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City of Manningham

POPULATION AND HOUSEHOLD FORECASTS

Doncaster Hill

City of Manningham population and household forecasts are designed to inform community groups, Council, investors, business, students and the general public.

Forecasts have been produced for the years, 2006 to 2031.

The data in this report was last reviewed and updated on 20/12/2012.

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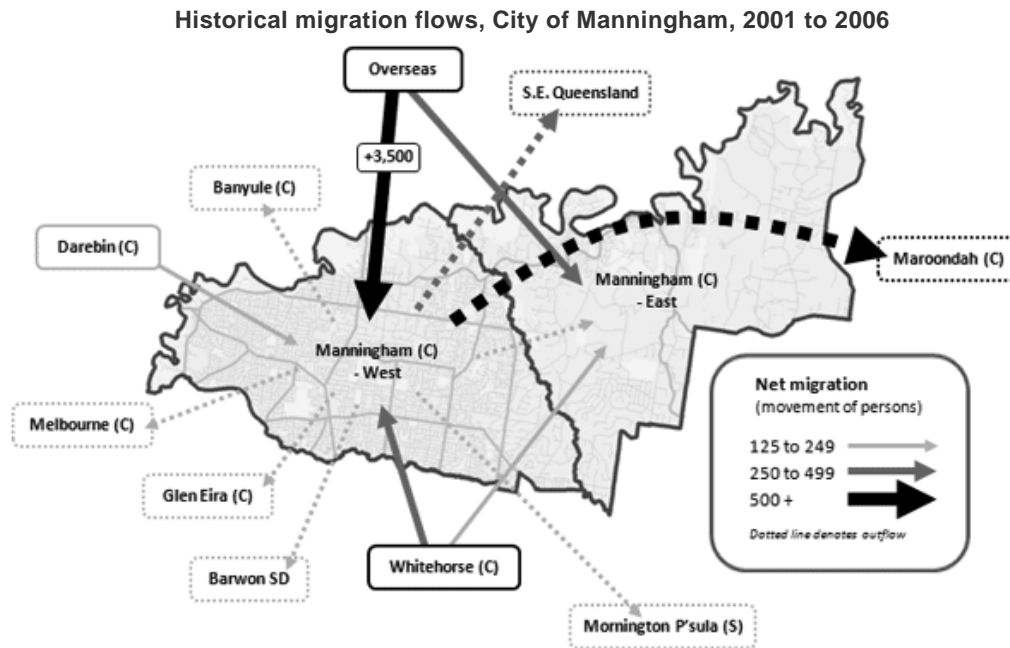
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Date created: 20/12/2012

Summary & key results

Key drivers of change



Note: The migration flows depicted above do not represent future or forecast migration flows. The arrows represent migration flows to the LGA/SLA as a whole and do not indicate an origin or destination for any specific localities within the LGA/SLA.

The City of Manningham is residential and rural local Government area in eastern Melbourne, with the major centre at Doncaster Hill 15 kilometres east of the Melbourne GPO. The western parts of the City are predominantly residential, while areas to the east of Mullum Mullum Creek are a combination of small urban villages, rural residential and rural areas. The City's main centre is located at Doncaster Hill, but it also features a range of smaller shopping centres, namely The Pines, Templestowe Village, Bulleen Plaza, Macedon Square, Tunstall Square, Goldfields Plaza, Jackson Square and Devon Plaza.

The main development phase in the City of Manningham dates from the 1950s onward. Development spread into the City from the west and the south and around older villages such as Templestowe, Doncaster and Warrandyte. As car ownership increased and roads improved in the 1960s and 1970s, development spread across the City, with more areas being converted to residential and rural residential. By the early 1980s, the more established suburbs such as Bulleen and Templestowe Lower began to decrease in population. This was a result of limited residential development and because households had become smaller, with the children of the original settlers growing up and leaving home. This is a process that has spread across the City, with most areas seeing a maturation of the population. This process led to an overall population decrease in the City between 1991 and 1996.

In recent years, the population has stabilised and begun to increase again as a result of higher levels of residential development. During the mid to late 1990s, surplus government land from utilities and former school sites provided more development potential and a number of larger remnant greenfield parcels were developed, notably in Sheehans Road, Bulleen. There was also an acceleration in the amount of redevelopment with unit and townhouse development more common in many areas of the City, notably Doncaster and Doncaster East.

The primary housing market role that the City played in the post war era was to provide housing for young and established families. This role continues to some extent, although many areas attract more mature families, as increasing house prices and improved services has made these areas increasingly desirable. The main source of population growth in the City of Manningham tends to be from overseas, while young couples and families tend to

leave the City for more affordable areas to purchase housing or to inner city locations to rent. It is assumed that a number of the migration patterns will continue into the future, most notably flows into the City from overseas and loss of persons to neighbouring areas.








Within the City of Manningham, areas have developed and will continue to evolve different roles within the housing market. Variations occur due to when areas were settled, the range of land uses in the area, developer interest and the varying planning policies in play. Bulleen and Doncaster Hill tends to gain people in their late teens and twenties due to a combination of factors. These include affordability and relative proximity to the City (Bulleen) and access to services and available rental stock (Doncaster Hill). Areas such as Doncaster East, Donvale, Park Orchards, Templestowe, Templestowe lower, Warrandyte-Warrandyte South and Wonga Park attract established and mature families, due to the type of housing stock available. Doncaster Balance attracts a combination of young adults and mature families.

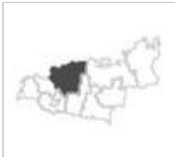




There are also significant differences in the supply of residential property within the City which will also have a major influence in structuring different population and household futures over the next five to twenty years. Doncaster Hill has been identified as the main focus for residential development, with a large increase in apartments and units expected. Although development has been relatively moderate to 2008, a large number of development sites have been identified and committed for residential development over the next five to ten years. Improvements in transport infrastructure and urban design in the centre will further underpin this growth. Other development is likely to be increasingly concentrated in medium density areas adjacent to commercial centres and along transport corridors, notably in the suburbs of Doncaster, Doncaster East, Donvale and Bulleen. Further development in parts of the City is also anticipated as a result of extending sewer coverage to rural residential areas, most notably in Templestowe.

Summary & key results

Population summary

In 2031, the population of the City of Manningham will be 134,855, an increase of 19,780 persons (17.19%) from 2006. This represents an average annual growth rate of 0.64%.

City of Manningham's areas		Forecast year						Change between 2006 and 2031	
Location	Area name	2006	2011	2016	2021	2026	2031	number	Avg. annual % change
	City of Manningham	115,075	116,953	119,847	124,720	129,721	134,855	19,780	0.64
	Bulleen	10,950	11,246	11,647	11,807	12,115	12,385	1,435	0.49
	Doncaster Hill	856	980	2,732	5,155	6,676	8,371	7,515	9.55
	Doncaster Balance	18,551	18,742	19,122	19,889	20,719	21,354	2,803	0.56
	Doncaster East	27,639	28,294	28,880	29,456	29,939	30,448	2,809	0.39
	Donvale	12,671	12,894	12,824	12,952	13,059	13,281	610	0.19
	Park Orchards - Ringwood North	4,517	4,534	4,618	4,662	5,042	5,423	906	0.73

	Templestowe	16,948	17,087	16,969	17,646	18,613	19,577	2,629	0.58
	Templestowe Lower	13,451	13,824	13,729	13,732	13,917	14,117	666	0.19
	Warrandyte - Warrandyte South	6,203	6,145	6,178	6,289	6,409	6,543	340	0.21
	Wonga Park	3,289	3,207	3,148	3,132	3,232	3,356	67	0.08
	Doncaster (Suburb Total)	19,407	19,722	21,854	25,044	27,395	29,725	10,318	1.72



Population numbers in forecast.id for the 2006 base year are derived on 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

Summary & key results

Doncaster Hill



Doncaster Hill is part of the suburb of Doncaster and is bounded in the north by Westfield Dve, a line to the west of Roseville Ave, Goodson St and Schramms Reserve, in the east by JJ Tully Dve and Whittens Ln, in the south by a line to the south of Doncaster Road generally to the south of Hepburn Rd, Merlin St and an east-west line following Briar Crt and Carawatha Rd and in the west by the eastern boundary of the Eastern Golf Club, a line generally to the north of Firth St, Meader St and the boundary of the Sovereign Point apartment development.

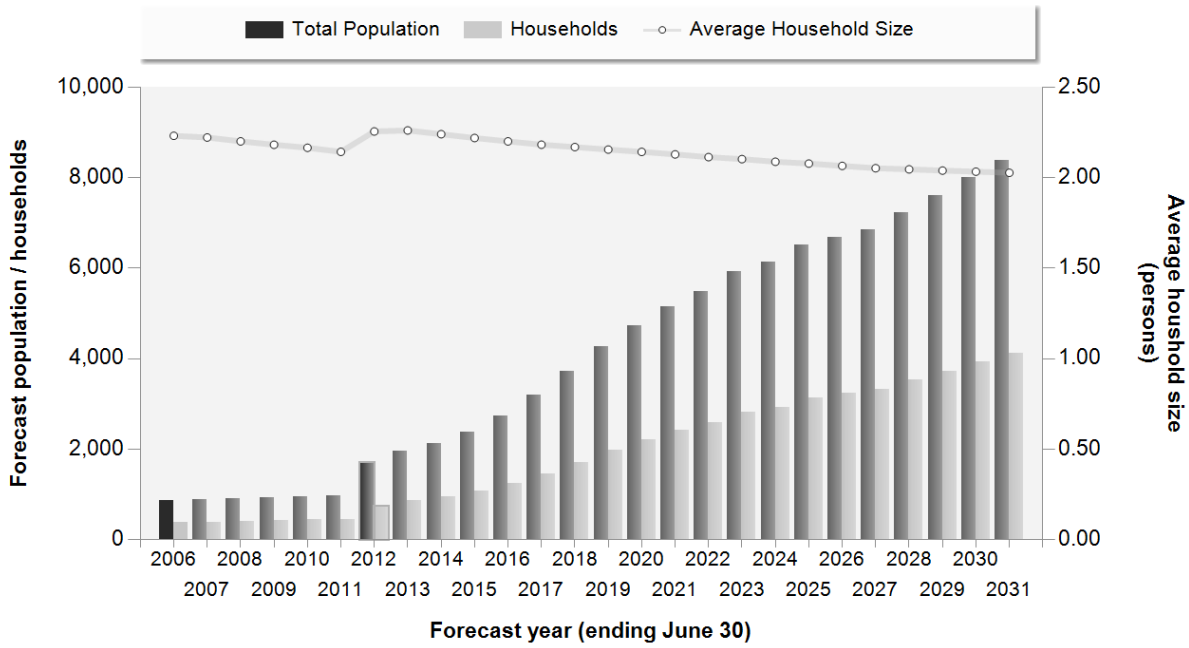
How many will live here in future? - Doncaster Hill

Doncaster Hill	Forecast year					
	2006	2011	2016	2021	2026	2031
Population	856	980	2,732	5,155	6,676	8,371
Change in Population (5yrs)		124	1,752	2,423	1,521	1,695
Average Annual Change (%)		2.74	22.76	13.54	5.31	4.63
Households	379	454	1,237	2,418	3,228	4,125
Average Household Size (persons)	2.24	2.14	2.2	2.13	2.07	2.03
Population in non private dwellings	8	8	8	8	8	8
Dwellings	393	475	1,308	2,536	3,360	4,260
Dwelling occupancy rate	96.44	95.58	94.57	95.35	96.07	96.83

This summary analyses data for the period 2006 to 2021, as the short to medium term is likely to be the most accurate and useful forecast information for immediate planning purposes. Please note that this data is available for all years between 2006 and 2031.

In 2006, the total population of Doncaster Hill was estimated at 856 people. It is expected to experience an increase of over 4,200 people to 5,155 by 2021, at an average annual growth rate of 12.72% per annum over 15 years. This is based on an increase of over 2,000 households during the period, with the average number of persons per household falling from 2.24 to 2.13 by 2021.

Forecast population, households and average household size, Doncaster Hill



Summary & key results

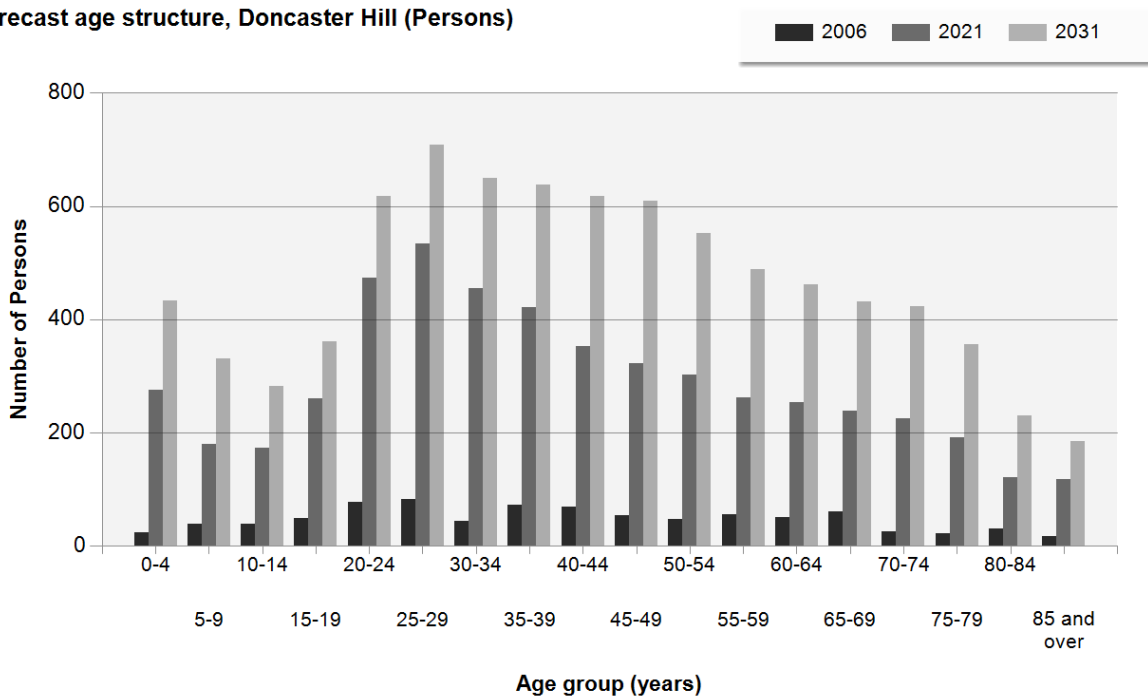
How old will we be?

In 2006, the most populous age group in Doncaster Hill was 25-29 year olds, with 83 persons. In 2021 the most populous forecast age group will continue to be 25-29 year olds, with 534 persons.

The number of people aged under 15 is forecast to increase by 527 (521.8%), representing a rise in the proportion of the population to 12.2%. The number of people aged over 65 is expected to increase by 738 (479.2%), and represent 17.3% of the population by 2021.

The age group which is forecast to have the largest proportional increase (relative to its population size) by 2021 is 0-4 year olds, who are forecast to increase by 1095.7% to 275 persons.

Forecast age structure, Doncaster Hill (Persons)



Summary & key results

What type of households will we live in?

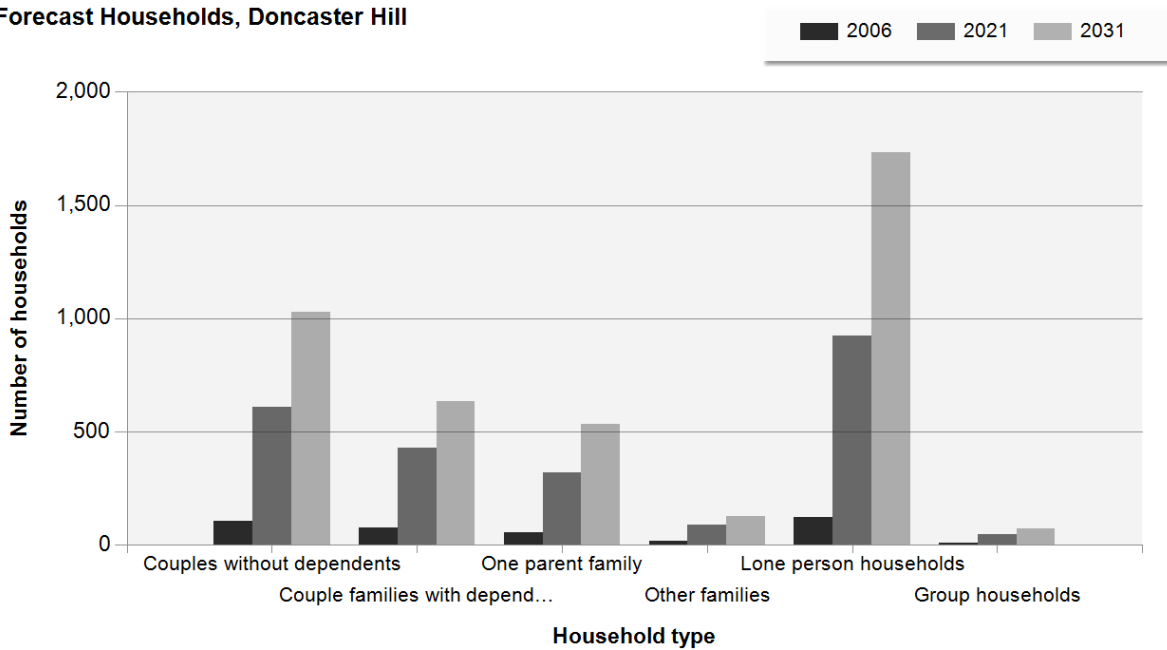
In 2006, the dominant household type in Doncaster Hill was Lone person households, which accounted for 31.8% of all households.

The main changes in household type between 2006 and 2021 are forecast to be:

The largest increase is forecast to be in Lone person households, which will increase by 804 households, comprising 38.3% of all households, compared to 31.8% in 2006.

In contrast Couple families with dependents is forecast to increase by 351 households, to comprise 17.7% of all households in 2021, compared to 20.3% in 2006.

Forecast Households, Doncaster Hill



Assumptions

Residential development

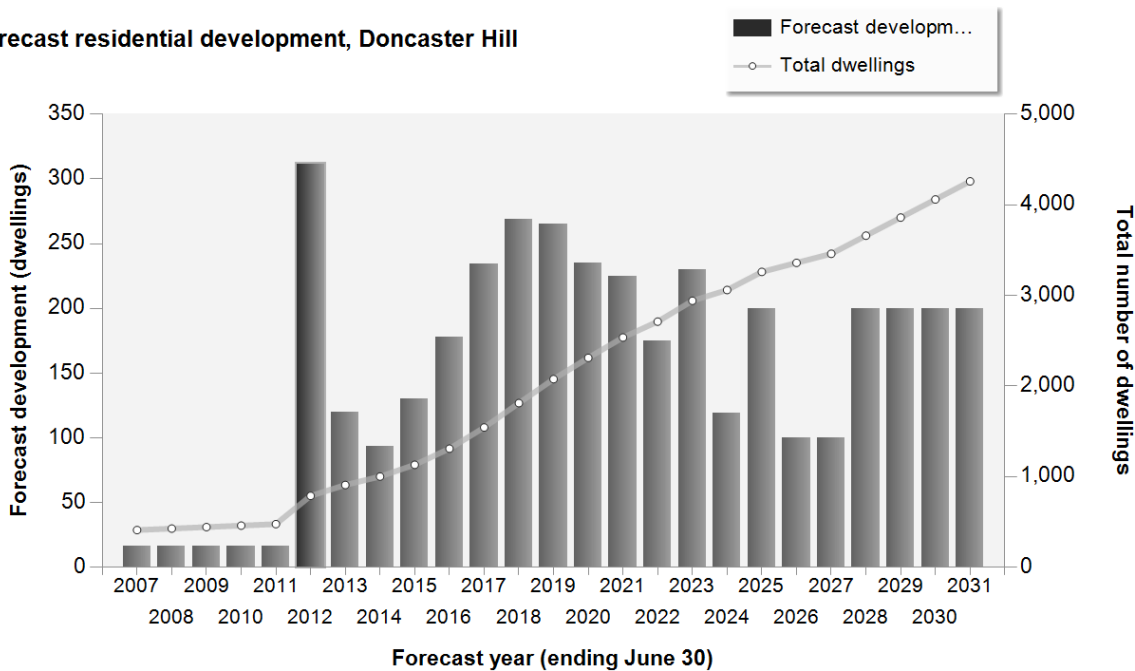
List of forecast land developments and infill assumptions:

2007-2011 dwelling additions incorporate net dwelling change as identified in the 2006 and 2011 censuses.

Additional assumptions concerning development over the forecast period include:

- Berkeley Street - 110 dwellings (2012)
- 95-99 Tram Road - 78 dwellings (2012)
- Doncaster Road Apartments (632-640 Doncaster Rd) - 124 dwellings (2012)
- Madison Apartments - 80 dwellings (2013)
- Sovereign Point Apartments E & F - 16 dwellings (2014)
- Mobil site - 659-667 Doncaster Road - 77 dwellings (2014)
- Doncaster Road Multi Level Apartment Building (537 Doncaster Rd)- 15 dwellings (2015)
- 600 Doncaster Road - 100 dwellings (2015)
- 810 Elgar Road - 15 dwellings (2015)
- 8-12 Hepburn Road - 53 dwellings (2016)
- 2 Elgar Court - 95 dwellings (2016)
- Church Site - 110 dwellings (2016-17)
- Montage - 128 dwellings (2017-18)
- 710 Doncaster Road - 110 dwellings (2018-19)
- Elgar Road apartments - 110 dwellings (2018-19)
- 20-24 Hepburn Road - 100 dwellings (2020)
- Shoppingtown Hotel - 240 dwellings (2020-22)
- Other future apartment projects - 2,224 dwellings (2017+)

Forecast residential development, Doncaster Hill



Assumptions

Births and deaths

Fertility (birth) rates:

The fertility rate in Doncaster Hill is derived from historic age-specific birth rates in the area, modified based on the forecast age structure at each year of the forecast.

Death rates

The death rates are based on historical estimates for the City of Manningham, which have been extrapolated into the future, assuming an increase in expectation of life in all age groups (except 85+). Although women are still forecast to outlive men, the increase in expectation of life over time for men is expected to be higher.

Assumptions

Non-private dwellings

The overall number of persons in non-private dwellings is assumed to remaining stable from 8 in 2006 to 8 in 2031.

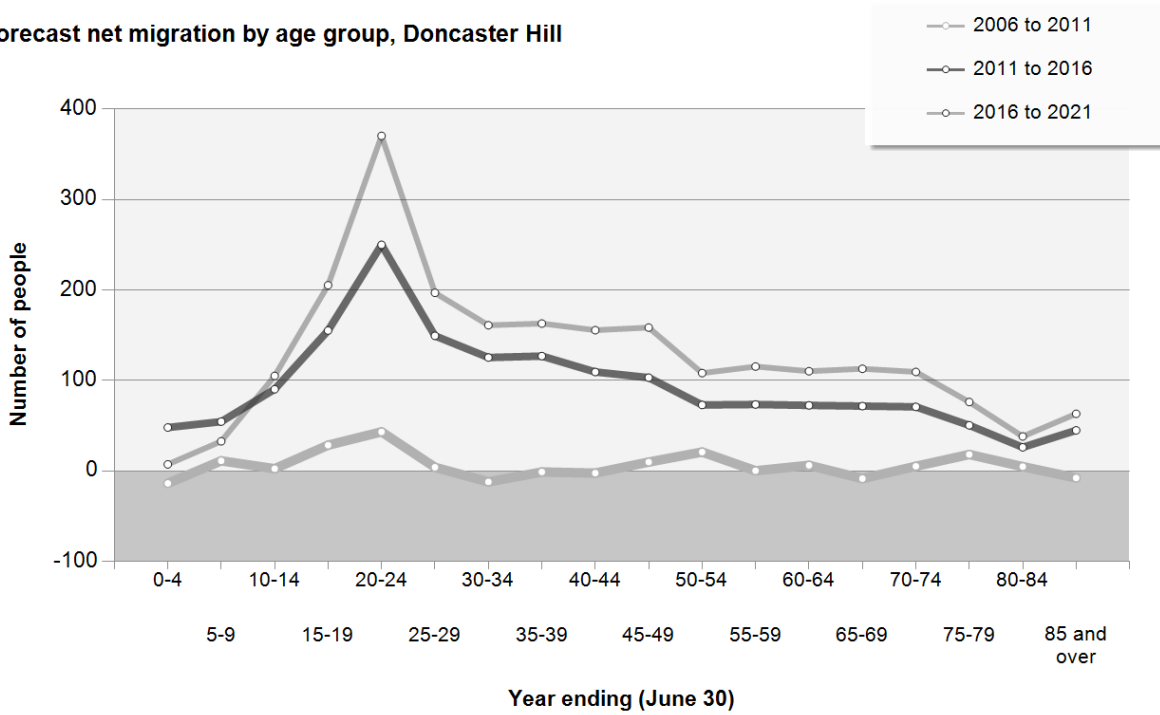
Assumptions

Migration

Major migration assumptions:

- Migration profile from 2006-2011 based on modelling to match 2011 Census based Estimated Resident Population (ERP) by age
- 2006-2011: Minimal migration gain, with greatest attraction in ages 18-24)
- 2011 onwards: gain in most age groups, especially 18-24 years attracted to rental opportunities in new apartments

Forecast net migration by age group, Doncaster Hill

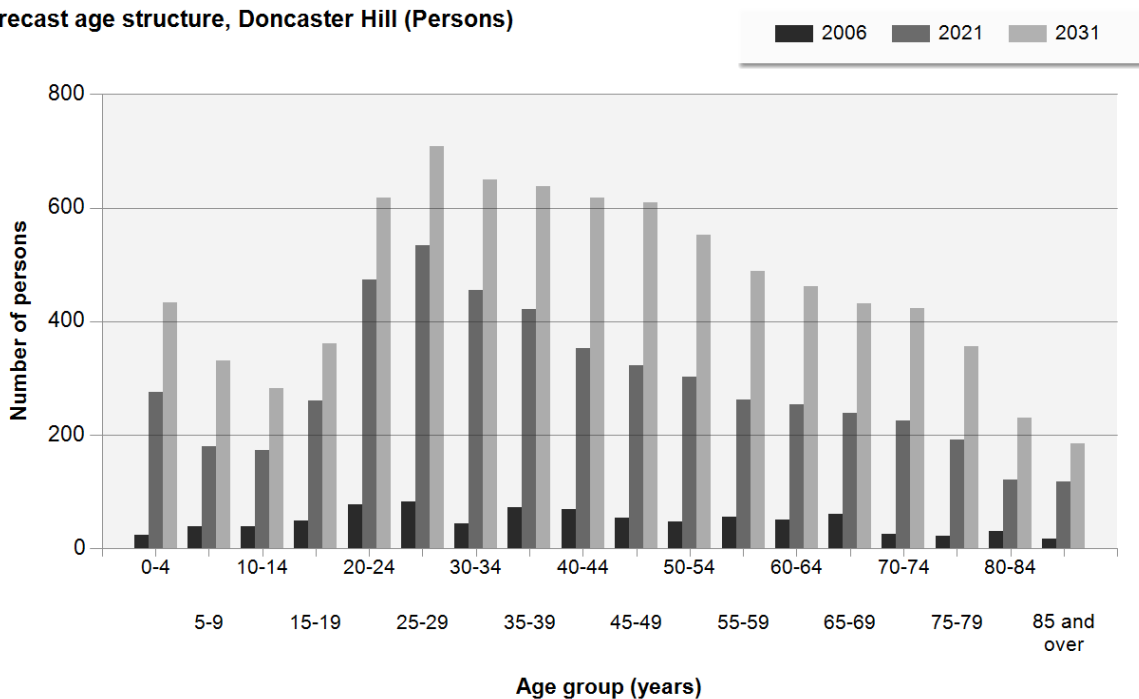


Detailed data

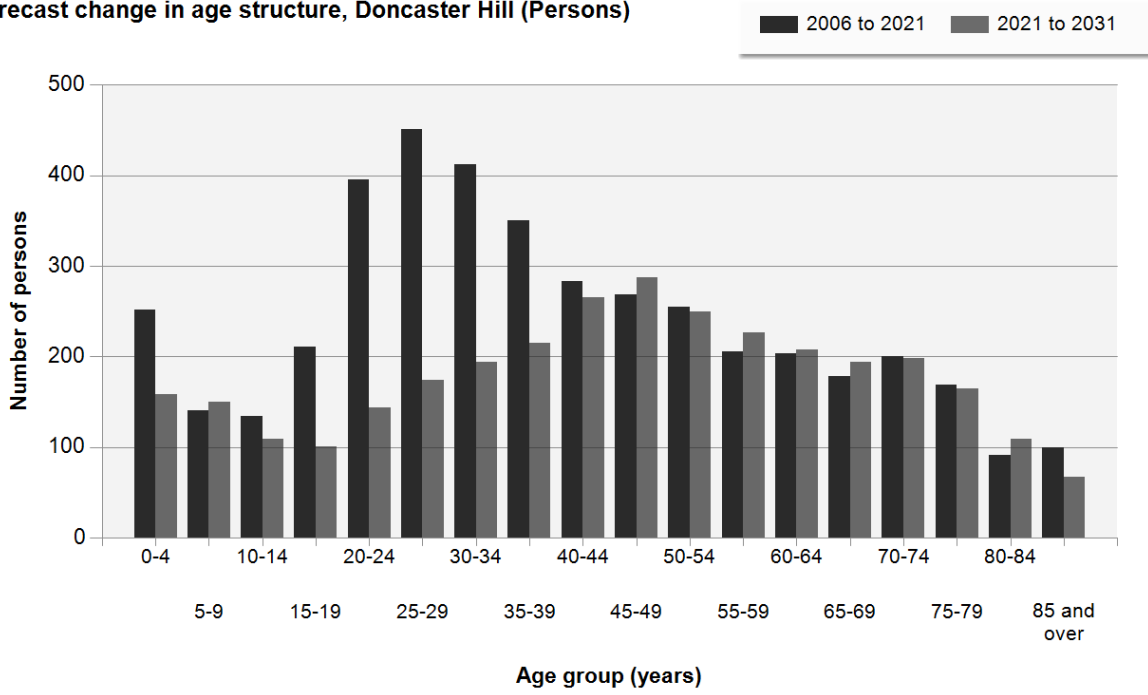
Age structure

Forecast age structure, Doncaster Hill (Persons)							Change
Age group	2006		2021		2031		2006 to 2031
	number	%	number	%	number	%	
0-4 years	23	2.7	275	5.3	433	5.2	410
5-9 years	39	4.6	180	3.5	330	3.9	291
10-14 years	39	4.6	173	3.4	282	3.4	243
15-19 years	49	5.7	260	5.0	361	4.3	312
20-24 years	77	9.0	473	9.2	617	7.4	540
25-29 years	83	9.7	534	10.4	708	8.5	625
30-34 years	43	5.0	455	8.8	649	7.8	606
35-39 years	72	8.4	422	8.2	637	7.6	565
40-44 years	69	8.1	352	6.8	617	7.4	548
45-49 years	53	6.2	322	6.2	609	7.3	556
50-54 years	47	5.5	302	5.9	552	6.6	505
55-59 years	56	6.5	262	5.1	489	5.8	433
60-64 years	50	5.8	253	4.9	461	5.5	411
65-69 years	60	7.0	238	4.6	432	5.2	372
70-74 years	25	2.9	225	4.4	423	5.1	398
75-79 years	22	2.6	191	3.7	356	4.3	334
80-84 years	30	3.5	121	2.3	230	2.7	200
85 years and over	17	2.0	117	2.3	184	2.2	167
Total Persons	854	99.8	5,155	100.0	8,370	100.0	7,516

Forecast age structure, Doncaster Hill (Persons)



Forecast change in age structure, Doncaster Hill (Persons)

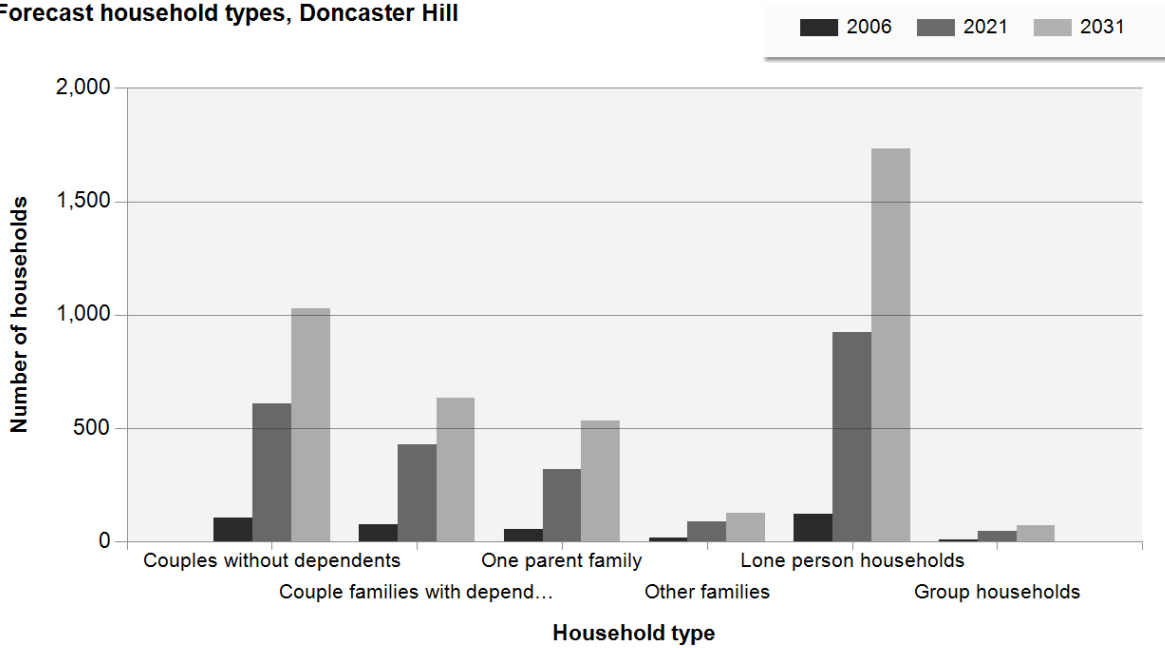


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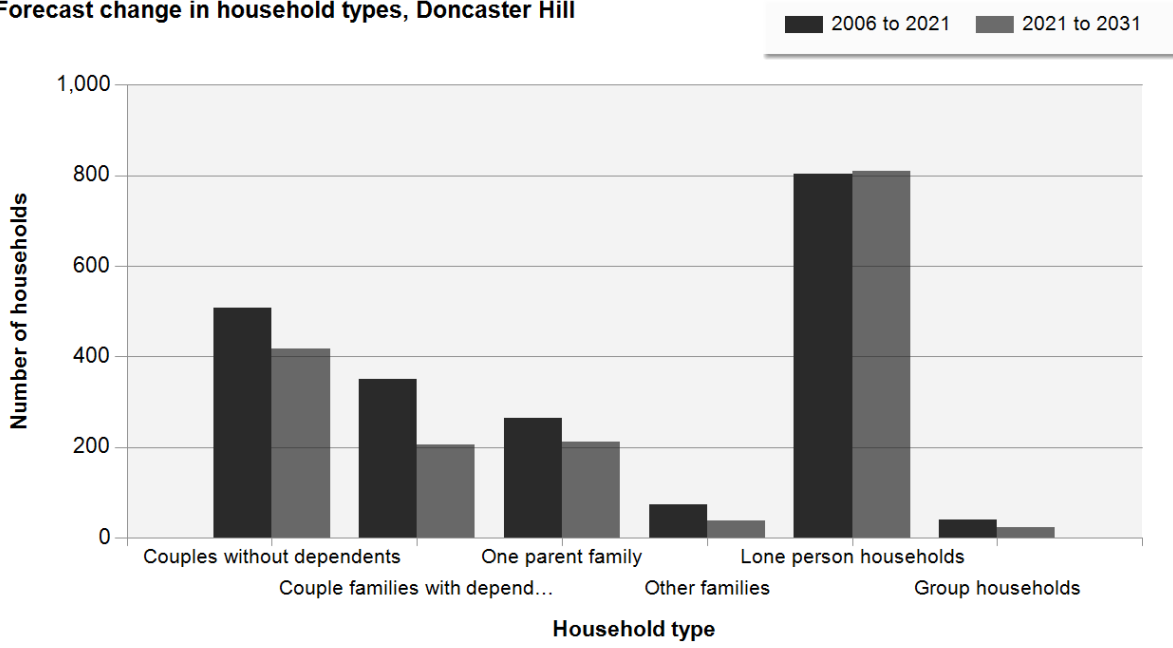
Households

Forecast households, Doncaster Hill		2006		2021		2031		Change
Type	number	%	number	%	number	%	2006 to 2031	
Couples without dependents	103	27.1	610	25.2	1,028	24.9	925	
Couple families with dependents	77	20.3	428	17.7	634	15.4	557	
One parent family	55	14.5	320	13.2	532	12.9	477	
Other families	15	3.9	88	3.6	125	3.0	110	
Lone person households	121	31.8	925	38.3	1,735	42.1	1,614	
Group households	8	2.1	47	1.9	71	1.7	63	
Total households	379	99.7	2,418	100.0	4,125	100.0	3,746	

Forecast household types, Doncaster Hill



Forecast change in household types, Doncaster Hill



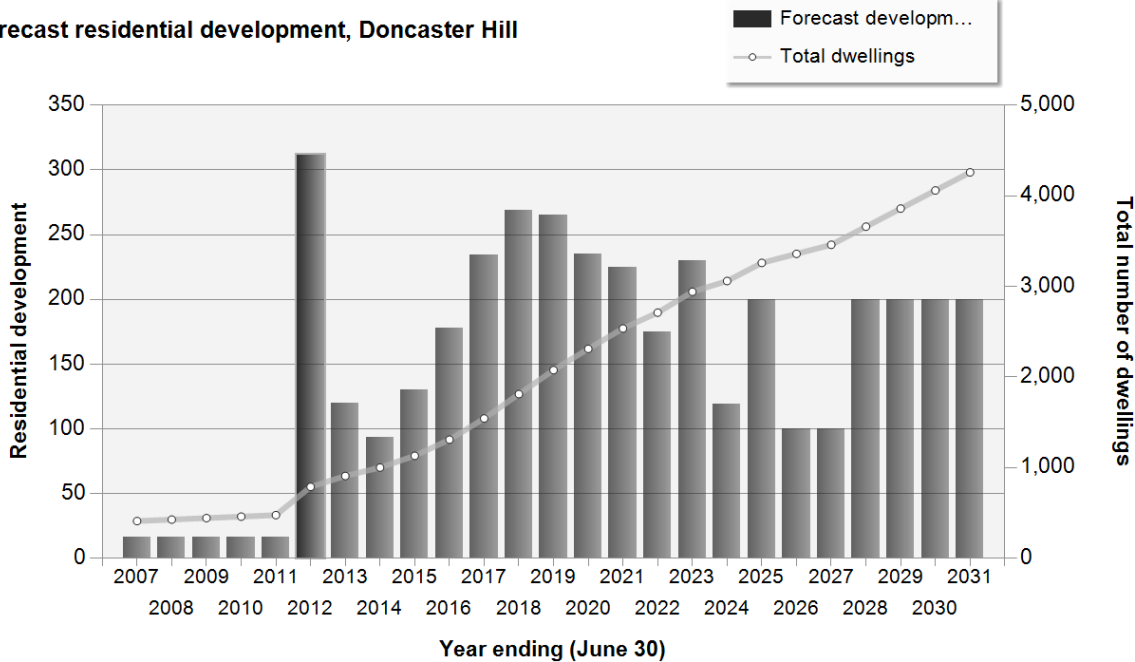
Detailed data

Residential development

Year	Dwelling commencements	Structural private dwellings (inc. commencements)	% change from previous year
2007	16	409	4.2
2008	16	426	4.0
2009	16	442	3.9
2010	16	458	3.7
2011	16	475	3.6
2012	312	787	65.7
2013	120	907	15.3
2014	93	1,000	10.3
2015	130	1,130	13.0
2016	178	1,308	15.8
2017	234	1,542	17.9
2018	269	1,811	17.4
2019	265	2,076	14.6

Year	Dwelling commencements	Structural private dwellings (inc. commencements)	% change from previous year
2020	235	2,311	11.3
2021	225	2,536	9.7
2022	175	2,711	6.9
2023	230	2,941	8.5
2024	119	3,060	4.0
2025	200	3,260	6.5
2026	100	3,360	3.1
2027	100	3,460	3.0
2028	200	3,660	5.8
2029	200	3,860	5.5
2030	200	4,060	5.2
2031	200	4,260	4.9

Forecast residential development, Doncaster Hill

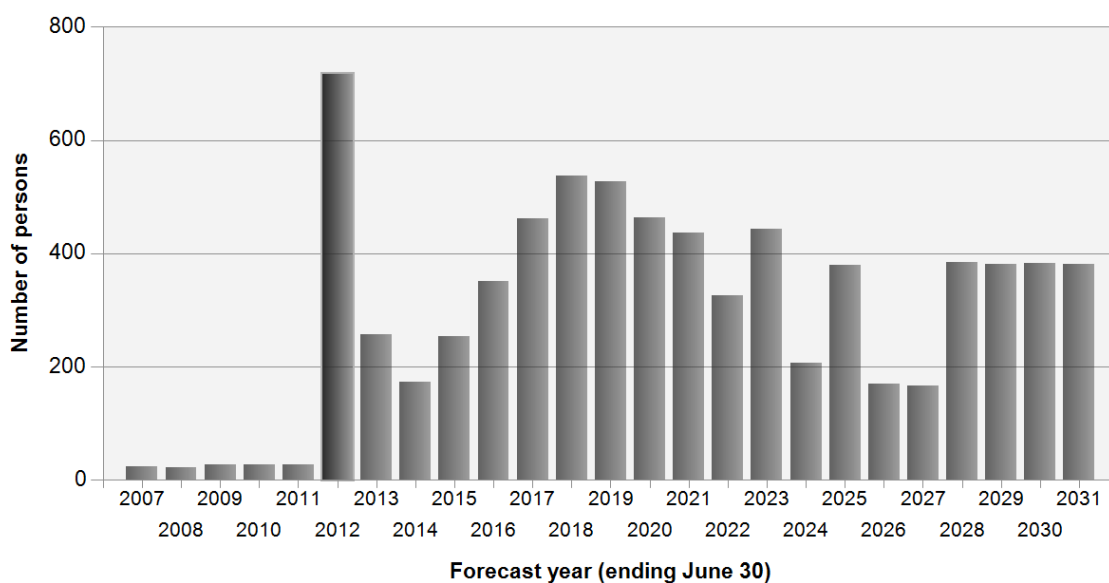


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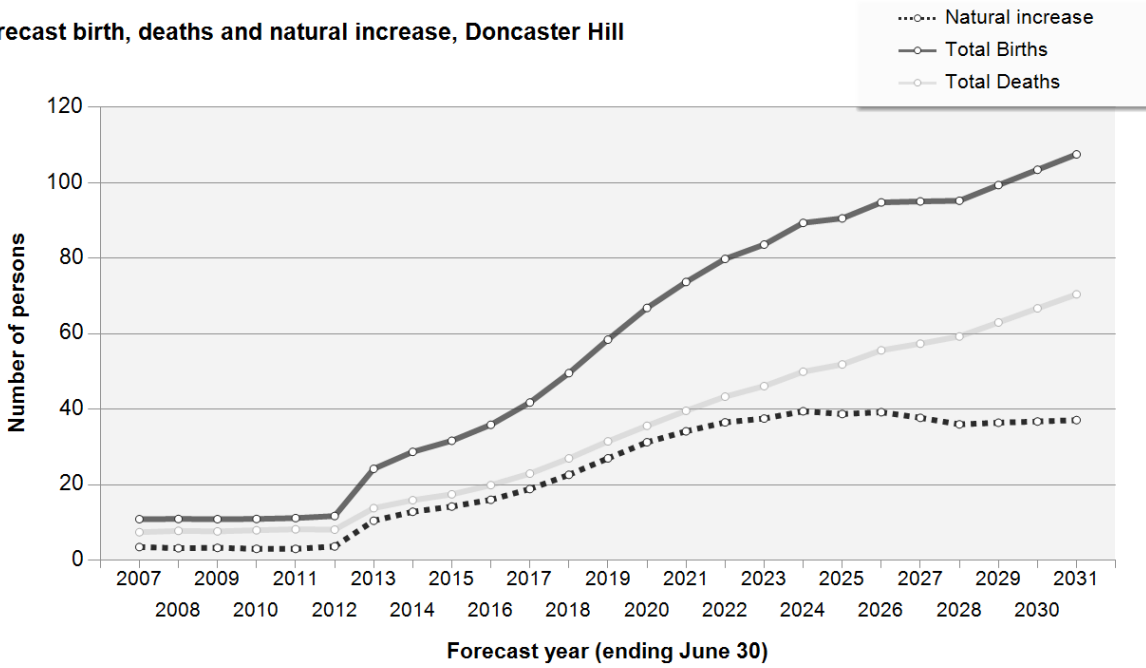
Components of population change

Components of population change, Doncaster Hill	Forecast period				
	2007 to 2011	2012 to 2016	2017 to 2021	2022 to 2026	2027 to 2031
Births	55	132	290	438	501
Deaths	39	75	157	247	317
Net Migration	108	1,695	2,289	1,330	1,511
Net Population Change	124	1,752	2,423	1,521	1,695

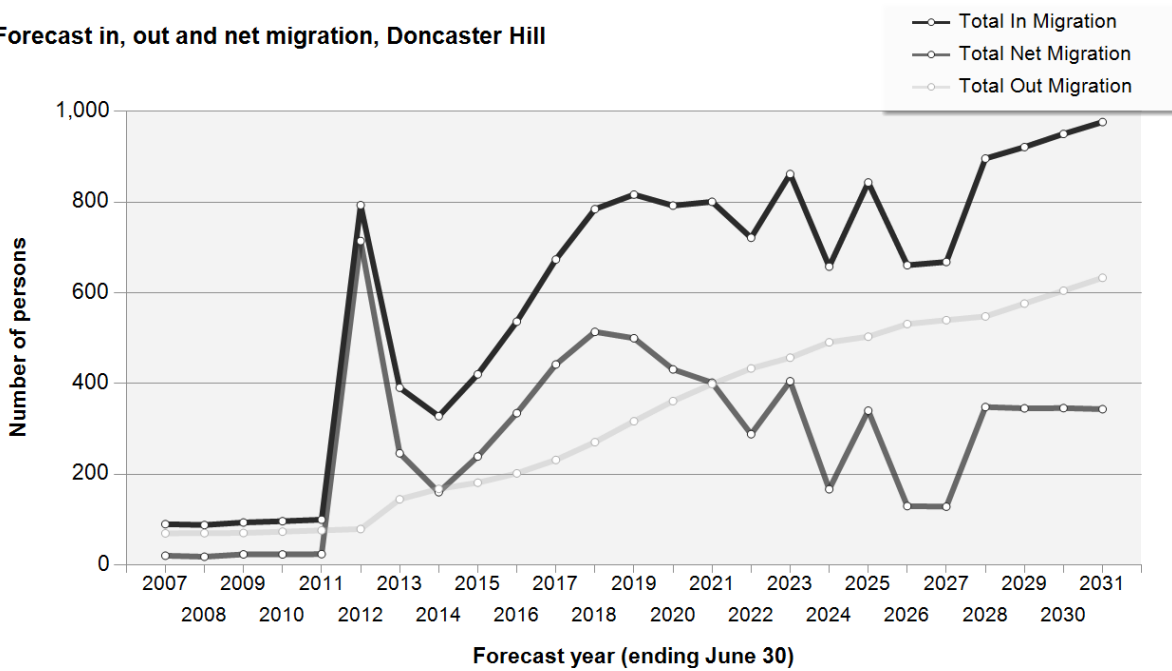
Forecast population change, Doncaster Hill



Forecast birth, deaths and natural increase, Doncaster Hill



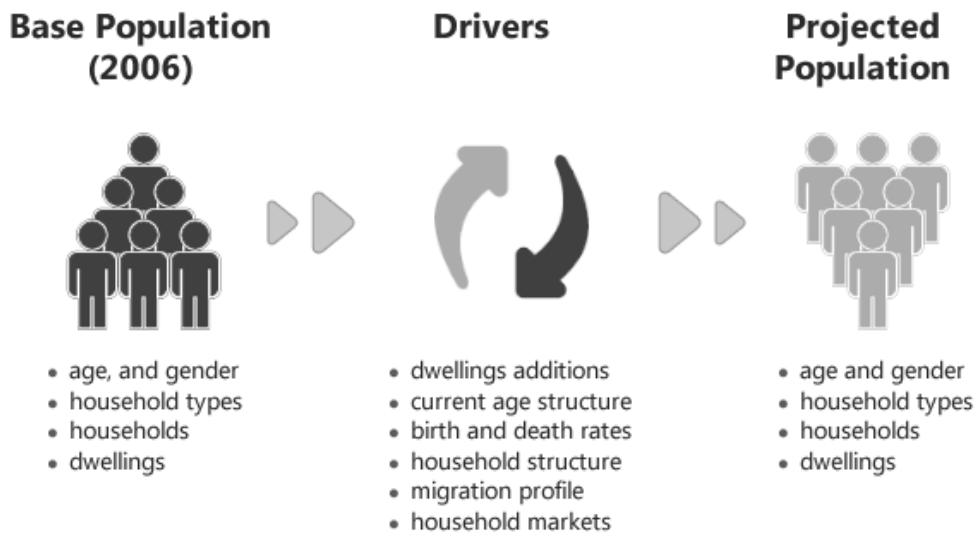
Forecast in, out and net migration, Doncaster Hill



Supporting info

What factors contribute to population change?

At the small area level, the primary drivers 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.



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 the City of Manningham'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. This can have a large impact on the population profile with comparatively fewer children than in previous periods.

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 components 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.

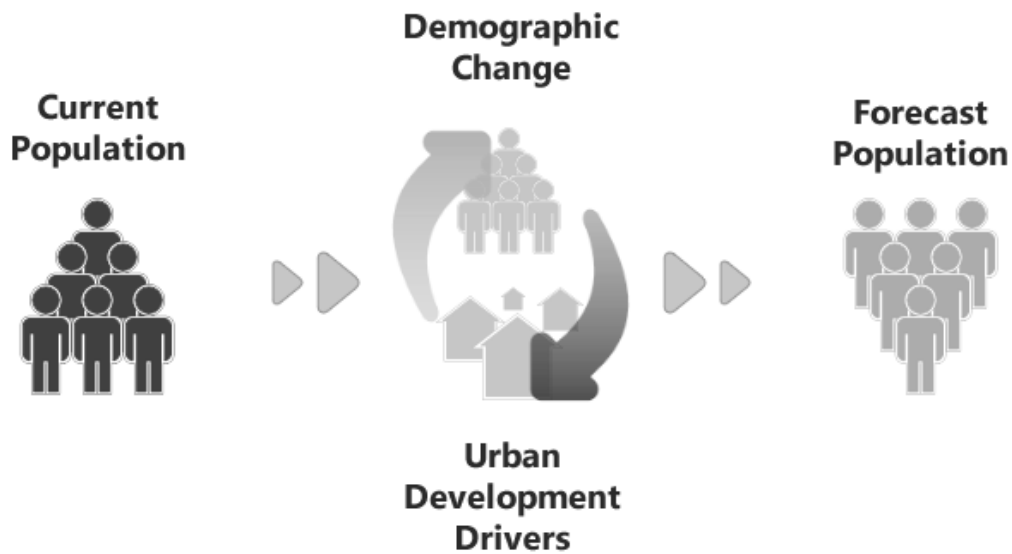
Supporting info

How did we do the forecasts?

Approach

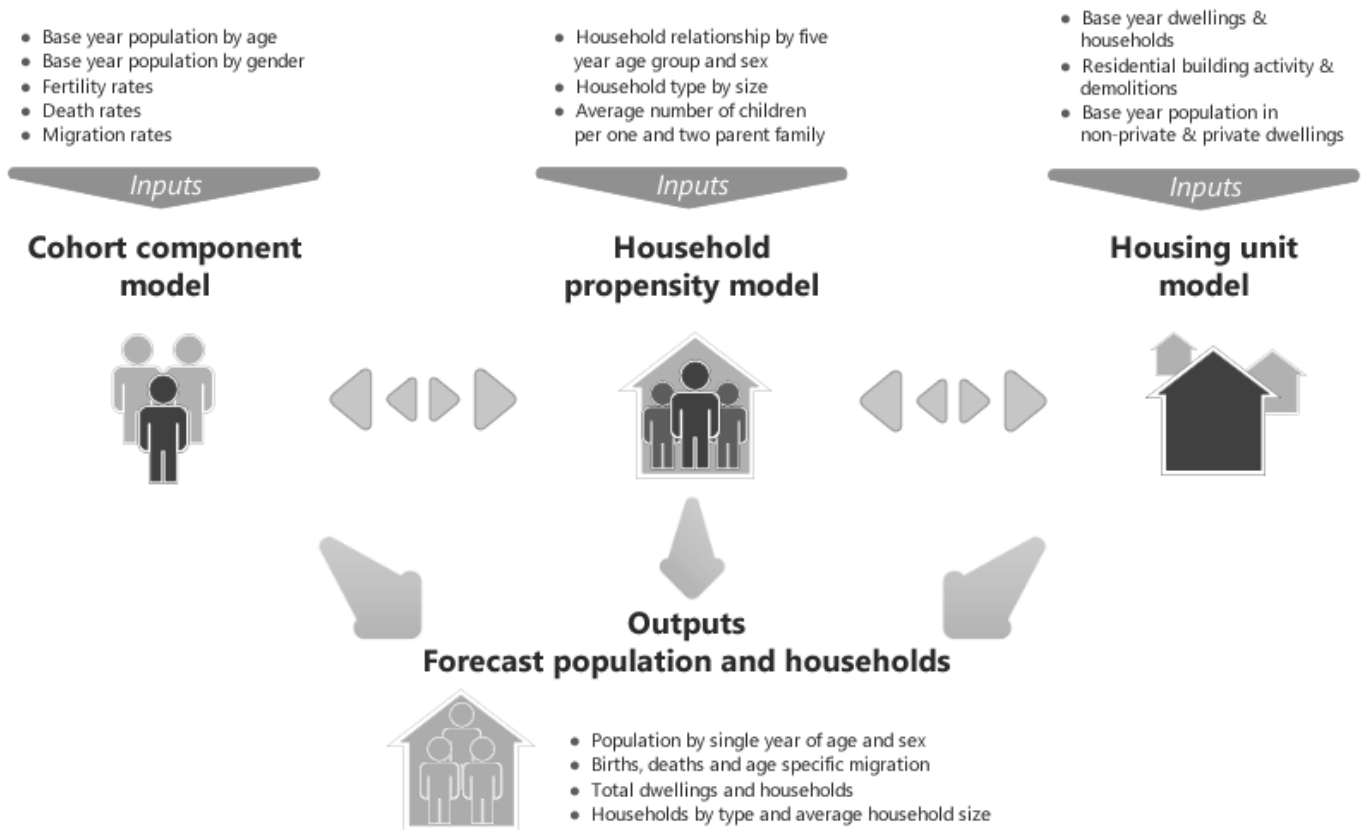
The diagram below describes the general approach used by .id in its population and household forecasts. An analysis of the current population and household structure often reveals the role and function of an area and the degree to which an area may be going through some form of demographic transition.

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.



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.



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 15-44 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 2006 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, 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 2006 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 2006 with some adjustments, depending on the type of area. While the overall trend assumes that a greater share of the population will live in smaller households at all age groups in the future, many areas will go against this trend, depending on their place within the life cycle of suburbs. The projected decrease in the fertility rate and resulting likelihood of smaller families reinforces the assumption that a greater share of the population will live as couples and alone in the future.

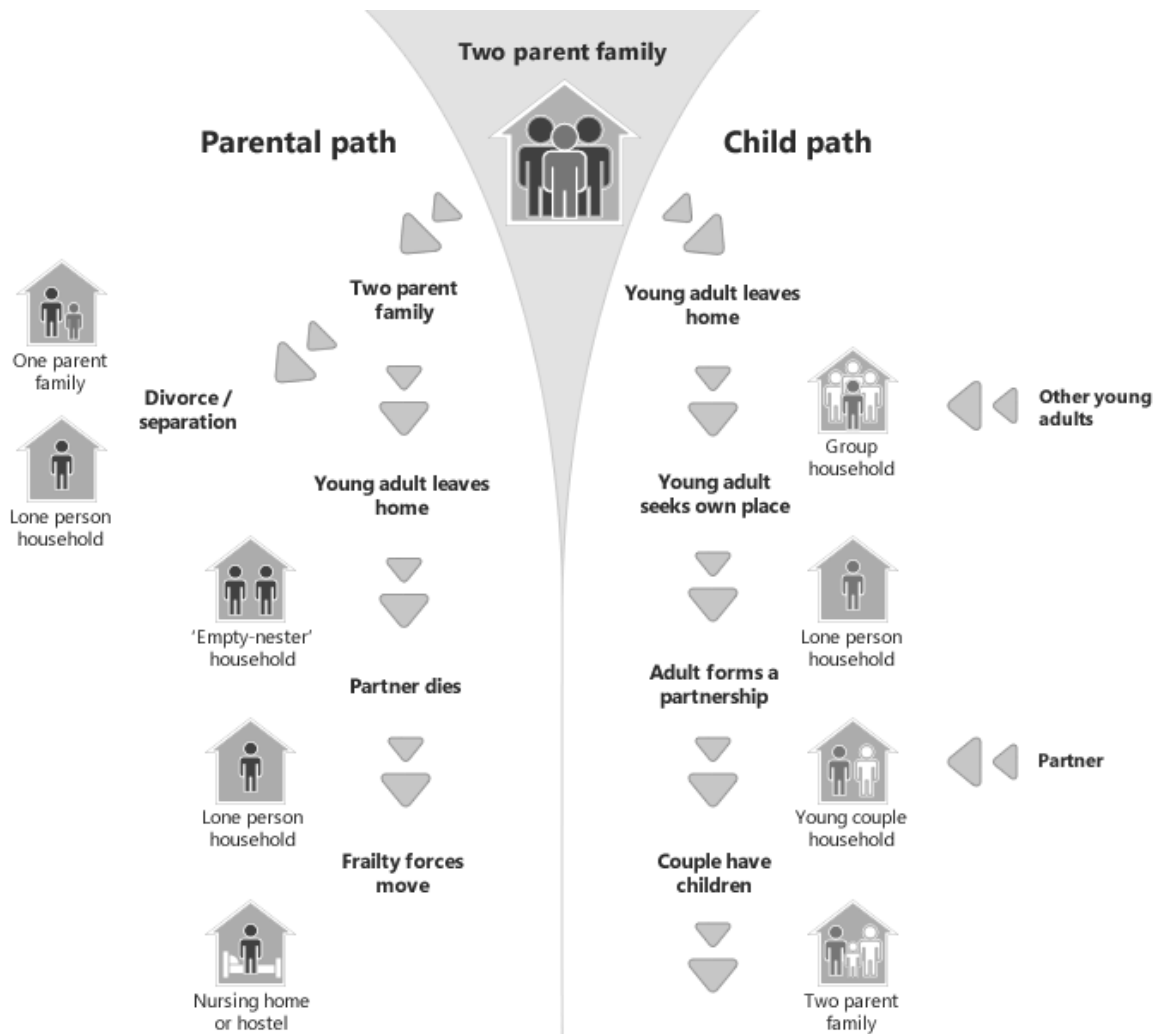
Supporting info

Household & suburb life cycle

Household life cycles

The sorts 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 sorts 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.



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".

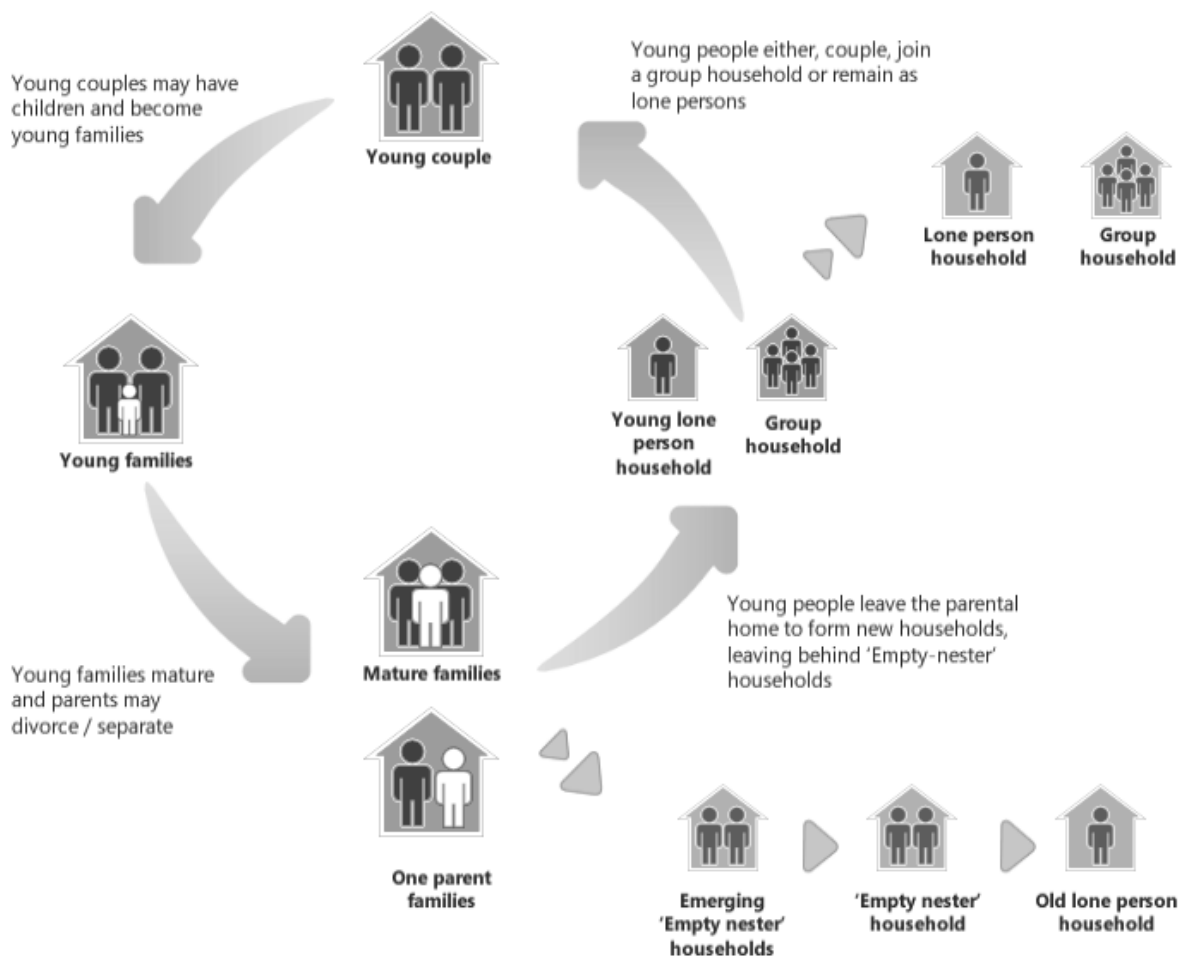
New areas are typically settled by young households (young couples and young families, perhaps some mature families). As the families grow and mature, household size increases. After initial rapid development, most households

"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 LGA (or suburb), 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.



Supporting info

Data notes

Base population estimates

The population figures used in the forecasts for 2006 are derived from estimated resident population from the Australian Bureau of Statistics. These figures are published at the Statistical Local Area level, which are extrapolated to Census Collection District (CCDs) and then aggregated to the chosen small area, sometime splitting CCDs 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).

.id is currently in the process of updating forecasts to reflect results from the 2011 Census. The first step involves an update of the existing 2006 based forecasts. Net change in dwellings from the 2011 Census is added to the 2006-11 period and Estimated Resident Population by age and sex is matched at 2011 for each small area. The text at the top right hand corner of the home page will indicate whether this process has been undertaken for these forecasts.

Base household estimates

The household estimates used in the forecasts for 2006 were based on age and sex-specific population propensities by different household types. Usual residents' estimates by Census Collection District were extrapolated to Estimated Resident Population and then 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.

Supporting info

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 Occupied Private Dwellings (EROPD)**

This measure attempts to increase the scope of Occupied Private Dwellings definition to include an estimate of SPD's that were temporarily unoccupied at the time of the Census (i.e. the resident was away for an extended period of time and did not fill in a Census form). This measure is not available from the Census and is estimated through the processes described in the most recent Victorian Department of Planning & Community Development population forecasts for Victoria. This measure yields much higher estimates of occupancy rates than the usual OPD measure.
- ▶ **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 2006 to 2031. Most data on the website has focused on the period from 2006 to 2021.
- ▶ **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 usually takes place on land previously used for another urban purpose such as industry or schools. 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, 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.

▶ **Visitor population forecasts**

Visitor population forecasts are based on 'non-event' affected, mid-week visitor levels. The 2006 base figures are sourced from Census, with an adjustment for undercount similar to that applied to the resident population (see Estimated Resident Population). Overall forecast levels are based on long term trends in visitor population growth in the Shire, with specific reference to current proposals for the purposes of allocation in the short-term. Visitor population forecasts have been included as they are a significant component of total population and may require specific servicing arrangements pertinent to resource allocation within Council.

▶ **Young families**

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

Supporting info

References

- Australian Bureau of Statistics, 2006 and 2011 Censuses of Population and Housing.
- Australian Bureau of Statistics, 2006 Estimated Resident Population, June 30 2006, Cat. No: 3235.0.
- Australian Bureau of Statistics, 2011 Estimated Resident Population (preliminary), June 30 2011, Cat. No: 3235.0.