





Compiled and presented in forecast.id®

Table of Contents

Home	1
About the forecast areas	4
Drivers of population change	6
Population summary	8
Population, households and dwellings	10
Components of population change	12
Population and age structure	16
Household types	19
Dwellings and development map	22
Population and age structure map	24
Household types map	26
Residential development	28
Net migration by age	30
Non-private dwellings	32
About the forecasts	34
Factors of population change	35
Household and suburb life cycles	36
Forecast modelling process	37
Notes on base data	40
Glossary	41

Welcome to the Rockhampton Regional Council population forecasts

The Rockhampton Regional Council population and household forecasts present what is driving population change in the community and how the population, age structure and household types will change each year between 2016 and 2036.

The forecasts are designed to provide community groups, Council, investors, business, students and the general public with knowledge to make confident decisions about the future.

Population 2021 88,955 forecast.id Population 2036 112,701 forecast.id Change 2021-36 26.69% forecast.id Clarke Creek +Rockhampton Regional Council Marlborough Shoalwater, Mount Gardiner Kunwarara Small areas Canal Marvvate :3 Creek (North) Rossmoya Bungundarra Canoona .Farnborough Milman. 锁 Adelaide Glenroy (enzie Yeppoon Park Garnant The Caves Bondoola Morinish. Etna Sout 'Mulara 仚 Tanby Creek Gooded ,Cawarral Alsace Zilzie punt Alt National Coowoonga Ridgelands. Morinish Dalma Joskeleigh South ampton Nine Mil Nerimbera Gracem Thompson Balcomba, oulder mbe .Point Kalapa Gogango Wycarbah Curtis Westwood Island Dingo Page 1 of 43



Source: Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Forecast population

Rockhampton Regional Council



Population and household forecasts, 2016 to 2036, prepared by .id, July 2017.

These forecasts were last adjusted in July 2017 by .id, the population experts, on behalf of Rockhampton Regional Council. Forecasts are available for each year from 2016 to 2036.

News

more >

Covid-19 support

How we can help you during the Covid-19 response period.

17 March 2020

Applying for funding?

Here's a free step-by-step grant application guide

1 April 2019

New SEIFA data

New SEIFA data reveals the most advantaged and disadvantaged communities in Australia

27 March 2018

Latest data updates

Be the first to know about the latest data releases by bookmarking our product updates page

1 January 2018

About the forecast areas

The Rockhampton Regional Council area is located in Central Queensland, on the Tropic of Capricorn, about 600 kilometres north of the Brisbane CBD. The Rockhampton Regional Council area is bounded by Livingstone Shire in the north, the South Pacific Ocean in the east, the Gladstone Regional Council area and Banana Shire in the south, and the Central Highlands Regional Council area in the west.

Population 2021 88,955 forecast.id

Population 2036 112,701 forecast.id

Change 2021-36 26.69% forecast.id

Forecast areas

Rockhampton Regional Council





Source: Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Drivers of population change

Development history

The Rockhampton Region is located in Central Queensland on the Tropic of Capricorn, around 600 kilometres north of Brisbane. The major population centres of the Region is the city of Rockhampton, settlement is relatively sparse outside of this centres with the exception of the historic mining area of Mount Morgan. The Region comprises around 6,600 square kilometres and includes large areas devoted to national parks and state forests. Rural land is used mainly for cattle grazing, pineapple growing, fruit growing, forestry, and mining. Power generation and tourism are also important industries.

Migration patterns

European settlement in the Region dates from 1855, after the Archer brothers visited in their quest to find grazing lands. The township of Rockhampton was laid out in 1858, with growth spurred by gold mining and cattle raising. Rockhampton developed as a service centre and river port to the surrounding grazing, mining and farming industries. Growth took place from the 1880s into the early 1900s, aided by improved access, port activities, and the mining of gold, silver and copper at Mount Morgan. The railway west of Rockhampton to Longreach was completed in 1892 and further strengthened Rockhampton's role as the major regional centre of Central Queensland. By 1921 Rockhampton had grown to 24,000 residents. Until the 1920s, settlement within Rockhampton was mainly south of the Fitzroy River, then growth moved northwards. Significant development occurred from the 1960s. In the post war era, the region has experienced growth from families originating from other areas of Queensland whilst losing young adults to larger urban centres within the State.

Historical migration flows, Rockhampton Regional Council, 2011-







Note: The migration flows depicted above are historical and do not represent future or forecast migration flows or subsequent council boundary changes. The arrows represent migration flows to the area as a whole and do not indicate an origin or destination for any specific localities within the area. Overseas flow shows overseas arrivals based on answers to the census question "where did the person usually live 5-years ago" and .id estimates of international out-migration.

Housing role and function

The importance of the Rockhampton Region as a destination for families is expected to continue over the forecast period. As a result of this, there is pressure for residential expansion within the Region from both existing residents and from people moving to the area.

The appeal of the area is a reflection of the climate, the significant amount of residential housing opportunities and employment prospects. Local demand is relatively strong as Rockhampton creates significant numbers of new households (children leaving home) seeking new dwellings. Much of this demand is expected to be met in Gracemere in the short term and Parkhurst in the longer term.

With the variety of residential and rural locations, different areas within Rockhampton Region have developed different roles within the housing market. Areas on the outskirts of Rockhampton such as Gracemere North and South, Norman Gardens and Parkhurst are attractive to young families. Older areas closer to the centre of the CBD such as Allenstown, Berserker & The Common, Rockhampton City & Depot Hill and Park Avenue predominantly appeal to young adults. The rural areas of the Region attract fewer retirees and lose significant numbers of young adults as they seek employment and educational opportunities in larger centres. The variety of function and role of the small areas in the Rockhampton Region means that population outcomes differ significantly across the LGA.

Housing supply

There are also significant differences in the supply of residential property within the LGA which will also have a major influence in structuring different population and household futures within the Region over the next five to ten years. Significant new 'greenfield' opportunities have been identified in Gracemere (North), Gracemere (South), Norman Gardens and Parkhurst. Rockhampton City & Depot Hill is also expected to have some growth in dwellings, based on a number of medium/high-density development opportunities. Most other areas are expected to have some growth in dwellings, but based predominantly on residual residential land, infill of vacant lots and more intense use of land.

Population summary

This table summarises the population for Rockhampton Regional Council and each of its small areas. This enables you to see how population change is affecting different parts of the LGA in different ways. Some small areas may be rapidly growing whilst others are stable or even declining in population.

Continue to the forecast results section to see detailed forecasts of **population**, **households**, and **dwellings** for each of the small areas.

Please note that population numbers in forecast.id for the 2016 base year are derived from Estimated Resident Population from the Australian Bureau of Statistics. These differ from (and are usually higher than) Census counts as they factor in population missed by the Census and population overseas on Census night. They are generally considered a more accurate measure of population size than Census counts.

Rockhampton Regional Council		Forecast year				Chanç 201	ge between 6 and 2036
Area	2016	2021	2026	2031	2036	Total change	Avg. annual % change
Rockhampton Regional Council	81,589	88,955	96,564	104,729	112,701	+31,112	+1.63
Allenstown	2,882	3,023	3,137	3,269	3,397	+515	+0.83
Berserker & The Common	7,018	7,414	7,709	7,990	8,279	+1,261	+0.83
Frenchville	9,158	9,189	9,296	9,403	9,553	+395	+0.21
Gracemere (North)	4,447	4,972	5,671	6,389	7,119	+2,672	+2.38
Gracemere (South)	7,213	8,393	9,561	11,058	12,705	+5,492	+2.87
Kawana	4,552	4,745	5,278	5,589	5,644	+1,092	+1.08
Koongal - Lakes Creek	5,033	5,159	5,329	5,510	5,710	+677	+0.63
Mount Morgan District	2,981	3,068	3,108	3,139	3,187	+206	+0.33
Norman Gardens	10,206	11,695	12,789	13,815	14,495	+4,289	+1.77
Park Avenue	5,181	5,268	5,342	5,436	5,549	+368	+0.34
Parkhurst - Limestone Creek - Mount Archer	2,818	4,838	7,185	9,979	12,821	+10,003	+7.87
Rockhampton City & Depot Hill	3,050	3,624	4,215	4,763	5,381	+2,331	+2.88
Rural South East	2,526	2,622	2,692	2,787	2,875	+349	+0.65
Rural West	3,085	3,186	3,308	3,455	3,587	+502	+0.76
The Range	5,494	5,609	5,658	5,712	5,813	+319	+0.28
Wandal & West Rockhampton	5,946	6,152	6,288	6,435	6,584	+638	+0.51

Population summary

Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Historical Estimated Resident Population

Population, households and dwellings

This summary shows the results of the forecasts for population, households and dwellings in Rockhampton Regional Council. The period 2016 to 2026, as the short to medium term, is likely to be the most accurate and useful forecast information for immediate planning purposes.

It is important to look at the relationship between population and average household size. If the average household size is falling, then there will need to be growth in the number of households (and dwellings for them to live in) to maintain or grow the population.

Forecast population, households and dwellings

Rockhampton Regional Council	Forecast year				
Summary	2016	2021	2026	2031	2036
Population	81,589	88,955	96,564	104,729	112,701
Change in population (5yrs)		7,366	7,609	8,165	7,972
Average annual change		1.74%	1.66%	1.64%	1.48%
Households	31,080	33,839	36,782	40,005	43,171
Average household size	2.55	2.56	2.56	2.56	2.55
Population in non private dwellings	2,230	2,330	2,410	2,510	2,590
Dwellings	35,234	37,946	40,777	43,863	47,028
Dwelling occupancy rate	88.21	89.18	90.20	91.20	91.80

Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Forecast population, households and average household size

Rockhampton Regional Council



Population and household forecasts, 2016 to 2036, prepared by .id the population experts, July 2017.

Key findings

In 2016, the total population of Rockhampton Regional Council was estimated to be 81,589 people. It is expected to increase by over 23,140 people to 104,729 by 2026, at an average annual growth rate of 2.53%. This is based on an increase of over 8,925 households during the period, with the average number of persons per household remaining stable from 2.55 to 2.56 by 2026.

Components of population change

There are two ways in which populations can change, through net migration and/or through natural increase (births minus deaths). Some areas are more driven by one or other of these factors. Migration is largely driven by housing development, whereas natural increase is a function of the age of the population.

Components of population change

Rockhampton Regional Council	Forecast period			
Component	2017 to 2021	2022 to 2026	2027 to 2031	2032 to 2036
Births	6,780	7,140	7,597	8,196
Change in persons in non-private dwellings	100	80	100	80
Deaths	3,523	3,672	3,931	4,182
Natural increase/decrease	3,257	3,468	3,666	4,014
Net migration	4,009	4,061	4,399	3,878
Total population change	7,366	7,609	8,165	7,972

Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Forecast population change

Rockhampton Regional Council



Forecast births, deaths and natural increase/decrease

Rockhampton Regional Council



Forecast in, out and net migration

Rockhampton Regional Council



Population and age structure

Knowledge of how the age structure of the population is changing is essential for planning age-based facilities and services, such as child care, recreation and aged care.

The forecast age groups of Rockhampton Regional Council is a function of the current age of the population (people aging each year, being born and dying) as well as the age of people migrating into and out of the area. This in turn is driven by location (fringe, city centre, regional or rural) the existing housing stock (separate dwellings, medium or high density), the amount and type of new residential development (same as existing stock, or diversifying) and where the area is in a cycle of change. We call this the area's residential role and function. You can learn more about this in the section household and suburb life cycles.

Change **Rockhampton Regional Council - Total** between 2016 2026 2036 2016 and persons 2036 Age group (years) Number % Number % Number % Number 0 to 4 5.870 7.2 7.199 7.5 8.305 7.4 +2.4355 to 9 7.1 8.051 7.1 5.832 7.016 73 +2,219 10 to 14 5.557 6.8 6.811 7.1 8.007 7.1 +2.450+2,101 15 to 19 5.716 6.9 7.817 6.9 7.0 6.683 20 to 24 6,324 5,792 7.1 6.5 7,475 6.6 +1,683 25 to 29 6.021 7.4 6.510 6.7 7.503 6.7 +1.482 30 to 34 6,555 7,440 5,675 7.0 6.8 6.6 +1,76535 to 39 4.888 6.0 6.636 6.9 7.523 6.7 +2.63540 to 44 6.0 6,290 6.5 7,301 6.5 +2,431 4,870 45 to 49 5.135 6.3 5.671 5.9 7.085 6.3 +1.95050 to 54 5,234 6.4 5,388 5.6 6,618 5.9 +1,38455 to 59 5.068 5.4 5,886 +818 62 5,220 52 60 to 64 4,156 5.1 4,910 5.1 5,291 4.7 +1.13565 to 69 3.617 4.4 4.550 4.7 4.912 4.4 +1.29570 to 74 2,736 34 3,715 3.8 4,432 3.9 +1.69675 to 79 2.219 2.7 3.076 3.2 3.845 3.4 +1.62680 to 84 2.0 2.2 +1,212 1,624 2,154 2,836 2.5 85 and over 1,579 1.9 1,855 1.9 2,376 2.1 +797 100.0 96,564 112,701 100.0 Total persons 81,589 100.0 +31,112

Forecast age structure - 5 year age groups

Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Forecast age structure - 5 year age groups

Rockhampton Regional Council - Total persons



Forecast change in age structure - 5 year age groups

Rockhampton Regional Council - Total persons



Population and household forecasts, 2016 to 2036, prepared by .id the population experts, July 2017.

Key findings

In 2016, the dominant age structure for persons in Rockhampton Regional Council was ages 25 to 29, which accounted for 7.4% of the total persons.

The largest increase in persons between 2016 and 2026 is forecast to be in ages 35 to 39, which is expected to increase by 1,748 and account for 6.9% of the total persons.

The largest 5 year age group in 2026 is 0 to 4 years, with a total of 7,199 persons.

Rockhampton Regional Council Household types

Analysing the future household structure in Rockhampton Regional Council, especially in conjunction with **age structure**, provides insight to the role the area plays in the housing market. Some areas, usually with separate housing stock, are dominated by families. Others, with more dense housing in inner city locations have significant numbers of lone person households and couples without dependents.

Forecast household types

Rockhampton Regional Council	2016		2026		2036		Change between 2016 and 2036
Туре	Number	%	Number	%	Number	%	Number
Couple families with dependents	9,118	29.3	10,749	29.2	12,633	29.3	+3,515
Couples without dependents	8,603	27.7	10,243	27.9	11,989	27.8	+3,386
Group households	1,139	3.7	1,332	3.6	1,552	3.6	+413
Lone person households	7,874	25.3	9,361	25.5	11,027	25.5	+3,153
One parent family	3,705	11.9	4,347	11.8	5,098	11.8	+1,393
Other families	642	2.1	747	2.0	868	2.0	+226

Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

<u>Historical household types</u> <u>Households with children</u> <u>Historical households without children</u>

Forecast household types

Rockhampton Regional Council



Forecast change in household types, 2016 to 2036

Rockhampton Regional Council



Population and household forecasts, 2016 to 2036, prepared by .id the population experts, July 2017.

Key findings

In 2016, the dominant household type in Rockhampton Regional Council was Couple families with dependents, which accounted for 29.3% of all households.

The largest increase between 2016 and 2026 is forecast to be in Couples without dependents, which will increase by 1,640 households and account for 27.9% of all households.

In contrast Other families is forecast to increase by 105 households, to comprise 2.0% of all households in 2026, compared to 2.1% in 2016.

Dwellings and development map

Visualising the geographic pattern of growth in dwelling stock across Rockhampton Regional Council is a good starting point for assessing the scale and type of change each part of the area is undergoing. Some areas will be experiencing significant growth in new dwellings, either through greenfield development or densification and renewal.

However it would be a mistake to assume that areas not experiencing significant housing development are not undergoing change. Other processes will be at work such as the aging-in-place of the existing population and changing household structures. The **age structure** and **household type** maps will uncover these population shifts.

Forecast dwellings and development map

Rockhampton Regional Council, 2016 to 2036 percent change



Source: Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Forecast dwellings and development

Rockhampton Regional Council	2016		2036		Change between 2016 and 2036	
Area	Number	%	Number	%	Number	%
Rockhampton Regional Council	35,235	100.0	47,029	100.0	+11,794	+33.5
Allenstown	1,598	4.5	1,776	3.8	+178	+11.1
Berserker & The Common	3,481	9.9	3,800	8.1	+319	+9.2
Frenchville	3,817	10.8	4,034	8.6	+217	+5.7
Gracemere (North)	1,843	5.2	2,819	6.0	+976	+53.0
Gracemere (South)	2,696	7.7	4,941	10.5	+2,245	+83.3
Kawana	1,854	5.3	2,276	4.8	+422	+22.8
Koongal - Lakes Creek	2,075	5.9	2,344	5.0	+269	+13.0
Mount Morgan District	1,597	4.5	1,637	3.5	+40	+2.5
Norman Gardens	4,074	11.6	5,784	12.3	+1,710	+42.0
Park Avenue	2,381	6.8	2,452	5.2	+71	+3.0
Parkhurst - Limestone Creek - Mount Archer	1,070	3.0	4,938	10.5	+3,868	+361.4
Rockhampton City & Depot Hill	1,604	4.6	2,609	5.5	+1,005	+62.7
Rural South East	1,094	3.1	1,194	2.5	+100	+9.1
Rural West	1,266	3.6	1,426	3.0	+160	+12.6
The Range	2,076	5.9	2,170	4.6	+94	+4.5
Wandal & West Rockhampton	2,708	7.7	2,828	6.0	+120	+4.4

Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Population and age structure map

Knowing when and where to deliver age-based services is an essential part of local government planning. Mapping the distribution of selected age groups across Rockhampton Regional Council provides the evidencebase for efficiently targeting and delivering these services. You can learn more about how places move through cycles of change which affect their age by visiting **population and age structure**.

Population and age structure map - persons aged 0 to 16 years

Rockhampton Regional Council, 2016 to 2036 percent change



Source: Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Population and age structure - persons aged 0 to

16 years

Rockhampton Regional Council	2016		2036		Change between 2016 and 2036	
Area	Number	%	Number	%	Number	%
Rockhampton Regional Council	19,617	24.0	27,568	24.5	+7,951	+40.5
Allenstown	588	20.4	775	22.8	+188	+31.9
Berserker & The Common	1,544	22.0	1,940	23.4	+396	+25.6
Frenchville	2,118	23.1	2,142	22.4	+24	+1.1
Gracemere (North)	1,220	27.4	2,010	28.2	+790	+64.7
Gracemere (South)	2,273	31.5	3,722	29.3	+1,449	+63.8
Kawana	1,081	23.7	1,217	21.6	+136	+12.6
Koongal - Lakes Creek	1,300	25.8	1,406	24.6	+106	+8.2
Mount Morgan District	548	18.4	669	21.0	+121	+22.1
Norman Gardens	2,497	24.5	3,410	23.5	+913	+36.6
Park Avenue	1,135	21.9	1,240	22.3	+105	+9.2
Parkhurst - Limestone Creek - Mount Archer	791	28.1	3,409	26.6	+2,618	+330.9
Rockhampton City & Depot Hill	472	15.5	1,041	19.3	+569	+120.5
Rural South East	588	23.3	699	24.3	+111	+18.9
Rural West	691	22.4	841	23.5	+151	+21.8
The Range	1,536	28.0	1,597	27.5	+61	+3.9
Wandal & West Rockhampton	1,236	20.8	1,451	22.0	+214	+17.3

Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Rockhampton Regional Council Household types map

Mapping the distribution of different household types across the Rockhampton Regional Council provides insight into the roles that different areas play in the housing market and how these are changing. It also identifies where there are concentrations of households which have specific service requirements. You can learn more about how places move through cycles of change which affect their household structure by visiting household types.

Forecast household types map - Group households

Rockhampton Regional Council, 2016 to 2036 percent change



Source: Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Forecast household types - Group households

Rockhampton Regional Council	2016		2036		Change between 2016 and 2036	
Area	Number	%	Number	%	Number	%
Rockhampton Regional Council	1,139	3.7	1,552	3.6	+413	+36.3
Allenstown	62	4.8	70	4.7	+8	+12.9
Berserker & The Common	171	5.8	202	6.0	+31	+18.1
Frenchville	99	2.8	94	2.5	-5	-5.1
Gracemere (North)	40	2.5	59	2.3	+19	+47.5
Gracemere (South)	69	2.8	118	2.6	+49	+71.0
Kawana	54	3.1	65	3.0	+11	+20.4
Koongal - Lakes Creek	59	3.3	64	3.0	+5	+8.5
Mount Morgan District	42	3.1	41	2.9	-1	-2.4
Norman Gardens	129	3.5	184	3.4	+55	+42.6
Park Avenue	74	3.5	76	3.3	+2	+2.7
Parkhurst - Limestone Creek - Mount Archer	31	3.3	184	3.9	+153	+493.5
Rockhampton City & Depot Hill	92	6.9	164	7.0	+72	+78.3
Rural South East	18	1.8	20	1.8	+2	+11.1
Rural West	27	2.4	28	2.2	+1	+3.7
The Range	73	4.1	74	3.9	+1	+1.4
Wandal & West Rockhampton	99	4.1	109	4.2	+10	+10.1

Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Residential development

The addition of dwellings to the housing stock is a major driver of population growth in an area, providing opportunities for households to relocate from other areas or new households to form locally (such as young people leaving the family home or separations/divorces).

Residential development can take various forms depending on the availability of land. These include new housing estates on greenfield sites, subdivision in existing residential neighbourhoods (often called infill development), conversion of industrial lands to residential lands, and densification of housing by building up.

.id's forecasters worked with Council planners to understand the likely development activity in each small area. This forms the development assumptions for the forecasts. This table shows the quantity of new development assumed in each small area in Rockhampton Regional Council. Select each small area to see detailed assumptions.

Rockhampton Regional Council	Change in between 2 203	dwellings 2016 and 36
Area	number	%
Rockhampton Regional Council	+11,794	+33.5
Allenstown	+178	+11.1
Berserker & The Common	+319	+9.2
Frenchville	+217	+5.7
Gracemere (North)	+976	+53.0
Gracemere (South)	+2,245	+83.3
Kawana	+422	+22.8
Koongal - Lakes Creek	+269	+13.0
Mount Morgan District	+40	+2.5
Norman Gardens	+1,710	+42.0
Park Avenue	+71	+3.0
Parkhurst - Limestone Creek - Mount Archer	+3,868	+361.4
Rockhampton City & Depot Hill	+1,005	+62.7
Rural South East	+100	+9.1
Rural West	+160	+12.6
The Range	+94	+4.5
Wandal & West Rockhampton	+120	+4.4

Forecast residential development, 2016 to 2036

Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Forecast residential development

Rockhampton Regional Council



Rockhampton Regional Council Net migration by age

Migration is one of the most important components of population change. Once you have established the amount of development activity in an area, the next step is to make assumptions about who will move into the area as well as who is leaving the area.

Net migration by age is an excellent way of understanding housing markets. The most mobile age groups in the population are young adults. They tend to move to attend educational institutions, seek work and express a change in lifestyle. Market research has shown that empty nesters are more likely to move to smaller accommodation when appropriate and affordable alternative housing is supplied in the local area that is accessible to established social networks.

Select each small area to see how migration patterns differ for each area across Rockhampton Regional Council depending on their housing markets and stage in the **suburb life cycle**.

Migration assumptions influenced by:

- New greenfield housing opportunities to both the north and south of Rockhampton which are expected to attract predominantly young families and some older childless couples
- Gain of young and mature families and older childless couples
- Some loss of young adults (18-24) leaving home seeking employment and education opportunities in major metropolitan centres

Forecast net migration by age group

Rockhampton Regional Council



Rockhampton Regional Council Non-private dwellings

Residential non-private dwellings include aged care facilities as well as defence force facilities, hospitals, prisons, staff quarters and boarding houses. As a general rule, an increase in people aged 18 to 24 living in non-private dwellings indicates a growth in student accommodation, defence force facilities or prisons. Similarly an increase in people aged over 75 living in non-private dwellings indicates growth in aged care facilities.

Persons in non-private dwellings

Rockhampton Regional Council	Ye	ear	Change between 2016 and		6 and 2036
Area	2016	2036	Total change	Aged 18 to 24 years	Aged 75+ years
Rockhampton Regional Council	2,230	2,590	+360	0	+359
Allenstown	131	131	0	0	0
Berserker & The Common	73	73	0	0	0
Frenchville	0	0	0	0	0
Gracemere (North)	62	62	0	0	0
Gracemere (South)	0	0	0	0	0
Kawana	191	291	+100	0	+100
Koongal - Lakes Creek	106	106	0	0	0
Mount Morgan District	40	40	0	0	0
Norman Gardens	212	212	0	0	0
Park Avenue	78	78	0	0	0
Parkhurst - Limestone Creek - Mount Archer	19	219	+200	0	+200
Rockhampton City & Depot Hill	224	224	0	0	0
Rural South East	0	0	0	0	0
Rural West	0	0	0	0	0
The Range	959	1,019	+60	0	+59
Wandal & West Rockhampton	135	135	0	0	0

Population and household forecasts, 2016 to 2036, prepared by .id (informed decisions), July 2017.

Key findings

There were 2,230 people estimated to be living in non-private dwellings in Rockhampton Regional Council in 2016. The number of persons in non-private dwellings in Rockhampton Regional Council is expected to increase to 2,410 persons in 2026 and to 2,590 persons in 2036.

Between 2016 and 2026, Parkhurst - Limestone Creek - Mount Archer is forecast to experience the greatest change, with a gain of 200 persons in non-private dwellings. This is due to an increase of persons in non-private dwellings aged 75 years and over, which is predominantly aged care.

About the forecasts

The Rockhampton Regional Council population and household forecasts are undertaken by .id, the population experts, on behalf of the Rockhampton Regional Council.

During the forecast modeling process, .id assesses what is driving population change in the area and forecasts how the age structure and household types will change as result.

Forecasts are only as good as the assumptions they are based on, and id works closely with the council to ensure we have detailed information about current and planned **residential development activity**. The forecasts are updated on a rolling cycle to take into account changes in the real world. All assumptions, as well as the results of the forecasts, are made available in this site.

The forecasts were last updated in July 2017. Forecasts are available for Rockhampton Regional Council and small areas for each year from 2016 to 2036.

The forecasts are designed to provide community groups, Council, investors, business, students and the general public with knowledge to make confident decisions about the future.

Whilst all due care has been taken to ensure the content of this website is accurate and current, there may be errors or omissions in it and no legal responsibility is accepted for the information and opinions in this report. In addition, as the website is based on historic information which is subject to revision, we do not guarantee its currency.

Factors of population change

At the small area level, the key factors of population change are the age structure of the existing population, the housing markets attracted to and away from an area and their associated demographic characteristics (fertility patterns, household types etc.) and the supply of dwellings and mix of housing stock in the area.

Factors of population change

Dwelling additions

The addition of dwellings is the major driver of population growth, providing opportunities for new households (such as young people leaving the family home and divorces) or households relocating from other areas.

Current age structure

The age structure of the local population impacts on Rockhampton Regional Council's household types and size, the likelihood of the local population having children and to die, as well as the propensity for people to move. Age specific propensities for a population to have children or die are applied to each small area's base population. An older population will have fewer births, more deaths, while a younger population will have vice versa.

Birth rates

Birth rates are especially influential in determining the number of children in an area, with most inner urban areas having very low birth rates, compared to outer suburban or rural and regional areas. Birth rates have been changing, with a greater share of women bearing children at older ages or not at all, with overall increases in fertility rates. This can have a large impact on the future population profile.

Death rates

Death rates are influential in shaping the numbers of older people in an area's population. Death rates too have been changing with higher life expectancy at most ages, with men gaining on women's greater life chances.

Migration

Migration is one of the most important factors of population change. While births and deaths are relatively easy to predict due to reliable age specific behaviour, migration is volatile, often changing due to housing market preferences, economic opportunities and changing household circumstances. Migration patterns vary across Australia and change across time, but most moves tend to be short and incremental in nature. Regional areas have larger moves due to the distances between towns and cities, where people often move for economic reasons, mainly the availability of employment or education and training opportunities.

The most mobile age groups in the population are the young adults. They tend to move to attend educational institutions, seek work and express a change in lifestyle. It is for this reason that young people often move the greatest distances and sometimes move against pre-established patterns. Market research has shown that empty nesters are more likely to move to smaller accommodation if appropriate and affordable alternative housing is supplied in the local area that is accessible to established social networks.

Household and suburb life cycles

Household life cycles

The type of households that people live in and changing preferences over time affects the way in which a population changes. As people grow from children to adults and into old age, they change the type of households that they live in. The traditional path has been to start as a child in a family household, move into a group or lone person household as a youth, becoming a part of a couple relationship within 5-10 years. Rearing of children is followed by an 'empty-nester' period and ultimately being a lone person, as partners die.

Understanding the changes that people make at different ages in their life, and the different types of housing they are likely to consume at those life stages is an important factor in forecasting future population and household types. The life stage which the majority of households in an area are going through gives an insight into its location in the suburb life-cycle (see below), and the likely life-path of those households in the future.

household life cycles

Suburb life cycles

The dominant household types present in a suburb or town - where the majority of the populations sit in the household life path - dictate in part the role and function of the area. This is shown by its place in the "suburb life cycle".

New areas are typically settled by young households (young couples and young families, perhaps some mature families). As the families grow and mature, household size increases. After initial rapid development, most households "age in place", with slowly shifting demand for services, facilities and dwelling types.

As households age further and children begin to leave home, the average household size decreases, resulting in more empty nester (two person) households, often still living in large family homes. Family breakups can also result in single parent families and lone person households. If a suburb can't attract young families back to the area, it slowly becomes populated by older couples whose children have left home and older lone persons whose partners have died, resulting in declining population for some time.

Alternatively, if a suburb is in a location close to economic drivers of change, it may be able to attract families to move back into the older dwellings in the area, increasing household size and population again. This will generally happen sooner, with less loss of services if the area has a diversity of housing options suiting a wide variety of household types. Empty nesters are likely to downsize into lower maintenance properties, freeing up larger format housing for families to move into, and continue the cycle again. The loop in the diagram represents the process of sustainability of an area, if it can attract families back into older housing in the area. Depending on the proximity of an area to work and education it may also attract young lone persons and group households. The attractiveness of an area to family groups, group and lone person households is shown in the migration assumptions section.

Generally, more diverse communities are more sustainable in the long term, as they are able to maintain a range of services and facilities useful to all age groups. Certain policy responses can influence the suburb life cycle in different directions.



Forecast modelling process

Approach

The diagram below describes the general approach used by .id in its population and household forecasts. An analysis of the current population and household structure often reveals the role and function of an area and the degree to which an area may be going through some form of demographic transition.

Demographic changes, such as birth, death and migration rates are applied to the base population. At the same time, scrutiny of urban development drivers is undertaken (residential development opportunities, vacancy rates etc.). The combination of varied assumptions about these inputs results in forecast population and households by type.

Sforecast approach

Modelling process

The modelling process used for producing the small-area forecasts is based on a 'bottom-up' approach, with all assumptions being derived from a local perspective. The components of the model are derived exclusively from housing and demographic assumptions. The drivers of the forecasts are predominantly based on levels of new residential development and demographic assumptions, such as in and out migration rates from the local areas. The diagram below describes the detail of the modelling process used by .id in its population and household forecasts.

forecast modelling process

The population forecasts are based on a combination of three statistical models. They include a cohort component model, a housing unit model and a household propensity model. Each of the models has a series of inputs, which when linked to the other models gives the forecast outputs. The models are further explained below.

Cohort Component Model

The cohort component model is a standard demographic model used for population forecasts. It takes a base population by single year of age and sex and makes assumptions about future levels of births, deaths and migration, with the result being a forecast population by age and sex.

Each year the population ages by one year, with additions to population through in-migration and births. Births are derived by multiplying age specific fertility rates of women aged 15-49 by the female population in these age groups for all years during the forecast period. The population decreases are based on out-migration and deaths. Deaths are derived by multiplying age and sex specific mortality rates for all age groups for all years during the forecast period.

In and out migration is based on multiplying the population in each age group by a migration matrix. The base year population is derived from 2016 Census counts and then adjusted to an estimated resident population by small area. Each year through the forecast period, the population is run against age-specific birth, death and migration rates to create new population figures.

Housing Unit Model

The housing unit model is used to forecast future levels of residential development in areas and the resulting impact on the total population and the number of households. This model is critical in giving population forecasts credibility, especially in areas where there are residential development constraints and where historical migration patterns would be expected to change.

The housing unit model is based on forecasting a number of variables. These include total population living in private and non-private dwellings, the number of households and the number of dwellings. The share of housing stock that does not contain households is known as the vacancy rate. The population living in private dwellings divided by the number of households is known as the average household size.

These variables have changing relationships over time, as households undergo normal demographic processes, such as family formation and ageing. Levels of residential development, vacancy rates and average household size (see housing propensity model below) are used as the drivers of the model. Every year there is an assumption about the level of residential development activity, which adds to the stock of dwellings in an area. This stock of dwellings is multiplied by the vacancy rate, which gives the total number of vacant dwellings and the total number of occupied private dwellings (households).

Households are multiplied by the assumed average household size for the year to derive the new number of persons living in private dwellings. The average household size is derived from the household propensity model (see below).

Population in non-private dwellings is modelled separately. A non-private dwelling is a form of housing, which is communal in nature. Examples of non-private dwellings include nursing homes, student accommodation, boarding houses, nursing quarters, military barracks and prisons. In forecasting the number of persons in non-private dwellings, the population is analysed according to the different types of living arrangements. Decisions about future changes may be based on local knowledge through consultation with institutions or local government if there are a large number of people living in non-private dwellings.

Household Propensity Model

This model is used to integrate the cohort component and housing unit models to ensure consistency between the outputs of both models. The model works by assuming that the age structure of the population is an indicator of household size and type. These differences are assumed at the local area based on the household type and size from the 2016 Census.

The population is divided into household types based on five year age groups and sex. Each of these household types has an associated household size. From this relationship, all the household forming population (adults and any non-dependents) effectively represent a share of a household. Dependents in a household (children) represent no share of a household, although their departure frequently drives demand for housing in the region. Lone persons represent 1 or 100% of a household. Couples with dependents represent 50% of household. Couples without dependents represent almost 50% of a household (as they can include related adults). Lone parents represent 100% of a household. Group household members' and other household members' shares vary according to the region (20%-45%, 5 persons to 2.5 persons per household).

These relationships are extrapolated forward from 2016 with some adjustments, depending on the type of area. While for some areas, it is assumed that a greater share of the population will live in smaller households in the future, many areas will go against this trend, depending on their place within the life cycle of suburbs.

Notes on base data

Base population estimates

The population figures used in the forecasts for 2016 are based on estimated resident population from the Australian Bureau of Statistics. These figures are published at the Statistical Area 1 (SA1) level, which are then aggregated to the chosen small area or local government area, splitting SA1s if necessary. These figures are subject to change or updating from time to time, most notably after Census release (usually one to two years after the Census is conducted).

Base household estimates

The household estimates used in the forecasts for 2016 were based on age and sex-specific population propensities by different household types. Estimated Resident Population by Statistical Area 1 was multiplied by household factors to give estimated 'Resident Households'.

The multiplying factor varies depending on the household type (and the area), such as a factor of 1 for persons living in lone person households to 0.5 for an adult in couple families with dependent households. Children and other dependents, such as elderly parents, are not assumed to 'form' households.

Glossary

Age specific propensities (birth and death)

This relates to the modelling of births and deaths. At each year of age, there is a certain statistical likelihood of a person dying or giving birth. These age specific propensity rates are applied to the base and forecast population for each year of the forecast period.

Ageing in place

This refers to an existing resident population ageing in their current location, as distinct from other impacts on future population such as births, deaths and in and out migration.

Average annual percentage change

A calculation of the average change in total population for each individual year.

Average household size

The average number of persons resident in each occupied private dwelling. Calculated as the number of persons in occupied private dwellings divided by the number of occupied private dwellings. This excludes persons living in non-private dwellings, such as prisons, military bases, nursing homes etc.

'Bottom up' forecast

Population forecast based on assumptions made at the local area level. Local drivers of change such as land stocks and local area migration form the basis.

Broadhectare Land or Sites

Broadhectare land refers to undeveloped land zoned for residential development on the fringe of the established metropolitan area. These areas are generally used for rural purposes until residential subdivision takes place. This type of land is also referred to as 'greenfield'.

Commencement

The construction of a new dwelling (or beginning of).

Dwelling

A habitable residential building.

Dwelling stock

The supply of dwellings (either occupied or unoccupied) in a given geographic area.

Empty nesters

Parents whose children have left the family home to establish new households elsewhere.

Estimated Resident Population (ERP)

This is the estimate of the population based on their usual residence. The ERP at the time of the Census is calculated as the sum of the enumerated (counted) population plus persons temporarily absent less persons who are non-permanent (visitor) residents. An undercount of population by small area at Census time is also accounted for. The ERP used in these forecasts is then backdated to June 30. The ERP for forecast years are based on adding to the estimated population the components of natural increase and net migration.

Forecast period

In this report, the forecast period is from 2016 to 2036. Most data on the website has focused on the period from 2016 to 2036 plus 15.

Household

One or more persons living in a structural private dwelling.

In-centre development

Residential development based on increasing dwelling densities around suburb and town centres. Usually around existing transport nodes and service infrastructure, rather than developing previously undeveloped land on the urban fringe.

'Infill' development

Residential development, usually of a relatively small scale, on redevelopment sites in established urban areas. This can take place on land previously used for another urban purpose such as industry or schools or on existing residential allotments where new dwellings are added. Also referred to as 'intensification' of existing areas.

Mature families

One and two parent families with older children, generally of secondary and tertiary school age.

Migration

The movement of people or households from one location to another.

Natural increase

The increase in population based on the births minus deaths, not including the impact of migration.

Net household additions

The overall increase in occupied dwellings, determined by the level of new dwelling construction that is

permanently occupied, or conversion of non-permanently occupied dwellings to permanently occupied minus demolitions.

Non-private dwellings

These dwellings include persons resident in establishments such as prisons, student or nurses' accommodation, nursing homes, boarding houses, military facilities, and hospitals.

Occupancy rate

The proportion of structural private dwellings that are occupied by a household.

Occupied Private Dwellings (OPD)

These are all Structural Private Dwellings (SPD's) that are occupied by a household. Excluded are dwellings that were under construction, being demolished or where the house was temporarily vacant.

Private dwellings

Self-contained dwelling including houses (attached or detached), flats, townhouses etc. Retirement village units are also private dwellings as are houses or flats rented from the government.

Redevelopment sites

These are sites in already established areas not originally developed for residential uses, but identified for conversion to residential use. Examples include former school sites, quarries, derelict industrial land, former petrol stations and the like.

Structural Private Dwellings (SPD)

This is the stock of houses, flats, and other dwelling types. The SPD is the usual base stock from which commencements are added and demolitions deducted.

'Top down' forecast

Population forecast based on assumptions made at the State and National level and allocated into smaller regions e.g. Local Government Areas, suburbs.

Vacancy rate

The proportion of structural private dwellings that are not occupied by a household.

Young families

One and two parent families with young children, generally of pre and primary school age.