



DUBBO REGIONAL
COUNCIL



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DUBBO REGIONAL LOCAL GOVERNMENT AREA POPULATION PROJECTIONS

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Dubbo Regional Council was established on 12 May 2016 as an amalgamation of the former Dubbo City Council and former Wellington Shire Council.

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EXECUTIVE SUMMARY

This population projection paper is based on the Dubbo Regional Local Government Area (LGA) population projections for the period 2016 – 2036. The purpose of this paper is to provide one central point of definition for population projections during this period so that continuity can be provided across all Dubbo Regional Council functions for this type of forecast data. Council engaged REMPLAN to develop a “Population, Housing and Dwelling Forecast” model to provide future population projections for the Dubbo Regional LGA, Dubbo City and Wellington.

The forecast model uses base data for small areas from secondary sources such as the Australian Bureau of Statistics (ABS), including:

- ABS Census data (2001, 2006 to 2011).
- ABS 2011 Census population – Place of usual residence
- Trend Estimated Resident Population (ERP) from 2001 to 2015, by small area (Statistical Area 2)
- Net migration: this provides an understanding of residents leaving the area as well as moving to the region between the 2006 and 2011 census periods – by 5 year age cohort
- ABS Regional internal migration estimates by LGA 2006/7 to 2014/15
- ABS data for birth, death and fertility rates by LGA (2003 to 2014) and SA2 (2010 to 2014)
- ABS Age Specific Fertility rates by single year, Australia
- Official New South Wales State Government Population forecasts (2016 revision)
- Dwelling approvals, dwelling starts and development applications are a driver of population within a region. Dwelling data will be analysed as well as major development activities in the pipeline.

The forecast model applies local data and analysis based on input from Council at the “Planning Area” level, including: dwelling approvals, dwelling starts and development applications as well as planned and proposed land supply including major development activities in the pipeline.

Based on these inputs, REMPLAN modelled the forecast population across the 15 Planning Area’s in the Dubbo Region LGA. The Dubbo Regional LGA forecast population is the sum of the “Planning Areas”. Assumptions in developing the REMPLAN forecasts are a “bottom up” approach, in the provision and consideration of local data and insights at the “Planning Area” level.

Low, medium and high population projections for Dubbo Regional LGA

	2016	2021	2026	2031	2036
Dept. of Planning	51,050	52,750	54,300	55,550	56,600
Low	51,172	52,869	54,503	56,052	57,802
Medium	51,249	53,291	55,445	57,855	60,831
High	51,278	53,851	56,947	60,732	64,776

Any additional use, analysis and interpretation of this data should be directed to Council’s City Strategy Services Branch as custodians for all Council demographic data.

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INTRODUCTION AND SCOPE

This paper has been specifically prepared to inform Council's position on high, medium and low population projections to the year 2036. The purpose of the paper is to consolidate authoritative data on population issues in order to minimise the potential for varied data being used across Council communications and confirm the LGA's agreed data projections regarding population for the period 2016 – 2036.

Developing a solid understanding of population projections is important for a range of reasons. Firstly, population growth is a key driver of economic growth. The so-called 'three Ps' model of economic growth - Population, Productivity, and Participation - applied by the Australian Treasury and others, has population at its core. Secondly, valid projections on the demand for hard and soft infrastructure supply is an important resource to support Council's application for funding for new business in the LGA as well as important new capital and maintenance proposals.

Council's population and development forecasting model has the ability to consider land supply and dwelling requirements that support the projected population growth. This paper focuses on the projected growth of the population of the whole LGA and the application of this data by Council as a true projected measurement across all Council marketing, promotions and applications. The paper will also discuss custodianship of the data, the software and key anchor points for staff to discuss their needs regarding the use of this data.

HISTORIC AND RECENT GROWTH

Population growth is based on natural fertility and mortality rates and the regional net migration into the City - this can be either positive or negative depending on the number of residents moving into a region and the number of residents leaving the region. Base line population data for 2011, 2012, 2013, 2014 and 2015 takes into consideration the estimated resident population (ERP), the official Population estimate from the ABS. Based on the small area data (migration, fertility, births and deaths) REMPLAN models population for the "Planning Areas" from 2011 to 2015 to generate estimates in line with the official ERP data - this is then used as the base line for forecasting between 2016 and 2036.

By understanding these drivers of population change, between 2016 and 2036, the forecasting model also considers future land supply and timing, including infill development, as well as historical dwelling approvals within the "Planning Areas", as well as the demographic measures mentioned previously.

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National vs Local Total Fertility Rate (TFR)

According to the ABS in 2014, Australia's TFR was 1.8 babies per woman, a decrease from the 2013 TFR of 1.88 babies per woman, continuing the declining trend.

Since 1976, the TFR for Australia has been below replacement level. That is, the average number of babies born to a woman throughout her reproductive lifetime (measured by the TFR) has been insufficient to replace herself and her partner which is considered to be around 2.1 babies per woman. The highest rates for fertility across the country are for women aged 30-34 years.

In 2014, the former Dubbo LGA recorded fertility rate of 2.24 and although the City has followed the national downward trend falling consistently each year to 2014 from a high of 2.57 in 2009, the fertility rate remains well above the national average.

In 2014, the former Wellington LGA recorded a fertility rate of 2.36, with the highest level of fertility being experienced in 2009 at 2.83.

National vs Local Mortality Rate

Over the past 10 years, life expectancy at birth across Australia has improved by 2.2 years for males and 1.4 years for females. Based on current mortality rates, a male born in 2012-2014 can expect to live to 80.3 years, whilst a female can expect to live to 84.4 years.

In 2014, Australia had a national mortality rate of 5.5/1000. The former Dubbo LGA had a mortality rate of 6.4/1000 and the former Wellington LGA had a mortality rate of 7.3/1000 in 2014 respectively.

Migration Rate

Regional internal migration is the movement of people from one region to another within Australia (both interstate and intrastate). Net regional internal migration is the net gain or loss of population through this movement.

In terms of migration, the former Dubbo LGA experienced a net migration loss of 167 people over the past five years to 2014/15. In 2014/15 Dubbo experienced the highest net loss in migration since 2008/09 with a net loss of 276 (attracting 2297 arrivals and losing 2573 residential departures).

In 2014/15 the former Wellington LGA, experienced a net loss of 56 residents in terms of migration (583 arrivals and 639 departures). Since 2008/09, Wellington experienced the highest net loss in migration in 2013/14 of -107, with 573 arrivals and 713 departures.

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PROJECTIONS

Dubbo Regional LGA forecast projections provides an overall population growth estimate for the LGA over five year intervals from 2016 through to 2036. The Forecast Module can be used to build a greater understanding of the unique characteristics of the City and how it is projected to change over time.

The Forecast Model - Methodology

The State Government applies a “top-down” approach to forecasting, that is, preparing projections for the State and large regions and then apportioning these projections at the LGA level so that these then add back up to the larger area data.

The projections are based on forecasting developed by Council in consultation with consultants REMPLAN. The forecast model takes a different approach in the employment of “ground truthing”. Under this approach the model uses base data for small areas from secondary sources such as the Australian Bureau of Statistics. The model then applies local data and analysis and builds upon this foundation to the local government area level and the region’s propensity for population change. The assumptions in developing these projected numbers is heavily reliant on the quality of data and insight that is provided at the local level.

The formulation process involves understanding the drivers of population and housing change and the implications for age cohorts and households types involving:

- Population base and trend data
- The population base takes into account:
 - 2011 Census population - Place of usual residence
 - Trend Estimated Resident Population (ERP) figures, from 2006 to 2015
 - Official New South Wales State Government Population forecasts
 - Census data (2001, 2006 to 2011).
- Trend data for migration: this provides an understanding of residents leaving the area as well as moving to the region between the 2006 and 2011 census periods - by 5 year age cohort
 - Trend data for birth rates and death rates (2003 to 2014).

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Projection actuals

The following tables provide population projections for Dubbo, Wellington and Dubbo Regional LGA.

Low, medium and high population projections for Dubbo City

REMPPLAN - Revised	2016	2021	2026	2031	2036
Low	42,172	43,722	45,229	46,667	48,312
Medium	42,249	44,135	46,145	48,425	51,278
High	42,278	44,689	47,631	51,273	55,178

Low, medium and high population projections for Wellington

REMPPLAN - Revised	2016	2021	2026	2031	2036
Low	9,000	9,147	9,274	9,385	9,490
Medium	9,000	9,156	9,300	9,430	9,553
High	9,000	9,162	9,315	9,459	9,598

Low, medium and high population projections for Dubbo Regional LGA

	2016	2021	2026	2031	2036
Dept. of Planning	51,050	52,750	54,300	55,550	56,600
Low	51,172	52,869	54,503	56,052	57,802
Medium	51,249	53,291	55,445	57,855	60,831
High	51,278	53,851	56,947	60,732	64,776

DISCLAIMER

This information has been prepared by Dubbo Regional Council to present possible future population projections for Dubbo City, Wellington and the LGA through to 2036. The projections have been prepared based on assumptions and circumstances that may or may not transpire in consideration of the future development of the LGA and will be subject to external factors that may not be known at the time the population projections were prepared. Council reserves the right to amend or adjust the projections from time to time as a result of such factors (including but not limited to) as changes in demographic data from the Australian Bureau of Statistics or other sources.

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