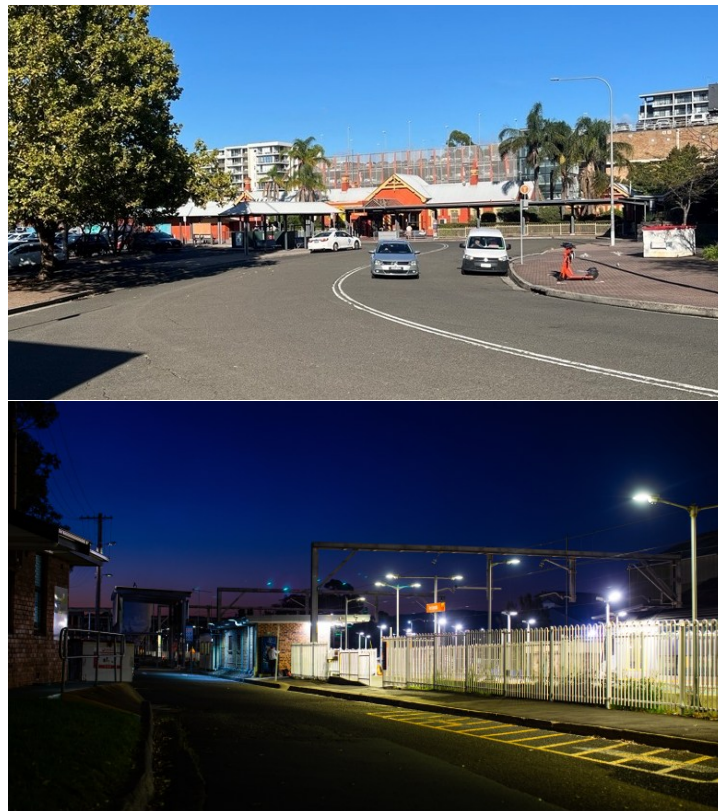


Figure 19: Various Station interfaces (from top: Wollongong Station Port Kembla Station.)

Many people don't feel safe on and around public transport

Poor safety and perceptions of safety are inhibitors that mostly affect women, gender diverse people, young people, and the elderly. Safety concerns have an ongoing impact on girl's and women's choice to walk or travel alone (NSW Government, 2022).

30% of women feel unsafe in public spaces during the day and 90% feel unsafe at night (Plan International Australia, 2018). This is an issue for walking and cycling but also public transport use in the Wollongong LGA.

Works by Council to improve lighting around public transport sites and activate open spaces in surrounding precincts have improved perceptions of safety. Further works of this kind can contribute to improved community safety and transport mode shift.

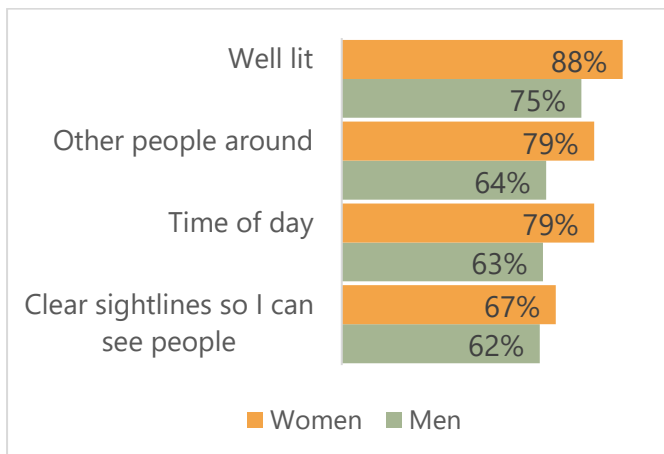


Figure 20: Top 4 factors that influence the routes people choose (Transport for NSW, 2023)

Lighting and shelter for bus stops is also a must, especially at night it's just not safe enough for anyone, especially young people and women. - Resident

Car dependence

Most trips are travelled by car, including trips under 1 km

The majority (79%) of trips within Wollongong are undertaken by private vehicles (Figure). For trips that are less than 1 km (about a 10-minute walk), around 55% are travelled by car.

Around 82% of trips between 1-2km (about a 10-20-minute walk) are travelled by car (Figure). These short trips matter, as it has the greatest potential to be shifted to walking and bike riding.

Shifting short car trips to active travel modes delivers multiple community benefits including reducing traffic congestion, improving public health outcomes, and enhancing access to local centres and activities.

By prioritising infrastructure that supports active travel, communities can become more connected, resilient, and environmentally sustainable, while also fostering vibrant public spaces and reducing transport-related emissions.

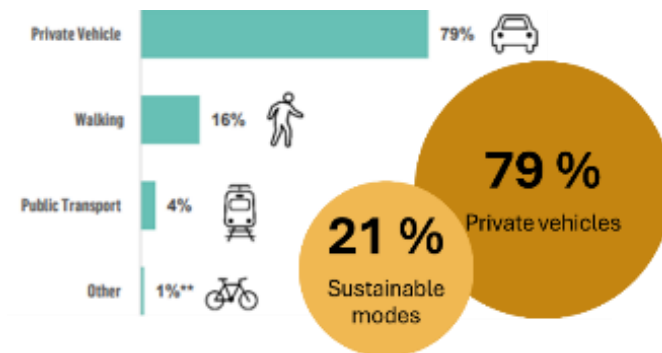


Figure 21: Transport modes used, Wollongong LGA (Transport for NSW, 2018-19)

**Note: 'Other' includes bikes, scooters and other modes.

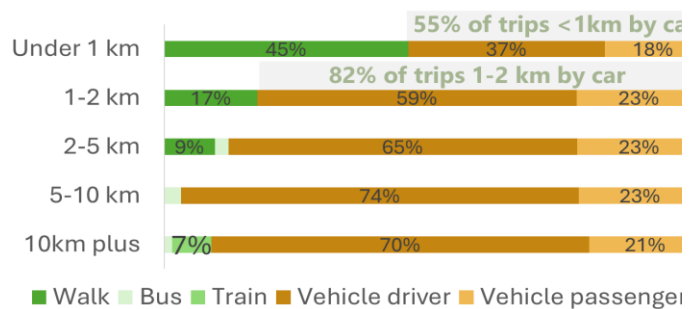


Figure 22: Transport modes, by distance, Wollongong LGA, (Transport for NSW, 2018-19)

Transport options need to support all ages and a mix of trip purposes

'Serving passengers' represents 20% of all trips made in Wollongong (Figure). This trip purpose is mostly an adult dropping off a child for things like school, sport and social occasions. Creating a child-friendly city is key to reducing the significant number of these trips.

"Many parents drive their children to school because they are concerned with safety. Resulting in even more congestion and risk in these areas." - Resident.

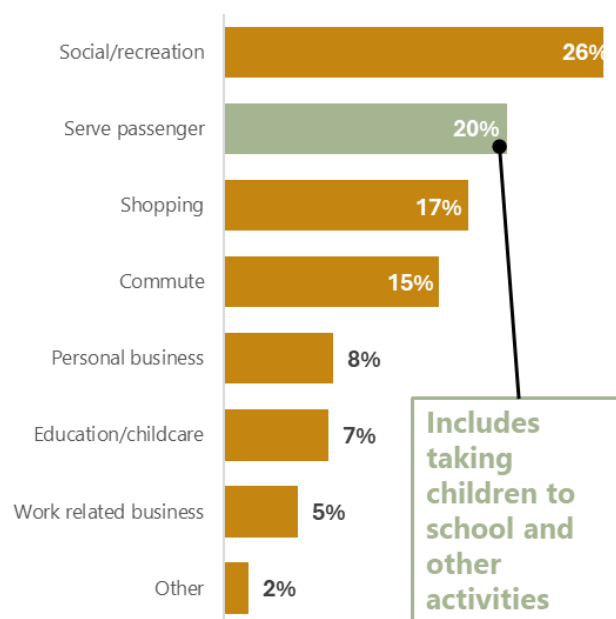


Figure 23: Wollongong LGA – Trip Purposes (Transport for NSW, 2018-19)

There is a high rate of private car ownership, particularly where public transport is poor

Households in Wollongong generally own one or more cars (ABS Census, 2021). While this is typical across NSW, there is significant variability across our LGA. The car ownership rate is lower around the City Centre and further north, but increases as you move inland and to the south (Figure 24). Figure 24: Average vehicles per household (ABS, 2021)

The high car ownership in these parts of Wollongong, exemplified by West Lake Illawarra reflects the poor active and public transport connections in these areas. The lower levels of access to public transport means people have a higher car dependency, seeing 3-4 car ownership per household in West Lake Illawarra.

Car dependency impacts community wellbeing and, to the extent that people have no or limited options, can reinforce social and economic inequalities.

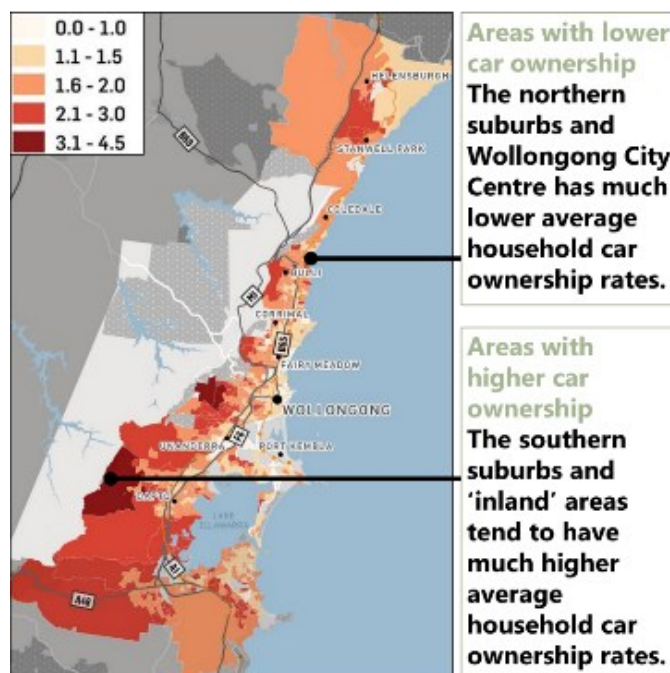


Figure 24: Average vehicles per household (ABS, 2021)

Parking in high demand areas is a concern, with many frustrated by lack of convenient parking

Parking dissatisfaction in high-demand areas continues to be a theme in Council's community surveys. In the most recent results, over half of respondents expressed dissatisfaction with parking availability in key locations such as the Wollongong City Centre and foreshore precincts.

In many high demands areas parking has not been managed to promote turnover and availability of spaces, resulting in frustration with the time taken to find appropriate parking.

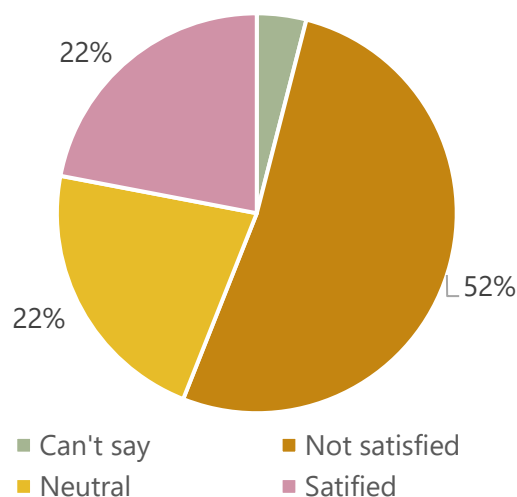


Figure 25: Satisfaction Level for provision of parking in high demand areas (Wollongong City Council, 2023) (Wollongong City Council, 2023).

Consider parking charges near popular beaches... they also need a reason to think twice before driving. - Resident

Car dependence limits opportunities to decarbonise our transport network

Under our Climate Change Mitigation Plan, Council is working towards Net Zero emissions by 2050.

Transport currently contributes around 16% of Australian greenhouse gas emissions, with light vehicles making up a significant portion of these (Climate Change Authority, 2025).

We cannot achieve our goals without decarbonising our transport system through mode shift to walking, green fuels, bike riding, and public transport. This will make the biggest impact on our collective carbon footprint, while also minimising particulate pollution and other environmental impacts of cars.



Figure 26: Emissions in Australia (Climate Change Authority, 2025)

'Rat running' is bringing increased traffic and speeding to local streets

The use of local residential streets as alternative routes to bypass main roads - commonly referred to as 'rat running' - can lead to increased traffic volumes and elevated vehicle speeds, compromising safety and amenity for residents

Navigation apps, while designed to optimise travel times, often encourage rat running by directing drivers through local residential streets to avoid congestion on main roads (Calcea, 2022). These apps prioritise the fastest route without considering the road function and the broader impacts on communities, leading to increased traffic, noise, and safety concerns, reducing the quality of life for residents in areas not designed for high vehicle volumes.

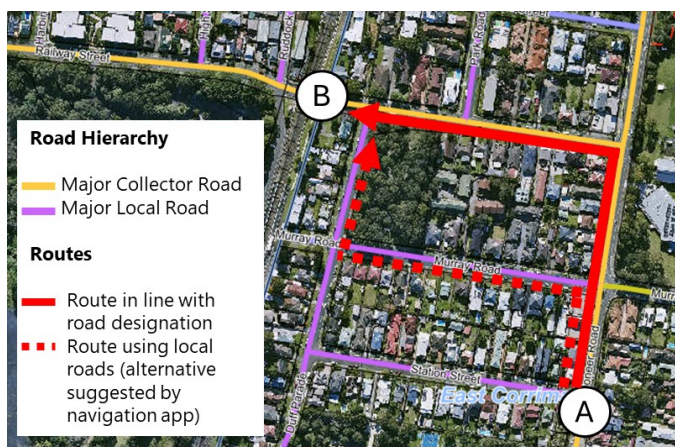


Figure 27: Local streets in the network being identified as part of faster journeys

"Traffic calming measures on local streets ... that restricts through traffic for cars, requiring them to stay on main roads [is needed]" - Resident

The number of fatalities on Wollongong roads has come down over time

The number of crashes resulting in fatalities in Wollongong has been tracked over a long period of time (Figure). Incremental changes including improving vehicle safety, the safety of the road environment and public awareness campaigns have reduced the number of people dying on roads annually, even in the context of more people moving around on roads.

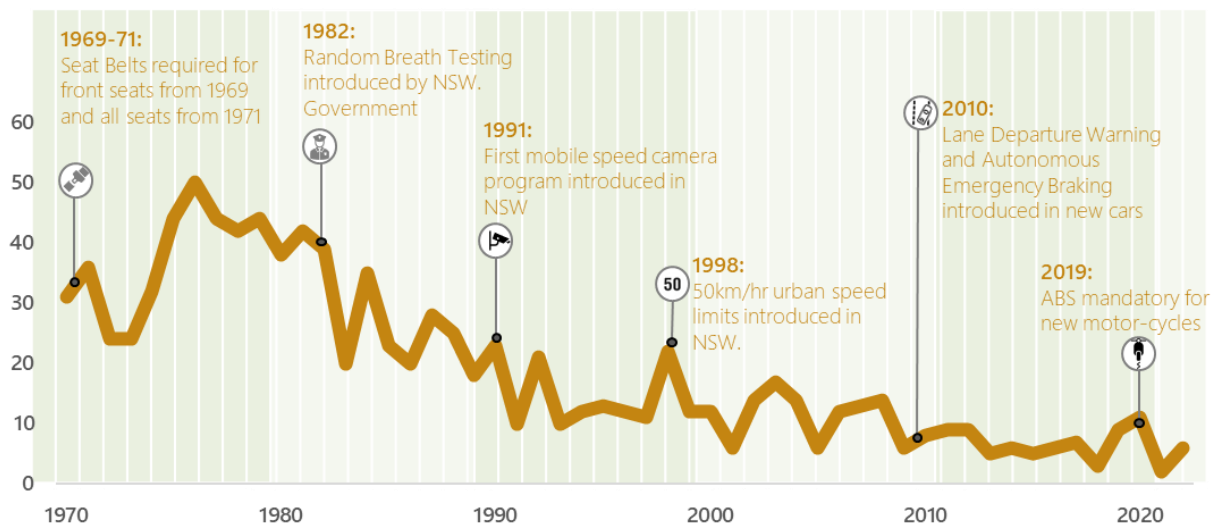


Figure 28: Fatalities within Wollongong LGA 1970-2022 (based on (Transport for NSW, 2024) and (Transport for NSW, n.d.))

Most speed zones would see low survival rates of pedestrians and bike riders in crashes

As speeds increase the chance of a vulnerable road user, such as a someone walking, surviving a crash reduces exponentially.

For example, the chance of a pedestrian surviving after being hit by a car travelling at:

- 40 km/h is 60%
 - 50 km/h is 10%
- (Wramborg, 2005)

The most common speed limit in the Wollongong LGA is 50 km/h, as this is the default speed limit in built-up areas in Australia. 98% of streets in the Wollongong LGA are 50+ km/h, speeds which would see crash survivability of pedestrians at <10%.

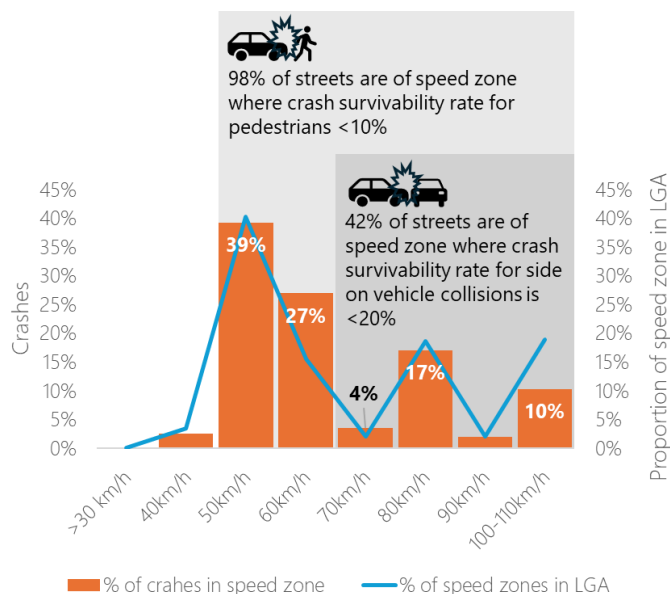


Figure 29: Crashes by speed zone, compared to proportion of roads in Wollongong LGA by speed zone (2014-2023).

Source: Based on (Transport for NSW, 2023 and Wollongong City Council, GIS analysis)

Walking and bike riding

Improved active transport infrastructure to support mode shift for local trips

While cycleways span from Helensburgh in the north and Haywards Bay and Windang in the south, there are many gaps in the network.

For example:

- North-south and town centre connections away from the coastal cycleway network in the north.
- East-west connections to the coastal cycleway from the Wollongong City Centre and north.

These 'gaps' challenge the completeness of the active transport network where there are disconnects between the City Centre, and Town Centres to the coastal cycleway. Missing links make cycling less attractive for many.

For example, in a 2023 survey of University of Wollongong (UoW) students and staff:

- 43% of respondents resided within 5 km travelling distance from the main UoW campus.
- 21% of these respondents used active transport, despite this being a comfortable cyclable distance.

For example, the United Nations Environment Programme has urged governments to invest 20% of their transport budgets for walking and cycling infrastructure. (UN Environment Programme, 2016). Since 2019, Council has exceeded this target, with active travel infrastructure accounting for 24% of our Transport Services budgets. Active transport can play a major role in helping increase physical activity levels in the community. This will consequently help to address chronic disease, traffic congestion, air pollution, and climate change.

"The east - west bike riding links and arterial connections for bike riding are of fundamental importance to creating a connected city." - Resident.



Figure 30: Loftus Street, Wollongong (Image Credit: Lise Chesnais, 2025, used with permission)



Figure 31: George Hanley Dr – Separated Cycle Path and Footpath (TfNSW Creative Assets Library)

The topography of Wollongong provides challenges and barriers to active transport

Wollongong's undulating topography, the escarpment, and waterways are a defining feature of the area. This creates geographic constraints and limits to transport options. Many streets follow natural ridges, restricting connections between valleys and the coast.

"I love the inclusion of the Dharawal historical travel routes (Figure 9) because having a deep history also can cause a sense of dignity and pride with the people living here..." - Resident



Figure 32: Aerial of landscape near Wollongong (Image Credit: Transport for NSW, CAL)

Train lines and roads are physical barriers and crossing these can be challenging

There are major physical barriers which divide the Wollongong LGA. These include motorways, major arterial roads and the South Coast Rail Line. These features can be a barrier to walking and bike riding as they can require people to travel indirect routes or wait long times in uncomfortable conditions to cross. This contributes to the lack of connections north of the City Centre.

"Crossing the railway line and Memorial Drive to access the coastal cycle path from Balgownie is not easy as bike rider must either ride on the footpath (and annoy pedestrians) or ride on the busy road (and annoy drivers)." - Resident.



Figure 2: Example of where Council has successfully retrofitted crossings into a street with previously limited crossings (Military Road, Port Kembla)

Freight and loading

Freight and passenger rail services compete for network capacity, and limit network improvements

The South Coast rail line is the only train line servicing the LGA's of Shoalhaven, Kiama, Shellharbour, and Wollongong. Freight movements on the line limit the amount of passenger trains that can be programmed, and vice versa. The line is also limited by being single-track in sections.

Single tracks constrain the network capacity, requiring tight timetabling to maximise the number of services. It is susceptible to cascading delays if there is a problem with one service due to limited passing options.

Freight services can be delayed for extended periods as passenger services are given priority and crossings of the Illawarra escarpment are limited and create significant vulnerabilities for the movements of both people and goods.



Figure 34: Locations where there are single rail track

Limited crossings of the Illawarra escarpment make the transport network more susceptible to disruption, impacting our resilience.

The M1 Princes Motorway is a critical freight route on the National Land Transport Network, serving as the only Illawarra Escarpment crossing suitable for High Productivity Vehicles (HPVs). It connects Wollongong to Sydney and beyond, linking key freight hubs such as Port Kembla and the Moorebank intermodal terminal. The 5km Mount Ousley section faces severe congestion, safety issues, and poor service levels due to steep terrain, road capacity limits, and landslide risks. These issues are expected to worsen with increasing traffic, especially freight. This portion of the M1 is currently being investigated by Infrastructure Australia.

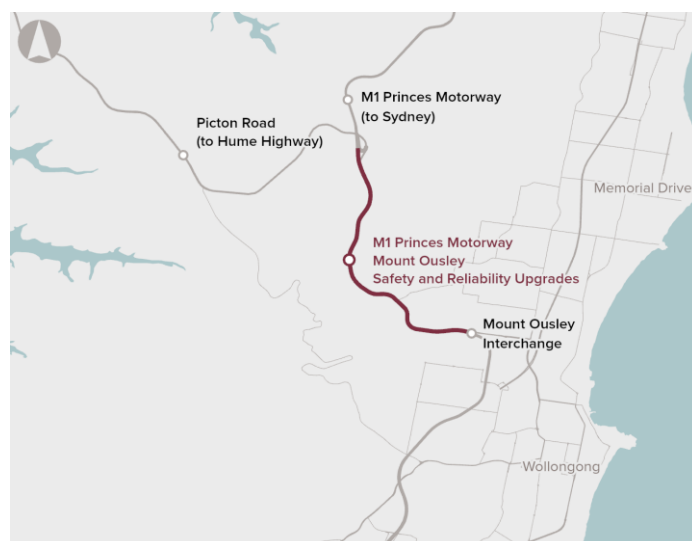


Figure 35: M1 Princes Motorway (Mount Ousley) safety and resilience improvements section (Infrastructure Australia, 2023)

Some bridges on the M1 require upgrading to accommodate oversized load heights

The Princes Motorway (M1) was constructed from the 1940s to the 1970s. Since that time, the load sizes transported have increased. While the bridges were built to the standards of the time, some of the bridges over the M1 do not provide sufficient clearance to accommodate contemporary over height loads, which results in large vehicles being diverted away from the M1, and in some cases onto local roads.

Impacts to the community and Council assets are likely to be exacerbated by the anticipated increase in heavy freight using the Port of Port Kembla. Height limits represent a barrier to new and emerging investment opportunities such as the importation, assembly, manufacturing and distribution of renewable energy infrastructure.



Figure 36: University Avenue is 4.9 m for northbound traffic, but only 4.6-4.8 m for southbound traffic. It has been stuck by oversized vehicles several times, including as recently as 2018. (Humphries, 2015)

Managing competing demands in busy urban areas

Centres and other constrained areas must provide for multiple servicing demands while maintaining the desired place characteristics and parking.

In Centres, waste bins associated with properties that are stored within the public domain can be unsightly, expose the public to bad smells, and lead to litter, and rubbish pollution. On-street waste collection in these environments is also more challenging due to high demand for kerbside space.

Insufficient loading and unloading facilities can lead to illegal parking for these functions, creating road safety and public liability risks.

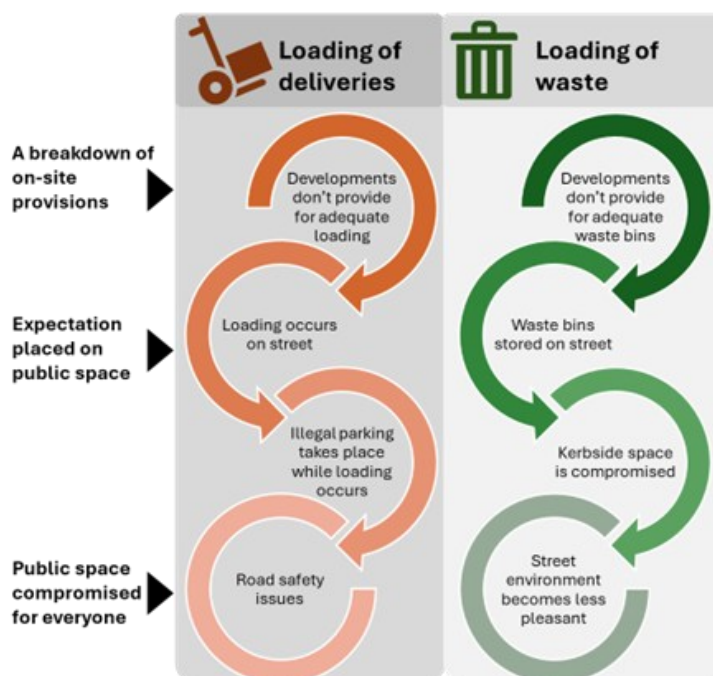


Figure 37: Issues arising from loading not being managed appropriately in high demand areas.

Major influences

Climate change, equity, cost, health, population growth and technology are consistently changing how we live and are expected to significantly impact how our community interact and move around. How Council responds to these factors needs to be unique to Wollongong.

Climate change

Council's sustainability strategies highlight the urgent need to reduce our carbon emissions and adapt to climate change. Transport and infrastructure will face growing challenges as our climate changes. The costs associated with ignoring climate change far outweigh the costs associated with addressing it.

The future climate in Wollongong is expected to have a higher frequency of extreme weather and tidal events (rainfall, fires, droughts, heatwaves, coastal erosion and inundation). High rainfall frequently disrupts rail services and makes active travel less viable. As extreme weather events become more common, climate-resilient transport strategies are essential for Wollongong's future connectivity and safety.

A move towards walking, bike riding and public transport responds to the urgent action needed to reduce greenhouse gas emissions.

Technology

New and emerging technologies and business models have the capacity to support more accessible, efficient and greener transport.

Opportunities exist to enhance operations and customer experience through improved data analysis for tracking and decision-making, specifically around:

- Smart parking and parking demand management.
- On demand bus services.
- Real-time travel information at Public Transport sites.
- Carsharing and ridesharing
- Shared micro-mobility.
- Electric and Hydrogen buses

It is also important to be cognisant of how technology can contribute to less desirable outcomes. Council works within its responsibilities and powers, alongside relevant authorities, to manage the introduction of new transport technologies to improve efficiencies and customer experience.

Equity

Transport facilitates social and economic participation.

Transport connects individuals to their communities and provides access to employment, education and recreation. Ensuring the community has equitable access to transport means removing barriers to allow for independent travel for the community regardless of age, level of ability, income or geography, and providing affordable options. Improving options for walking, bike riding, and advocating for better public transport will assist with making these modes safe, affordable, and accessible to all. This includes workers in the 'nighttime economy' and economically disadvantaged, who are particularly under-served for public transport services



Figure 38: Equitable access to transport choice supports better access to jobs, education and opportunities

"More jobs, less traffic, and a cleaner environment. It's [about] fair access for everyone." - Resident

Health and Wellbeing

The design of roads and streets can influence our physical and mental health and wellbeing - not only in how we travel, but our choice to go outside at all.

Inviting and safe environments for walking, and bike riding can mean we get in more 'incidental activity' as we go about our regular activities. An Australian study found that people using public transport usually spent 12-15 minutes per day walking. (Rissel, C., et al, 2012). Many of the same design elements such as high canopy tree planting, that support walking and bike riding can also reduce urban heat, noise pollution and improve air quality.

Changing how we travel can reduce the stress associated with traffic as well as reduce serious and fatal crashes. We can also expect a reduction of serious and fatal crashes due to lower speeds across the local road network. Infrastructure to support lower operating speeds and lower speed limits make streets safer for drivers, pedestrians, and bike riders, and can provide opportunities for urban greening.



Figure 39: Active travel can provide health and wellbeing benefits across all stages of life.

"We have to reduce our dependence on driving for our health and wellbeing." - Resident

Cost

The costs associated with the transport network are multifaceted, extending beyond just the expenses of building and maintaining infrastructure.

Planners must also consider costs to end-users, as well as broader societal impacts such as environmental degradation, health implications, and opportunity costs related to productivity and crash recovery.

Under future business-as-usual (BAU) scenarios projected increases in vehicle trip times will reduce productivity within the Wollongong LGA, as more time and resources will be required to complete the same journeys. Reducing car dependency through a more diverse transport mix not only alleviates these financial pressures but also enables Council and NSW Government to offset long-term costs to the community and support sustainable economic growth in the Wollongong LGA.



Population Growth

Wollongong's population is expected to grow by 31% between 2025 and 2046 (.id Informed Decisions, 2025). Given the limited space available for expanding our transport network, inaction will lead to increased congestion.

What land is used for and how it's developed changes how people travel. In addition to the current development capacity and forecasts as above, land use changes are frequent and unpredictable, and the State Government are taking on increased determination delegations.

Council must support a shift to more space-efficient options like public transport, walking, and bike riding so the places people most want to reach will remain accessible into the future.

Managing and responding to the effects of population growth also includes reviewing land use. People living spread out with work in clustered job centres presents a challenge when planning transport networks to meet everyday needs.

Mode shift from private vehicles to public transport needs to incorporate both a "carrot" and "stick" approach so that public transport becomes a more attractive option over driving for long term behavioural change to occur.

"More cars on the roads will make them even more unsafe for pedestrians and bike riders. COVID demonstrated that people will cycle if the conditions are right. Fewer cars on the road and more infrastructure like pop up bike lanes result in more people bike riding."
- Resident

1 train set



14 buses



416 cars

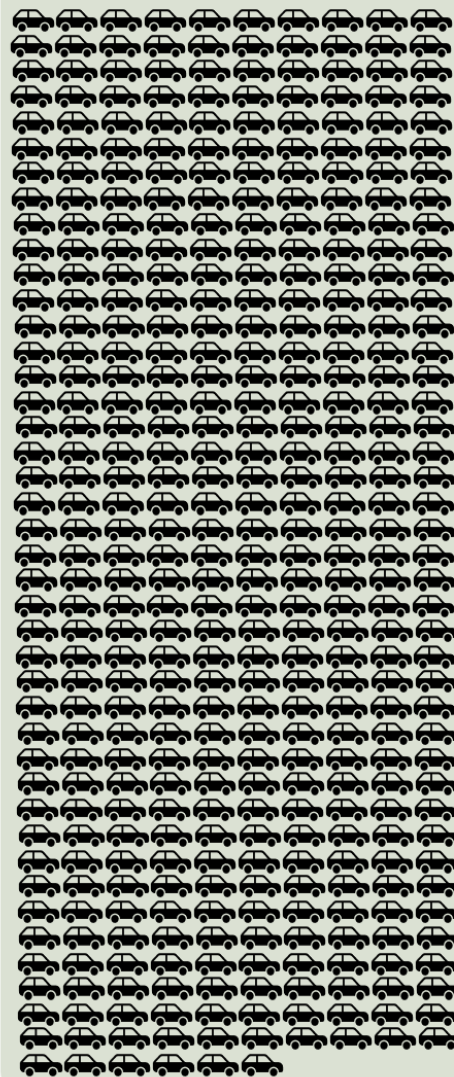


Figure 3: Options for moving 500 people.

The case for change

The Wollongong LGA has several strategic plans and urban development initiatives that shape future transport outcomes. These have informed assumptions about a 'Business as Usual' scenario for 2036, which maintains the current levels of car dependence.

Under this scenario, Wollongong may experience increased congestion, longer travel times, and reduced productivity, higher levels of air pollution and more cars, reducing residents' quality of life and contributing to social inequity - compared to 2021 patterns.

Continued reliance on private vehicles would require expansion of road infrastructure and at-grade parking within the centres to accommodate this growth which is expected to compromise the liveability and the unique character of Wollongong.

The data below demonstrates Projections of Business as Usual (no mode shift) outcomes in 2036. A shift in transport mode use is essential to avoid these consequences.

Key trends in 2036 if we continue to use cars as we are today...

	More car travel By 2036, the Wollongong LGA will have an additional 127,000 vehicle kilometres travelled (VKT) in the AM peak. A 22% increase.		Increased environmental cost Increased vehicle kilometres resulting in an annual environmental cost of \$48m to the community, as well as a financial impact to individuals for owning a private vehicle.
	More trips to Wollongong City Centre Population growth will result in 13,000 more car trips in Wollongong's City Centre in the AM Peak. A 13% increase.		More congestion across Wollongong Vehicle delay hours in the AM peak are predicted to increase by 21% (from 2021 levels) across the Wollongong LGA, as residential growth drives increased travel in the area. Increased congestion results in both longer journey times, and less predictable travel times which will cause flow on impacts to our daily lives.
	More trips from West Dapto Growth Area Population growth will result in 3,300 more car trips from West Dapto in the AM Peak. A 38% increase.		

Assumptions - private vehicle mode share percentage of the working age population (18-64 year olds) were considered to derive value for the increase in drivers.

Source: Urbis, 2024, Draft Integrated Transport Strategy (based on modelling undertaken by VLC, 2024).

1) Economics values obtained from Transport for NSW Economic Parameter Values (June 2020, Version 2.0) Part 6 Environmental Impacts

3. Recommendations

To achieve the Vision and Goals of the Transport Strategy we need to adopt a holistic approach that recognises the role of streets for movement and as important places. This approach will prioritise the efficient and sustainable movement of people and require a shift in current travel choices to passenger transport (including public transport and emerging smart mobility options) and active transport.

Making this change will depend on factors such as:

- How people personally choose to travel
- Car ownership trends
- The level of infrastructure and service investment
- The rate of travel growth
- The relative efficiency of passenger transport options
- The real cost of travel to the individual and community
- The quality of all the transport modes
- Take up of technology.

Not delivering people-focussed outcomes means a continuation of current 'business as usual' trends. This in turn will cause lower levels of service, more congestion and earlier and higher investment demands on infrastructure capacity across the region.

The Vision

The Transport Strategy's Vision and Goals were developed with stakeholders to align with community aspirations and policy objectives. The Strategy's core elements—Strategic Directions, Opportunities, and Actions—translate this vision into practical steps for Wollongong LGA's transport future. The framework includes:

- **Vision:** Big-picture and long-term transport aspiration.
- **Goals:** Key targets for measurable progress against the vision.
- **Strategic Directions:** Mode based priorities
- **Opportunities:** Our approach to transport outcomes
- **Actions*:** Priority tasks for delivery by Council and others

This approach will prioritise the efficient, safe and sustainable movement of people and goods. It requires a shift in our current travel choices to passenger transport (including public transport and emerging smart mobility options) and active transport. Not delivering this will cause lower levels of service, more congestion and earlier and higher investment demands to increase infrastructure capacity across the region

**Refer to Attachment 1.*

Goals					
Achieve competitive public transport	Integrate sustainable transport and land use	Ensure all ages and abilities can get around with ease	Increase the use of active modes	Foster a connection to and sense of Place.	Collaborate to deliver change
Vision					
Wollongong is a liveable city where everyone has viable and sustainable transport choices, that provide connected journeys across Traditional Lands that are safe, reliable and accessible					
Strategic Directions					
Movement and Place	Walking	Bike Riding and Scooting	Public Transport	Freight, loading and servicing	Parking
A connected and resilient region	Walking is desirable for all ages, abilities and genders	Safe, comfortable and convenient bike riding infrastructure	Competitive public transport services	Protect and plan for resilient freight corridors	Manage parking demand and allocation
Enhance awareness and action 'Towards Zero'	The environment for walking is comfortable	Expand the bike riding network	Improve public transport network planning within the LGA	Manage kerbside deliveries and servicing	Managing parking allocation
Streets and roads respond to their desired function	The walking network is improved	Grow bike riding tourism	Integrate with other transport modes		Improving parking efficiency through system improvement
Streets support a range of users and uses					
Opportunities					
Actions					

Movement and Place



Strategic Direction 1 A connected and resilient Region

To achieve the vision of the Transport Strategy, and to support the resilience of NSW's third largest City, we need to adopt an all of the network as one-network approach.

Opportunities:

1.1 Establish a One Network approach

The delivery of effective and integrated transport services relies on the coordinated efforts of multiple layers of government. Each level of government - federal, state, and local - play a distinct yet interconnected role in planning, funding, regulating, and operating transport infrastructure and services. This multi-tiered governance structure ensures that transport systems are responsive to both national priorities, state land use and development priorities and local community needs, enabling more resilient, accessible, and sustainable mobility solution.

1.2 Partner to deliver transport improvements

By aligning infrastructure delivery with land use planning and leveraging the expertise and investment of multiple stakeholders, we

can create a more connected, efficient, and inclusive transport network. Partnerships will be key to unlocking shared benefits- supporting growth, improving access and resilience, and ensuring transport solutions reflect the needs of both current and future users. These partnership opportunities can span from a single bus stop through to new transport modes and routes.

1.3 Advocate for an integrated transport system that provides trip choice

Wollongong's transport network will be a smart, connected transport system that offers viable travel choices for a seamless door-to-door journey (Figure 41)

This will be achieved through the delivery of a mix of high-frequency public transport; local and feeder services; first and last mile solutions; active transport networks and space for those who need to drive.

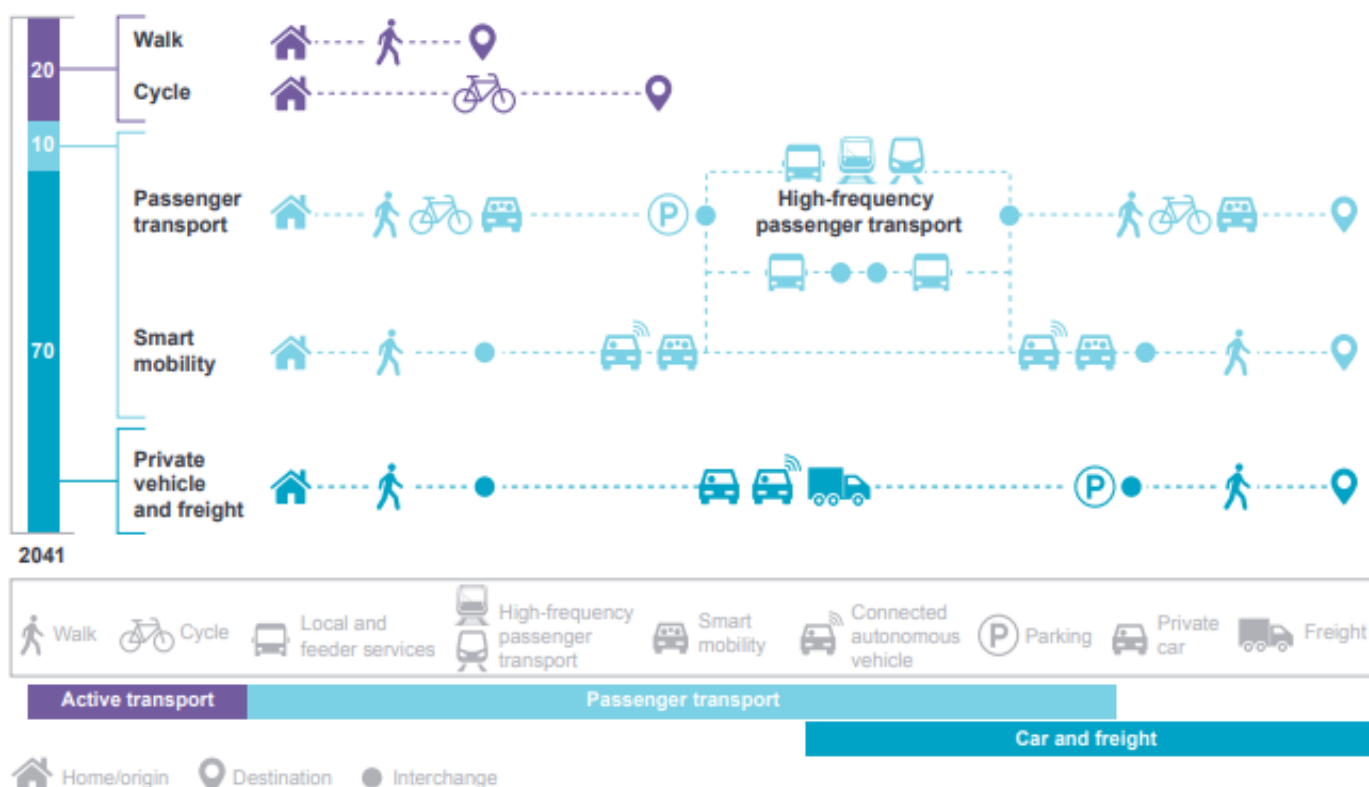


Figure 4: Community will choose from a range of trip options in the future. Source: Sunshine Coast Council

Strategic Direction 2 Enhance awareness and action 'Towards Zero'

Achieving the goal of zero trauma on NSW roads will require all of us to work together. To foster a culture of shared responsibility for road safety through education, engagement, infrastructure, enforcement and empowering communities to be proactive stewards of a safer transport system

Opportunities

2.1 Deliver towards the Safe Systems approach

The NSW Government's Safe Systems Approach aims for zero deaths and serious injuries on roads, focusing on three principles - people make mistakes; road design should minimise crash risks and impact; and road safety is a shared responsibility. To achieve this in Wollongong LGA requires safe roads, speeds, people and cars should work together to keep our community safe when using out transport network.

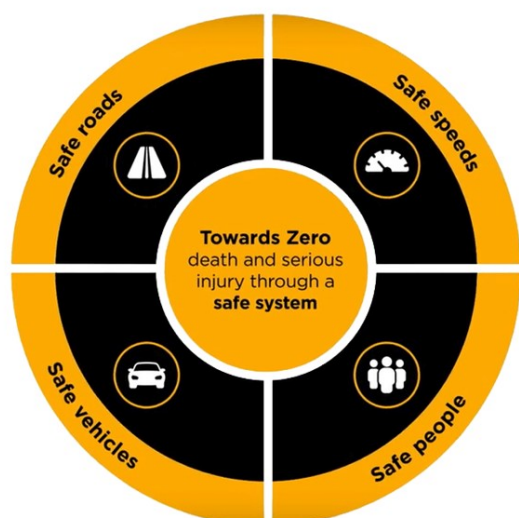


Figure 42: TfNSW Safe Systems Approach

2.2 Prioritise infrastructure improvements that improve safety and mode shift

With finite budget available for new, renewal and maintenance, transport infrastructure improvements should be guided data and prioritisation approaches to ensure safety outcomes are targeted, effective and maximise value to the community. Traffic calming measures should be prioritised in high-risk areas to reduce vehicle speeds and enhance liveability. Additionally, pedestrian and cyclist infrastructure must be safe, accessible, and well-maintained to support active transport and encourage mode shift away from car dependency.

2.3 Support safe travel behaviours and mode shift through education

Targeted road safety campaigns should be tailored to local demographics and delivered in partnership with educational facilities, community groups and organisations, major workplaces to promote safe behaviours. These efforts should also focus on improving public understanding of road rules and the consequences of unsafe practices, fostering a culture of safety and shared responsibility. Examples of targeted campaigns include:

- When NSW Road Rules are misunderstood or require consistent reactive enforcement.
- With new infrastructure or services to promote a new travel option.
- To reduce car use in a specific area, such as within business centres and foreshore areas
- To encourage the uptake of public transport including use of the Gong Shuttle for events.
- To encourage the uptake of active transport including walking to school.



Figure 43: Wollongong Council E-Bike campaign 2025

2.4 Leverage data and innovation to inform priorities and measure success

Leveraging data analytics and piloting smart technologies to identify emerging trends enables targeted road safety interventions, and to better understand and address safety challenges. Transparent sharing between of performance metrics builds public trust and accountability, driving continuous improvement. Success will be measured through reductions in road incidents and fatalities at identified hotspots, increased participation in safety programs, positive shifts in public attitudes and behaviours, and greater uptake of community-led education initiatives.

Improved data sharing between and within Government agencies will ensure efficient and ongoing data availability.

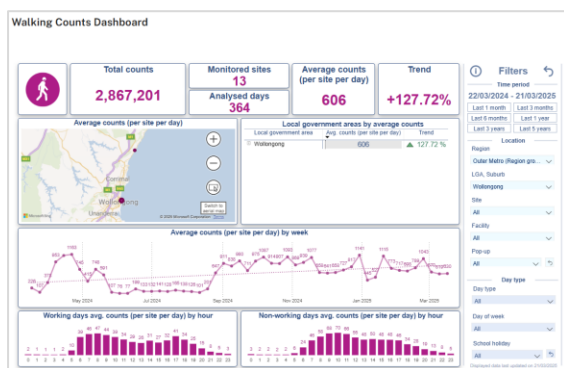


Figure 44: TfNSW Walking and Cycling Counts Dashboard

2.5 Rationalise the use of regulatory signs and lines

Where a road rule can be enforced within existing road conditions, supplementary signage and line marking should be avoided to minimise costs, reduce road clutter and sign pollution. In instances where there is a significant safety risk resulting from someone disobeying a road rule, the installation of additional regulatory lines will be considered before signs in high amenity areas such as the foreshore and open spaces.

Council will continue to work with our community to raise awareness of road rules and responsible driver behaviour within our roads and streets.

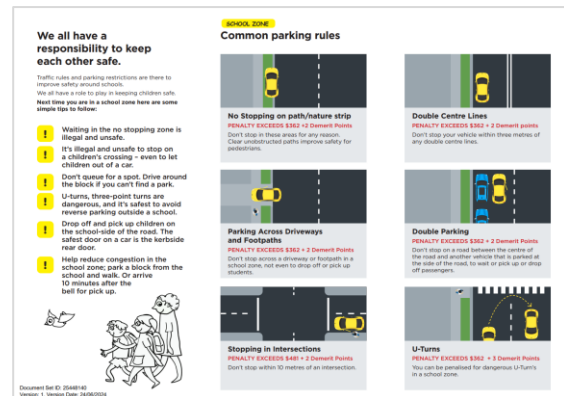


Figure 45: Wollongong Council school zone parking brochure

2.6 Deliver safe speeds that support the street function

Effective speed management improves road safety, enhances liveability and reduces the environmental impact of road traffic. Safe speed limits help prevent crashes, protect vulnerable road users and minimise injuries when crashes occur.

Lower speeds also contribute to quieter, more accessible, safer, and more walkable communities while reducing vehicle emissions. A lower speed environment means safe and accessible streets for everyone, including the 40% of the people NSW who don't drive such as children, older people, and people living with a disability (Transport for NSW, 2025).

There are several principles that underpin how speed zones are set include minimising harm, support liveability of places, self-explanatory and reducing environmental impact (Speed Zoning Guidelines, 2023).

Table 3 outlines different speed zones, and what type of environment they typically support. We seek NSW Government to be consistent in their approach to speed limit changes in high pedestrian areas and schools.

Rolling out low-speed zones should be supported by physical changes to the road environment and prioritises safety for all modes.

Table 4 NSW Speed Zone Principles

	Speed Limit	Benefit
Place	10 km/h	Suitable for areas with a high place function and to maximise pedestrian safety such as plazas, car parks, quiet ways and areas where space is finite or constrained. A shared zone supports high levels of pedestrian activity and allows vehicles to share the road with pedestrians, bike riders and scooters.
	30 km/h	Suitable for areas with a high pedestrian and high place function by slowing vehicles to support safety and amenity. Suitable for locations around town centres, education facilities and high streets. Examples such as Helensburgh Town Centre and Lower Crown Street demonstrates Wollongong's ability to prioritise safety and place over movement, in the right locations. There is a 90% chance of survival for a pedestrian at this speed.
	40 km/h	Suitable for areas with high levels of pedestrian activity and place function by slowing vehicles to support safety and amenity. Suitable for locations around town centres, education facilities and high streets where 30km/h cannot be achieved. There is a 60% chance of survival for a pedestrian at this speed.
	50 km/h	Suitable for areas with a moderate pedestrian and a moderate movement function, such as residential areas and local streets. 50km/h speed limits apply to all built-up areas across NSW, unless other lower limits apply. There is a 10% chance of survival for a pedestrian at this speed.
Movement	60 km/h	Suitable for areas with a lower pedestrian and a higher movement function, such as transit streets and connector avenues. Supports efficient travel on urban roads with moderate traffic.
	80 km/h	Suitable for areas with a high movement function, such as rural links and arterials. Supports efficient travel on main roads with higher traffic.
	100+ km/h	Suitable for areas with a high movement function, such as motorways. Supports fast, long-distance travel on roads with limited access points.



Shared Zone, 10km/hr



Motorway, 100+ km/hr

Strategic Direction 3 Streets and roads respond to their desired function

Managing streets and roads differently, for their appropriate function will result in a move away from car-centric planning whilst also balancing the need for efficient vehicle access for the right trips on the right streets.

Opportunities:

3.1 Apply the people-focused road user allocation approach

How streets are used plays a crucial role in determining the transport options that are both available and feasible for individuals. Managing the finite dimensions of the existing road network is key when prioritising and reallocating road space to meet the desired vision. Figure 46 shows what should be considered first in line with Transport for NSW Road User Allocation policy.

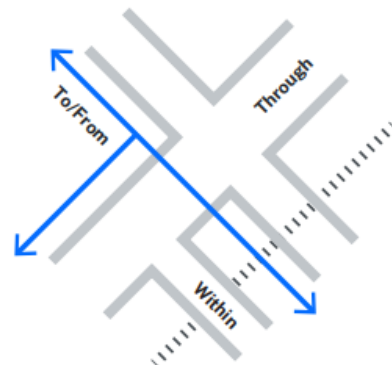
3.2 Utilise the Movement and Place framework to design for the desired function of Roads and Streets

Roads are for saving time and streets are for spending time. NSW's Movement and Place Framework balances the movement of people and goods with the amenity and quality of streets as places for people. The framework considers the place context, character and qualities to balance competing user needs. Movement corridors prioritise efficient flow, including bike riding facilities and public transport priority, while streets with place functions focus on walking and "staying activities," while incorporating vehicles and bicycles at lower speeds. Seating, shade, and public artwork are important to a sense of place. TfNSW's Design of Roads and Streets (Transport for NSW, 2024) outlines treatments and qualities applicable to each "street type."

3.3 Enhance the efficiency of critical movement corridors

Enhancing the efficiency of critical movement corridors involves clearly defining their role in supporting the flow of people and goods. Implementing measures such as signal optimisation, access management, and dedicated lanes can prioritise safe and efficient through and bypass movements. The potential loss of public and active transport options also needs to be considered and managed when enhancing these corridors.

First, establish the primary road function



Then, apply the order of road user space considerations

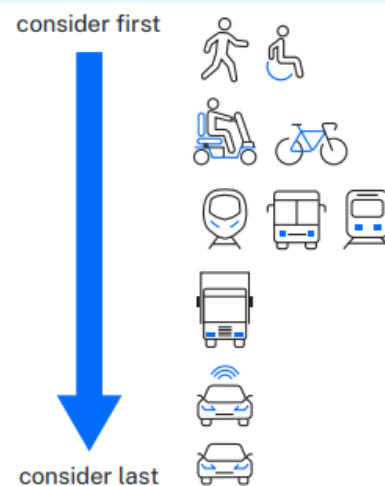


Figure 46: Road User Space Allocation (Transport for NSW, 2024)

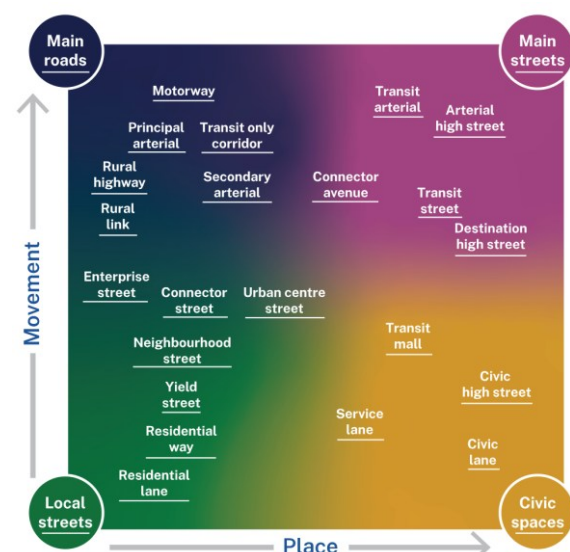


Figure 47: Movement and Place Framework (Based on (Transport for NSW, 2025))

3.4 Prioritise the place function of local and destination streets

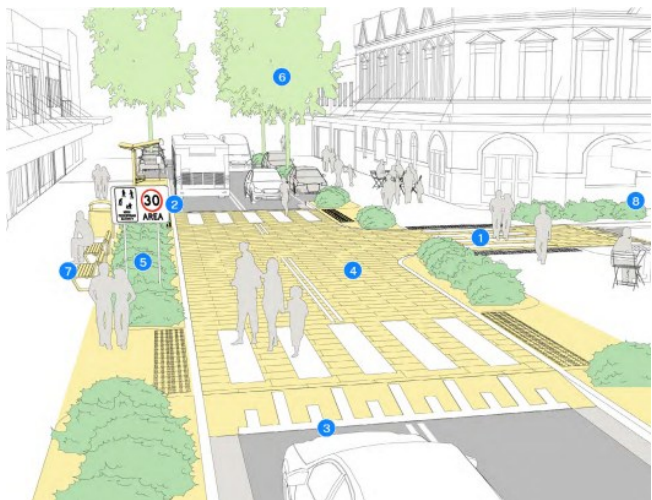
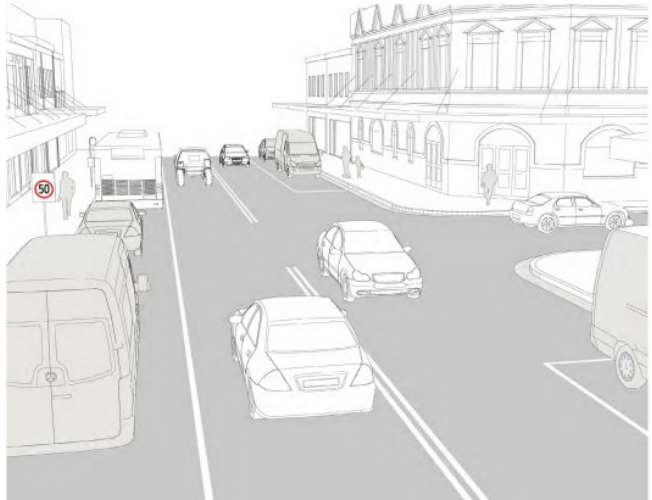
Some local streets are not appropriate for through-routes. Some streets can transition from movement corridors into more place-based streets, particularly when there is an alternative movement corridor, or competitive public transport and active transport infrastructure nearby (Figure 48). Not all streets need to cater so strongly for through-movement.

3.5 Balance investment in new roads, with investment in mode-shift

Development increases demand on existing roads. The additional traffic generated by development impacts the existing local road network function and capacity. By significantly increasing the proportion of trips being made by active and public transport our road network efficiency can be maintained and improved. Ensure development provides the necessary active and public transport connections for their increased demand.

3.6 Advocate for updated legislation and approval processes to support 'place' activities

Many existing regulations, rules, and policies for roads are primarily vehicle centric. Although appropriate when designing a movement corridor, like a highway, the application of the same rules to a 30km/hour local street drives over-engineered outcomes or can stop a project from progressing.



1. Mid Block Crossing
2. Lower Speed limit
3. Narrowed lanes
4. Raised safety platform
5. Low verge buffer planting
6. Tree planting in a kerb extension
7. Places to stop and rest
8. Freight and servicing access

Figure 5: Design of Roads and Streets (DORAS), design solutions for destination high streets

Strategic Direction 4 Streets support a range of users and uses

Designing streets for staying activities over movement, such as outdoor dining, social gathering, and play creates vibrant, people-friendly spaces that enhance local economies, community wellbeing, and urban resilience.

Opportunities:

4.1 Transition streets into calmer, quieter and user focused environments

Calming streets presents a valuable opportunity to enhance safety, liveability, and accessibility in urban environments. Given the constraints of road width and the necessity to maintain lanes for vehicular traffic while balancing parking demand, it may also be feasible to reallocate space within road reserves to prioritise active transport.

Example measures include:

- Modal filters
- Narrowing carriageways (even if it's just at select points),
- Micro-parks.
- Reducing speed limits
- Continuous footpaths

An example of what can be achieved is shown with the success of the revitalisation project in lower Crown Street, Wollongong.

4.2 Planning for staying in business centres

Planning for staying in centres creates vibrant, welcoming spaces that boost local economies and community well-being. Such improvements, including outdoor dining, tree planting, landscaping, and wider footpaths create inviting and well-patronised high streets.

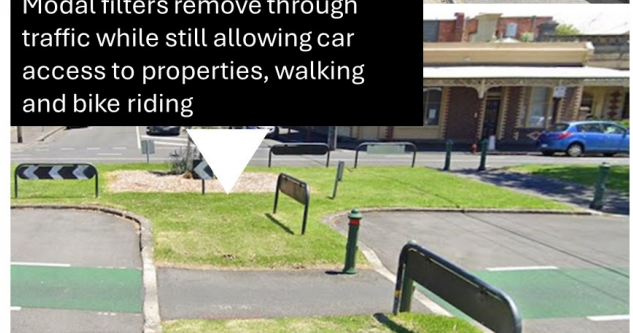
In Wollongong, many local high streets are often under State Government care and control as through-routes for traffic. In some cases, clearways may only operate at peak times, but they inhibit other place-based improvements.

4.3 Embrace parklets and mixed-use kerbs

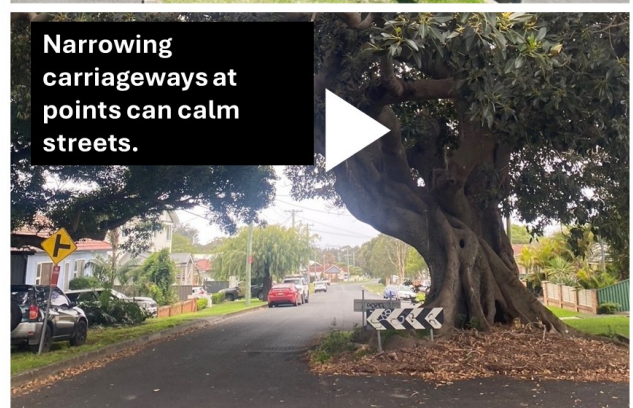
Mixed use kerbs in high streets that deliver a variety of uses (not just parking) are better for business. Enabling food and drink premises to apply for parklet permits is one option to deliver this. Others include kerb extensions, public seating and other 'staying' activities.



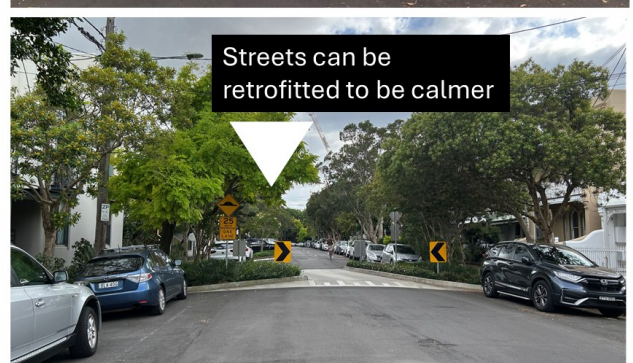
Modal filters remove through traffic while still allowing car access to properties, walking and bike riding



Narrowing carriageways at points can calm streets.



Streets can be retrofitted to be calmer



Modal filter in Richmond, Melbourne (image used with permission from Institute of Sensible Transport, 2024) and Carlton, Melbourne, showing low cost (temporary trial) and higher cost/ permanent treatments.

Tree growing in street in Terania Street, Russell Vale

Alexandria, Sydney (image used with permission from Fiona Campbell, 2024)

4.4 Promote community street use and activation

Continue to invest in streamlined processes for community led activities within roads and streets such as:

- Laneway and verge gardens
- Street tree planting
- Play-on streets and small events like street parties, school fundraisers and birthday parties

4.5 Deliver and evaluate street changes using 'tactical urbanism' and trial infrastructure

Trial improved street outcomes through temporary infrastructure (also known as tactical urbanism) to deliver projects to inform a permanent and more costly change. These projects should specify an appropriate budget, timeframes that enables adjustment to be made and have specific measures to determine their success and inform future decision making. Data should be used to communicate the benefit and opportunities of people-focussed streets

4.6 Advocate for grant opportunities for street activation and revitalisation

Grants from State Government are a great way for Council to deliver some of the higher quality street outcomes desired by the community. Council will continue a constructive dialogue with funding partners such as State Government around setting more realistic time frames for trials, funding of maintenance of infrastructure and evaluation.



Mixed Use Kerb: Broome, WA promotes staying with shade structure and seating.

Streets as social places: Culture Mix in Lower Crown Street, Wollongong

Grassroots street use: Verge gardening in Scarborough.

Walking



Strategic Direction 5 Walking is desirable for all ages, abilities and genders

Walking should be safe, accessible and convenient to key destinations in Wollongong.

Opportunities:

5.1 Apply Crime Prevention Through Environmental Design (CPTED)

The thoughtful planning and design of urban areas can reduce opportunities for crime. CPTED provides a framework in designing networks that reduce the chance of crime happening.

5.2 Prioritise inclusive crossings and maximise uninterrupted walking connections

Prioritise the delivery of inclusive pedestrian crossings (Figure 6 especially in high-demand areas such as schools, business centres and the foreshore.

Consider factors such as design and maintenance of paths, noise levels, lighting, seating, clear signage, tactile tiles, appropriate location of kerb ramps, and drinking stations.

Consolidate vehicle entrances in new developments or use garage entrances off laneways to reduce and remove vehicles entrances on priority pedestrian routes.

5.3 Design for women's safety

30% of women feel unsafe in public spaces associated with transport infrastructure and services during the day and 90% feel unsafe at night (Plan International Australia, 2018). The experience of poor safety has an ongoing impact on girls and women and their choice to walk or travel alone (NSW Government, 2022). Creating well-lit routes and having passive surveillance such as outdoor dining and active street frontages are key to improving safety.

5.4 Slow speed limits to improve pedestrian safety

Pedestrians and cyclists are much more likely to be fatally or seriously injured at impact speeds above 30 km/h (Figure 7). Slower speeds save lives, enhance liveability and improve pedestrian amenity. In areas with high pedestrian demand and use, slowing speeds improves survival rates, and facilitates more safe space for pedestrian movements and for example shared zones can be provided in lieu of a footpath.

Crossing Type	Pedestrians don't wait	Slows traffic	Child friendly	Access for all abilities	Passive Surveillance
① Uncontrolled intersection	Yellow	Yellow	Red	Yellow	Green
② Signalised crossing	Red	Green	Green	Green	Green
③ Zebra crossing	Green	Yellow	Green	Green	Green
④ Wombat crossing	Green	Green	Green	Green	Green
⑤ Continuous footpath	Green	Green	Green	Green	Green
⑥ Overpass/underpass	Green	NA	Red	Yellow	Red
⑦ Refuge Island/ Bulb	Yellow	Yellow	Yellow	Yellow	Green

Figure 49: Overview of different crossing types and how they achieve safety outcomes either all of the time (green), some of the time (yellow) or never (red)



Figure 50: TfNSW NSW Centre for Road Safety – Speeding – Speeding and fatalities (Based on Wramborg, P 2005, 'A new approach to a safe and sustainable road structure and street design for urban areas', Road safety on four continents conference, 2005, Warsaw, Poland, Swedish National Road and Transport Research Institute (VTI), Linköping, Sweden.)

Strategic Direction 6 The environment for walking is comfortable

In the face of climate change and rising temperatures, tree canopy and greening needs to be a vital component for walking infrastructure.

Opportunities:

6.1 See tree canopy as essential walking infrastructure

Mitigation strategies can cool urban areas amid climate change, including increasing tree canopies along active transport routes. While housing developments must plant mature trees under the State Environmental Planning Policy, better certification is needed to ensure compliance.

6.2 Use Water Sensitive Urban Design (WSUD) / permeable paving

Urban surfaces like streets and roofs retain and emit heat while human activities like traffic, industry, and electricity usage generate heat, adding to the urban heat island effect. WSUD and permeable pavements can reflect heat and reduce stormwater infrastructure. In new urban areas the prevalence of waterways and riparian areas can be used to provide active transport areas with canopy cover.

6.3 Make space for trees

- In private space:

Often there is not much space for canopy tree planting either in front yards or on nature strips once a driveway and garages are built. As new areas are being designed, consideration should be given to an urban form with laneway garages and single car driveways meaning more room for canopy planting.

- In public space:

Grassy verges and footpaths are often where critical below-ground infrastructure is located, making tree planting difficult. In such scenarios planting in the road carriageway can provide an appropriate solution. Verge planting can also act as a discrete safety barrier between vehicles on the road and people on verges.

Shade walking infrastructure: In Keerong Avenue, Russel Vale.

Laneway garages and space for trees: In Bankbook Dr, Wongawilli.

Making space for trees: Tree growing in carriageway



Tree canopy as key active transport infrastructure on key pedestrian paths



Laneway garages creates safer, uninterrupted walking and more space for planting



Planting trees in carriageways where necessary on key pedestrian routes

Strategic Direction 7 The walking network is improved

Permeable walking networks, improved infrastructure and more space to walk all increase walkability making people want to choose walking over driving.

Opportunities:

7.1 Prioritise walking links to public transport and activity centres

Being able to make short local trips to public transport and everyday needs such as shopping can be supported by focusing on pedestrian amenity 400-800 metres (depending on location) around public transport stops/stations and activity centres.

7.2 Create safer streets around schools

There should be special consideration and planning for walking infrastructure around schools. This will support children's independence in getting to and from school and for families that want to walk or bike together.

There are short term and low resource options such as school crossing supervisors, green travel plans, traffic enforcement, speed limits, parking restrictions and flashing beacons. These short-term actions complement longer term and higher resource actions including our actions from our Safe Routes to School program including traffic calming, school streets and school bus service expansion.

7.3 Create more permeable pedestrian networks

Promote a street grid for walking with high intersection density. An intersection density of 45 intersections per square kilometre has been found to increase walking dramatically (Vivendi Consulting, 2024). This can be achieved through smaller blocks and using pedestrian cut-throughs for more walkable neighbourhoods and pedestrian time saving.



Finer grain pedestrian networks: A walkway between Holmden Avenue and Eastern Avenue, Mangerton;

Supporting school journeys: Safe crossing in Military Road, Port Kembla.

Bike riding and scooting



Strategic Direction 8 Safe, comfortable and convenient bike riding infrastructure

Creating an inclusive network will see a greater variety of people bike riding.

Opportunities:

8.1 Deliver more dedicated, separated cycling infrastructure

Separated cycleways and designated crossing points are often the preferred alternative to shared paths. These options should be thoroughly considered in future infrastructure planning, while recognising that each built environment is unique and retrofitting such solutions may not always be straightforward.

8.2 Deliver shared paths in appropriate locations

Shared paths have been commonly used in the Wollongong LGA, however feedback from both bike riders and pedestrians shows generally both user groups have concerns about their amenity and safety in some locations. Often bike riders are concerned about vehicle /driveways and pedestrians are concerned about bike riders, particularly with the growth in illegal electric bikes and scooters. Shared paths should be considered in locations where safety and comfort of both user groups is not compromised, and alternative options are exhausted.

8.3 Prioritise separated bike paths in new development areas

In these development areas where there is great potential to shift new users to sustainable transport modes, focus on separated bike paths along key corridors to connect residential areas to town centres, schools and public transport.

8.4 Utilise 'quiet ways' on low traffic streets

Quiet ways are appropriate infrastructure on low-traffic volume streets where there is an appropriate level of traffic calming to slow traffic, and support bike riding on the road.

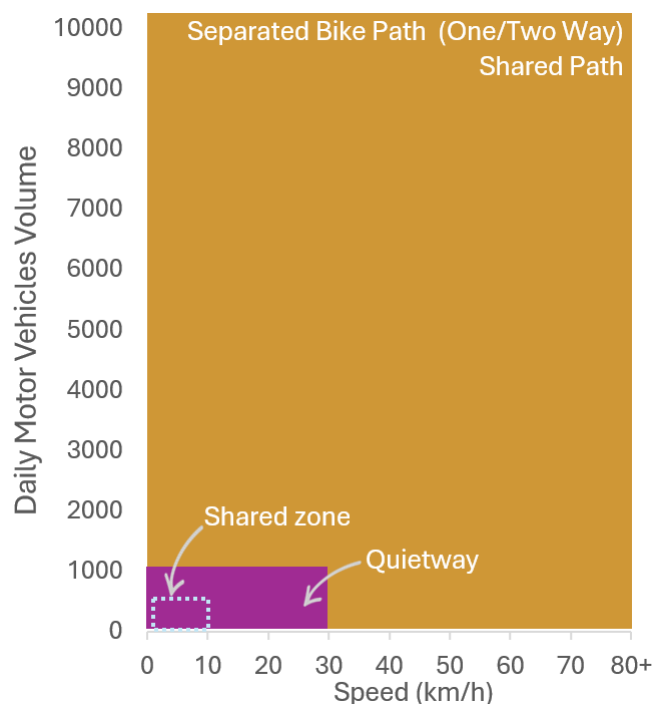


Figure 51: Guidance for selecting bike riding infrastructure

Adapted from requirements/guidance provided in (Austroads, n.d.) and (Transport for NSW, 2020)



Dedicated separated cycle path: Separated cycleway, near Lilyfield, Sydney. (Image Credit: Transport for NSW CAL)

Reimagining streets with quietways: Quietway in Nelson Bay, NSW. (Image Credit: Port Stephens Council website)

8.5 Improvements to intersections

Making intersections safer for bike riders will help to drive modal shift toward riding. This can be achieved through measures such as cyclist signal phasing, cyclist priority, head start boxes, and clear signage and line marking.

8.6 Consider shade and shelter as core bike riding infrastructure

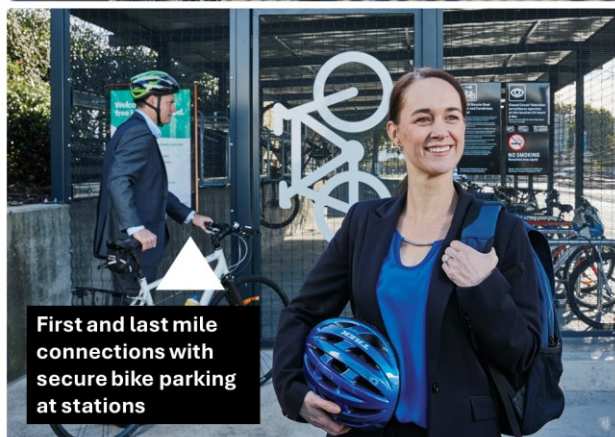
Shade and shelter from the weather should be a core part of bike riding infrastructure. This will be increasingly important with more extreme weather conditions resulting from climate change.

8.7 Create equitable bike riding for all genders and levels of experience

In most cases to create safe, attractive bike routes which serve a range of users, requires components such as safety, separation from cars, direct routes, lighting and having access to information such as wayfinding (TfNSW Cycleway Design Toolbox). Studies have shown that more women, children and inexperienced bike riders will choose to get about by bike when appropriate infrastructure is provided (Pearson, 2023).

8.8 Support first and last mile connections with bike parking

To support first and last mile active transport connections to public transport, shops, schools, beaches and other popular areas, bike parking should be provided. At stations, this should be secure and sheltered, in Bike Sheds, integrated with all train stations similar to new development requirements cited within Council and NSW Government planning policy.



Shade and shelter: Smith Street Cycleway, Wollongong (Image Credit: Lise Chesnais, 2025- used with permission).

Equitable bike riding: At Grand Pacific Walk at the Sea Cliff Bridge.

Bike parking at stations: Example of bike shed at Woy Woy Station (Image Credit: Transport for NSW CAL)

Strategic Direction 9 Expand the bike riding network

Wollongong has a developing bike riding network. There are opportunities to fill the gaps in the network to support better active travel connections into the city centre and beyond. These would take advantage of existing infrastructure, particularly along the coastline. Building upon the Cycling Strategy 2030 and the Cycling Network Plan (currently under development) there are a range of key opportunities on which to focus.

Opportunities:

9.1 Provide key north south connections

Extend bike riding paths on the Grand Pacific Walk and the State and Regional Road network (including a potential inland route north/south route).

9.2 Improve east-west connections

Explore opportunities to improve the east -west bike riding connections particularly feeding into the Grand Pacific Walk but also local destinations like shops, stations and schools.

9.3 Connect bike riding to public transport

Delivering high quality bike riding infrastructure near train stations and other public transport nodes to encourage the use of more than one mode of transport and first and last mile journeys.

9.4 Connect schools and educational institutions

Priority should be given to planning for bike riding infrastructure around schools and other educational institutions to support children and young people's independence and car-free access.

9.5 Provide bike riding network in urban release areas

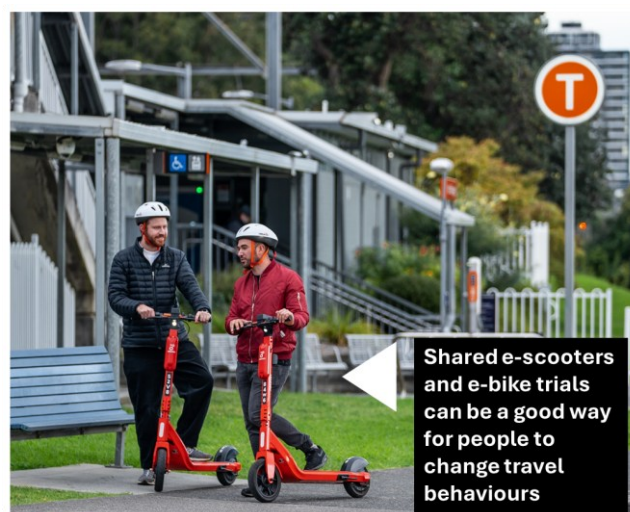
Promoting high quality bike riding infrastructure in new development residential areas, such as West Dapto, to encourage bike riding as the first choice for short trips.

9.6 Investigate shared and rent-to-own micro-mobility options

Shared micromobility provides an alternate option for short trips, first and last mile connections to public transport and enhance access and sustainability across Wollongong LGA. Options include shared e-scooters, bikes and e-bikes.

SHARED E-SCOOTER TRIAL IN WOLLONGONG

Wollongong launched a shared e-scooter trial in September 2023 together with partners Transport for NSW and Neuron. In the first three months, 22,000 users travelled 132,000 km on shared e-scooters. This trial aims to assess the e-scooters' potential in providing sustainable travel for end-to-end, first and last mile, and recreational journeys.



Shared e-scooters and e-bike trials can be a good way for people to change travel behaviours



Safe connections by bike and scooter to school

Shared e-scooters: Wollongong shared e-scooter trial (Image Credit: Transport for NSW CAL).

School run by bike: In Armidale, NSW.

Strategic Direction 10 Grow bike riding tourism

With nearly 50 km of scenic coastline, Wollongong LGA's bike riding tourism offers significant economic potential. Bike riding tourism has been found to have significant economic benefits (New Zealand Transport Agency, 2021). It can also happen all year round and potentially extend the tourism season beyond the peak summer months.

Opportunities:

10.1 Promote the Wollongong LGA's bike riding routes

Showcasing the routes through different promotion channels will help strengthen and encourage bike riding tourism. Key routes include along the Grand Pacific Walk and Lake Illawarra.

Work with Destination Wollongong and interested educational partners to deliver a suite of simple 'ride with me' communications and media, showing people how to cycle between key locations.

10.2 Deliver clear and consistent wayfinding

Leverage proximity to Sydney by connecting to tourist sites by shared e-bikes and scooters, linking train stations to tourism destinations. Provide intuitive wayfinding and route information through signage at key locations across the cycling network including at train stations, key road junctions and key tourist destinations.

10.3 Support bike riding along rail corridor

Work with TfNSW to investigate opportunities for the utilisation of rail corridors for rail trails and other cycling routes.

10.4 Deliver the missing connections of the Grand Pacific Walk

The Northern Coastal Route, especially near Sea Cliff Bridge, could transform Lawrence Hargrave Drive and the Grand Pacific Walk into an iconic bike tourism route.

10.5 Investigate the Lake Illawarra loop

Complete the investigations into the loop around Lake Illawarra and define clear delivery options to enhance bike riding tourism options around the lake.



Bike riding along rail corridor:: The Dunbible Station development with a rest area and interpretive signage [2024] (Image Credit: Rail Trails Australia).

Public transport



A NOTE ABOUT THE ROLES AND RESPONSIBILITIES FOR PUBLIC TRANSPORT

The responsibility for public transport largely sits with Transport for NSW. There are some aspects to public transport, such as the delivery and maintenance of existing Bus Stop infrastructure that are within Wollongong City Council's responsibility.

Public transport service standards and network extents are important. This section outlines Council's position going forward to allow us all to advocate for, and engage with Government for better public transport for our community.

Strategic Direction 11 Competitive public transport services

A competitive public transport system means people will choose a bus or train as their primary mode. For this to occur it will require frequent, direct, reliable services with competitive travel times across a span of hours and days to meet people's needs across the week.

Opportunities:

11.1 Advocate for proactive Bus Service Planning

A coordinated approach between local and State Government is essential for effective service planning in the Wollongong LGA, especially as densities increase and new areas like West Dapto grow. Early planning can boost public transport uptake, reducing thousands of car trips along key corridors. Making future transport plans visible to the community will help guide development and support public transport-oriented growth.

This planning should ensure service integration between rail and buses to support a viable public transport network and consider where our community, live, work and spend time.

11.2 Deliver high frequency corridors, not just high coverage

Wollongong's railway line is a valuable public resource, primarily used by those living near train stations. This has led the local bus network to prioritise coverage, by resulting in lengthy routes to key destinations that often fail to compete with car travel as well as a lack of viable cross suburb public transport options. Integration and increased frequency of the bus and rail networks is a key opportunity to complement each other's service and respond to the topography and structure of Wollongong's existing infrastructure.

11.3 Support bus priority for improved reliability and journey times

To encourage more public transport use, it's essential to reduce the gap between car and public transport journey times by improving service standards. This could involve on-road bus priority measures including, bus lanes, bus queue jumps and priority signals.



Proactive Service Planning is needed: Example of bus only lane, Sydney

Bus Priority: Example of indented bus stop adjacent to bus lane, Sydney

Gendered safety on trains: Many women feel safer when staff are present.

(Image Credit- all images on this page: Transport for NSW CAL).

11.4 NSW Government to undertake a process understand the barriers of public transport patronage

In addition to physical access to, and availability of services, consideration should be given to women's and gender diverse safety on public transport. Staffing of carriages and stations is a key opportunity to enhance safety and perceptions of safety.

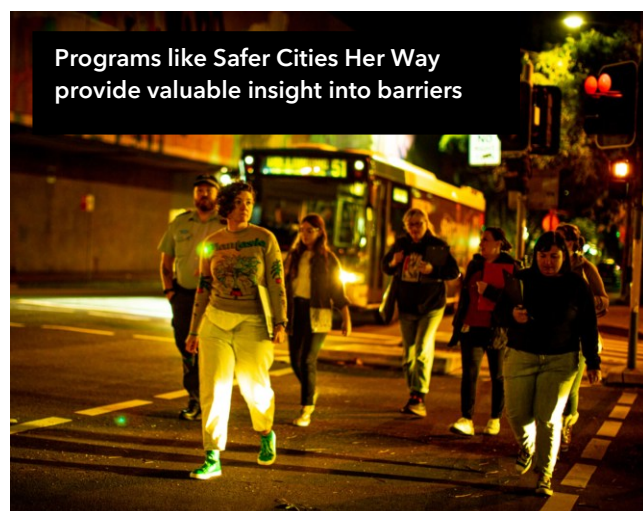
11.5 Pursue public transport services that serve the nighttime economy

Major employers in the Wollongong LGA including the Illawarra Shoalhaven Local Health District, BlueScope and the Port of Port Kembla, have 24-hour operations. Patrons and workers at businesses that support culture and nightlife such as bars, clubs, restaurants and other nighttime venues present a significant underserved cohort. There is an unmet demand for movement by public transport at night that currently isn't met by the services that drop off significantly after 6pm.

11.6 Support the roll out of modernised public transport fleets that are climate friendly

Including more widespread use of electric buses, and modern vehicles for commuters that include Wi-Fi, tray-tables, charging and bike and luggage storage would create a more convenient, comfortable and appealing transport mode.

There should be further implementation of the State Governments electric and or hydrogen bus fleets.



Strategic Direction 12 Improve Public Transport network planning within the LGA

There are opportunities to work with Transport for NSW on revising public transport network planning, with a future focus on Intra-LGA, Southern Rail Link and Link to Southwest Sydney.

Opportunities:

12.1 Advocate for a trunk and feeder network

A 'trunk and feeder' network, with high-frequency routes along the train line, Lawrence Hargrave Drive, Princes Highway, and Shellharbour Road would create a connected spine across suburbs (Figure 52).

Local loop services would travel through surrounding centres, residential areas, employment hubs supporting east-west travel, reducing car dependence, and improve travel times.

12.2 Advocate for integrated public transport interchanges

There are opportunities to develop high-quality transport interchanges which integrate bus services, train services and active transport.

Potential locations include Dapto Station, with considerable development occurring in West Dapto, Warrawong (King Street and Cowper Street), and Wollongong, Unanderra, Thirroul and Helensburgh Stations. The interchange of air travel and bus travel between Shellharbour airport and Wollongong should also be improved.

12.3 Rationalise and relocate bus layovers and terminus to Station precincts

Relocating Wollongong bus layovers to off-street locations adjacent to public transport stations would enhance connectivity, support driver wellbeing, optimise service hours, and free up space for more productive land uses.

12.4 Support emerging innovative market led service model

Council will support emerging innovative market-led service models such as trials of on-demand responsive transport to provide flexible transport in low-density areas, and rapid bus corridors.



Figure 52: Desirable future bus "trunk and feeder" network in the Wollongong LGA



Figure 53: Newcastle Interchange co-locates Train, Bus and Light rail.

12.5 Retain and expand the Gong Shuttle

Expanded services for the Gong Shuttle including more frequent services in the evenings, weekends and during events and a new service and route which services south of the city (Southern Gong Shuttle) including a park-and-ride.

12.6 Deliver more trains and more services

- Train trips within the Wollongong LGA:

Improvements under current NSW Government funding programs provide service enhancements to four express train stations only. The remaining 20 stations in Wollongong need better services to function as an intra-LGA alternative to driving.

- More train services to the south: More options for commuter train travel between Shellharbour and Wollongong are needed to serve workers from outside the LGA, most of whom come from the south (predominantly Shellharbour).
- Connections to South-West Sydney: Public transport options to the significant growth areas in south-west Sydney are needed. The South West Illawarra Rail Line (SWIRL) addresses both passenger and freight connections to this area.



Figure 54: Rapid bus services 'B Line' connecting Sydney CBD to Northern Beaches

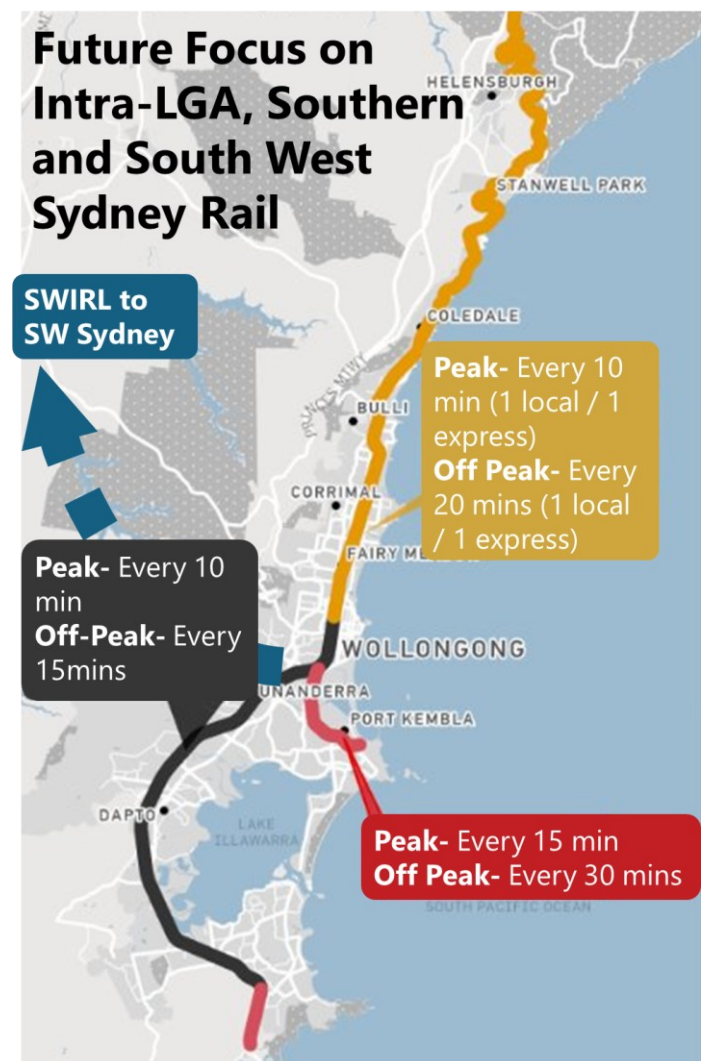


Figure 55: Desirable future train service frequencies in the Wollongong LGA

Strategic Direction 13 Integrate with other transport modes

High-quality public transport starts with the experience as soon as a person steps outside their door. A seamless journey to the bus stop or train station (whether that is by bike, mobility device, or foot) is part of how a person experiences their public transport journey. This also includes a seamless transition between bus and train.

Opportunities:

13.1 Provide seamless interchange between modes

Bus stop and facilities in train station precincts should be well connected, safe and comfortable.

13.2 Deliver accessibility at bus stops

There are over 1,100 bus stops in Wollongong LGA and this number is expected to grow with future development and servicing in our region. There is a program of working towards achieving compliance with Disability Standards Accessible Public Transport (DSAPT). Responsibility for this program sits with both Council and Transport for NSW. In addition to accessibility, bus stops should, where practical, provide adequate waiting space including shelter and seating.

13.3 Deliver clear directional wayfinding

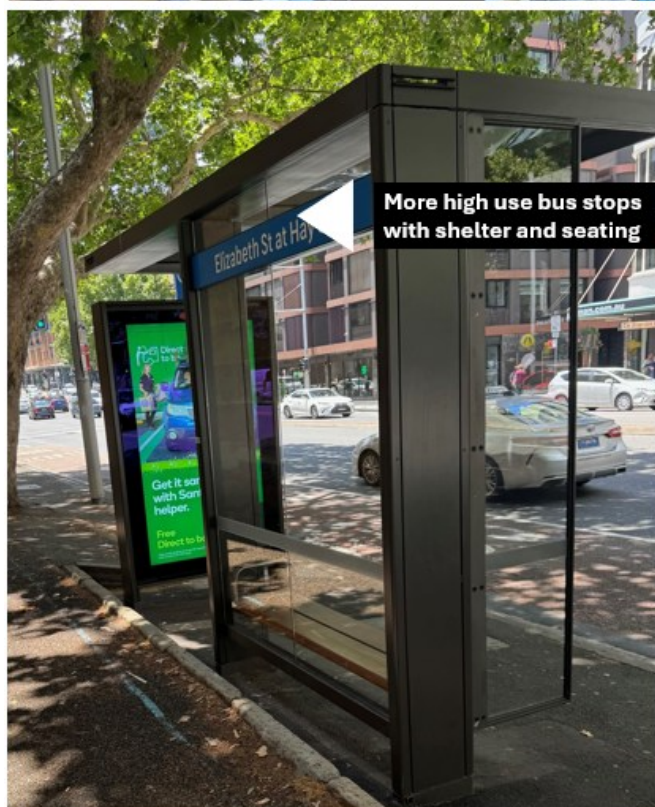
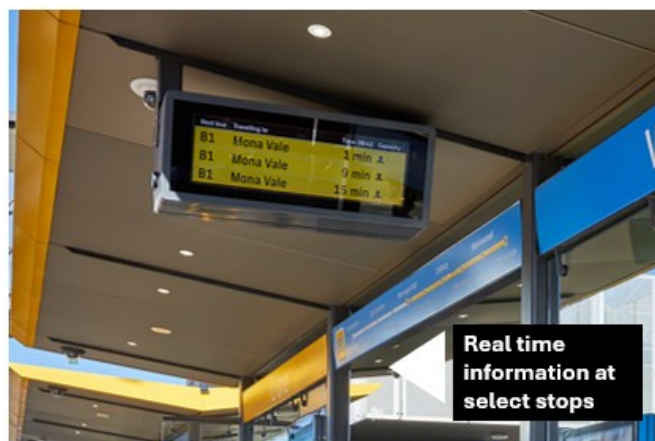
At key locations provide people clear wayfinding information to public transport stops and stations to better instructions on how to get about by public transport.

13.4 Support real-time travel information at key locations and through apps

Real-time information has been shown to make waiting for the bus feel around 13% shorter (Watkins, 2011). For those with a visual impairment, it is vital infrastructure which advises people through audio when a bus is arriving and can appropriately signal to the driver to stop.

13.5 Investigate partnering to provide higher amenity bus stops.

Council needs external and ongoing funding support to deliver quality bus stops across the Wollongong LGA. Opportunities exist to deliver higher amenity bus stops together with external parties such as advertisers, along with integrating stops, seating and shelter within new development frontages.



Real time information: Example of real-time bus stop information on B-Line.

Accessible and high amenity bus stops: Example of bus shelter in Elizabeth Street Sydney;

13.6 Improve safety at grade level crossings through removal and/or upgrades

Crossings on the Illawarra Rail line and private freight lines cause disruptive and unsafe connections across the rail corridor. Rail upgrade projects should incorporate solutions for these issues with removal priority given to crossings that are impacting housing development including the West Dapto Urban Release Area.

13.7 Provide safer bike riding to stations

The new Mariyung fleet carriages being commissioned in 2025 will have enhanced capacity to carry bikes. This will enhance the need for better first and last mile connections by bike to stations and will assist in encouraging bike travel over car options and alleviating the need for additional car parking at stations.

13.8 Providing secure bike sheds

Bike sheds are the ideal solution for safe short term storage options. There are currently no bike sheds at any stations in Wollongong and only a handful of stations have bike lockers. Yet, lockers are not securing bikes adequately and provide little capacity.

13.9 Support kiss and ride zones

Having drop off and pick up zones - also known as Kiss and Ride bays - near train stations allow quick entry and exit.

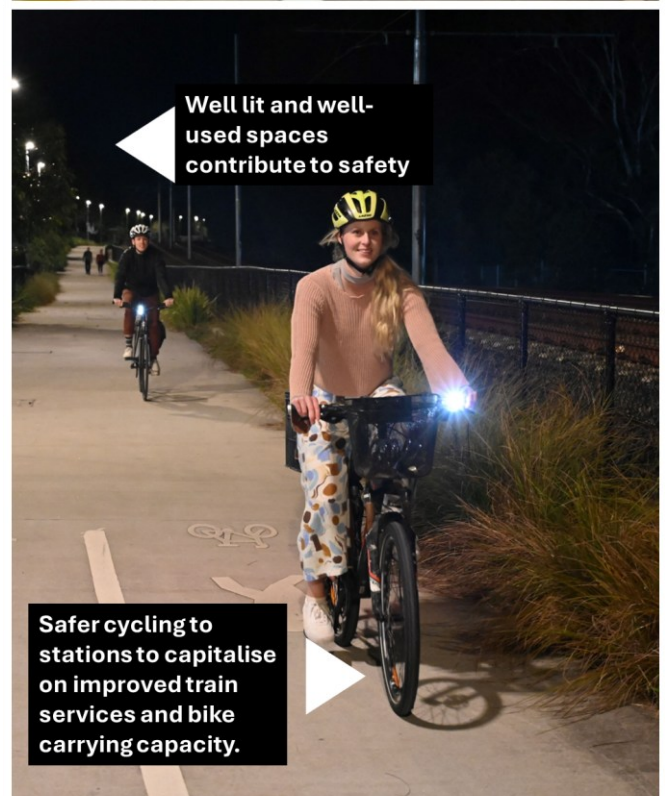
13.10 Plan safer connected train station precincts

As station precincts are upgraded and revitalised consideration should be given to:

- Addressing safety issues for bike riders and parked vehicles.
- Active frontages of adjacent business (for passive surveillance).
- Integrating station design with the surrounding streets including connecting upgrades into adjoining active travel network.
- Lighting.
- Secure bicycle parking.
- Provision for access for all abilities.



Mariyung fleet has greater capacity to carry bikes, making bike riding infrastructure to stations even more important



Well lit and well-used spaces contribute to safety

Safer cycling to stations to capitalise on improved train services and bike carrying capacity.

Mariyung fleet: Bike carrying capacity (Image credit: Transport for NSW CAL)

Connecting to train stations by bike: Bike riders on near Telopea Station

Freight, loading and servicing



Strategic Direction 14 Protect and plan for resilient freight corridors

Freight is vital to the economy. Growing freight volumes through the Port of Port Kembla require a new east-west rail link to reduce road congestion and support connections to Southwestern Sydney.

Opportunities:

14.1 Advocate for greater capacity and resilience for the freight rail

The South Coast Line has experienced a high number of service cancellations and disruptions due to weather events. The line's challenging location makes it particularly susceptible to disruptions and limits the ability to increase capacity to support freight services. Further, improvements to the privately owned freight lines, some which have been sold and subdivided over time, will further support intra and inter LGA movement.

14.2 Connect the Region with South-West Sydney

Ensuring long-term connectivity to Wollongong is essential to maximising the Western Sydney airport's economic benefit and enabling broader regional participation.

A new passenger and freight line which bypasses Sydney's congested east-west corridor would enhance capacity and reduce dependency on the South Coast Line. A new line would also alleviate pressure on roads by reducing truck traffic and address rail passenger connections to growth areas in South-West Sydney (Figure 8).

14.3 Clearly define and streamline heavy vehicle, freight routes

Freight routes must accommodate over mass vehicles and minimise truck movements through less suitable local routes. Rationalising load limits and other heavy vehicle restrictions on the road network should be aligned with preferred routes throughout the Wollongong LGA, and a streamlined approval system.

Additional, preferred freight corridors such as the M1 have restrictions due to bridge heights and road widths. This means freight is detoured onto lower order roads, which impacts local communities. These corridors need improvements to support efficient and safe transport.

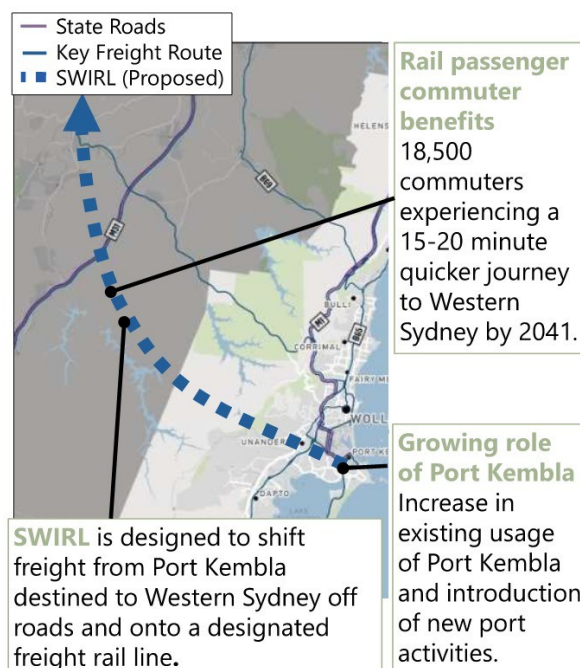


Figure 9 SWIRL select impacts in Wollongong LGA (Illawarra Business Chamber, n.d.))



Support the Port: Industries at Port of Port Kembla

Low bridges on the M1: M1 Bridge at University Avenue

14.4 Ensure industrial uses requiring heavy vehicle freight are located strategically

Freight noise and emissions can impact the amenity and environment, and freight networks are finite. Consider appropriate measures to mitigate amenity issues such as transition of uses and applying operating times to freight routes.

Strategic Direction 15 Manage kerbside deliveries and servicing

The local road network must have capacity to accommodate delivery vehicles, removalists and waste collection vehicles in addition to local traffic. This task presents challenges where existing streets are narrow and on-street parking inhibits manoeuvring room for larger vehicles.

Local deliveries are essential and are growing demand, and clear principles are needed to manage kerbside space while preserving neighbourhood peace

Opportunities:

15.1 Require off-street loading and servicing in new developments

In larger developments deliveries and servicing including off-street loading facilities will relieve kerbside congestion. This will be an increasing issue as more online shopping takes place.

An opportunity exists to investigate smaller waste service vehicles to collect waste in constrained and high-density environments such as the Wollongong City centre

15.2 Consolidate on-street waste collection and storage

Where off-street waste collection is not possible ensure adequate provisions are made for bin storage on site, minimising the impact to street amenity, and other uses.

15.3 Rationalise kerbside loading zones

Introduce rationalised and timed Loading Zones to support servicing at sites without on-site provision. Educate the community to reduce non-compliance and use smart signage to optimise kerbside deliveries throughout the day.



Storage of private bins on footpaths: Kembla Street, Wollongong

Consolidated bin storage: UK (metroSTOR)

Car Parking



Strategic Direction 16 Manage parking demand and allocation

Managing parking across Wollongong is key to protecting lifestyle, supporting economic activity, and enabling public transport improvements. Achieving desired mode shift requires careful allocation and management of parking space.

Opportunities:

16.1 Recognise that parking is a shared public resource

On-street public car parking should be managed to be shared fairly. When people park their cars on the street, they are making use of a public resource- one that offers convenience but should be understood that this is not a guaranteed right.

16.2 Prioritise community safety and amenity over car parking

Safety improvements to the road environment for people will take precedent over car parking.

16.3 Preserve public open space

Public open spaces like parks, reserves, and verges (nature strips) are valuable parts of the community's shared natural environment and need to be preserved. Better parking management, and alternative transport modes should be utilised over existing parking areas expanding into open spaces.

16.4 Introduce maximum parking rates to new developments

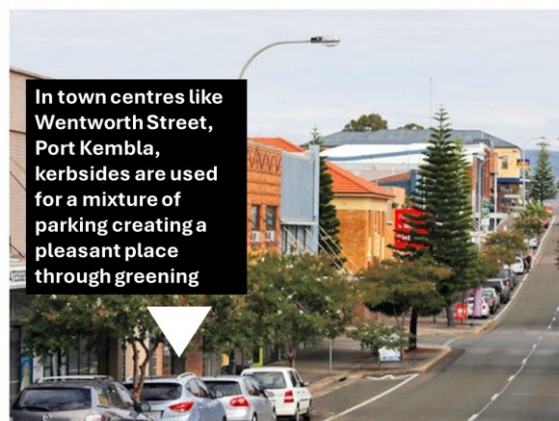
Maximum parking rates are appropriate to be implemented in areas where development is supported by access to alternative public and active transport choice.

16.5 Support shared parking agreements

Support increased utilisation of parking through establishing shared parking agreements between sites/uses. For example, schools, university, places of worship, may have complementary peaks and capacity.

16.6 Utilise timed parking and/or paid parking in high demand areas

Increase parking availability and support sustainable transport alternatives through application of the following principles outlined in Table 4.



Town centre kerbside parking: Wentworth St, Port Kembla:
Wentworth St, Port Kembla:

High-Demand Foreshore Parking location: Flagstaff Hill,
Wollongong.

High demand residential area: Murphys Ave, Keiraville.

Table 5 Parking Type Principles

Parking	Principles for Appropriate Use	Locations
5 Minute & Pick up Drop-off	Supports frequently uses where people are frequently dropped off or picked up, and where quick turnover is essential to support access and circulation.	Cinemas, Post offices, Hotels, Business districts, School zones, Childcare.
¼ hour	Locations where quick pick-up and set-down is needed, particularly outside schools and high turn-over commercial facilities that offer high level of convenience. This parking duration is intended for motorists who are visiting a single destination and require only a brief stop. It supports rapid turnover while maintaining accessibility for short-term users.	Coffee shops, Post offices, Newsagents, Pharmacies, Fast food/Take away.
1/2 hour	Directly outside local shops that depend on offering a high level of convenience to remain competitive. These areas typically experience high parking demand, and longer durations—such as 1-hour parking would result in insufficient turnover. This restriction provides quick access to multiple nearby shops (typically 2-3).	Local shops, convenience-based retail.
1 hour	In locations where parking demand is high and the expected activity duration exceeds 30 minutes. This duration supports longer visits while still encouraging turnover.	Major shopping centres.
2 hour	Commonly suited to areas with professional and personal service developments, where longer visits are typical. The 2-hour limit is effective in discouraging commuter parking, helping to preserve availability for local users.	Commercial, Public open space/Recreation, Tourism.
3 hour	Commonly suited to areas where commuter parking is discouraged in the City Centre. The 3-hour limit aims to prevent vehicles from occupying spaces for half the workday by reducing the practice of vehicle shuffling. This is effective in increasing turnover in high-demand areas, reducing long-stay commuter parking, and providing more equitable access to limited parking resources.	Commercial, Tourism, Recreation.
4 hour	Areas where the goal is to prevent all-day commuter parking while still allowing access for local users. It provides a balance between turnover and flexibility for longer visits. Effective when located near major shopping centres or mixed-use developments and when used in conjunction with off-street car parks to manage kerbside demand.	Commercial, Tourism, Recreation.
Unrestricted	All-day parking typically serves employees or park-and-ride users and may occur across a variety of development types.	Fringe of business and industrial centres, residential areas
Bus Zones	Bus stops within designated bus zones must be provided exclusively for public buses and positioned at appropriate intervals along bus routes to ensure convenience for passengers and accessibility for bus drivers.	All areas
Loading Zones	To be provided to support the efficient pick-up and delivery of goods. These zones should be in convenient positions within business and industrial areas where regular demand for loading and unloading exists. Ideally, they should be placed at the end of a parking section to allow vehicles to enter and exit without obstruction.	All areas
No Stopping	Primarily applied to enhance safety and maintain traffic flow where parked vehicles would otherwise obstruct movement and reduce visibility. May operate during peak periods only to support traffic flow, allowing kerbside parking during off-peak business hours.	All areas
No Parking	Used in areas to prohibit vehicles stopping unless the driver is actively picking up or setting down goods or passengers.	All areas

16.7 Support population growth and economic competitiveness through managing kerbsides

How we use kerbsides matters – kerbside use in shopping areas impacts retail vibrancy. Shifting from exclusive parking to mixed use kerbs can boost both amenity and business vitality (Figure).

In appropriate locations, shift from parking-exclusive kerbs to repurpose some parking for higher-order uses such as outdoor dining or bike parking, to stimulate local economic activity. In commercial areas consider parking restrictions where commuter parking impacts parking opportunities supporting local businesses.

16.8 Review off-street parking to determine the highest and best use in high demand areas

Infrastructure investment and renewal into off-street carparks should consider the highest and best use for the community that improve activity and amenity.

Uses could include consolidated multi-level car parking, commercial, housing, community facilities and public open space.

16.9 Assess the potential of consolidated off-street commuter parking to optimise the use of parking on public land

Consolidated parking, and/or shared parking, especially when supported by express bus services, offers numerous benefits, including reduced traffic congestion, more efficient use of public space, and potential cost savings.

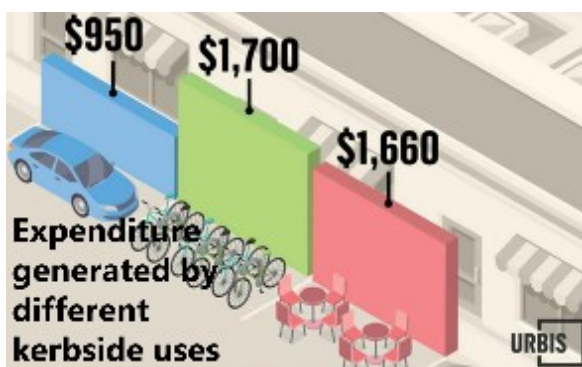
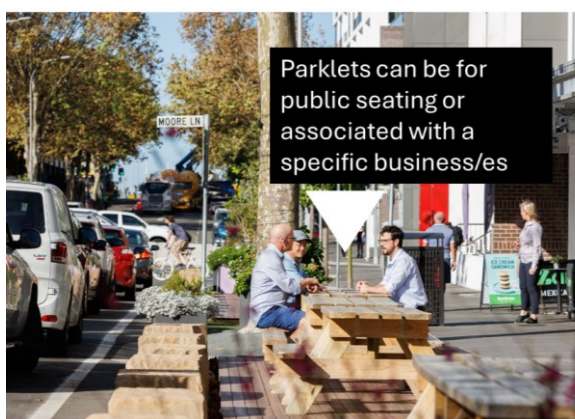


Figure 57 Daily expenditure generated by different kerbside uses (Urbis, 2021)



Mixed use kerbs for economic competitiveness: Lower Crown Street, Wollongong

Commuter Carpark Manly Vale, supports B Line Bus

Strategic Direction 17 Improving parking efficiency through system improvement

The use of technology can make it easier to find a park, reduce overall parking demand and free up supply in hotspots.

Opportunities:

17.1 Encourage carshare

Provide more opportunities for households to reduce the number of vehicles they own or to not own a car by supporting carshare both on-street and in developments. This will have significant financial savings for the community.

17.2 Support EV Charging on-street in the short term

EV charging will take place primarily at service stations or as part of developments. As an interim measure Council should support temporary EV charging points being deployed in selected kerbside and carpark locations.

17.3 Investigate smart parking signage advisory systems

Appropriate directional signage with real-time information for parking availability can reduce traffic from cars seeking spaces.

17.4 Investigate opportunities for dynamic parking that does not include dynamic pricing

Building flexibility into the parking systems by changing the type or period of parking provides the opportunity to respond to events, the time of day, and seasonal demands and provide an ongoing data source to Council.



Carshare: Facilitated through kerbside parking location

Smart Parking Signage: Concept sign for Council Library site

EV charging: On Street location George Street, Wollongong



On Dharawal Country, from the mountains to the sea, we value our natural environment, we respect each other, our past and future. We will be a sustainable, connected, vibrant, and innovative city, with a diverse economy.

We are a sustainable and climate resilient city

We have well planned, connected, and liveable places

We foster a diverse economy, and we value innovation, culture, and creativity

We have a healthy, respectful, and inclusive community



Wollongong City Council

wollongong.nsw.gov.au

Phone (02) 4227 7111



Attachment 1: Transport Action Plan

This Transport Action Plan (Action Plan) delivers against Goal 2 of the draft Community Strategic Plan: *We have well planned, connected and liveable places.*

This Action Plan details what key projects are needed to realise the Vision, Goals and Strategic Directions outlined in the Wollongong Transport Strategy (Transport Strategy).

Each action plays a vital role in shaping a future where transport is accessible and fair to all. This includes embracing and promoting changes in behaviour. By working together, and changing how we think about and use transport, we can create a system

that benefits both people, and the Country, ensuring a better future for everyone.

Actions will need to be prioritised and localised where appropriate to deliver a sustainable transport system that supports thriving, connected communities and is safe and accessible for across the Wollongong LGA.

Time is of the essence. The action we take now will ease pressure on the current community and benefit future generations to come.

Change takes times, vision, collaboration and measurable actions.

The role of the Action Plan

Purpose of the Action Plan is to guide the programming and delivery of key projects and actions in a collaborative and coherent way.

This document complements the Transport Strategy by ensuring:

- SMART Actions are identified and prioritised - in sufficient detail enabling the implementation process to commence to facilitate the incremental delivery of the Transport Strategy
- Responsibility is clear - with tasks and projects broken down into achievable actions, aligned with the Annual Plan with clear lines of responsibility.
- Expectations are managed - clarifying which projects are Council led, which projects have secured funding and timeframes for delivery and clearly reporting unfunded projects.
- Governance is tested - with a requirement for Council to review the processes and framework needed to give weight to the intent of the Transport Strategy in planning and resourcing.

The Action Plan remains flexible and will continue to be refined over time through Council's Integrated Planning and Reporting process. This flexibility also allows for amendments were required to reflect new data availability and community insights as they are made available.

The extent to which the precise timing, responsibility and funding for each action can be predicted varies greatly and will vary over time. It is important to recognise that some actions will require leadership and funding outside of Council control and that actions need to be prioritised considering other projects and their resource implications across the Wollongong LGA.

The Action Plan needs to be a robust document which can evolve over time, respond to changing demands and allow for transparent reporting. The Actions will be reviewed regularly to ensure its ongoing relevance, to ensure future opportunities and constraints can be captured and integrated into the annual planning and business reporting process. Unfunded actions are a transport service improvement and will require an internal Business Proposal for funding or funding support from NSW or Federal Government.

Legend					
Agencies					
LGA or Wollongong	Wollongong Local Government Area				
Council	Wollongong City Council				
TfNSW	Transport for NSW				
DPHI	Department Planning, Housing and Infrastructure				
UOW	University of Wollongong				
DW	Destination Wollongong				
NPWS	National Parks and Wildlife Services				
Timing					
Short	1-2 years				
Medium	3-5 years				
Long	5+ years				
Ongoing	Business as usual involvement or feedback.				
Other					
IDP	Council’s Infrastructure and Delivery Program				
Transport Strategy Goals					
1 Achieve competitive public transport	2 Integrate sustainable transport and land use	3 Ensure all ages and abilities can get around with ease	4 Increase the use of active modes	5 Foster a connection to and sense of Place.	6 Collaborate to deliver change
Transport Modes					
 Place	 Walking	 Cycling	 Public Transport	 Car	 Freight

ID	Action	Action Description	Responsibility (<u>Lead</u> , <u>Support</u>)	Timing	Funding	Funding Source	Transport Strategy Goal Alignment						Modes Supported
							1	2	3	4	5	6	
Advocacy													
1.	Advocate for an aligned Regional Transport Plan and delivery of actions	Ensure the Illawarra-Shoalhaven Strategic Regional Integrated Transport Plan acknowledges and responds to the Wollongong Transport Strategy through the inclusion of projects in Council’s Infrastructure Priority Plan. Advocate for associated funding to delivery actions, clear prioritisation and transparency for delivery and reporting.	TfNSW Council	Short	External Funding	Operational	x	x	x	x	x	x	
2.	Adopt a ‘one network’ agreement between Council and TfNSW	Adopt a ‘one network’ approach through an executed agreement between Council and TfNSW including: - Roles and responsibilities on asset ownership and maintenance. - Data and information sharing capabilities to deliver integrated transport solutions - Project prioritisation of investment to achieve mode shift and public transport accessibility <i>Consider the role of the DPHI and State Led planning approvals in this agreement.</i>	TfNSW Council DPHI	Short	In Budget	Operational	x	x	x	x	x	x	
3.	Advocate for State and Federal transport investment	Advocate for the Wollongong and Region’s fair and strategic share of transport investment. Including the timely delivery of transport infrastructure and services and to support future planned growth and a diversification of the community.	TfNSW DPHI Council	Ongoing	In Budget	Operational	x	x	x	x	x	x	
4.	Advocate for legislative updates to support efficient, contemporary and best practice transport	Advocate for updates to legislation that reflect the Movement and Place Framework approach and make approval processes clearer and simpler for place-based uses in Streets.	TfNSW Council	Ongoing	In Budget	Operational	x	x	x	x	x	x	
5.	Advocate for improved access to TfNSW and State data	Advocate for the continued and improved access to data including crash statistics, Household Travel Survey. Request efficiency in updates, and a consistent and reoccurring data capture.	TfNSW Council	Ongoing	Subject to funding	Operational	x	x	x	x	x	x	
6.	Advocate for the funding of the design and delivery of the Strategic Cycleway Corridor	Contribute to the design and delivery of the Strategic Cycleway Corridors, towards a connected network across council boundaries, and to local cycleways to make riding an attractive option for everyday trips.	TfNSW DPHI Council	Short	Subject to funding	Operational		x		x		x	
7.	Advocate for the transition to clean, renewable energy public transport	Transition public transport fleets to cleaner energies that are sustainable and support the improved amenity (noise, air pollution) of our road and street network. Advocate for all new fleets in the region to be fuelled by renewable energy.	TfNSW Council	Ongoing	Subject to funding	Operational	x	x	x			x	
8.	Advocate for ongoing funding for improved Public Transport Services	Fund and deliver on a Public Transport Service improvements that: Supports mode shift – buses, train, car share and micromobility	TfNSW DPHI Council	Ongoing	Subject to funding	Operational	x	x	x	x		x	

ID	Action	Action Description	Responsibility (Lead, Support)	Timing	Funding	Funding Source	Transport Strategy Goal Alignment						Modes Supported
							1	2	3	4	5	6	
		- Considers new or alternative modes such as rapid buses, trackless trams, on-demand buses - Responds proactively to future and existing planned residential density including in Urban Release Areas - Provides a high service standards (frequency, travel time, journey time reliability and span of hours - Considers accessibility – physical and financial											
9.	Advocate for rapid public transport services	Advocate for rapid transport services such as: - between Wollongong and Oak Flats via Shellharbour City Centre and Wollongong and West Lake Illawarra - between NSW Health Precinct, Wollongong Station and Wollongong Foreshore via Crown or Burelli Streets - On-demand public transport	TfNSW DPHI Council	Ongoing	Subject to funding	Operational	x		x			x	
10.	Fund and deliver Public Transport Services for West Dapto Urban Release Area	Fund and deliver a Public Transport Service Plan that responds proactively to planned residential density and can be used to advocate for improvements. The Plan will: - Map existing and proposed road corridors as defined in the Wollongong DCP. - Maps proposed densities and land use functions - Considers corridors that support alternative transport functions - Support mode shift – buses, train, car share and micromobility - Provide a high service standard (frequency, travel time, journey time reliability and span of hours - Consider accessibility – physical and financial	TfNSW DPHI Council	Ongoing	Subject to funding	Operational	x	x	x			x	  
11.	Advocate for Station upgrades that support the function of these precincts as multi-modal interchanges	Advocate for ongoing Station upgrades that support the function of these station precincts as multi-modal interchanges including: - Secure bike sheds and bike parking - Clear wayfinding - Digital timetable signage - Optimise space for drop off and pick ups - Accessible and legible entrances and exits - Permeability within the surrounding places and precincts - Platform width and length to support future capacity	TfNSW DPHI Council	Ongoing	Subject to funding	Capital	x	x	x	x	x	x	    
12.	Advocate for streamlined speed zones which may include 30km/h zones in	Council will work with TfNSW for consistent speed zones as recommended in the NSW Speed Zoning	TfNSW Council	Ongoing	Unfunded	Operational and Capital	x	x	x	x	x	x	    

ID	Action	Action Description	Responsibility (Lead, Support)	Timing	Funding	Funding Source	Transport Strategy Goal Alignment						Modes Supported
							1	2	3	4	5	6	
	targeted areas such as some school zones or town centres	Standard which says "Speed zone changes along a route should be kept to a minimum".											
13.	Advocate for continued support and enhancement of the Wollongong Gong Shuttle	Continue to support the Wollongong Gong Shuttle, extending hours to cater for nighttime economy, weekends and integrating with other transport modes.	TfNSW Council UOW	Ongoing	In budget	Operational	x	x	x		x	x	 
14.	Advocate for a Southern Gong shuttle	Advocate for a Southern Gong shuttle, connecting Wollongong City Centre to southern suburbs including major redevelopments such as BlueScope Lands and Warrawong. The route should include utilisation of park and ride facilities.	TfNSW Council	Ongoing	Subject to funding	Operational and Capital	x	x	x		x	x	 
Projects													
15.	Develop a funding model to actively pursue revenue streams to support transport mode shift	Develop a funding model that identifies revenue streams to facilitate increased investment in projects which contribute to increasing walking, cycling and public transport.	Council	Medium	Unfunded	Operational and Capital	x	x	x	x	x	x	   
16.	Prepare a strategic Infrastructure Priority Map to advocate for Government investment	Prepare a strategic Infrastructure Priority Map to set clear priorities to seek State and Federal delivery and/or funding for critical infrastructure such as: • Northcliffe Drive Extension to the M1 Motorway • M1 bridge upgrades • Mount Ousley Interchange and active transport bridges • SWIRL/Maldon Dombarton rail link for freight and passenger services • Wollongong Station Precinct Masterplan • Wollongong Health Precinct Plan (DPHI) • Illawarra Sports and Entertainment Precinct • Removal of level rail crossings • More Trains More Services • Train Station Upgrades • Major land redevelopments – Bluescope Masterplan, Warrawong, Wollongong City Centre and West Lake Illawarra	Council	Ongoing	In Budget	Operational	x	x	x	x	x	x	     
17.	Deliver priority transport corridors	Fund the design and construction of short-term on-road measures to key movement corridors to prioritise public transport movements. Measures could include: • Dedicated bus traffic light signalling • Queue jumps • Bus lanes on key transport corridors	TfNSW Council	Ongoing	Unfunded	Capital	x					x	
18.	Upgrade Bus Stops to meet compliance	Develop an implementation plan for a variety of bus stop upgrades types to deliver accessibility	Council TfNSW	Ongoing	In Budget / Unfunded	Capital	x		x	x	x	x	  

ID	Action	Action Description	Responsibility (Lead, Support)	Timing	Funding	Funding Source	Transport Strategy Goal Alignment						Modes Supported
							1	2	3	4	5	6	
		compliance, prioritising high-use public transport stops specifically Bus Stops. Bus Stop upgrade will reflect context, demand, and maintenance considerations and include a variety of typologies including: • Grass Verge • Hard stand area • Seat • Shelters • B Poles only • Designated bus zone on street											
19.	Embed the Movement and Place Framework approach into key projects	Embed place-based Movement and Place approach early in the process for precinct strategies, master plans and major projects to ensure access to and through is considered and scoped. Plans will include: • Connection to Country • Movement and Place Road and Street Functions aligning with precinct vision • Existing built environment asset assessment • Alignment with NSW Road User Space Allocation Policy, Safer Systems Approach and Design of Roads and Streets Guideline • Multimodal access and movement provisions • Mode shift options	<u>Council</u>	Ongoing	In Budget / Unfunded	Operational	x	x	x	x	x	x	
20.	Finalise and seek endorsement of the Wollongong City Centre Movement and Place Plan	Deliver the Wollongong City Centre Movement and Place Plan through Council's Delivery Program process as funds are available. The Plan provides a framework to chart a future transport network that addresses accessibility and movement and capitalises on the potential for enhancing the City Centre as a destination and centre of civic activity.	<u>Council</u> <i>TfNSW</i>	Short	In Budget	Operational	x	x	x	x	x	x	
21.	Prepare a LGA wide Walking Network Plan	Prepare a Walking Network Plan that identify key pedestrian routes and the strategic implementation approach for priority footpath networks for 10 years for inclusion in Council's IDP Program between: • Schools and education facilities • Town and Village centres • Train stations • Missing links. The plans to consider lighting, crossings and shade/shelter.	<u>Council</u> <i>TfNSW</i>	Medium	Unfunded	Operational			x	x	x	x	
22.	Prepare a Council Policy to support shared transport schemes	Prepare a Council Policy to support shared transport schemes such as e-scooters, e-bikes, EV charging and car shares that:	<u>Council</u>	Medium	Unfunded	Operational and Capital			x	x	x	x	

ID	Action	Action Description	Responsibility (Lead, Support)	Timing	Funding	Funding Source	Transport Strategy Goal Alignment						Modes Supported
							1	2	3	4	5	6	
		• Outlines clear principles • Defines procurement methods and approval processes • Defines commercial charges for use of public land including allocation of space • Sets expectations around evaluation, data collection and reporting • Highlights first/last mile public transport trips, events and tourism experiences such as the coastal paths • Highlights connections between commuter carparks and destinations including train stations.											
23.	Prepare a Council Policy to support commercial activities within roads and streets	Prepare a Council Policy to support commercial activities within roads and streets such as outdoor dining, street parties and parklets that: • Outlines clear principles • Defines procurement methods and approval processes • Defines commercial charges for use of public land including allocation of space • Sets expectations around evaluation, data collection and reporting	<u>Council</u>	Medium	Unfunded	Operational and Capital	x	x	x	x	x	x	
24.	Prepare revised outdoor dining Guidelines	Update Council's outdoor dining guidelines and expand to include parklet design guide and permit scheme and add these into the city's outdoor dining permits	<u>Council</u>	Medium	In Budget	Operational				x	x	x	
25.	Require Green Travel plans for events	Require Green Travel Plans for events, and prepare material templates for promoting Wollongong as a tourist destination accessible by train, bus and bike for people travelling to, and within our LGA	<u>Council</u>	Medium	In Budget	Operational	x	x	x	x	x	x	
26.	Prepare an online infrastructure request map for the community	Deliver a public facing map on Councils website that allows the community to identify and request future transport infrastructure delivery incl cycleways, footpaths, pedestrian crossings, traffic calming for future prioritisation and funding consideration through Councils Infrastructure Delivery Program.	<u>Council</u>	Short	In Budget	Operational			x	x	x	x	
27.	Continue the Safer Routes to School program	Continue the implementation of Council's Safer Routes to School program in partnership with schools to support active transport journeys and proactively seek funding for priority improvements.	<u>Council</u>	Ongoing	In Budget	Operational		x	x	x	x	x	

ID	Action	Action Description	Responsibility (Lead, Support)	Timing	Funding	Funding Source	Transport Strategy Goal Alignment						Modes Supported
							1	2	3	4	5	6	
28.	Prepare a Road Safety Plan to deliver on the Safe Systems approach	Develop a Road Safety Plan and to address road safety and support behaviour change in line with the Safe Systems approach incl: - Analysis of crash trends based on TfNSW data - Focus areas-based crash data - School information sessions - Education and behaviour campaigns - Road rule refreshers - Events - Marketing and Promotional material	<u>Council</u>	Ongoing	Unfunded	Operational			x			x	
29.	Develop a Public Domain Planting Guide for streets and roads	Develop a Public Domain Planting Guide prioritising key walking and cycling routes to reduce urban heat island effect, calm traffic and improve overall amenity to deliver against the Urban Greening Strategy	<u>Council</u>	Long	Unfunded	Operational					x		
30.	Prepare a LGA wide Cycling Network Plan	Prepare a Local Government Area wide Cycling Network Plan that outlines the strategic implementation approach for priority cycleway networks for 10 years for inclusion in Council's Infrastructure Delivery Program	<u>Council</u>	Short	In Budget	Operational		x	x	x	x		
31.	Develop a Freight, Delivery and Servicing Plan for the LGA	To address the changing freight needs associated with population growth, emerging technologies and evolving delivery types, develop a Freight, Delivery and Servicing Plan for the LGA that includes: - Preferred local network heavy vehicle route hierarchy - Upgrades to movement corridors - Future rail freight integration (e.g. Southwest Illawarra Rail Line) - Alignment with National Automated Access System (NAAS) - Centres Kerbside Management Strategy for Loading Zones and No Parking Zones - Off street loading and servicing requirements - Emerging first and last mile technology considerations	<u>Council</u> <u>TfNSW</u> <u>DPHI</u> <u>NSW Ports</u>	Long	Unfunded	Operational		x					
32.	Deliver additional bike parking to support the increasing demand for cycling	Provision of secure cage bicycle parking at all train stations and Council facilities and, on-street bike parking in high-demand areas	<u>TfNSW</u> <u>Council</u>	Ongoing	Unfunded	Capital	x			x		x	
33.	Prepare Walking and Cycling Tourism Map	Develop a walking and cycle-tourism map and web content that incorporates sites and routes that facilitate daily and multi-day bike packing trips such as: - Cringila Hills - NPWS Great Southern Walk - Grand Pacific Walk - Lake Illawarra - Mount Kembla Mountain Bike trails	<u>DW</u> <u>Council</u> <u>NPWS</u>	Long	In Budget	Operational				x	x	x	

ID	Action	Action Description	Responsibility (Lead, Support)	Timing	Funding	Funding Source	Transport Strategy Goal Alignment						Modes Supported
							1	2	3	4	5	6	
		Seacliff Bridge Plan will include multi-modal transport to these offers.											
34.	Develop standard transport drawings and guidelines for streamlined infrastructure delivery by Council and others	Develop standard drawings and a funding mechanism for streamlined infrastructure delivery that supports opportunities of the Strategy and safer places and streets such as but not limited to seating, bike parking, crossings, speed cushions, kerb ramps and water bubblers.	<u>Council</u>	Medium	Unfunded	Operational	x		x	x	x	x	
35.	Prepare a Play on Streets Guideline and Procedure	Develop a 'Play on Streets' Guideline and procedure to create opportunities for small community run events on streets such as street Christmas parties, birthday parties, and school fundraisers.	<u>Council</u> <i>TfNSW</i>	Short	In Budget	Operational					x	x	
36.	Update the Development Control Plan to support the vision and multi-modal transport	Update the Wollongong Development Control Plan to support multi-modal transport planning identified through the Transport Strategy including but not limited to: - Street functions - Parking provisions – private, visitors, car share, bike storage - End of trip facilities - Green Travel Plans - Active transport links - Bike parking within or fronting public domain	<u>Council</u>	Medium	In Budget	Operational	x	x	x	x	x	x	
37.	Develop a parking management policy for high demand areas	Develop a timed and/or paid parking management policy for high demand areas including retail and business centres, foreshore areas and recreational facilities to support optimised land use and utilisation of parking. Policy will include guidance on appropriate timings and cost provisions.	<u>Council</u>	Medium	In Budget	Operational		x	x	x		x	
38.	Prepare a consolidated Local Government Area wide Signage and Wayfinding Strategy	Develop a Wayfinding Strategy and infrastructure design standard for walking and cycling signage including: - Key locations and destinations routes - Suburb Signs - Dharawal stories and language	<u>Council</u> <i>TfNSW</i> <i>DW</i>	Medium	In Budget	Operational and Capital			x	x	x		
39.	Develop an educational and promotional campaign of walking and cycling	Develop a promotional campaign that outlines the benefits of mode shift towards active and public transport.	<u>Council</u> <i>TfNSW</i>	Ongoing	Unfunded	Operational		x	x	x			
40.	Develop and deploy smart data infrastructure to inform decision making	Identify, source, maintain and analyse transport data to enable trend identification, optimised service provision, communication and forecasting. Data to include: - Pedestrian, cycling and vehicle count - Destination and origins - Duration of stay Key data to be made publicly available through an online dashboard hosted by Council, or others.	<u>Council</u> <i>TfNSW</i>	Ongoing	Unfunded	Operational and Capital	x	x	x	x	x	x	

Attachment 2: Bibliography

- Illawarra Business Chamber, n.d. *South West Illawarra Rail Link*. [Online]
Available at: <https://www.nswports.com.au/sites/default/files/Summary%20-%20South%20West%20Illawarra%20Rail%20Link.pdf>
[Accessed 2024].
- .id Informed Decisions, 2025. *Wollongong City Council population forecasts*. [Online]
Available at: <https://forecast.id.com.au/wollongong>
[Accessed 2025].
- ABS, 2016. *Australian Bureau of Statistics, Census, Method of Travel to Work*, s.l.: s.n.
- ABS, 2016. *Austrlain Bureau of Statistics, Census, Method of Travel to Work*, s.l.: s.n.
- ABS, 2021. *Australian Bureau of Statistics: Household Car Ownership*. [Online].
- Austrroads, n.d. *Guide to Traffic Management Part 10: Traffic Control and Communication Devices, Shared Zones*, s.l.: Austrroads.
- Based on NSW Department of Planning and Heritage, n.d. *Early Contact Map: Illawarra*. [Online]
Available at:
www.environment.nsw.gov.au/resources/cultureheritage/illawarraAboriginalHistoryPoster.pdf
- Brink, C. v. d., n.d. *Krach von Utrecht via De Correspondent*, s.l.: s.n.
- Calcea, N., 2022. *How Google Maps is runining your neighbourho*. [Online]
Available at: <https://citymonitor.ai/community/neighbourhoods/google-maps-local-traffic>
- Climate Change Authority, 2025. *Opportunities to reduce light vehicle emissions in Australia*. [Online]
Available at: <https://www.climatechangeauthority.gov.au/reviews/light-vehicle-emissions-standards-australia/opportunities-reduce-light-vehicle-emissions>
[Accessed 2025].
- From the collections of the Wollongong City Libraries and the Illawarra Historical Society, P21625,, 1979. s.l.: s.n.
- From the collections of the Wollongong City Libraries and the Illawarra Historical Society, P21625,, 1992. s.l.: s.n.
- From the collections of the Wollongong City Libraries and the Illawarra Historical Society, P32591, 1992. s.l.: s.n.
- Humphries, G., 2015. Laser to detect University Ave overpass at Gwynneville truck clearance. *Illawarra Mercury*, 19 January.
- Infrastructure Australia, 2023. *M1 Princes Motorway (Mount Ousley) safety and resilience improvements*. [Online]
Available at: <https://www.infrastructureaustralia.gov.au/map/m1-princes-motorway-mount-ousley-safety-and-resilience-improvements>
[Accessed 2025].
- Lee, A. & March, A., 2010. Recognising the economic role of bikes: sharing parking in Lygon Street, Carlton. *Australian Planner*.
- Nello-Deakin, S., 2022. Exploring traffic evaporation: Findings from tactical urbanism interventions in Barcelona. *Case Studies on Transport Policy*, Volume 10(Issue 4), pp. 2430-2442.

New Zealand Transport Agency, 2021. *Evaluation of Ngā Haerenga | Great Rides and the New Zealand Cycle Trails and Cycle Tourism Insights Research Report*, Wellington: s.n.

NSW 24-Economy Commission, 2024. *NSW 24-Hour Economy Strategy: A new state of night*, Sydney: NSW Government .

NSW 24-Hour Economy Commission , 2024. *NSW 24-Hour Economy Strategy* , Sydney: NSW Government .

NSW Department of Planning and Heritage, n.d. *Early Contact Map*. [Online]

Available at:

www.environment.nsw.gov.au/resources/cultureheritage/illawarraAboriginalHistoryPoster.pdf

[Accessed 2023].

NSW Government, 2022. *Women's Opportunity Statement*. [Online]

Available at: https://www.nsw.gov.au/sites/default/files/2022-11/20220701_02_2022-23-Budget-Paper-Womens-Opportunity-Statement-Glossy.pdf

[Accessed 2024].

Pearson, L. e. a., 2023. What a girl wants: A mixed-methods study of gender differences in the barriers to and enables of riding a bike in Australia. *Transportation Research Part F: Traffic Psychology and Behaviour*, Volume Volume 94, Monash University, Australia..

Plan International Australia, 2018. *Sexism in the city: Young women speak up about street harassment*. [Online]

Available at: <https://www.plan.org.au/wp-content/uploads/2020/08/sexism-in-the-city-young-women-speak-up-about-harassment-in-sydney-2018.pdf>

[Accessed 2024].

Profile .id, 2016. *Method of Travel to Work, Wollongong*. [Online]

Available at: <https://profile.id.com.au/wollongong/travel-to-work>

PTC Consultants, 2023. *Wollongong City Centre Parking Survey*, North Sydney: s.n.

Rissel, C., et al, 2012. Physical Activity Associated with Public Transport Use - A review and Modelling of Potential Benefits.

Sydney Tramway Museum, 1981. Tramway Operations in the Illawarra. *Trolley Wire*, Issue 196.

Transport for NSW, 2018-19. *Household Travel Survey*, NSW: s.n.

Transport for NSW, 2018. *NSW Freight and Ports Plan 2018 -2023*, s.l.: s.n.

Transport for NSW, 2020. *Cycleway Design Toolbox*. [Online]

[Accessed 2023].

Transport for NSW, 2020. *Public Transport Accessibility Level (PTAL)*. [Online]

[Accessed 2023].

Transport for NSW, 2022. *Neighbourhood Activity Guidelines - Road Access Permits and Temporary Road Closures*. [Online]

Available at: <https://www.transport.nsw.gov.au/operations/roads-and-waterways/business-and-industry/using-roads-bridges-and-other-structures-for-0>

[Accessed 2025].

Transport for NSW, 2023. *Safer Cities Survey Report: Perceptions of safety in public spaces and transport hubs across NSW*, Sydney: Transport for NSW.

Transport for NSW, 2024. *Crashstats: Road Fatalities in Wollongong*, s.l.: s.n.

Transport for NSW, 2024. *Design of Roads and Streets Manual*, Sydney: Transport for NSW.

Transport for NSW, 2024. *Mariyung fleet*. [Online]

Available at: <https://www.transport.nsw.gov.au/projects/current-projects/mariyung-fleet>
[Accessed August 2024].

Transport for NSW, 2024. *More Trains More Services*. [Online]

Available at: <https://www.transport.nsw.gov.au/projects/more-trains-more-services>
[Accessed August 2024].

Transport for NSW, 2024. *Road User Space Allocation Policy*. [Online]

Available at: https://www.transport.nsw.gov.au/system/files/media/documents/2024/road-user-space-allocation-policy_july-2024.pdf
[Accessed October 2024].

Transport for NSW, 2025. *Practitioner's Guide to Movement and Place*. [Online]

Available at: <https://www.movementandplace.nsw.gov.au/place-and-network/guides>

Transport for NSW, 2025. *Trip Planner*. [Online]

Available at: <https://transportnsw.info/trip>
[Accessed 2025].

Transport for NSW, n.d. *2026 Road Safety Action Plan: Towards Zero Trauma on NSW Roads*, s.l.: s.n.

Transport for NSW, n.d. *Speeding and fatalities*. [Online]

Available at: <https://www.transport.nsw.gov.au/roadsafety/topics-tips/speeding#:~:text=Have%20your%20say-Get%20the%20facts,1141%20people%20are%20seriously%20injured.>
[Accessed 2025].

Transport for NSW, October 2024. *South Coast Line Train Timetable*, NSW: s.n.

UN Environment Programme, 2016. *Urgent investment needed in walking and cycling infrastructure to save millions of lives and combat climate change*, s.l.: UNEP.

Urbis, 2021. *Economic benefits of dining parklets, bike parking and car parking*. [Online]

Available at: <https://www.linkedin.com/pulse/economic-benefits-dining-parklets-bike-parking-car-alison-lee/?trackingId=FkOHOR%2BDQK6a0j1qqTtcsA%3D%3D>

Urbis, 2023. *Attractive Streets Attract More People*. [Online]

Available at: <https://urbis.com.au/insights-news/attractive-streets-attract-more-people/#:~:text=According%20to%20research%20undertaken%20by,for%20businesses%20across%20the%20street.>

Vivendi Consulting, 2024. *Submission to the National Urban Policy Consultation*. [Online]

Available at: <https://www.infrastructure.gov.au/sites/default/files/documents/nupc-vivendi-consulting.pdf>
[Accessed 2025].

Watkins, K. E., 2011. Where Is My Bus? Impact of mobile real-time information on the perceived and actual wait time of transit riders. *Transportation Research Part A Policy and Practice*, 45(8), pp. 839-848.

Wollongong City Council and Taverner Research Group, 2023. *Wollongong City Council Community Satisfaction Survey*, Wollongong: s.n.

Wollongong City Council, 2020. *Disability Inclusion Action Plan*. [Online]
Available at: <https://our.wollongong.nsw.gov.au/58034/widgets/296484/documents/171456>
[Accessed 2024].

Wollongong City Council, 2023. *Community Satisfaction Survey*. [Online]
Available at: https://www.wollongong.nsw.gov.au/__data/assets/pdf_file/0019/211942/Wollongong-City-Council-Community-Satisfaction-Survey-2023-Report.pdf
[Accessed 2025].

Wollongong City Council, 2025. *Community Strategic Plan*, s.l.: s.n.

Wollongong City Council, 2025. *Ongoing Tracks Modelling Tests for West Dapto Urban Release Area*. s.l.:s.n.

Wrangborg, P., 2005. *A new approach to a safe and sustainable road structure and street design for urban areas*, Linköping, Sweden: Swedish National Road and Transport Research Institute.

Image citations:

Fairfax Media (1986), Crown Street Mall, Wollongong [Photograph], Wollongong City Libraries Image Catalogue,
<https://wollongong.spydus.com/cgi-bin/spydus.exe/ENQ/OPAC/BIBENQ?SETLVL=&BRN=575240>

Fairfax Media (1972), Port Kembla and Inner Harbour [Photograph], Wollongong City Libraries Image Catalogue,
<https://wollongong.spydus.com/cgi-bin/spydus.exe/ENQ/OPAC/BIBENQ?SETLVL=&BRN=561753>

Fairfax Media (1993), Wollongong - Dapto railway electrification [Photograph], Wollongong City Libraries Image Catalogue,
<https://wollongong.spydus.com/cgi-bin/spydus.exe/ENQ/OPAC/BIBENQ?SETLVL=&BRN=475447>

Fairfax Media (1992), Cycle way at Towradgi [Photograph], Wollongong City Libraries Image Catalogue,
<https://wollongong.spydus.com/cgi-bin/spydus.exe/ENQ/OPAC/BIBENQ?SETLVL=&BRN=611722>

Growth Centres Commission (2008), reproduced in Wollongong City Council (2018) *West Dapto Vision*. [Online]. Available at:
wollongong.nsw.gov.au/__data/assets/pdf_file/0032/9986/West-Dapto-Vision-2018.pdf