Travel Zone Projections 2024 (TZP24) Summary Factsheet

January 2025

Transport Modelling Function/Transport Planning

transport.nsw.gov.au

NSW GOVERNMENT

Transport pays respect to Elders past and present, and recognizes and celebrates the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of NSW.

Acknowledgement of Country

What are Travel Zone Projections (TZP)?

The Travel Zone Projections (TZP) are modelled small area estimates of land use (known as Travel Zones) for 2021-2066. At a high level, the data covers three dimensions:

- **Time Period:** Annual 2021-2031, 5 yearly 2031-2066
- **Geography:** 4,236 Travel Zones, in Travel Zone 2021 (TZ21) geography across NSW
- **Variables:** 60+ variables covering population, dwellings, workforce and employment.

TZP provide a long-term view of the future aligned with the NSW Government's Common Planning Assumptions (CPA) population and employment projections.

The projections are developed to support a strategic view of NSW and are calibrated as an input into TfNSW travel models, including the Strategic Travel Model (STM).

The TZP projections are not based on specific assumptions about future new transport infrastructure but do take into account known land-use developments underway or planned, and strategic plans.

Travel Zone Projections 2024 (TZP24) are the latest projections and align with the 2024 NSW Government CPA for Population and Employment.

- The projections incorporate results of the National Census conducted by the ABS in August 2021.

- The projections present a small area geography, long-term view of the future patterns of population, dwellings, workforce and employment across NSW.

- The projections rely on best available information as at early 2024. Caution is recommended as they are forward looking estimates only and not meant to be absolute forecasts of population and employment for NSW.

- The projections are not government targets.

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TZP24 – Limitations & cautions

Travel Zone Projections are a strategic state-wide dataset and caution should be exercised when considering results at detailed breakdowns.

- The TZP24 outputs represent a point in time set of projections.

- Travel Zone (TZ) level outputs are projections only and should be used as a guide.

- As a general rule, TZ level projections are illustrative of a possible future only.

- A high degree of caution should be exercised when using the TZP dataset at more detailed levels. Results for an individual TZ should not be considered accurate, even in base or historic years, as source data is generally not available at this geographic extent. Instead, estimates have been derived using rules to disaggregate source data from larger geographic areas down to this level. As with all small area data, aggregation of travel zone projections to higher geographies leads to more robust results.

- Users should further note that comprehensive analysis of individual sites or precincts has not been undertaken in the development of TZP.

- Population and employment estimates in the base year (2021) may not align with published ABS Census results as they are adjusted for Census undercount.

Alignment to 2024 Common Planning Assumptions

- TZP24 Estimated Resident Population (ERP) outputs align with DPHI's ERP control totals for the State and SA2.

- Population in Occupied Private Dwellings (POPD) and Population in Non-Private Dwellings (PNPD) added together in TZP24 align with DPHI's ERP at the SA2 level.

- More detailed breakdowns of the population dataset, such as by age and sex may not align perfectly due to minor differences in modelling approach and the use of spatial concordances.

- TZP24 Structural Private Dwelling outputs align with DPHI's Implied Dwellings projections at SA2 level.

- An assessment of the reliability of the TZP data has been completed, with a view to inform the best way to use it.

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Key inputs to Travel Zone Projections 2024

The base year distribution of population is aligned to the National Census conducted by ABS in 2021 and future growth in population is aligned with population projections and housing supply forecasts prepared Department of Planning, Housing and Infrastructure (DPHI) in 2024.

Future employment is aligned with NSW Treasury economic forecasts and industry forecasts prepared using a Computerised General Equilibrium (CGE) model by Victoria University. The future distribution of employment growth is informed by TfNSW custom-built database, the Future Employment Development Database (FEDD).

Summary of key data inputs:

- 2024 NSW Common Planning Assumptions Population Projections (DPHI)

- 2023 Sydney Housing Supply Forecast (DPHI)

- Urban Development Program regional housing data - Greater Newcastle, Central Coast and Illawarra/Shoalhaven (DPHI)

- Sydney Water connections (DPHI)

- NSW Building Approvals (ABS)

- Treasury Intergenerational Report (NSW Treasury)

- 2024 Victoria University Employment Projections (CoPS)

- Future Employment Development Database 2024 (TfNSW)

- Student enrolment data (ACARA)

- Future government schools (SINSW)

- University enrolments (Dept. of Education)

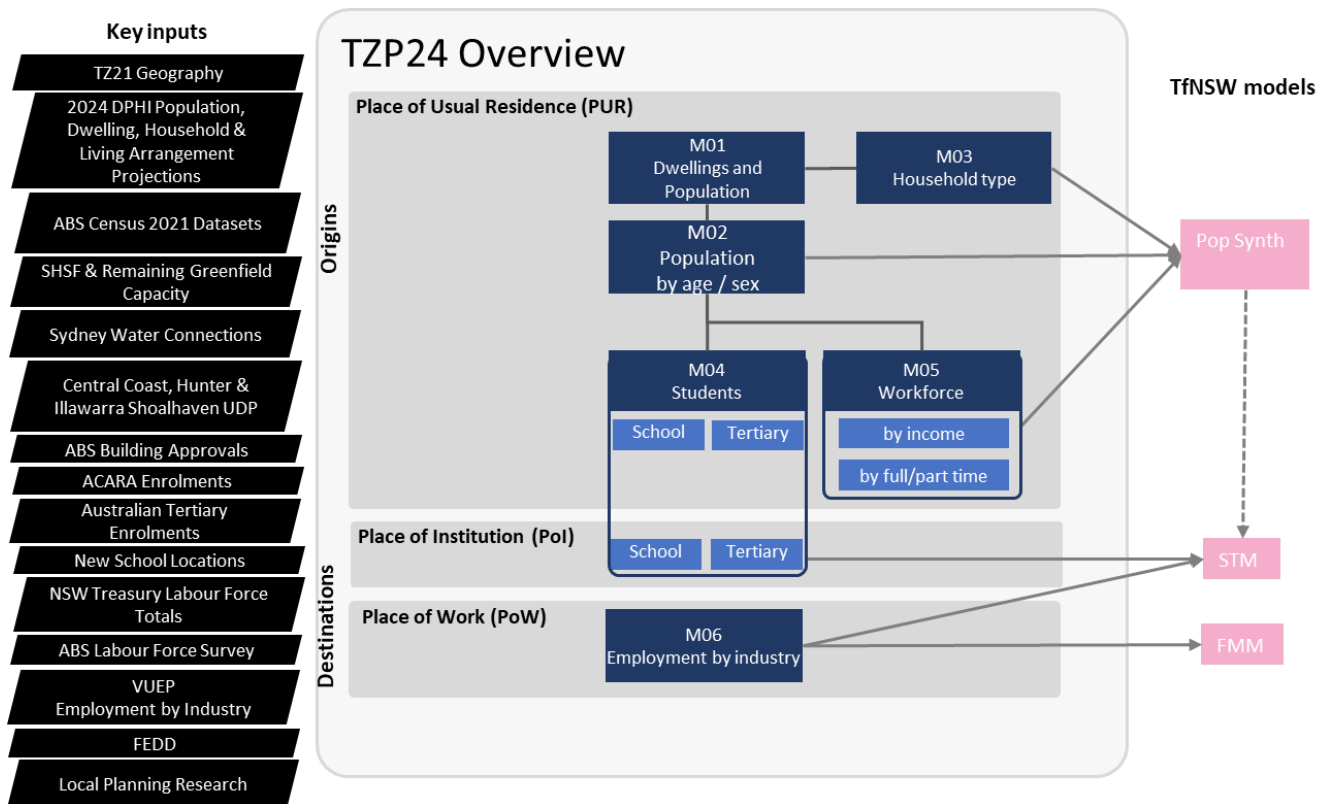OFFICIAL

Future Employment Development Database (FEDD)

- The FEDD is created to provide detailed assumptions about the likely timing, industry breakdown and spatial location of employment generating non-residential developments.

- The 2024 FEDD includes 167 projects, ranging from precincts, to more localised developments such as hospitals.

- A large proportion of projects fall within Greater Sydney.

- Additional projects were added to the FEDD after consultation with various parts of Transport including Regional & Outer Metro and Greater Sydney, other government agencies and review of other sources such as the DPHI major projects register.

- Users can ascertain whether a particular Travel Zone is impacted by a FEDD project from the employment projections summary spreadsheet, which notes the relevant FEDD project name. Users can request more information about the specific assumptions related to a project's size and timing.

- FEDD inputs to TZP24 were tempered where necessary using professional judgement to ensure a reasonable balance between population and employment emerges in future years.

The FEDD contains significant caveats because:

- Revisions to projects and plans occur on an ongoing basis

- Job estimates found in planning documentation are often optimistic or 'best case' scenarios and require adjustment

- Job types identified in planning documentation tend to favour the ability of a project to attract white-collar knowledge workers. As such, the FEDD tends to skew towards knowledge intensive employment, such as Professional, Scientific and Technical Services.

- Project data for many projects is incomplete or contain discrepancies about the number, type and timing of project jobs, and

- There is limited planning documentation about projects beyond a 20-year time horizon.

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TZP24 Model Overview

At a high level, official DPHI SA2 population and dwellings projections are disaggregated to travel zones using a number of small area input sources on current and future development trends. From this, the population is further segmented by age and sex, school and tertiary enrolment type, and workforce status and households are further segmented by household type.

VU Employment Projections at the SA4 level by industry (at 1 digit industry) at POW are used to create employment projections by 33 ANZSIC industries at Travel Zone level. Employment by industry numbers are first disaggregated from the SA4 level to SA3s and finally to travel zones using a number of small area input sources on historical and future employment trends.

Note more details are available in TZP24 Technical Guide

A Glossary of Terms is available at the end of this document.

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Key outputs – Variables published

Dwellings and Population

- Structural Private Dwellings* (SPD) for Regional NSW only

- Estimated Resident Population (ERP) = Population in Occupied Private Dwellings (POPD) + Population in Non-Private Dwellings (PNPD)

Age and Gender

- POPD by Age and Sex - 5 year age groups up to 100+

Workforce

- Workforce (or Labour Force), Persons Aged 15+ - Employed, Unemployed, Not In Labour Force

Employment

- Employment (jobs at Place of Work [PoW]) by 33 Industry categories, 1-digit ANZSIC** and 2-digit for Manufacturing.

** ANZSIC – Australian and New Zealand Standard Industry Classifications (see ABS Cat. 1292.0 for more information).

Important note:
*As per DPHI's published 2024 NSW Population projections, the following variables are excluded from the published TZP24 Population and Dwellings Projections:
- Structural Private Dwellings for Travel Zones in 43 councils across Greater Sydney, Illawarra-Shoalhaven, Central Coast, Lower Hunter and Greater Newcastle
- Occupied Private Dwellings for Travel Zones in NSW
Furthermore, in TZP24, the Structural Private Dwellings variable aligns with the 2024 Implied Dwelling projections while the Occupied Private Dwellings variable aligns with the 2024 Households projections at SA2 level prepared by DPHI.

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Key insights NSW

TZP24 - NSW
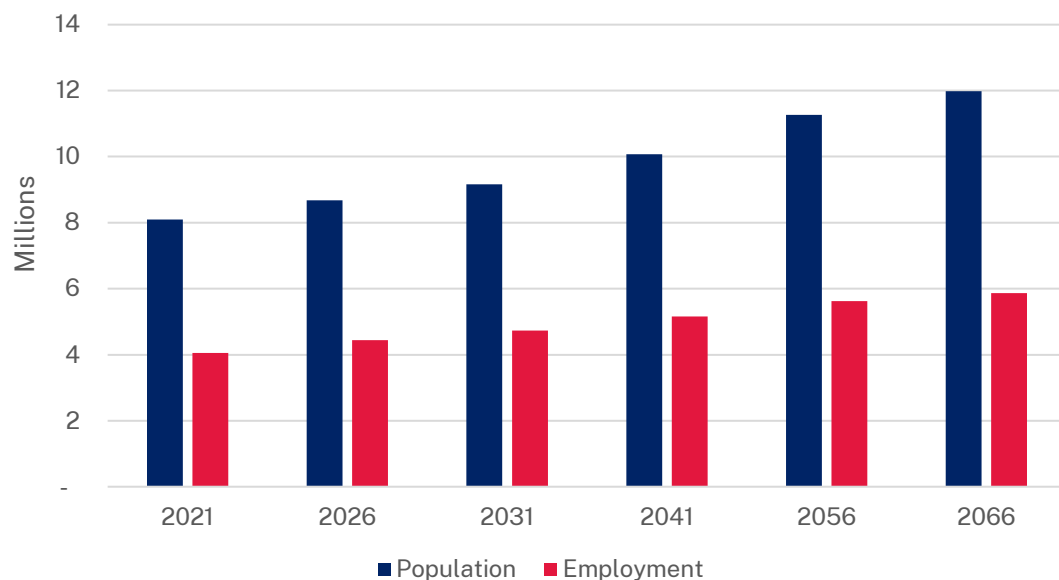
NSW Population is projected to grow from 8.1 million in 2021 to almost 12.0 million in 2066. Much of this growth will occur in the Sydney Greater Metropolitan Area (GMA) which currently has around 79% of the NSW population, and will increase to 83% of the population by 2066. The growth in Dwellings shows a similar trend.

Employment in NSW is projected to grow from around 4.0 million in 2021 to 5.9 million in 2066. The GMA had 81% of the state jobs in 2021 this will increase to 84% by 2066. The ratio of population to jobs across NSW was approximately 2.00 persons for every job in 2021, this will increase by 2066 to 2.04.

Forecast	2021	2026	2031	2041	2056	2066	CAGR 2021-41	CAGR 2041-66
Population	8,097,100	8,680,300	9,161,000	10,070,500	11,261,000	11,984,300	1.1%	0.7%
Employment	4,052,500	4,445,600	4,731,000	5,157,300	5,621,000	5,867,100	1.2%	0.5%

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Key insights Six Cities - Definition

The Greater Sydney Six Cities, are as follows:

- Eastern Harbour City

- Central River City

- Western Parkland City

- Central Coast City

- Lower Hunter and Greater Newcastle City

- Illawarra-Shoalhaven City

These Six Cities represent the Greater Sydney region as defined by Greater Cities Commission Act 2022 No.8*

The Six Cities definition forms part of TfNSWs Sydney Greater Metropolitan Area (GMA) which also includes the LGAs of Dungog, Singleton, and Wingecarribee.

Anything outside of this area is considered as the Rest of NSW.

* https://legislation.nsw.gov.au/view/pdf/asmade/act-2022-8

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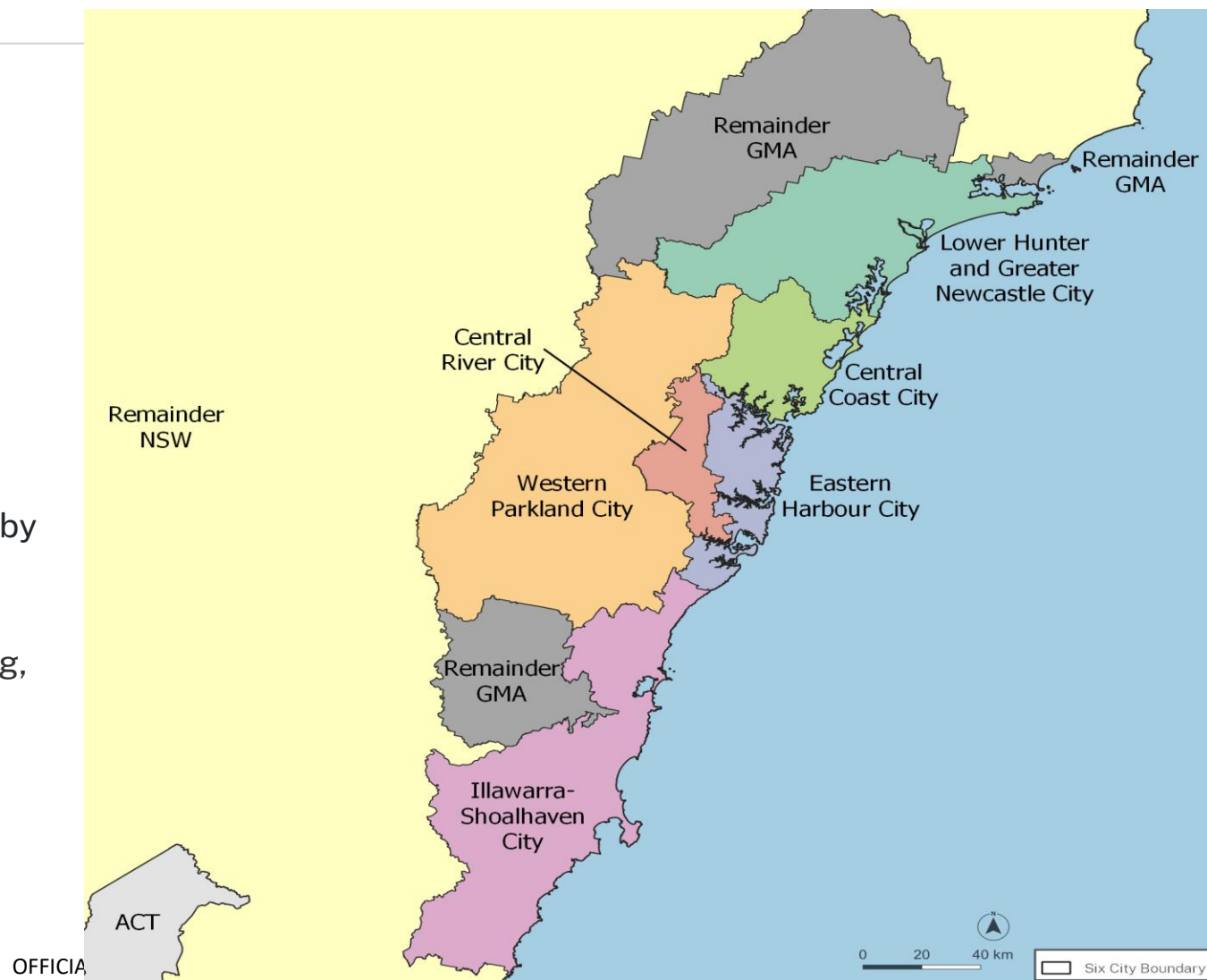
Key insights Six Cities - Population

Growth across the Six Cities is focused on the continued development of the Central River and Western Parkland Cities with 55% of growth between 2021 and 2066 occurring in these areas. This encompasses the key growth areas in Western Sydney as well as the continued development of Greater Parramatta.

20% of total growth in the Six Cities is projected for the key regional cities of Lower Hunter and Greater Newcastle and the Illawarra-Shoahaven, while consolidation of the Eastern Harbour City continues with 20% of growth between 2021 and 2066.

The projections show that population density will increase in the highly urbanised Eastern Harbour City and Central River City as well as growing in the Western Parkland City.

City	2021	2026	2031	2041	2056	2066	CAGR2021-41	CAGR2041-66
Eastern Harbour City	2,135,900	2,268,100	2,372,100	2,544,100	2,727,800	2,845,800	0.9%	0.4%
Central River City	1,615,700	1,797,500	1,938,200	2,178,500	2,436,800	2,600,000	1.5%	0.7%
Western Parkland City	1,161,700	1,283,800	1,365,200	1,578,600	1,908,900	2,087,600	1.5%	1.1%
Central Coast City	348,500	362,700	378,400	408,400	457,200	488,900	0.8%	0.7%
Illawarra-Shoalhaven City	422,400	461,300	499,600	575,200	681,400	751,700	1.6%	1.1%
Lower Hunter and Greater Newcastle City	613,700	654,000	697,900	781,900	911,300	995,700	1.2%	1.0%
Total Six Cities	**6,297,900**	**6,827,500**	**7,251,400**	**8,066,700**	**9,123,300**	**9,769,600**	**1.2%**	**0.8%**

Key insights Six Cities - Employment

Growth in jobs across the Six Cities is focused on the continued development of Sydney, with 81% of growth occurring in this area between 2021 and 2066. Employment will continue to consolidate in the Eastern Harbour City and Central River City. Strong growth will occur in the Western Parkland City with the emergence of the Aerotropolis.

Lower Hunter and Greater Newcastle City is projected to grow strongly, with 8.5% of total jobs growth in the Six Cities occurring in this region between 2021 and 2066. Illawarra-Shoalhaven City will also experience solid growth in jobs over the projection period, with 7.7% of growth occurring in this region between 2021 and 2066.

| City	2021	2026	2031	2041	2056	2066	CAGR2021-41	CAGR2041-66
Eastern Harbour City	1,554,100	1,712,400	1,796,100	1,911,900	2,043,500	2,131,100	1.0%	0.4%
Central River City	644,400	714,300	784,600	877,600	975,300	1,013,500	1.6%	0.6%
Western Parkland City	421,200	475,200	543,900	655,800	754,000	788,800	2.2%	0.7%
Central Coast City	137,200	147,000	154,000	163,600	176,800	185,500	0.9%	0.5%
Illawarra-Shoalhaven City	177,500	196,400	209,500	236,000	276,000	303,400	1.4%	1.0%
Lower Hunter and Greater Newcastle City	296,900	329,800	346,100	373,200	411,800	435,400	1.2%	0.6%
Total Six Cities	**3,231,300**	**3,575,100**	**3,834,200**	**4,218,200**	**4,637,400**	**4,857,700**	**1.3%**	**0.6%**

Key insights Regional NSW - Definition

TfNSW has defined Regional Outer Metropolitan (ROM) areas outside of Greater Sydney.

These are the North, South and West Regions.

- North includes Central Coast City and Lower Hunter and Greater Newcastle City
- West includes regional towns such as Bathurst, Parkes and Orange as well as the Blue Mountains LGA which falls in the Six Cities - Western Parkland City
- South includes Illawarra-Shoalhaven City

ROM	LGAs	TZs
North	33	835
South	33	513
West	30	236

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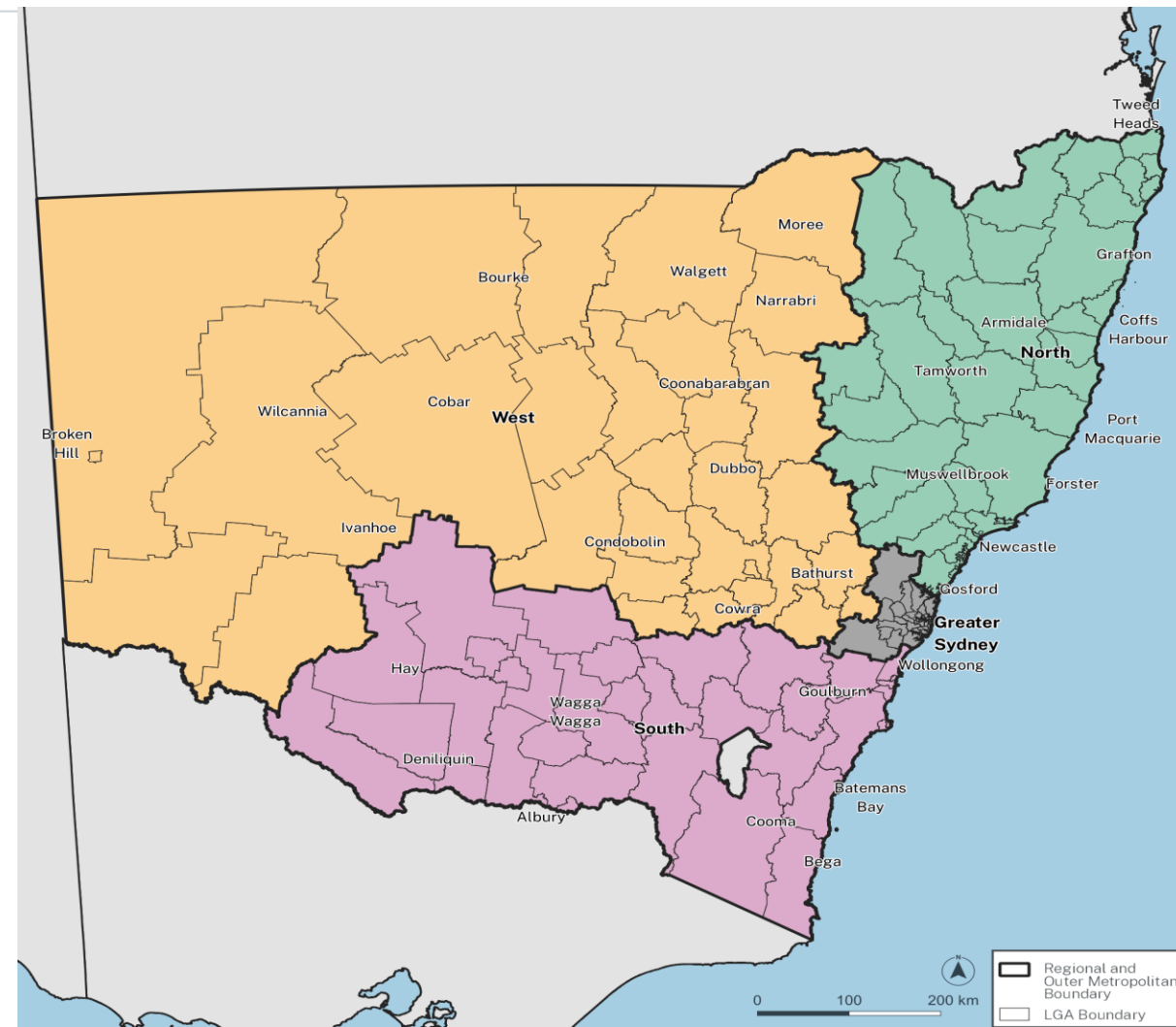
Key insights Regional NSW - Population

A summary of the population growth by region shows all regions are projected to grow. This growth will occur on the fringes of Greater Sydney and existing regional towns.

The North region includes the Central Coast, Lake Macquarie and Greater Newcastle, these areas contain approximately 40% of the population in the region in 2021, increasing to 43% by 2066.

Shoalhaven and Wollongong contain approximately 32% of population of the South region in 2021, increasing to 37% by 2066.

Region	2021	2026	2031	2041	2056	2066	CAGR 2021-41	CAGR 2041-66
North	1,825,200	1,897,100	1,977,400	2,123,200	2,344,500	2,483,200	0.8%	0.6%
South	997,000	1,063,500	1,128,100	1,250,900	1,427,300	1,540,700	1.1%	0.8%
West	439,300	448,800	458,900	474,100	496,700	509,400	0.4%	0.3%
Total ROM	**3,261,500**	**3,409,400**	**3,564,400**	**3,848,200**	**4,268,500**	**4,533,300**	**0.8%**	**0.7%**

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Key insights Regional NSW - Employment

The employment summary shows similar levels of growth to population. Employment in the North region is boosted by employment opportunities in the Lower Hunter and Greater Newcastle City, while the south is boosted by Illawarra-Shoalhaven City.

Other key drivers of employment growth in regional NSW are the Special Activation Precincts of Parkes, Wagga Wagga, Moree and Williamtown and the Regional Jobs Precincts in Albury and South Jerrabomberra (near Queanbeyan).

Region	2021	2026	2031	2041	2056	2066	CAGR 2021-41	CAGR 2041-66
North	811,400	877,300	907,700	953,900	1,017,700	1,058,800	0.8%	0.4%
South	445,300	482,200	511,600	563,400	628,300	669,300	1.2%	0.7%
West	199,400	209,000	213,000	222,300	230,900	234,700	0.5%	0.2%
Total ROM	**1,456,100**	**1,568,600**	**1,632,300**	**1,739,600**	**1,876,800**	**1,962,800**	**0.9%**	**0.5%**

Useful links

Open Data Hub

Many of the TZP24 variables are available for download from the Open Data Hub, including population, dwellings, workforce and employment by searching "TZP24". The TZP24 Technical Guide and spatial files for TZ 2021 Geography can also be found here.

TZP24 Visualisations

TZP24 Travel Zone Map Explorer

The dashboard is available on the TfNSW website and allows users to search for Travel Zones and other geographies and find out current and future population and employment. Interactive maps to view data are available in this Dashboard.

TZP24 Dashboard

The dashboard is available on the TfNSW website and allows users to search for Travel Zones and other geographies and find out current and future population, workforce and employment.

Glossary of terms – General

Abbreviation	Term	Definition
PIP	Passenger, Integration and Planning	TfNSW Division, it represents the voice of our customers, passengers and communities across NSW, using evidence-based insights to create integrated, multi-modal transport plans and customer-focused solutions.
TP	Transport Planning	Branch within PIP, it leads the integrated planning of transport outcomes across NSW to ensure solutions meet the needs of all users and support future growth and transport demand.
ABS	Australian Bureau of Statistics	The ABS is Australia's national statistical agency, providing trusted official statistics on a wide range of economic social, population and environmental matters of importance to Australia.
CPA	Common Planning Assumptions	Common Planning Assumptions are agreed information assets (data sets, parameters and assumptions, models and analytical tools) used by NSW Government and external stakeholders, to prepare proposals, business plans and strategies that rely on projections. https://www.treasury.nsw.gov.au/information-public-entities/nsw-common-planning-assumptions
DPHI	Department of Planning, Housing and Infrastructure	NSW Government Agency
PF	Place Forecasting	Place forecasting (often referred to as land use forecasting) provides a long-term view of the future population and employment across the state at a Travel Zone level. The team generates the Travel Zone Projections.
TMF	Transport Modelling Function	Function within Transport Planning that delivers evidence-based insights and models for transport and freight networks to inform decision-making, strategic planning, business case development, and infrastructure delivery for NSW Communities.
TZ	Travel Zone	TZs are the smallest standard geography used for a number of transport datasets in NSW.
TZP	Travel Zone Projections	Long term small area projections for Population, Dwellings, Workforce, Students and Employment.

Glossary of terms -Travel Zone Projection variables

Abbreviation	Term	Definition
EMP	Employment	Employed person by Place of Work
ERP	Estimated resident population	The total number of people that live within a defined area. This includes both people residing in private and non-private dwellings (i.e. student accommodation, correctional facilities, aged care facilities).
HHlds	Household types	Occupied private dwellings are categorised in 5 household types: -Couples with children, -Couples only, -Single parent, -Single person and -Other (Group households and multiple and other family households).
NPD	Non private dwellings	Communal accommodation provided by institutions such as hospitals, aged care facilities, correctional facilities and transitory accommodation such as hotels and motels.
OPD	Occupied private dwellings	A private dwelling that is occupied on Census night.
PoI	Place of Institution	Refers to variables which are based on education (primary, secondary & tertiary) locations
POPD	Population in Occupied Private Dwellings	Estimated resident population who reside in occupied private dwellings.
PoW	Place of Work	Refers to variables which are based on place of employment
PUR	Place of Usual Residence	Refers to variables which are based on where people live
SPD	Structural private dwellings	A privately owned building or structure that people live in.
WF	Workforce	Persons of working age who are employed or are unemployed but actively seeking work by place of residence

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Glossary of terms – Key TfNSW models

Abbreviation	Term	Definition
FMM	Freight Movement Model	Road-based freight demand forecasting and assignment model.
GMA	Greater Metropolitan Area	The Greater Metropolitan Area is the area used for TfNSW's Strategic Travel Model. The GMA includes the Sydney Greater Capital City Statistical Area (GCCSA), the Southern Highlands and Shoalhaven SA4, Illawarra SA4, Newcastle and Lake Macquarie SA4 and Lower Hunter, Port Stephens, Maitland SA3s as defined by the ABS.
Pop Synth	Population Synthesiser	A model that uses land use data to create 'agents' for input into STM.
STM	Strategic Travel Model	The Strategic Travel Model (STM) projects travel patterns in the Sydney Greater Metropolitan Area (GMA) under different land use, transport and pricing scenarios. The STM can be used to test alternative settlement, employment and transport policies, to identify likely future capacity constraints, or to determine potential usage levels of proposed new transport infrastructure or services. The STM is a strategic multi-mode travel demand model. It consists of four stages, trip generation, trip distribution, mode choice, and path assignment.

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