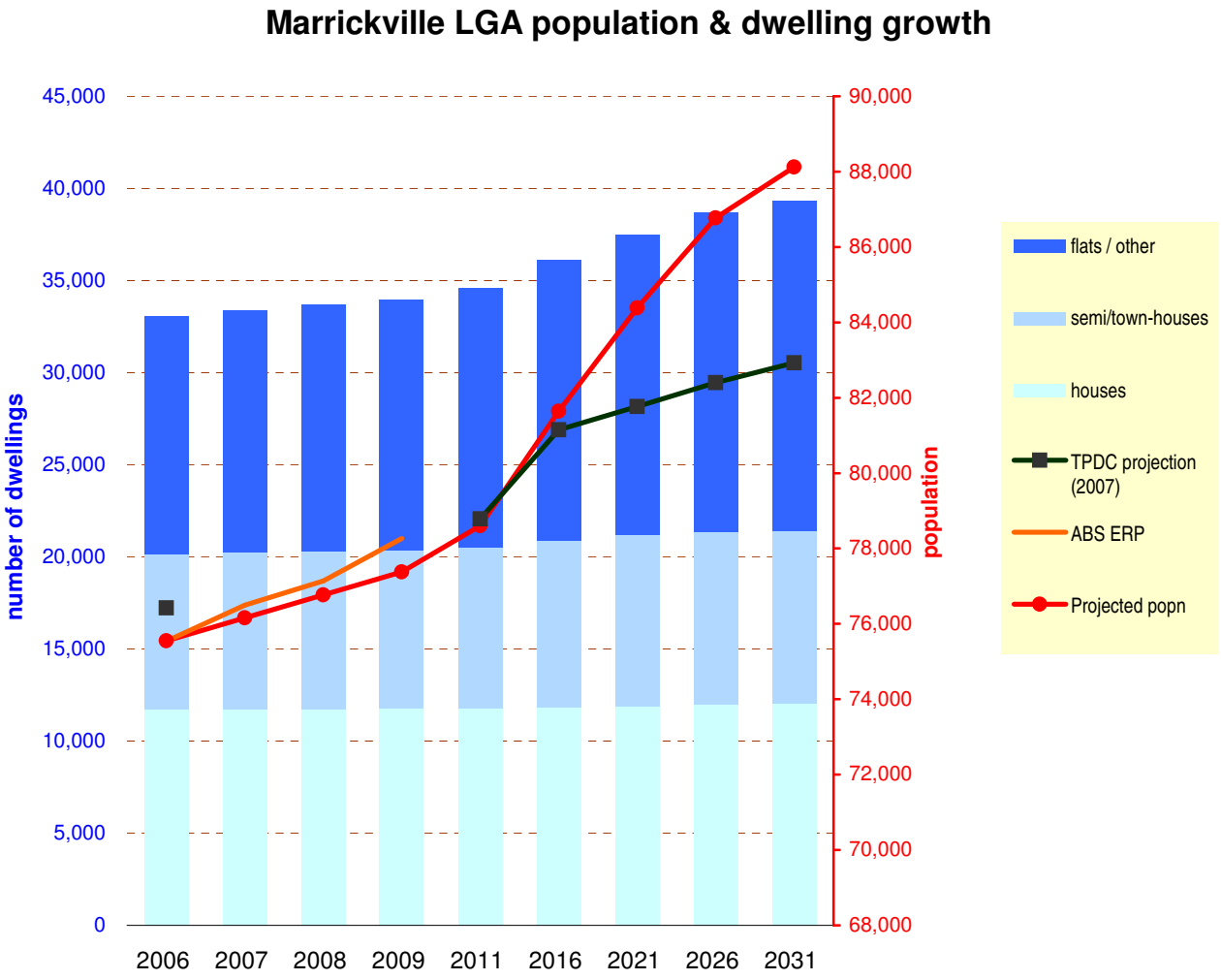
COMMUNITY PROJECTOR

Marrickville LGA 2011 to 2031



The Community Projector calculates future populations for each suburb in Marrickville LGA using projections of building activity and dwelling occupancies, adding the results for every suburb to get an overall projection. The assumptions underlying these projections are detailed in this report; they are based on the trends over 2001–2006, adjusted to reflect more recent data and local knowledge.

The chart shows the projected number of dwellings in Marrickville LGA from 2006 to 2031, and the resident population that results. These projections are not predictions; they are the result of development scenarios described in this report.

Executive summary

Dwellings

Over the period 2011 to 2031, it is projected that Marrickville LGA will have 4,765 more dwellings, consisting:

- 241 more houses,
- 654 more semis / townhouses,
- 3,870 more flats and units.

Projected types of dwellings	2006	2011	2031	change	change %
houses	11,714	11,784	12,025	**+ 241**	up 2%
semi/town-houses	8,435	8,735	9,389	**+ 654**	up 7%
flats / other	12,916	14,066	17,936	**+ 3,870**	up 28%
Total	**33,065**	**34,585**	**39,350**	**+ 4,765**	**up 14%**

In terms of dwelling size (number of bedrooms), there will be:

- 1,735 more dwellings with 0-1 bedrooms,
- 1,795 more dwellings with 2 bedrooms,
- 1,023 more dwellings with 3 bedrooms, and
- 212 more dwellings with 4+ bedrooms.

Projected sizes of dwellings	2006	2011	2031	change	change
0-1 BR dwellings	5,101	5,588	7,323	**+ 1,735**	up 31%
2 BR dwellings	14,332	15,005	16,800	**+ 1,795**	up 12%
3 BR dwellings	10,083	10,375	11,398	**+ 1,023**	up 10%
4+ BR dwellings	3,550	3,617	3,829	**+ 212**	up 6%
Total	**35,071**	**34,585**	**39,350**	**+ 4,765**	**up 14%**

Occupied dwellings

Over 2011 to 2031, it is assumed that vacancy rates in Marrickville LGA will not change from the 2006 rates.

Assumed vacancy rates	2006	2011	2031	difference
houses	5.7%	5.7%	5.7%	same
semi/town-houses	6.3%	6.3%	6.3%	same
flats / other	8.1%	8.1%	8.1%	same
Total	**6.8%**	**6.8%**	**6.8%**	**same**

These vacancy rates and dwelling changes mean that Marrickville LGA will gain 4,396 occupied dwellings over the period, consisting:

- 227 more houses,
- 613 more semis / townhouses,
- 3,556 more flats and units.

Projected occupied dwgs	2006	2011	2031	change	change %
houses	30,817	11,109	11,336	**227**	up 2%
semi/town-houses	7,907	8,188	8,801	**613**	up 7%
flats / other	11,867	12,924	16,479	**3,556**	up 28%
Total	**30,817**	**32,221**	**36,617**	**4,396**	**up 14%**

Occupancy rates

Over the period, it is assumed that the average occupancy rate (residents per dwelling) will rise by 0.15 persons per dwelling, from 2.39 persons per dwelling to 2.40. This means that a fix stock of dwellings would hold more residents in 2031 than in 2011.

For different types of dwellings, it is projected that the average occupancy rates will:

- fall by 0.00 persons per house,
- rise by 0.11 persons per townhouse,
- rise by 0.04 persons per flat.

Projected persons / dwg	2006	2011	2031	change	change %
houses	2.86	2.86	2.86	**(.00)**	dn 0%
semi/town-houses	2.44	2.48	2.59	**+ .11**	up 4%
flats / other	1.92	1.93	1.98	**+ .04**	up 2%
Total	**2.39**	**2.39**	**2.40**	**+ .15**	**up 6%**

Note that the overall occupancy rate can change by more than for any particular type of dwelling if the fastest growing type also has the fastest changing occupancy rate.

Population

The projected population in private dwellings is calculated by multiplying the number of dwellings by the occupancy rate, for each type of dwelling, and adding the projected population in institutions (eg boarding houses, nursing homes).

From 2011 to 2031, the population is projected to rise by 10,688 or 14%, from 78,602 to 88,123 (0.6% p.a.). The population in private dwellings will rise by 11,855, from 77,016 to 87,704.

By dwelling type, the additional population will consist of :

- 631 more persons in houses,
- 2,487 more persons in townhouses,
- 7,570 more persons in flats/units,
- 1,167 fewer persons in institutions.

Projected population	2006	2011	2031	change	change %
in houses	31,569	31,751	32,382	**631**	up 2%
in town-houses	19,297	20,280	22,767	**2,487**	up 12%
in flats / other	22,813	24,985	32,555	**7,570**	up 30%
in institutions	1,875	1,586	419	**(1,167)**	dn 74%
Total	**73,679**	**78,602**	**88,123**	**10,688**	**up 14%**

Bedrooms

The projected number of occupied dwellings of different size (by bedrooms) is calculated from Census data and projections for the composition of dwellings (ie the proportions with 1, 2, 3 or 4+ bedrooms. Marrickville LGA is projected to have 4,396 more occupied dwellings in 2031 than in 2011.

It is projected there will be:

- 1,597 more 0-1 BR dwellings,
- 1,657 more 2-BR dwellings,
- 945 more 3-BR dwellings,
- 197 more 4+BR dwellings.

Occ'd dwellings by size (BRs)	2006	2011	2031	change	change %
0-1 BR dwellings	4,701	5,149	6,746	**1,597**	up 31%
2 BR dwellings	13,312	13,934	15,590	**1,657**	up 12%
3 BR dwellings	9,467	9,738	10,683	**945**	up 10%
4+ BR dwellings	3,337	3,400	3,597	**197**	up 6%
Total	**30,817**	**32,221**	**36,617**	**4,396**	**up 14%**

The number of bedrooms in occupied dwellings is calculated by multiplying the number of dwellings of each size by their number of bedrooms (assuming 4.3 bedrooms in dwellings with 4+ bedrooms). From 2011 to 2031, it is projected that the number of bedrooms in occupied dwellings will rise by 8,593 or 11%.

It is projected there will be:

- 1,597 more bedrooms in 0-1 BR dwellings,
- 3,313 more bedrooms in 2-BR dwellings,
- 2,835 more bedrooms in 3-BR dwellings,
- 848 more bedrooms in 4+BR dwellings.

Bedrooms in occ'd dwellings	2006	2011	2031	change	change %
0-1 BR dwellings	4,790	5,149	6,746	**1,597**	up 31%
2 BR dwellings	26,876	27,867	31,180	**3,313**	up 12%
3 BR dwellings	28,560	29,215	32,050	**2,835**	up 10%
4+ BR dwellings	14,403	14,619	15,467	**848**	up 6%
Total	**74,629**	**76,850**	**85,443**	**8,593**	**up 11%**

The distribution of the projected population among dwellings of different size (ie bedroom numbers) is shown below.

It is projected there will be:

- 2,302 more residents in 0-1 BR dwellings,
- 4,113 more residents in 2-BR dwellings,
- 3,330 more residents in 3-BR dwellings,
- 943 more residents in 4+BR dwellings.

Population in dwellings	2006	2011	2031	change	change %
0-1 BR dwellings	6,428	7,067	9,369	**2,302**	up 33%
2 BR dwellings	27,785	29,258	33,371	**4,113**	up 14%
3 BR dwellings	26,901	27,838	31,167	**3,330**	up 12%
4+ BR dwellings	12,566	12,854	13,797	**943**	up 7%
Total	**73,679**	**77,016**	**87,704**	**10,688**	**up 14%**

From the population and number of bedroooms in dwellings of different sizes, the bedroom occupancy (persons per bedroom, in occupied dwellings) can be calculated. Over 2011 to 2031, bedroom occupancy is projected to rise from 1.00 to 1.03, or by 2.4%.

Bedroom occupancy	2006	2011	2031	change	change %
0-1 BR dwellings	1.37	1.37	1.39	**+ .02**	up 1.2%
2 BR dwellings	1.04	1.05	1.07	**+ .02**	up 1.9%
3 BR dwellings	0.95	0.95	0.97	**+ .02**	up 2.1%
4+ BR dwellings	0.88	0.88	0.89	**+ .01**	up 1.5%
Total	**0.99**	**1.00**	**1.03**	**+ .02**	**up 2.4%**

Contribution of new dwellings

The contribution of the additional dwellings to the costs caused by an increasing population can be calculated in this way.

The number of dwellings of each type/size is shown in Table C1, as calculated in Table B8 for the start and end of the planning period.

C1. Dwellings	2011					2031				
	0-1 BR	2 BR	3 BR	4+BR	total	0-1 BR	2 BR	3 BR	4+BR	total
houses	243	2,835	6,058	2,647	**11,784**	444	2,893	5,986	2,702	**12,025**
semi/town-houses	498	4,261	3,261	715	**8,735**	422	4,580	3,618	769	**9,389**
flats / other	4,847	7,909	1,056	254	**14,066**	6,457	9,327	1,794	359	**17,936**
Marrickville	**5,588**	**15,005**	**10,375**	**3,617**	**34,585**	**7,323**	**16,800**	**11,398**	**3,829**	**39,350**

The number of occupied dwellings of each type/size is shown below, calculated in Table B10 for the start and end of the planning period by applying the vacancy rates shown in Table 2.

C2. Occupied dwellings	2011					2031				
	0-1 BR	2 BR	3 BR	4+BR	total	0-1 BR	2 BR	3 BR	4+BR	total
houses	229	2,673	5,711	2,496	**11,109**	418	2,728	5,643	2,547	**11,336**
semi/town-houses	466	3,994	3,057	670	**8,188**	396	4,293	3,392	721	**8,801**
flats / other	4,453	7,266	970	234	**12,924**	5,932	8,569	1,648	330	**16,479**
Marrickville	**5,149**	**13,934**	**9,738**	**3,400**	**32,221**	**6,746**	**15,590**	**10,683**	**3,597**	**36,617**

The occupancy rate of the occupied dwellings (residents per dwelling) is shown in Table C3 for each type/size, as calculated in Table B20 for the start and end of the planning period.

C3. Dwelling occupancy	Persons per dwelling, 2011					Persons per dwelling, 2031				
	0-1 BR	2 BR	3 BR	4+BR	average	0-1 BR	2 BR	3 BR	4+BR	average
houses	1.41	2.11	2.85	3.80	**2.86**	1.42	2.13	2.88	3.83	**2.86**
semi/town-houses	1.54	2.11	2.83	3.68	**2.48**	1.59	2.19	2.94	3.82	**2.59**
flats / other	1.35	2.09	2.97	3.86	**1.93**	1.37	2.12	3.02	3.92	**1.98**
Marrickville	**1.37**	**2.10**	**2.86**	**3.78**	**2.39**	**1.39**	**2.14**	**2.92**	**3.84**	**2.40**

The number of residents per occupied dwellings is shown below for each type/size , calculated by multiplying the number of occupied dwellings (C2) by the occupancy rate (C3).

C4. Population in dwellings	2011					2031				
	0-1 BR	2 BR	3 BR	4+BR	total	0-1 BR	2 BR	3 BR	4+BR	total
houses	323	5,651	16,293	9,483	**31,751**	593	5,812	16,225	9,752	**32,382**
semi/town-houses	717	8,435	8,660	2,468	**20,280**	631	9,410	9,972	2,753	**22,767**
flats / other	6,027	15,171	2,884	902	**24,985**	8,145	18,149	4,970	1,291	**32,555**
Marrickville	**7,067**	**29,258**	**27,838**	**12,854**	**77,016**	**9,369**	**33,371**	**31,167**	**13,797**	**87,704**

The change in number of residents, and the extra occupied dwellings, over the planning period are shown below for each type/size, by subtracting the start year numbers from the end year numbers, in tables C4 and C2.

Over 2011 to 2031, the population will rise by 10,688 and the occupied dwellings will increase by 4,396.

C5. Changes in pop'n & dwellings	Change in population, 2011 to 2031					Extra occ'd dwellings, 2011 to 2031				
	0-1 BR	2 BR	3 BR	4+BR	total	0-1 BR	2 BR	3 BR	4+BR	total
houses	270	160	(68)	269	**631**	189	55	(67)	51	**227**
semi/town-houses	(86)	975	1,312	285	**2,487**	(71)	299	335	50	**613**
flats / other	2,118	2,978	2,085	389	**7,570**	1,479	1,303	678	96	**3,556**
Marrickville	**2,302**	**4,113**	**3,330**	**943**	**10,688**	**1,597**	**1,657**	**945**	**197**	**4,396**

The number of residents in the extra dwellings at the end of the planning period is calculated by multiplying the number of extra occupied dwellings from table C5 by the end occupancy in table C3. If the number of extra dwellings is negative (ie there is a net loss), the extra population is taken as nil.

In the right side of the table, the number of extra residents is shown as a proportion of the total population change. Overall, the 4,396 extra dwellings will hold 9,621 residents, representing 90% of the total increase of 10,688.

C6. Population in extra dwellings	Population in extra dwellings, 2011 to 2031					% extra population in extra dwgs, 2011 to 2031				
	0-1 BR	2 BR	3 BR	4+BR	total	0-1 BR	2 BR	3 BR	4+BR	average
houses	268	116		195	**580**	3%	1%		2%	**5%**
semi/town-houses		656	984	192	**1,831**		6%	9%	2%	**17%**
flats / other	2,031	2,759	2,044	376	**7,210**	19%	26%	19%	4%	**67%**
Marrickville	**2,299**	**3,531**	**3,028**	**763**	**9,621**	**22%**	**33%**	**28%**	**7%**	**90%**

The total number of extra dwellings by size and type is calculated below, by subtracting the start and end year numbers in table C1. In all there were 4,765 more dwellings.

In the right side of the table, a hypothetical cost of $1 million attributable to population growth is allocated among the dwellings proportional to their population impact. The apportionment per dwelling is calculated by multiplying $1 million by the proportion of extra population in those dwellings, divided by the number of dwellings.

Note that the apportionment increases with dwelling size, and is fairly consistent for every size of dwelling across the different dwelling types. In most situations, the average apportionment for each size of dwelling (regardless of type) is the fairest assessment, since the variations across dwelling types are smaller than the possible differences between the households who will inhabit the dwellings.

C7. Apportionment of $1 million costs	Extra dwellings, 2011 to 2031					apportionment / dwelling of $1 million				
	0-1 BR	2 BR	3 BR	4+BR	total	0-1 BR	2 BR	3 BR	4+BR	average
houses	200	58	(71)	54	**241**	$125	$188		$338	**$225**
semi/town-houses	(76)	319	357	54	**654**		$192	$258	$335	**$262**
flats / other	1,610	1,418	738	104	**3,870**	$118	$182	$259	$337	**$174**
Marrickville	**1,735**	**1,795**	**1,023**	**212**	**4,765**	**$124**	**$184**	**$277**	**$337**	**$189**

In table C8, the contribution rates can be set different types and sizes of dwellings, in the yellow cells. The default rates are the average for each size of dwelling, the lower row of table C7, but these can be altered. The right side of the table calculates the contribution that will be generated at these rates, on the projected scenario. The average for each type and size of dwelling are calculated by dividing the total contribution by the dwelling change.

In this table, selected contribution rates can be set different type and sizes of dwellings, in the yellow cells. The default rate is the average for each size of dwelling, the lower row of table C7, but these can be altered. The right side of the table calculates the contribution that will be generated at these rates, on the projected scenario.

The right side of the table shows that contribution rates of $124 for bedsits / one-bedroom dwellings, $184 for 2-bedroom dwellings, $277 for 2-bedroom dwellings, $337 for 3-bedroom dwellings, and $189 for 4+bedroom dwellings, would raise a total of $929,266.

C8. Setting of contributions	apportionment / dwelling of $1 million					Contribution at average apportionment				
	0-1 BR	2 BR	3 BR	4+BR	average	0-1 BR	2 BR	3 BR	4+BR	total
houses	$124	$184	$277	$337	**$141**	$24,830	$10,674		$18,224	**$53,728**
semi/town-houses	$124	$184	$277	$337	**$254**		$58,739	$98,842	$18,026	**$175,607**
flats / other	$124	$184	$277	$337	**$181**	$199,590	$260,995	$204,216	$35,130	**$699,931**
Marrickville	**$124**	**$184**	**$277**	**$337**	**$189**	**$224,420**	**$330,408**	**$303,058**	**$71,380**	**$929,266**

1. Projections for Marrickville LGA	2006	2007	2008	2009	2011	2016	2021	2026	2031	change 2011–2031
ABS ERP	75,546	76,494	77,141	78,271						
TPDC projection (2007)	76,420				78,790	81,150	81,770	82,400	82,930	
Population	**75,554**	**76,160**	**76,768**	**77,380**	**78,602**	**81,647**	**84,387**	**86,772**	**88,123**	**+9,521**
in houses	31,569	31,603	31,641	31,677	31,751	31,929	32,090	32,236	32,382	+631
in semi/town-houses	19,297	19,492	19,690	19,887	20,280	21,247	22,008	22,557	22,767	+2,487
in flats / units /other	22,813	23,245	23,679	24,113	24,985	27,181	29,288	31,274	32,555	+7,570
in institutions	1,875	1,820	1,758	1,703	1,586	1,290	1,001	705	419	(1,167)
Dwellings by type	**33,065**	**33,369**	**33,673**	**33,977**	**34,585**	**36,104**	**37,476**	**38,681**	**39,350**	**+4,765**
houses	11,714	11,728	11,742	11,756	11,784	11,853	11,915	11,970	12,025	+241
semi/town-houses	8,435	8,495	8,555	8,615	8,735	9,035	9,252	9,388	9,389	+654
flats / other	12,916	13,146	13,376	13,606	14,066	15,216	16,309	17,323	17,936	+3,870
Vacancy rates	**6.8%**	**6.8%**	**6.8%**	**6.8%**	**6.8%**	**6.8%**	**6.8%**	**6.8%**	**6.8%**	**same**
houses	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	5.7%	same
semi/town-houses	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	same
flats / other	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	8.1%	same
Occupied dwellings	**30,817**	**31,098**	**31,378**	**31,659**	**32,221**	**33,624**	**34,890**	**36,001**	**36,617**	**+4,396**
houses	11,043	11,056	11,069	11,083	11,109	11,174	11,233	11,284	11,336	+227
semi/town-houses	7,907	7,963	8,019	8,076	8,188	8,469	8,673	8,800	8,801	+613
flats / other	11,867	12,078	12,290	12,501	12,924	13,980	14,984	15,916	16,479	+3,556
Occupancy rates	**2.39**	**2.39**	**2.39**	**2.39**	**2.39**	**2.39**	**2.39**	**2.39**	**2.40**	**up 0.00**
occupied houses	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86	dn 0.00
occupied semi/town-houses	2.44	2.45	2.46	2.46	2.48	2.51	2.54	2.56	2.59	up 0.11
occupied flats / other	1.92	1.92	1.93	1.93	1.93	1.94	1.95	1.96	1.98	up 0.04
Dwellings by size	**33,065**	**33,369**	**33,673**	**33,977**	**34,585**	**36,104**	**37,476**	**38,681**	**39,350**	**+4,765**
0-1 BR dwellings	5,101	5,198	5,295	5,392	5,588	6,082	6,560	7,013	7,323	+1,735
2 BR dwellings	14,332	14,468	14,604	14,739	15,005	15,654	16,205	16,651	16,800	+1,795
3 BR dwellings	10,083	10,140	10,198	10,256	10,375	10,683	10,966	11,222	11,398	+1,023
4+BR dwellings	3,550	3,563	3,576	3,590	3,617	3,685	3,745	3,796	3,829	+212
Occupied dwellings	**30,817**	**31,098**	**31,378**	**31,659**	**32,221**	**33,624**	**34,890**	**36,001**	**36,617**	**+4,396**
0-1 BR dwellings	4,701	4,790	4,879	4,969	5,149	5,604	6,044	6,461	6,746	+1,597
2 BR dwellings	13,312	13,438	13,563	13,688	13,934	14,533	15,042	15,453	15,590	+1,657
3 BR dwellings	9,467	9,520	9,574	9,628	9,738	10,023	10,285	10,521	10,683	+945
4+BR dwellings	3,337	3,350	3,362	3,375	3,400	3,463	3,519	3,566	3,597	+197
Bedrooms	**79,276**	**79,875**	**80,475**	**81,075**	**82,276**	**85,284**	**87,971**	**90,301**	**91,583**	**+9,306**
in 0-1 BR dwellings	5,101	5,198	5,295	5,392	5,588	6,082	6,560	7,013	7,323	+1,735
in 2 BR dwellings	28,664	28,937	29,208	29,477	30,010	31,308	32,411	33,301	33,600	+3,590
in 3 BR dwellings	30,248	30,419	30,593	30,769	31,125	32,048	32,898	33,665	34,195	+3,070
in 4+BR dwellings	15,263	15,321	15,379	15,436	15,553	15,846	16,103	16,323	16,465	+912
Bedrooms in occ'd dwgs	**74,076**	**74,629**	**75,184**	**75,740**	**76,850**	**79,632**	**82,114**	**84,264**	**85,443**	**+8,593**
0-1 BR dwellings	4,701	4,790	4,879	4,969	5,149	5,604	6,044	6,461	6,746	+1,597
2 BR dwellings	26,624	26,876	27,126	27,375	27,867	29,066	30,084	30,905	31,180	+3,313
3 BR dwellings	28,401	28,560	28,721	28,884	29,215	30,070	30,855	31,563	32,050	+2,835
4+BR dwellings	14,350	14,403	14,457	14,511	14,619	14,892	15,131	15,335	15,467	+848
Occupancy per dwelling	**2.39**	**2.39**	**2.39**	**2.39**	**2.39**	**2.39**	**2.39**	**2.39**	**2.40**	**0.00**
in 0-1 BR dwellings	1.37	1.37	1.37	1.37	1.37	1.38	1.38	1.38	1.39	0.02
in 2 BR dwellings	2.09	2.09	2.09	2.09	2.10	2.11	2.12	2.13	2.14	0.04
in 3 BR dwellings	2.84	2.84	2.85	2.85	2.86	2.87	2.89	2.90	2.92	0.06
in 4+BR dwellings	3.77	3.77	3.77	3.77	3.78	3.80	3.81	3.82	3.84	0.05
Residents in priv dwgs	**73,679**	**74,340**	**75,010**	**75,677**	**77,016**	**80,357**	**83,386**	**86,067**	**87,704**	**+10,688**
in 0-1 BR dwellings	6,428	6,555	6,682	6,810	7,067	7,718	8,347	8,947	9,369	+2,302
in 2 BR dwellings	27,785	28,081	28,378	28,673	29,258	30,683	31,914	32,933	33,371	+4,113
in 3 BR dwellings	26,901	27,082	27,269	27,457	27,838	28,812	29,721	30,554	31,167	+3,330
in 4+BR dwellings	12,566	12,622	12,680	12,738	12,854	13,144	13,404	13,633	13,797	+943
Bedroom occupancy	**0.99**	**1.00**	**1.00**	**1.00**	**1.00**	**1.01**	**1.02**	**1.02**	**1.03**	**up 0.02**
in 0-1 BR dwellings	1.37	1.37	1.37	1.37	1.37	1.38	1.38	1.38	1.39	up 0.02
in 2 BR dwellings	1.04	1.04	1.05	1.05	1.05	1.06	1.06	1.07	1.07	up 0.02
in 3 BR dwellings	0.95	0.95	0.95	0.95	0.95	0.96	0.96	0.97	0.97	up 0.02
in 4+BR dwellings	0.88	0.88	0.88	0.88	0.88	0.88	0.89	0.89	0.89	up 0.01

The data is this table is generated by running the model for all the future years shown in the column titles (these can be altered to any you prefer). The assumptions can be altered on the following pages. The ABS population or other forecast is entered from other data

This table is based on assumptions shown in later tables

Methodology

The Community Projector calculates the future population of Marrickville LGA by making a projection for each suburb within Marrickville LGA, then adding these to give the overall projection. The projection for each suburb takes account of dwelling, vacancy and occupancy changes, through a three-step process. The methodology is illustrated in the following pages using 2031 as the projection year (any sample year can be set).

1. The expected number of dwellings is calculated, using the 2006 Census as the baseline.
2. The anticipated occupancy rates of these dwellings is calculated, using 2006 as the baseline.
3. The projected population is calculated by multiplying dwelling numbers by occupancy rates, and adding institutional residents.

Making dwelling projections

The dwelling construction rate is a key determinant of population growth (or conversely). The Projector calculates the number of dwellings in any future year by applying an annual building rate to the number of dwellings counted in the 2006 Census, which forms the baseline. The building rate can be adjusted for each locality and for the three types of dwellings – houses, attached houses and flats / units. Initially, the Projector sets these rates from the trends between 2001 and 2006. However, these default rates are then adjusted using knowledge of building approvals, planning schemes and market trends.

Setting the baseline dwelling count

The first step in projecting the number of dwellings in a future year is to establish a baseline count of the dwelling stock, occupied and vacant, to which additional dwellings can be added. The best data is from the 2006 Census, which counts all dwellings except uncompleted dwellings. However, while the Census reports on the number of occupied dwellings in every locality, it only reports the number of unoccupied (vacant) dwellings at the Council level.

The 2006 Census found that Marrickville LGA had a stock of 33,065 dwellings of which 1,049 were unoccupied, an overall vacancy rate of 6.8%. In the table below, the vacancy rates in Marrickville LGA for houses, townhouses and flats have been applied across the localities to get local estimates of vacant stock.

The final row of the table shows the vacancy rates used for projections. The default setting for these is to equal the 2006 vacancy rates, but other rates can be written in.

2. Dwelling stock, 2006 Census	**occupied dwellings**			**unoccupied dwellings**			**total dwelling stock**			
	houses	semi/town-houses	flats / other	houses	semi/town-houses	flats / other	houses	semi/town-houses	flats / other	total
Camperdown	99	710	426	6	47	38	105	757	464	**1,326**
Dulwich Hill	2,090	552	2,697	127	37	238	2,217	589	2,935	**5,741**
Enmore	274	741	558	17	49	49	291	790	607	**1,688**
Lewisham	574	174	383	35	12	34	609	186	417	**1,212**
Marrickville	2,427	1,357	1,861	147	91	164	2,574	1,448	2,025	**6,047**
Newtown	290	1,870	983	18	125	87	308	1,995	1,070	**3,373**
Petersham	1,065	609	1,346	65	41	119	1,130	650	1,465	**3,245**
St Peters	1,483	296	2,072	90	20	183	1,573	316	2,255	**4,144**
Stanmore	420	477	227	26	32	20	446	509	247	**1,202**
Sydenham	1,179	725	1,235	72	48	109	1,251	773	1,344	**3,368**
Tempe	157	191	32	10	13	3	167	204	35	**406**
South Marrickville	983	204	48	60	14	4	1,043	218	52	**1,313**
1420313	10	10	297	1	1	26	11	11	323	**345**
1420708	77		62	5		5	82		67	**149**
Marrickville	**11,041**	**7,906**	**11,868**	**671**	**528**	**1,049**	**11,714**	**8,435**	**12,916**	**33,065**
vacancy rates 2006							5.7%	6.3%	8.1%	**6.8%**
future vacancy rates				(enter future vacancy rates for dwelling types here:)			5.7%	6.3%	8.1%	

Annual dwelling changes

The number of dwellings in a future year is calculated by adding the net change in dwelling numbers to the baseline number of dwellings. The change could be negative if demolitions outnumber constructions. An annual change rate is set for three types of dwellings (houses, townhouses and flats) for each locality. This is multiplies by the elapsed period to calculate the total change in dwelling numbers.

The dwelling projections for 2031 are calculated in Table 2 below. The table shows that if Marrickville LGA gets 304 net extra dwellings a year, there will be 40,665 dwellings by 2031.

The left side of Table 2 shows the projected dwelling changes from 2006, in extra dwellings per year. Cells with a yellow background are calculated on 2001–2006 trends (from Census data); cells with orange background have had other growth rates entered directly (from local knowledge). The central columns show the resultant theoretical number of dwellings in 2031, by multiplying the annual change by the number of years 25, and adding this to the 2006 baseline count.

The projected dwellings include vacant dwellings and holiday houses, since these are counted in the baseline 2006 Census data, and represent all private dwellings.

Setting limits on development

In some localities, the theoretical number of dwellings may not be physically feasible due to land or planning restrictions. The Projector allows dwelling limits entered for houses and medium density dwellings (townhouses or flats), in the two right-hand columns of Table 2. A blank in the column means no limit has been imposed. If a number is entered, the projected number of dwellings is not allowed to exceed this total. For medium density cases, the projected number of dwellings of townhouses and flats is restrained proportionally to any limit set.

3. Dwelling trends from 2006	Annual net change in priv. dwellings				Theoretical dwellings in 2031				Dwelling limits	
	houses	semi/town-houses	flats / other	total dwellings	houses	semi/town-houses	flats / other	total	houses	medium density
Camperdown	1	5	5	11	130	882	589	**1,601**	120	1,340
Dulwich Hill	1	5	40	46	2,242	714	3,935	**6,891**	2,400	4,530
Enmore	1	5	10	16	316	915	857	**2,088**	300	1,610
Lewisham	1	5	30	36	634	311	1,167	**2,112**	650	1,340
Marrickville	1	5	50	56	2,599	1,573	3,275	**7,447**	2,800	4,800
Newtown	1	5	20	26	333	2,120	1,570	**4,023**	320	3,600
Petersham	1	5	20	26	1,155	775	1,965	**3,895**	1,200	2,700
St Peters		5	25	30	1,573	441	2,880	**4,894**	1,700	3,220
Stanmore	1	5	10	16	471	634	497	**1,602**	500	960
Sydenham	1	5	5	11	1,276	898	1,469	**3,643**	1,300	2,240
Tempe	1	5	5	11	192	329	160	**681**	200	340
South Marrickville	4	5	10	19	1,143	343	302	**1,788**	1,200	710
1420313					11	11	323	**345**	15	800
1420708					82		67	**149**	90	700
Marrickville	**14**	**60**	**230**	**304**	**12,064**	**9,935**	**18,666**	**40,665**		

The annual change in private dwellings is shaded orange is the number was set manually, or yellow if using a default rate of the average over 2001–2006. Negative numbers representing net demolitions are shown bracketed in red.

Projecting numbers of occupied and vacant dwellings

The projected stock of dwellings includes vacant dwellings, so to calculate future dwelling occupancy, the number of occupied dwellings must be determined. In the table below, the number of occupied and vacant dwellings is calculated by multiplying to total stock by the estimated future vacancy rates.

Dwellings classified as unoccupied were not the only empty dwellings on Census night. The occupied dwellings included dwellings occupied by visitors only (eg holiday lets) and 'unclassified' dwellings where the occupancy was unknown. Many of these unclassified dwellings were the homes of residents where everyone was away Census night but completed a Census form elsewhere, giving their home address.

In calculating occupancy rates for dwellings, the dwelling count used is the number of occupied dwellings regardless of who occupied the dwelling.

Table 4 shows the projected number of dwellings in 2031, calculated by applying the growth rates and overall limits in the preceding table. The future vacancy rates are applied to each dwelling stock to calculate how many will be unoccupied at any one time (eg for sale or rent). Subtracting the vacant dwelling from the stock gives the projected number of occupied dwellings.

4. Dwellings projected for 2031	**Vacant dwellings**			**Occupied dwellings**			**Total private dwellings**			
	houses	semi/town-houses	flats / other	houses	semi/town-houses	flats / other	houses	semi/town-houses	flats / other	total dwellings
Camperdown	7	50	44	113	753	493	120	803	537	**1,460**
Dulwich Hill	128	44	311	2,114	652	3,523	2,242	696	3,834	**6,772**
Enmore	17	52	63	283	779	715	300	831	779	**1,910**
Lewisham	36	18	86	598	264	972	634	282	1,058	**1,974**
Marrickville	149	98	263	2,450	1,460	2,979	2,599	1,557	3,243	**7,399**
Newtown	18	130	124	302	1,939	1,407	320	2,068	1,532	**3,920**
Petersham	66	48	157	1,089	716	1,779	1,155	764	1,936	**3,855**
St Peters	90	27	227	1,483	401	2,566	1,573	428	2,792	**4,793**
Stanmore	27	34	34	444	504	388	471	538	422	**1,431**
Sydenham	73	53	113	1,203	797	1,277	1,276	850	1,390	**3,516**
Tempe	11	14	9	181	214	102	192	229	111	**532**
South Marrickville	66	22	25	1,078	322	278	1,143	343	302	**1,788**
1420313	1	1	26	10	10	297	11	11	323	**345**
1420708	5		5	77		62	82		67	**149**
Marrickville	**689**	**588**	**1,457**	**11,336**	**8,801**	**16,479**	**12,025**	**9,389**	**17,936**	**39,350**

Orange shading = constrained by limits.

Making occupancy rate projections

Generally across Australia, the occupancy rate of dwellings (ie the average number of residents) is falling, because households are becoming smaller on average. This is the result of two main demographic trends – families tending to have fewer children, and more people living alone (one-person households).

However, occupancy rates change at different rates for different dwelling types. The occupancy rate of houses tends to be falling while that of flats or units is more static (partly because the occupancy of single-person flats cannot fall below 1.0 persons per dwelling). The life-stage of the community also influences occupancy trends – for example, a newly-settled area will tend to have rising occupancy rates as its young families grow.

To deal with this variability, projections are made for the occupancy rates of three types of dwellings (houses, semi's and flats) within each locality, allowing these to vary according to local characteristics. These future occupancy rates are calculated by applying a change-rate (percent per annum) to baseline occupancy rates, as measured at the 2006 Census. A positive change-rate means that the occupancy rate is increasing over time, with more residents per dwelling. A negative (decreasing) change rate (shown in red) will reduce the population that a given number of dwellings can hold.

Setting trends in occupancy rates

Trends in occupancy rates are a key determinant of the future population capacity of dwelling stock. Making projections involves setting these trends. Here, the starting point is trends in occupancy rates is the change between 2001 and 2006 as measured in the Census, shown in the Table below.

Table 6 shows occupancy rates in 2006 and 2001, and the annual rate of change over this period, for each suburb, using the Census data. The occupancy rates are in 'counted persons' per occupied private dwelling, since this was measured in both Censuses. If there were fewer than 10 dwellings of a type in a locality, the Marrickville LGA average change is used. The Occupancy Change is the 2001–2006 change averaged over the five years (linearly).

5. Occupancy rates changes, 2001–2006	people / occupied dwelling, 2006				people / occup'd dwg, 2001			Occupancy change, % pa		
	houses	semi/town-houses	flats / other	all occ'd. dwelling	houses	semi/town-houses	flats / other	houses	semi/town-houses	flats / other
Camperdown	**2.40**	**2.17**	1.64	**2.01**	**2.43**	**2.08**	**1.66**	**dn 0.2%**	up 0.9%	**dn 0.3%**
Dulwich Hill	2.73	2.32	1.91	**2.27**	2.88	2.24	2.10	dn 1.1%	up 0.7%	dn 1.8%
Enmore	2.56	2.21	1.66	**2.08**	**2.55**	2.14	1.76	**up 0.1%**	up 0.7%	dn 1.2%
Lewisham	2.57	2.33	1.67	**2.23**	2.68	2.41	1.75	dn 0.8%	dn 0.7%	dn 0.9%
Marrickville	2.82	**2.50**	1.95	**2.46**	3.04	2.44	2.16	dn 1.4%	up 0.5%	dn 1.9%
Newtown	**2.31**	2.21	1.67	**2.05**	**2.56**	2.17	**1.72**	**dn 1.9%**	up 0.4%	dn 0.6%
Petersham	2.60	2.41	1.68	**2.15**	2.78	2.41	**1.71**	dn 1.3%	dn 0.1%	**dn 0.4%**
St Peters	**2.96**	**2.53**	1.94	**2.38**	**3.08**	**2.80**	2.13	dn 0.8%	**dn 1.9%**	dn 1.9%
Stanmore	**2.51**	**2.16**	**2.06**	**2.27**	**2.58**	2.15	1.99	dn 0.6%	up 0.2%	**up 0.7%**
Sydenham	2.56	2.45	1.65	**2.18**	**2.63**	2.43	**1.71**	dn 0.5%	up 0.2%	dn 0.6%
Tempe	2.71	2.34	**2.41**	**2.50**	2.89	2.28	**2.36**	dn 1.3%	up 0.4%	**up 0.4%**
South Marrickville	2.68	**2.12**	1.77	**2.56**	2.74	2.40	1.99	**dn 0.4%**	**dn 2.3%**	dn 2.2%
1420313	**3.30**	**1.20**	**2.07**	**2.09**	2.93	**1.71**	2.12	**up 2.5%**	**dn 6.0%**	dn 0.5%
1420708	2.88	2.31	**2.10**	**2.56**	**3.66**	**2.65**	2.00	**dn 4.2%**	**dn 2.5%**	**up 1.0%**
Marrickville	**2.71**	**2.31**	**1.82**	**2.27**	**2.86**	**2.30**	**1.95**	**dn 1.0%**	**up 0.1%**	**dn 1.3%**
Inner Sydney SSD	2.68	2.31	1.83	**2.11**	2.75	2.27	1.85	dn 0.5%	up 0.3%	dn 0.2%
Sydney	3.00	2.40	1.95	**2.65**	3.04	2.36	1.94	dn 0.3%	up 0.3%	up 0.1%
std. dev'n	0.18	0.14	0.23	0.18	0.20	0.20	0.23	0.6%	1.0%	0.9%

High results are shaded green; low results are shaded pink. These results are more than one standard deviation from the Marrickville LGA average.

Setting baseline occupancy rates

The baseline occupancy rate from which projections are made is that applying in 2006 when the baseline number of dwellings were counted. This occupancy rate has to be measured in permanent residents per occupied dwelling, so that multiplying by the occupied dwellings will yield the permanent population in private dwellings.

Occupancy rates calculated from Census data are not adequate for projecting the permanent population because the Census does not count everyone. The permanent population of an area is slightly higher than the Census count of residents. The most common estimate of an area's true permanent resident population is the ABS Estimated Resident Population (ERP). Generally, population projections are made for the estimated resident population, so this is the population measured that the Projector calculates.

2006 Census data provides a number of tables giving both population and dwelling numbers, from which occupancy rates can be calculated. Regardless of which is used, the rates calculated from the Census must be inflated to adjust to the permanent population.

In correcting Census populations to match the ERP, the first step is to subtract the residents who do not live in private dwellings from the ERP. These residents live in facilities such as boarding houses and nursing homes. The population in non-private dwellings in 2006 is taken as the Census count.

A Residency Ratio is calculated to convert the 2006 occupancy rates from Census residents per dwelling to permanent residents per dwelling. The Residency Ratio is set by dividing the 2006 Estimated Resident Population in private dwellings by the Census count of residents in private dwellings. For Marrickville LGA, the Census count in private dwellings was 69,856 in 2006, while the ERP for 2006 is 75,546 people less 1,875 residents counted in non-private dwellings. This means that the Residency Ratio is 1.055.

In the table below, the first three columns show the Census occupancy rates for each type of dwelling, calculated by dividing the number of people in each type of dwelling (on Census night) by the total stock of occupied dwellings (ie the baseline number). While absentee residents are not included in this sample, and overnight visitors are, this population reflects the capacity of the dwellings, and can be factored up to match the estimated resident population. Where there are less than 10 dwellings of a type in a locality, the average occupancy for the whole area is used.

The second set of columns show the baseline residents number, by applying the Census occupancy rates inflated by the Residency Ratio, to the number of dwellings (from Table) occupancy rate that are used for projections, calculated by factoring up the Census occupancy rates by the Residency Ratio.

6. Occupancy rates 2006	**residents/dwg, Census 2006**			**baseline residents, 2006**				**2006 perm. residents (ERP)**		
	houses	semi/town-houses	flats / other	houses	semi/town-houses	flats / other	total	in institutions	in private dwelling	total
Camperdown	**2.40**	**2.17**	1.64	251	1,628	736	2,615	10	2,615	2,625
Dulwich Hill	2.73	2.32	1.91	6,007	1,352	5,441	12,800	80	12,800	12,880
Enmore	2.56	2.21	1.66	740	1,730	974	3,444	74	3,444	3,518
Lewisham	2.57	2.33	1.67	1,557	427	675	2,659	264	2,659	2,923
Marrickville	2.82	**2.50**	1.95	7,221	3,578	3,832	14,632	620	14,632	15,252
Newtown	**2.31**	2.21	1.67	706	4,354	1,730	6,790	45	6,790	6,835
Petersham	2.60	2.41	1.68	2,917	1,545	2,380	6,842	285	6,842	7,127
St Peters	**2.96**	**2.53**	1.94	4,636	791	4,229	9,656	100	9,656	9,756
Stanmore	**2.51**	**2.16**	**2.06**	1,112	1,087	493	2,691	47	2,691	2,738
Sydenham	2.56	2.45	1.65	3,185	1,874	2,154	7,212	310	7,212	7,522
Tempe	2.71	2.34	**2.41**	449	470	81	1,001	12	1,001	1,013
South Marrickville	2.68	**2.12**	1.77	2,782	457	90	3,328	28	3,328	3,356
1420313	**3.30**	**1.20**	**2.07**	35	13	650	697		697	697
1420708	2.88	2.31	**2.10**	234		137	371		375	375
Marrickville	**2.71**	**2.31**	**1.82**	**31,562**	**19,294**	**22,814**	**73,671**	**1,875**	**73,670**	**75,545**
Inner Sydney SSD	2.68	2.31	1.83							
Sydney	3.00	2.40	1.95					**Residency Ratio =**		**1.055**
std. dev'n	0.18	0.14	0.23							

High results are shaded green; low results are shaded orange. These results are more than one standard deviation from the Marrickville LGA average.

Calculating future occupancy rates

Future occupancy rates are calculated by adjusting the 2006 baseline occupancy by the rate of occupancy change over the elapsed period. The rate of change used for projections can be the trend over 2001 to 2006, or other rates based on other assumptions.

The first three columns of Table 5 show the annual rates at which the occupancy rates of houses, semi's and flats are projected to change from 2006 onwards. A rate of -1% means that an occupancy rate of 3.00 would fall by 0.03 over a year. Occupancy change-rates with a yellow background have been generated from 2001–2006 trends; those with orange backgrounds have been entered manually to create a particular scenario.

The second set of columns show the baseline (2006) occupancy rate from which projections have been made. These occupancy rates, taken from Census rates in the previous table factored up by the residency ratio, measure permanent resident population per dwelling.

The right-hand columns show the projected occupancy rates for 2031. These are calculated by applying the occupancy change rate to the 2006 baseline occupancy rates, for each locality and dwelling type. The overall average occupancy for each suburb is calculated from the average of the three dwelling types, weighted for their projected number of dwellings in 2031.

Upper and lower limits have been set for the occupancy rates, and projections are kept within these. The limits for houses are 2.4 to 3.5; for terrace and semi-detached, 1.2 to 2.7; and for flats and other dwellings, 1.7 to 2.6. These limits can be altered to test alternative scenarios.

7. Occupancy rates projected for 2031	**Projected occupancy change**			**Baseline occupancy, 2006 (residents / occ'd dwelling)**			**Projected Occ.Rate in 2031 (residents / occ'd dwelling)**			
	houses	semi/town-houses	flats / other	houses	semi/town-houses	flats / other	houses	semi/town-houses	flats / other	all private dwellings
Camperdown	**0.0%**	**0.3%**	**0.1%**	**2.54**	**2.29**	1.73	2.54	2.47	1.77	**2.22**
Dulwich Hill	**0.0%**	**0.3%**	**0.1%**	2.87	2.45	2.02	2.87	2.63	2.07	2.40
Enmore	**0.0%**	**0.3%**	**0.1%**	2.70	2.33	1.75	2.70	2.51	1.79	2.25
Lewisham	**0.0%**	**0.3%**	**0.1%**	2.71	2.45	1.76	2.71	2.64	1.81	**2.22**
Marrickville	**0.0%**	**0.3%**	**0.1%**	2.98	**2.64**	2.06	2.98	**2.70**	2.11	2.54
Newtown	**0.0%**	**0.3%**	**0.1%**	**2.43**	2.33	1.76	2.43	2.50	1.80	**2.23**
Petersham	**0.0%**	**0.3%**	**0.1%**	2.74	2.54	1.77	2.74	**2.70**	1.81	2.27
St Peters	**0.0%**	**0.3%**	**0.1%**	**3.13**	**2.67**	2.04	3.13	**2.70**	2.09	2.49
Stanmore	**0.0%**	**0.3%**	**0.1%**	**2.65**	**2.28**	**2.17**	2.65	2.45	2.22	2.45
Sydenham	**0.0%**	**0.3%**	**0.1%**	2.70	2.58	1.74	2.70	**2.70**	1.79	2.34
Tempe	**0.0%**	**0.3%**	**0.1%**	2.86	2.46	**2.54**	2.86	2.65	**2.60**	**2.72**
South Marrickville	**0.0%**	**0.3%**	**0.1%**	2.83	**2.24**	1.87	2.83	2.41	1.91	**2.60**
1420313	**0.0%**	**0.3%**	**0.1%**	**3.48**	**1.27**	**2.19**	3.48	1.36	2.24	2.25
1420708	**0.0%**	**0.3%**	**0.1%**	3.04	2.44	**2.21**	3.04	2.62	2.27	**2.70**
Marrickville	**0.0%**	**0.3%**	**0.1%**	**2.86**	**2.44**	**1.92**	**2.86**	**2.59**	**1.98**	**2.40**
Inner Sydney SSD	-0.5%	0.3%	-0.2%							
Sydney	-0.3%	0.3%	0.1%							
std. dev'n	0.0%	0.0%	0.0%	**0.19**	**0.15**	**0.24**	0.19	0.11	0.25	**0.17**

High results are shaded green; low results are shaded pink. These results are more than one standard deviation from the Marrickville LGA average.

Calculating the projected population

The projected resident population of Marrickville LGA is calculated by adding together the projected populations living in private and in non-private dwellings. These are calculated by different methodologies.

The population projected to live in private dwellings in 2031 is calculated by multiplying the expected number of dwellings by the anticipated occupancy rate across the suburbs. This is shown in the table – the projected 2031 population in private dwellings add to 87,704 for Marrickville LGA.

8. Dwelling projections for 2031	occupied dwellings			occupancy rates			residents in private dwellings, 2031			
	houses	semi/town-houses	flats / other	houses	semi/town-houses	flats / other	houses	semi/town-houses	flats / other	total
Camperdown	113	753	493	**2.54**	2.47	1.77	287	1,857	873	**3,017**
Dulwich Hill	2,114	652	3,523	2.87	**2.63**	2.07	6,075	1,717	7,285	**15,077**
Enmore	283	779	715	2.70	2.51	1.79	764	1,956	1,281	**4,001**
Lewisham	598	264	972	2.71	**2.64**	1.81	1,621	698	1,756	**4,075**
Marrickville	2,450	1,460	2,979	2.98	**2.70**	2.11	7,290	3,942	6,288	**17,520**
Newtown	302	1,939	1,407	**2.43**	2.50	1.80	734	4,853	2,538	**8,125**
Petersham	1,089	716	1,779	2.74	**2.70**	1.81	2,982	1,933	3,225	**8,140**
St Peters	1,483	401	2,566	**3.13**	**2.70**	2.09	4,636	1,082	5,367	**11,085**
Stanmore	444	504	388	**2.65**	2.45	**2.22**	1,175	1,236	862	**3,273**
Sydenham	1,203	797	1,277	2.70	**2.70**	1.79	3,250	2,151	2,283	**7,684**
Tempe	181	214	102	2.86	**2.65**	**2.60**	518	568	266	**1,352**
South Marrickville	1,078	322	278	2.83	2.41	1.91	3,050	774	531	**4,355**
1420313	10	10	297	**3.48**	**1.36**	**2.24**	36	14	665	**715**
1420708	77		62	3.04	**2.62**	**2.27**	235		140	**375**
Marrickville	**11,336**	**8,801**	**16,479**	**2.86**	**2.59**	**1.98**	**32,382**	**22,767**	**32,555**	**87,704**

In this table, the occupied dwellings come from Table 4 and the occupancy rates from Table 5.

Non-private dwellings include a variety of institutional accommodation where facilities are shared (including nursing homes, hospitals, prisons, boarding schools, motels, hotels, and boarding houses). Projecting the future population of these dwellings is difficult; each type being affected by different trends, and the development of new non-private dwellings may occur irregularly.

The default assumption of the Community Projector is that the number of institutional residents grows at the average of the change rates over 2001–2006 for the locality, area, city and region. These default change rates, expressed in extra (or fewer) persons per annum living in institutions, are shaded yellow in the table below. They can be overwritten where it is known that (say) nursing homes) will be developed (in which case the rates will turn orange).

The left-hand columns of Table 9 show the institutional population in the 2006 and 2001 Censuses. The 2006 Census provides the count of both permanent residents and overnight residents, while 2001 provides only the overnight count. The percentage change in the overnight population between 2001 and 2006 is shown for each locality. The projected institutional population change (residents pa) is shown for each locality. This growth rate is applied to the number of residents in institutions in 2006 to provide the number of permanent residents likely to be in institutions in a future year.

In the right-hand columns of Table 9, the estimated resident population of Marrickville LGA is calculated by adding the institutional residents to those in private dwellings, giving a total of 88,123 in mid-2031.

9. Estimated resident population	People in institutions, Census				future institut'l	Projected permanent residents in 2031				
	residents in 2006	overnight 2006	overnight 2001	overnight change p.a.	change, residents p.a.	in institutions	in semi/town-houses			total pop'n
							in houses	houses	in flats / other	
Camperdown	10	5	30	-17%	(1)	-	287	1,857	873	**3,017**
Dulwich Hill	80	42	103	-12%	(3)	18	6,075	1,717	7,285	**15,095**
Enmore	74	20	157	-17%	(3)	-	764	1,956	1,281	**4,001**
Lewisham	264	143	273	-10%	(7)	89	1,621	698	1,756	**4,164**
Marrickville	620	367	704	-10%	(17)	195	7,290	3,942	6,288	**17,715**
Newtown	45	8	114	-19%	(2)	8	734	4,853	2,538	**8,133**
Petersham	285	81	270	-14%	(10)	48	2,982	1,933	3,225	**8,188**
St Peters	100	36	160	-16%	(4)	13	4,636	1,082	5,367	**11,098**
Stanmore	47	18	59	-14%	(2)	10	1,175	1,236	862	**3,283**
Sydenham	310	72	379	-16%	(11)	35	3,250	2,151	2,283	**7,719**
Tempe	12	4	18	-16%	(1)	-	518	568	266	**1,352**
South Marrickville	28	8	89	-18%	(1)	3	3,050	774	531	**4,358**
1420313					-	-	36	14	665	**715**
1420708					-	-	235		140	**375**
Marrickville	1,875	804	2,356	-13%	**(59)**	**419**	**32,382**	**22,767**	**32,555**	**88,123**
Inner Sydney SSD	21,710	31,068	31,606	0%						
Sydney	97,524	111,626	105,808	1%						

The default future institutional change rates (shown with a yellow background) are calculated for each locality as the average of the 2001-2006 change rates

Making bedroom projections

The occupancy of dwellings is the result of two factors - the number of bedrooms and the occupancy per bedroom. These are related mathematically - persons per dwelling equals bedrooms per dwelling multiplied by persons per bedroom. This means that the trend in dwelling occupancy is the result of two underlying trends - in bedrooms per dwelling and in persons per bedroom.

The average number of bedrooms per dwelling can change due to three main factors - new dwellings being different size to current dwellings; alterations to current dwellings; and change in use of rooms. The bedroom/dwelling rate will increase if new dwellings have more bedrooms on average than current dwellings; if current dwellings have alterations that increase the number of bedrooms; or if current rooms are converted to bedrooms.

The average number of persons per bedroom (a measure of crowding) is affected by different factors and so may trend in different directions to bedrooms/dwelling. Persons per bedroom will increase with growing households in unchanged dwellings (eg when a family has a new child), and if incoming households are larger than current ones, for the same sized dwelling. Conversely, persons/bedroom will fall as households become smaller in their current dwellings (eg 'empty-nesters' whose children have moved out).

Trends in occupancy per dwelling can be steadier than the underlying trends in dwellings per bedroom and persons per bedroom. Consider a couple sharing a two-bedroom dwelling, living as singles at one person per bedroom. By the next Census, they have moved into together and converted the second bedroom to a study. Occupancy of two persons per dwelling is the same, but bedrooms per dwelling has halved to 1, while persons per bedroom has doubled to 2. When they have a child, dwelling occupancy of 3 equals 2 bedrooms/dwelling multiplied by 1.5 persons per bedroom.

The trends in bedroom numbers and occupancy can be investigated using 2001 and 2006 Census data, adjusting the raw numbers to the total dwelling and population of Marrickville LGA. This data is not available for localites, so the Marrickville LGA average has to be used.

Baseline count of dwellings and bedrooms, 2006

The Census count of bedrooms by dwelling type is calculated below for Marrickville LGA using data from the 2006 Census. The left side of the table shows the number of dwellings of each size in the Cenus sample. This excludes responses which did not give both their dwelling size and usual occupancy.

The number of bedrooms in these dwellings is calculated by multiplying the number of dwellings by the number of bedrooms, assuming 4.3 bedrooms/dwelling average for dwellings with 4 or more bedrooms. This sample had 27,378 dwellings with an estimated 65,906 bedrooms, an average of 2.4 bedrooms/dwelling.

In the right side of the table, the total number of occupied houses, semis and flats in 2006 (from Table 2) are multiplied by their bedrooms/dwelling to calculate the total bedroom stock in occupied dwellings in Marrickville LGA, 73,624. Dividing the resident population of each dwelling type (from Table 6) by bedroom numbers gives the average bedroom occupancy, 1.00 persons per bedroom.

B1. Bedrooms in dwellings, 2006	no. dwellings of each size in Census sample					total bedrooms	bedrooms /dwelling	occupied stock		
	0-1 BR	2 BR	3 BR	4+BR	total			dwgs	BRs	residents / BR
houses	377	2,713	4,854	2,207	10,151	**29,855**	2.9	11,041	**32,473**	.97
semi/town-houses	472	3,282	2,771	634	7,159	**18,075**	2.5	7,906	**19,961**	.97
flats / other	3,241	5,925	764	138	10,068	**17,976**	1.8	11,868	**21,190**	1.08
Marrickville	**4,090**	**11,920**	**8,389**	**2,979**	**27,378**	**65,906**	**2.4**	**30,815**	**73,624**	**1.00**
bedrooms / dwelling	1	2	3	4.3	<< this figure can be changed					

In Table B2, the proportion of houses, semis and flats of each size are calculated from the Census sample. These proportions are applied to the total stock of occupied dwellings (from Table 2) to calculate the number of occupied dwellings of each size in 2006. The 30,815 occupied dwellings consisted of 4,603 with zero or one bedroom, 13,416 with two bedrooms, 9,442 with three bedrooms and 3,353 with 4 or more bedrooms.

B2. Dwelling sizes in occupied stock, 2006	% of dwellings each size, 2006					dwellings of each size in occupied stock, 2006				
	0-1 BR	2 BR	3 BR	4+BR	2006 BR/dwg	0-1 BR	2 BR	3 BR	4+BR	total
houses	4%	27%	48%	22%	**2.9**	410	2,951	5,280	2,401	**11,041**
semi/town-houses	7%	46%	39%	9%	**2.5**	521	3,624	3,060	700	**7,906**
flats / other	32%	59%	8%	1%	**1.8**	3,820	6,984	901	163	**11,868**
Marrickville	**15%**	**44%**	**31%**	**11%**	**2.4**	**4,603**	**13,416**	**9,442**	**3,353**	**30,815**

Source: 2006 Census Tables X29, X30 and X31

In Table B3, the number of houses, semis and flats of each size in each suburb are calculated by applying the proportions for Marrickville LGA to the stock of dwellings in each suburb (from Table 2). The number of bedrooms they hold is then calculated by applying the bedrooms/dwelling ratio for Marrickville LGA, set in Table B1.

B3. Dwellings by BR size, 2006	number of dwellings of each size, 2006					number of bedrooms in dwellings, by size, 2006				
	0-1 BR	2 BR	3 BR	4+BR	total	0-1 BR	2 BR	3 BR	4+BR	total
Camperdown	203	648	378	96	**1,326**	203	1,296	1,135	414	**3,049**
Dulwich Hill	1,066	2,590	1,511	574	**5,741**	1,066	5,180	4,532	2,470	**13,248**
Enmore	258	797	491	142	**1,688**	258	1,594	1,473	609	**3,934**
Lewisham	169	493	395	155	**1,212**	169	987	1,185	665	**3,005**
Marrickville	843	2,543	1,945	716	**6,047**	843	5,087	5,835	3,077	**14,842**
Newtown	487	1,627	1,001	258	**3,373**	487	3,253	3,002	1,111	**7,853**
Petersham	556	1,462	903	323	**3,245**	556	2,924	2,709	1,390	**7,580**
St Peters	805	1,892	1,046	401	**4,144**	805	3,785	3,137	1,724	**9,450**
Stanmore	130	498	429	145	**1,202**	130	996	1,287	625	**3,038**
Sydenham	530	1,480	999	359	**3,368**	530	2,959	2,998	1,543	**8,031**
Tempe	31	159	161	55	**406**	31	318	484	236	**1,069**
South Marrickville	70	409	587	247	**1,313**	70	819	1,761	1,061	**3,711**
1420313	105	198	34	8	**345**	105	396	102	34	**637**
1420708	25	61	44	19	**149**	25	123	133	81	**361**
Marrickville	**5,149**	**14,599**	**9,846**	**3,471**	**33,065**	**5,149**	**29,198**	**29,539**	**14,925**	**78,810**

Similarly, the composition of stock across Marrickville LGA is applied to the mixture of occupied dwelling stock in each suburb, shown in Table 2, to calculate the number of occupied dwellings with 1, 2, 3 and 4+ bedrooms, and from this the number of bedrooms they contain. This adds to 73,624 bedrooms in Marrickville LGA in 2006 in occupied dwellings.

B4. Occ'd dwgs by BR size, 2006	number of dwellings of each size, 2006					number of bedrooms in dwellings, by size, 2006				
	0-1 BR	2 BR	3 BR	4+BR	total	0-1 BR	2 BR	3 BR	4+BR	total
Camperdown	188	603	354	90	**1,235**	188	1,205	1,063	388	**2,844**
Dulwich Hill	982	2,399	1,418	540	**5,339**	982	4,798	4,253	2,323	**12,356**
Enmore	239	741	460	133	**1,573**	239	1,483	1,381	571	**3,673**
Lewisham	156	459	371	145	**1,131**	156	917	1,113	625	**2,811**
Marrickville	779	2,366	1,827	673	**5,645**	779	4,732	5,481	2,895	**13,887**
Newtown	450	1,513	937	242	**3,143**	450	3,027	2,811	1,041	**7,329**
Petersham	513	1,356	847	304	**3,020**	513	2,712	2,541	1,307	**7,073**
St Peters	742	1,751	981	377	**3,851**	742	3,503	2,943	1,621	**8,809**
Stanmore	120	465	403	137	**1,124**	120	929	1,208	588	**2,845**
Sydenham	489	1,374	938	337	**3,139**	489	2,749	2,814	1,451	**7,503**
Tempe	29	148	151	51	**380**	29	297	454	221	**1,001**
South Marrickville	65	384	553	232	**1,235**	65	769	1,658	1,000	**3,492**
1420313	97	182	31	7	**317**	97	364	94	31	**585**
1420708	23	57	42	18	**139**	23	114	125	76	**337**
Marrickville	**4,752**	**13,560**	**9,240**	**3,263**	**30,815**	**4,752**	**27,119**	**27,721**	**14,032**	**73,624**

Trends in bedrooms per dwelling

Trends in the size of dwellings (in bedroom/dwelling) can be examined by comparing 2001 and 2006 Census data. The table below shows the number of dwellings of each size in 2001 from the Census sample, and calculates the average bedrooms/dwelling and total bedrooms in 2001.

In 2001, the total stock of bedrooms is calculated as 76,633 of which 71,467 were occupied at an average of 2.4 bedrooms/dwelling.

B5. Bedrooms in dwellings, 2001	number of dwellings of each size (BRs)					Calculating bedrooms in 2001				
	0-1 BR	2 BR	3 BR	4+BR	total dwellings	total BRs	BR/dwg	occupied stock	BRs in occupied stock	Total BRs in stock
houses	157	2,277	4,903	2,126	**9,463**	28,562	**3.0**	10,057	30,355	32,549
semi/town-houses	457	3,718	2,823	624	**7,622**	19,045	**2.5**	8,144	20,349	21,820
flats / other	3,465	5,825	700	179	**10,169**	17,985	**1.8**	11,740	20,763	22,264
Marrickville	**4,079**	**11,820**	**8,426**	**2,929**	**27,254**	**65,592**	**2.4**	**29,941**	**71,467**	**76,633**
bedrooms / dwelling	1	2	3	4.3	<< this figure can be changed					

Total BRs includes vacant dwellings proportionately

Table B6 shows the proportion of dwellings of each size in 2001 (eg 24% of houses had 2 bedrooms), and the average dwelling size resulting from this distribution (which is the same as in Table B5). The right side shows the change in this proportion from 2001 to 2006, in terms of changing percentage share per annum, and the change in bedrooms/dwelling. For example, the proportion of houses with one bedroom rose by 0.4% pa, while the average bedrooms per dwelling in houses fell by 0.02 BR/dwelling pa.

Overall, the average size of dwellings rose by 0.000 bedrooms / dwelling annually from 2.41 in 2001 to 2.41 in 2006.

It can be seen that where the proportion of small dwellings (0-2 bedrooms) rises, the average bedrooms per dwelling falls, while rising proportions of larger dwellings will increase the bedrooms/dwelling ratio.

B6. Composition of stock	% of dwellings each size, 2001					change, % pa, % of dwgs of each size				change, bedroom / dwelling
	0-1 BR	2 BR	3 BR	4+BR	2006 bedroom / dwelling	0-1 BR	2 BR	3 BR	4+BR	
houses	2%	24%	52%	22%	**3.0**	0.4%	0.5%	(0.8%)	(0.1%)	**(.02)**
semi/town-houses	6%	49%	37%	8%	**2.5**	0.1%	(0.6%)	0.3%	0.1%	**.01**
flats / other	34%	57%	7%	2%	**1.8**	(0.4%)	0.3%	0.1%	(0.1%)	**.00**
Marrickville	**15%**	**43%**	**31%**	**11%**	**2.4**	**(0.0%)**	**0.0%**	**(0.1%)**	**0.0%**	**.00**

Projected number of bedrooms

The projected distribution of dwellings (into 1, 2 3, and 4+ bedrooms) is calculated in Table B6 by setting long-term (in 2031) target rates for bedrooms/dwelling in houses, semis and flats, based on an understanding of local trends. The default settings are the 2006 rates. The proportion of dwellings of different sizes contributing to this average is estimated by assuming the same proportion of 2-bedroom dwellings, and adjusting the proportions of larger of smaller dwellings to achieve the target bedroom/dwelling average. Numbers in yellow cells can be overridden with other assumptions.

The trend change in the proportion of dwellings of each size can then be calculated by dividing the difference in the proportions in 2031 and 2006 by 25 years, to give a smooth long-term trend that will end at the longer-term target.

B7. Trends in sizes of dwellings (BRs)	% of dwellings each size, 2031				long-term BR/dwg	long-term target	trend change, % of dwellings pa			
	0-1 BR	2 BR	3 BR	4+BR			0-1 BR	2 BR	3 BR	4+BR
houses	4%	24%	50%	22%	**3.0**	2.9	0.08%	nil	(0.08%)	nil
semi/town-houses	4%	49%	39%	8%	**2.5**	2.6	(0.06%)	nil	0.06%	nil
flats / other	36%	52%	10%	2%	**1.8**	2.0	0.08%	(0.21%)	0.12%	0.01%
Marrickville										

In Table B8, the proportions of dwellings of different sizes in 2031 is calculated by applying the trend change in from Table B7 to the baseline (2006) proportions in Table B2. These proportions are multiplied by the projected number of dwellings in 2031 (from Table 4) to get the projected number of houses, semis and flats of each bedroom size, from which the number of bedrooms is calculated.

For example, it is projected that 24% of the 12,025 houses projected for 2031 will have two bedrooms, giving 2,893 2-bedroom houses. Altogether, the houses are projected to have 35,806 bedrooms in total, an average of 3.0 bedrooms per dwelling. Adding the three types of dwellings gives a projection of 91,583 bedrooms at an average of 2.3 bedrooms/dwelling.

B8. Projected Bedrooms, 2031	% of dwellings each size, 2031				projected dwellings, 2031, by number of BRs					total BRs, 2031
	0-1 BR	2 BR	3 BR	4+BR	0-1 BR	2 BR	3 BR	4+BR	total	
houses	4%	24%	50%	22%	444	2,893	5,986	2,702	**12,025**	35,806
semi/town-houses	4%	49%	39%	8%	422	4,580	3,618	769	**9,389**	23,743
flats / other	36%	52%	10%	2%	6,457	9,327	1,794	359	**17,936**	32,033
Marrickville	**19%**	**43%**	**29%**	**10%**	**7,323**	**16,800**	**11,398**	**3,829**	**39,350**	**91,583**

The projected total number of bedrooms in 2031 is calculated by applying the projected composition of stock, from Table B7, to the mixture of dwelling stock (houses, semis and flats) projected for each suburb, shown in Table 4. The table below shows the projected number of 1, 2, 3 and 4+ bedrooms, and from this the number of bedrooms they contain. This adds to 91,583 bedrooms in Marrickville LGA in 2006. This includes bedrooms in vacant dwellings.

B9. Projected dwellings by BRs	projected dwellings of each size, 2031					projected bedrooms in dwellings, by size, 2031				
	0-1 BR	2 BR	3 BR	4+BR	total	0-1 BR	2 BR	3 BR	4+BR	total
Camperdown	234	700	423	103	**1,460**	234	1,400	1,269	445	**3,347**
Dulwich Hill	1,494	2,873	1,768	637	**6,772**	1,494	5,745	5,303	2,741	**15,283**
Enmore	329	883	548	151	**1,910**	329	1,765	1,643	649	**4,386**
Lewisham	417	840	530	187	**1,974**	417	1,681	1,590	803	**4,491**
Marrickville	1,333	3,071	2,218	776	**7,399**	1,333	6,142	6,655	3,338	**17,468**
Newtown	656	1,882	1,110	272	**3,920**	656	3,765	3,329	1,169	**8,919**
Petersham	774	1,657	1,063	361	**3,855**	774	3,315	3,189	1,551	**8,829**
St Peters	1,083	2,039	1,227	444	**4,793**	1,083	4,078	3,681	1,910	**10,752**
Stanmore	193	595	484	158	**1,431**	193	1,190	1,452	681	**3,517**
Sydenham	586	1,444	1,102	384	**3,516**	586	2,889	3,305	1,651	**8,431**
Tempe	57	216	195	64	**532**	57	431	585	276	**1,349**
South Marrickville	166	599	731	291	**1,788**	166	1,199	2,194	1,251	**4,810**
1420313	117	176	42	10	**345**	117	352	126	42	**637**
1420708	27	55	48	20	**149**	27	109	143	85	**364**
Marrickville	**7,323**	**16,800**	**11,398**	**3,829**	**39,350**	**7,323**	**33,600**	**34,195**	**16,465**	**91,583**

Projected number of bedrooms in occupied dwellings

Table B10 shows the number of bedrooms in occupied dwellings, by multiplying the projected number of occupied dwellings of each type, from Table 4, by the proportions of each size. This calculates that there were 85,443 bedrooms in the projected occupied dwellings.

The projected population in houses, semis and flats is shown from Table 9. Dividing the number of residents by the number of bedrooms gives the average occupancy of bedrooms. In Marrickville LGA, there were 0.96 persons/bedroom in houses, 1.02 persons/bedroom in semis and townhouses, and 1.11 persons/bedroom in flats, an overall average of 1.03 persons/bedroom.

The right-hand column shows the occupancy per bedroom in 2006, from Table B1.

B10. Occupied dwgs by size, 2031	Occupied dwellings, by bedrooms, 2031					total bedrooms	average BR/ occ. dwg	residents	residents / BR, 2031	residents / BR 2006
	0-1 BR	2 BR	3 BR	4+BR	total					
houses	418	2,728	5,643	2,547	**11,336**	33,755	3.0	32,382	.96	.97
semi/town-houses	396	4,293	3,392	721	**8,801**	22,257	2.5	22,767	1.02	.97
flats / other	5,932	8,569	1,648	330	**16,479**	29,432	1.8	32,555	1.11	1.08
Marrickville	**6,746**	**15,590**	**10,683**	**3,597**	**36,617**	**85,443**	**2.3**	**87,704**	**1.03**	**1.00**

The projected total number of bedrooms in occupied dwellings in 2031 is calculated by applying the projected composition of stock, from Table B7, to the mixture of dwelling stock (houses, semis and flats) projected for each suburb, from Table 4. The table below shows the projected number of 1, 2, 3 and 4+ bedrooms, and from this the number of bedrooms they contain. This adds to 85,443 bedrooms in Marrickville LGA in 2006 in occupied dwellings.

B11. Projected occ'd dwellings by size	no of occupied dwellings of each size, 2031					bedrooms in occ'pd dwellings, by size, 2031				
	0-1 BR	2 BR	3 BR	4+BR	total	0-1 BR	2 BR	3 BR	4+BR	total
Camperdown	215	651	396	97	**1,359**	215	1,302	1,188	417	**3,122**
Dulwich Hill	1,376	2,659	1,656	599	**6,289**	1,376	5,317	4,968	2,574	**14,235**
Enmore	303	820	513	142	**1,778**	303	1,640	1,538	609	**4,091**
Lewisham	384	778	497	175	**1,834**	384	1,557	1,490	754	**4,184**
Marrickville	1,229	2,851	2,080	730	**6,889**	1,229	5,702	6,241	3,137	**16,308**
Newtown	605	1,750	1,038	255	**3,648**	605	3,500	3,114	1,095	**8,315**
Petersham	713	1,536	996	339	**3,584**	713	3,073	2,987	1,457	**8,230**
St Peters	996	1,886	1,149	417	**4,449**	996	3,773	3,448	1,794	**10,011**
Stanmore	179	554	454	149	**1,336**	179	1,109	1,363	640	**3,290**
Sydenham	540	1,342	1,034	361	**3,277**	540	2,684	3,101	1,552	**7,877**
Tempe	53	201	183	60	**498**	53	403	549	259	**1,264**
South Marrickville	154	560	688	274	**1,677**	154	1,121	2,064	1,178	**4,517**
1420313	108	162	39	9	**318**	108	324	116	39	**587**
1420708	25	51	45	19	**139**	25	101	134	80	**340**
Marrickville	**6,746**	**15,590**	**10,683**	**3,597**	**36,617**	**6,746**	**31,180**	**32,050**	**15,467**	**85,443**

Baseline bedroom occupancy, 2006

The 2006 baseline bedroom occupancy rates can be calculated from Census data, adjusted to reflect dwellings and people not included.

Table B12 shows the number of dwellings of different sizes, and the estimated number of residents they contained, from 2006 Census Tables X29, X30 and X31. The Census data is only for a sample of residents and dwellings (where all relevant questions were answered), but includes most households.

The Census tables give the number of usual residents and number of bedrooms for dwellings of different types. The number of residents in any size and type of dwelling (eg 2-BR houses) is calculated by adding the dwellings with 1 resident, twice the dwellings with 2 residents, thrice the dwellings with 3 residents etc. For dwellings with 6 or more usual residents, an average of 6.85 residents per dwelling is assumed. This number can be altered in the yellow box below the table.

B12. Bedrooms in dwellings, Census	no. dwellings of each size in Census sample					Census residents in these dwellings				
	0-1 BR	2 BR	3 BR	4+BR	all dwellings	0-1 BR	2 BR	3 BR	4+BR	all dwellings
houses	377	2,713	4,854	2,207	**10,151**	522	5,642	13,622	8,249	**28,034**
semi/town-houses	472	3,282	2,771	634	**7,159**	682	6,517	7,380	2,195	**16,774**
flats / other	3,241	5,925	764	138	**10,068**	4,134	11,659	2,141	502	**18,436**
Marrickville	**4,090**	**11,920**	**8,389**	**2,979**	**27,378**	**5,338**	**23,818**	**23,143**	**10,946**	**63,244**
bedrooms / dwelling	1	2	3	4.3	<< this figure is set in Table B1.				av. for 6+ residents =	6.85

In Table B13, the average 'Census' occupancy per bedroom is calculated, by dividing the population in dwellings of each type and size by the number of dwellings and their average number of bedrooms. Overall, there were 2.31 Census residents per bedroom.

The right side of Table B13 shows the number of residents that all occupied dwellings would hold at the 'Census' occupancy rates, calculated by multiplying the bedroom occupancy rates by the number of bedrooms in occupied dwellings, for dwellings of different types and sizes. So, for example, there were 6,137 residents in 2-BR houses, giving a total of 70,748 residents.

B13. Bedrooms occupancy, Census	Census residents / dwelling, by type & size					Census residents in occupied dwellings				
	0-1 BR	2 BR	3 BR	4+BR	all	0-1 BR	2 BR	3 BR	4+BR	all dwellings
houses	1.38	2.08	2.81	3.74	**2.76**	568	6,137	14,816	8,972	**30,492**
semi/town-houses	1.44	1.99	2.66	3.46	**2.34**	753	7,197	8,151	2,424	**18,524**
flats / other	1.28	1.97	2.80	3.64	**1.83**	4,873	13,743	2,523	592	**21,732**
Marrickville	**1.31**	**2.00**	**2.76**	**3.67**	**2.31**	**6,194**	**27,077**	**25,490**	**11,988**	**70,748**
									ERP 2006:	**73,670**

However, there were 73,670 residents in private dwellings in 2006: 31,562 in houses, 19,294 in semi/town houses, and 19,294 in flats/units (see Table 6). The occupancy rates from the Census sample must be factored up so the full population in private dwellings is counted.

The left side to Table 14 shows the distribution of the resident population among dwellings of different size and type. Within each type of dwelling (eg house), the number of residents in each size of dwelling is calculated by distributing the total according to the Census sample.

The right side of the table shows the baseline occupancy rates that result, for each type and size of dwelling. account for all residents in all occupied dwellings, and form the baseline for projections. However, only the averages each size of dwelling are used, not the variation across type. This is because the aim is to determine population impact based on size of dwelling, ignoring variations between dwelling types (which are relatively small).

B14. Bedrooms occupancy, 2006	Est Res. Pop'n in occupied dwellings					2006 baseline dwelling occupancy rates				
	0-1 BR	2 BR	3 BR	4+BR	all	0-1 BR	2 BR	3 BR	4+BR	all dwellings
houses	588	6,352	15,336	9,287	**31,562**	1.43	2.15	2.90	3.87	**2.86**
semi/town-houses	784	7,496	8,489	2,525	**19,294**	1.50	2.07	2.77	3.61	**2.44**
flats / other	5,116	14,428	2,649	622	**22,814**	1.34	2.07	2.94	3.82	**1.92**
Marrickville	**6,488**	**28,276**	**26,474**	**12,433**	**73,671**	**1.41**	**2.11**	**2.80**	**3.71**	**2.39**

In the left side of Table B15, the number of residents in dwellings of different sizes in each suburb in 2006 is calculated by applying the occupancy of dwellings of different types and sizes for Marrickville LGA (Table B14) to the number of dwellings of each size, shown from Census data in Table 2, and the composition of those dwellings (Table B2).

In the right side of Table B15, the bedroom occupancy (number of residents per bedroom) for dwellings of different sizes in each suburb can now be calculated, by dividing the number of residents by the number of bedrooms, from Table B4.

B15. Occupancy of dwellings, 2006	no of residents in dwellings of each size, 2006					persons per bedroom, by size of dwg, 2006				
	0-1 BR	2 BR	3 BR	4+BR	total	0-1 BR	2 BR	3 BR	4+BR	total
Camperdown	259	1,248	995	332	**2,835**	1.38	1.04	.94	.86	**1.00**
Dulwich Hill	1,329	5,005	4,098	2,075	**12,506**	1.35	1.04	.96	.89	**1.01**
Enmore	329	1,539	1,301	496	**3,664**	1.38	1.04	.94	.87	**1.00**
Lewisham	213	961	1,070	558	**2,802**	1.36	1.05	.96	.89	**1.00**
Marrickville	1,066	4,945	5,244	2,572	**13,827**	1.37	1.05	.96	.89	**1.00**
Newtown	625	3,135	2,630	893	**7,282**	1.39	1.04	.94	.86	**.99**
Petersham	697	2,826	2,434	1,161	**7,118**	1.36	1.04	.96	.89	**1.01**
St Peters	1,001	3,653	2,840	1,450	**8,945**	1.35	1.04	.97	.89	**1.02**
Stanmore	168	970	1,146	517	**2,801**	1.39	1.04	.95	.88	**.98**
Sydenham	667	2,867	2,692	1,288	**7,514**	1.36	1.04	.96	.89	**1.00**
Tempe	41	310	430	195	**976**	1.43	1.05	.95	.88	**.98**
South Marrickville	93	817	1,595	894	**3,400**	1.43	1.06	.96	.89	**.97**
1420313	130	376	91	27	**624**	1.34	1.03	.97	.89	**1.07**
1420708	31	120	121	68	**339**	1.35	1.05	.97	.90	**1.01**
Marrickville	**6,488**	**28,276**	**26,474**	**12,433**	**73,671**	**1.37**	**1.04**	**.96**	**.89**	**1.00**

Past trends in bedroom occupancy

Recent trends in bedroom occupancy can be calculated by comparing 2001 and 2006 Census data. Table B16 shows the number of dwellings of different sizes, and the estimated number of residents they contained, from 2001 Census Tables X49. As with 2006, the Census data is only for a sample of residents and dwellings (where all relevant questions were answered), but includes most households.

In calculating the number of residents, the number in dwellings with 6+ residents is taken as 6.85. This assumption can be varied but it has little influence on projections.

B16. Size and occupancy, 2001	number of dwellings of each size (BRs)					Census residents in these dwellings				
	0-1 BR	2 BR	3 BR	4+BR	all dwellings	0-1 BR	2 BR	3 BR	4+BR	all dwellings
houses	157	2,277	4,903	2,126	**9,463**	264	4,768	14,309	6,283	**25,622**
semi/town-houses	457	3,718	2,823	624	**7,622**	667	7,434	7,490	1,787	**17,378**
flats / other	3,465	5,825	700	179	**10,169**	4,568	12,519	2,174	329	**19,589**
Marrickville	**4,079**	**11,820**	**8,426**	**2,929**	**27,254**	**5,499**	**24,720**	**23,973**	**8,399**	**62,590**
bedrooms / dwelling	1	2	3	4.3	<< this figure is set in Table B2.				av. for 6+ residents =	6.85

In Table B17, the average 'Census' occupancy per dwelling of different size is calculated, by dividing the population in dwellings of each type and size by the number of dwellings. Overall, there were 2.30 residents per dwellng. The right side of the table shows the total number of 'Census' residents there would be in all occupied dwellings in 2001, taking dwelling numbers from Table B2.

B17. Calculating occupancies, 2001	2001 Census residents / dwelling					2001 residents in occupied dwellings				
	0-1 BR	2 BR	3 BR	4+BR	all	0-1 BR	2 BR	3 BR	4+BR	all dwellings
houses	1.68	2.09	2.92	2.96	**2.71**	280	5,067	15,207	6,677	**27,231**
semi/town-houses	1.46	2.00	2.65	2.86	**2.28**	713	7,943	8,003	1,910	**18,568**
flats / other	1.32	2.15	3.11	1.84	**1.93**	5,274	14,453	2,509	379	**22,615**
Marrickville	**1.35**	**2.09**	**2.85**	**2.87**	**2.30**	**6,041**	**27,157**	**26,336**	**9,227**	**68,414**
						ERP est'd in private dwellings 2001:				**75,647**

Table B18 shows the dwelling occupancy rates in 2001, after adjusting to match the 2001 Estimated Resident Population (in private dwellings). In 2001, bedroom occupancy in Marrickville LGA averaged 2.54 residents per dwelling. In 2006, the average was 2.39 (Table B14).

The right side of the table shows the change in dwelling occupancy rates between 2001 and 2006. Overall, dwelling occupancy fell by 0.15 persons per bedroom over the five years. However, this varied considerably among dwelling types and sizes.

B18. Changing occupancy, 2001-06	2001 occupancy, residents per dwelling					change, residents per dwelling, 2001 - 2006				
	0-1 BR	2 BR	3 BR	4+BR	all	0-1 BR	2 BR	3 BR	4+BR	all dwellings
houses	1.86	2.32	3.23	3.27	**2.99**	dn 0.42	dn 0.16	dn 0.32	up 0.60	**dn 0.14**
semi/town-houses	1.61	2.21	2.93	3.17	**2.52**	dn 0.11	dn 0.14	dn 0.16	up 0.44	**dn 0.08**
flats / other	1.46	2.38	3.43	2.03	**2.13**	dn 0.12	dn 0.31	dn 0.49	up 1.79	**dn 0.21**
Marrickville	**1.49**	**2.31**	**3.15**	**3.17**	**2.54**	**dn 0.08**	**dn 0.20**	**dn 0.34**	**up 0.54**	**dn 0.15**

Projecting future occupancy of dwellings of different sizes

Future occupancy rates for dwellings of different types and sizes cannot easily be calculated by projecting from the 2006 baseline using the 5 year trend from 2001 to 2006, though these can give some guidance as to direction of change. The variation between the rates of occupancy change among different dwellings suggests many factors influence these trends.

However, in any year, the occupancy rates for dwellings of different sizes must average out at the overall rates for each type of dwelling, which are calculated for 2031 in Table 8. They are projected to average 2.40 residents per dwelling, ranging from 2.59 residents per house to 2.40 residents per flat.

Table B19 shows the stages of calculating occupancy rates for dwellings of different size, which compatible with the those of dwellings of different type. In the left side, the number of projected dwellings of each type and size (from Table B10) are multiplied by the baseline (2006) occupancy rates (Table B14), to calculate how many residents this would house.

Applying the baseline occupancy rates to the projected stock in 2031 yields a lotal population of 85,952. However, the projected population is 87,704. In the right side of the table, the projected population for each type of dwelling is allocated among the different sizes proportionally to the left side of the table, so the total projected population is accounted for.

B19. Calculating occupancies, 2031	residents in dwelling, 2031 @ 2006 rates					projected residents in dwellings, 2031				
	0-1 BR	2 BR	3 BR	4+BR	all	0-1 BR	2 BR	3 BR	4+BR	all
houses	599	5,872	16,393	9,853	**32,717**	593	5,812	16,225	9,752	**32,382**
semi/town-houses	595	8,879	9,410	2,598	**21,483**	631	9,410	9,972	2,753	**22,767**
flats / other	7,944	17,702	4,847	1,259	**31,752**	8,145	18,149	4,970	1,291	**32,555**
Marrickville	**9,139**	**32,453**	**30,650**	**13,710**	**85,952**	**9,369**	**33,371**	**31,167**	**13,797**	**87,704**

In Table B20, the projected occupancy rates for dwellings of different type and size are derived, by dividing the resident population (Table B18) by the number of dwellings (Table B10). The right side of the table shows the occupancy rates for each dwelling type, calculated earlier in Table 8, to show these are compatible.

B20. Projected occupancy, 2031	projected dwelling occupancy, 2031					Projections from Table 8		
	0-1 BR	2 BR	3 BR	4+BR	all	dwellings	residents	occupancy
houses	1.42	2.13	2.88	3.83	**2.86**	11,336	32,382	**2.86**
semi/town-houses	1.59	2.19	2.94	3.82	**2.59**	8,801	22,767	**2.59**
flats / other	1.37	2.12	3.02	3.92	**1.98**	16,479	32,555	**1.98**
Marrickville	**1.39**	**2.14**	**2.92**	**3.84**	**2.40**	**36,617**	**87,704**	**2.40**

In Table B21, projections are made of the number of residents in dwellings of different sizes in each suburb by applying the occupancy of dwellings of different types and sizes for Marrickville LGA to the number of dwellings of each size, calculated previously in Table B10, and the composition of those dwellings (Table B8).

In the right side of Table B20, the bedroom occupancy (number of residents per bedroom) for dwellings of different sizes in each suburb can now be calculated, by dividing the number of residents by the number of bedrooms, from Table B11.

B21. Projected occupancy, 2031	projected residents in dwellings , 2031					persons/bedroom, 2031				
	0-1 BR	2 BR	3 BR	4+BR	total	0-1 BR	2 BR	3 BR	4+BR	total
Camperdown	304	1,406	1,164	372	**3,245**	1.41	1.08	.98	.89	**1.04**
Dulwich Hill	1,899	5,661	4,827	2,298	**14,684**	1.38	1.06	.97	.89	**1.03**
Enmore	424	1,766	1,504	543	**4,237**	1.40	1.08	.98	.89	**1.04**
Lewisham	531	1,660	1,448	673	**4,312**	1.38	1.07	.97	.89	**1.03**
Marrickville	1,705	6,098	6,059	2,798	**16,661**	1.39	1.07	.97	.89	**1.02**
Newtown	850	3,777	3,053	976	**8,657**	1.41	1.08	.98	.89	**1.04**
Petersham	988	3,283	2,906	1,300	**8,476**	1.39	1.07	.97	.89	**1.03**
St Peters	1,374	4,014	3,350	1,602	**10,341**	1.38	1.06	.97	.89	**1.03**
Stanmore	251	1,194	1,324	570	**3,339**	1.41	1.08	.97	.89	**1.01**
Sydenham	751	2,875	3,009	1,384	**8,020**	1.39	1.07	.97	.89	**1.02**
Tempe	75	435	533	231	**1,274**	1.42	1.08	.97	.89	**1.01**
South Marrickville	217	1,202	1,990	1,049	**4,458**	1.41	1.07	.96	.89	**.99**
1420313	148	343	116	35	**643**	1.37	1.06	1.00	.90	**1.09**
1420708	34	107	129	71	**343**	1.38	1.06	.96	.89	**1.01**
Marrickville	**9,369**	**33,371**	**31,167**	**13,797**	**87,704**	**1.39**	**1.07**	**.97**	**.89**	**1.03**

Vehicle forecasts

The number of vehicles likely to be based in Marrickville LGA in any year, here 2031, is estimated by calculating the rate at which the number of vehicles per dwelling changes over 2001 to 2006, and extrapolating at this rate from the 2006 Census baseline. This is shown in Table 10.

In Table 10, the number of vehicles per occupied dwelling in 2006 is shown for each suburb. Each area's rate of change in vehicles/dwelling over 2001–2006 is calculated, and a projected change rate after 2006 is calculated by smoothing the historic rate. These smoothed rates can be overridden by entering other assumptions in the 'future change' column. The projected average vehicles per dwelling rate for 2031 is calculated by projecting forward the 2006 rate at this future change rate.

In the final columns of the table, the estimated number of vehicles is calculated by multiplying by the projected vehicles per dwelling by the projected number of occupied dwellings, from Table 7. This is subtracted from the 2006 estimate to give the change in the number of vehicles expected over the period from 2006 to 2031. Table 11 following shows the Census data for 2001 and 2006 from which the average number of vehicles per dwelling was calculated.

10. Vehicle Ownership	**vehicles per occupied dwelling**					**estimated number of vehicles**			
	annual change 2001-2006	smoothed annual change	future change rate	average in 2006	Proj'n in 2031	2006	Proj'n in 2031	Change 2006–2031	Change % from 2006
Camperdown	0.001	0.001	0.001	1.04	**1.05**	1,162	1,429	**267**	up 23%
Dulwich Hill	-0.007	-0.005	-0.005	1.11	**0.99**	5,446	6,211	**765**	up 14%
Enmore	0.013	0.013	0.013	0.98	**1.30**	1,354	2,316	**962**	up 71%
Lewisham	0.016	0.016	0.016	1.10	**1.49**	1,170	2,739	**1,569**	up 134%
Marrickville	0.003	0.003	0.003	1.11	**1.18**	5,754	8,162	**2,408**	up 42%
Newtown	0.003	0.003	0.003	0.87	**0.94**	2,339	3,442	**1,103**	up 47%
Petersham	0.006	0.006	0.006	1.07	**1.22**	2,960	4,385	**1,425**	up 48%
St Peters	-0.003	-0.003	-0.003	1.05	**0.98**	3,853	4,367	**514**	up 13%
Stanmore	0.022	0.016	0.016	1.10	**1.49**	1,140	1,994	**854**	up 75%
Sydenham	0.019	0.016	0.016	1.11	**1.50**	3,122	4,927	**1,805**	up 58%
Tempe	0.019	0.016	0.016	1.22	**1.60**	424	798	**374**	up 88%
South Marrickville	0.022	0.016	0.016	1.31	**1.70**	1,457	2,843	**1,386**	up 95%
1420313	-0.022	-0.005	-0.005	1.18	**1.06**	357	336	**-21**	dn 6%
1420708	-0.008	-0.005	-0.005	0.95	**0.83**	108	115	**7**	up 6%
Marrickville	**0.005**	**0.005**	**0.004**	**1.08**	**1.186**	**30,181**	**43,613**	**13,432**	**up 45%**
Inner Sydney SSD	0.004	0.004	0.004	0.98	**1.08**				
Sydney	0.009	0.009	0.009	1.49	**1.71**				
std. dev'n	0.01	0.01	0.01	0.11	**0.26**				

The projected annual change is calculated from 2001–2006 data by smoothing extreme change rates to be only one standard deviation from the average for Marrickville LGA. If the vehicles/dwelling change rate adopted to 2031 is the same as that projected, the adopted rate cells are yellow. If they have been overriden by other estimates, the cells are orange. Future rates for Marrickville LGA are calculated as the average of the 12 suburbs, weighted by their projected population in 2031.

11. Vehicles in households	**No. of households, 2006, with …**				vehicles/ occupied dwg	**No. of households, 2001, with …**				vehicles/ occupied dwg
	no vehicles	one vehicle	two vehicles	vehicles	2006	no vehicles	one vehicle	two vehicles	vehicles	2001
Camperdown	253	589	218	32	**1.04**	269	537	232	31	**1.03**
Dulwich Hill	964	2,534	1,054	184	**1.11**	956	2,448	1,019	260	**1.14**
Enmore	396	623	236	56	**0.98**	483	653	232	54	**0.91**
Lewisham	230	514	223	49	**1.10**	265	558	195	41	**1.02**
Marrickville	1,192	2,401	1,049	294	**1.11**	1,210	2,297	979	293	**1.09**
Newtown	843	1,309	407	45	**0.87**	883	1,308	364	64	**0.86**
Petersham	679	1,263	583	128	**1.07**	700	1,193	527	125	**1.04**
St Peters	948	1,663	684	192	**1.05**	884	1,648	645	199	**1.06**
Stanmore	219	509	213	47	**1.10**	236	424	155	32	**0.99**
Sydenham	605	1,370	612	132	**1.11**	744	1,335	531	118	**1.02**
Tempe	66	165	81	25	**1.22**	78	177	69	22	**1.12**
South Marrickville	177	504	295	91	**1.31**	228	519	266	76	**1.20**
1420313	28	191	67	6	**1.18**	23	160	79	10	**1.29**
1420708	34	55	17	5	**0.95**	33	59	16	7	**0.99**
Marrickville	**6,558**	**13,444**	**5,679**	**1,265**	**1.08**	**6,923**	**13,098**	**5,210**	**1,304**	**1.05**
Inner Sydney SSD	34,627	54,919	21,761	4,382	**0.98**	33,845	50,475	19,149	4,287	**0.96**
Sydney	187,818	548,427	457,785	174,558	**1.49**	187,858	555,316	424,079	153,899	**1.45**

While to 2006 Census recorded dwellings with 'four or more' vehicles, data here is capped at the 'three+' rate, as this was all reported in the 2001 Census. The average number of vehicles per household is calculated by assuming that households with 3+ vehicles average 3.3 each at both Censuses. Motorbikes are not included.

Census data

Table 12 shows the number of dwellings counted on Census night, 8 August 2006, and the number of people counted in them. The dwellings are mainly occupied by permanent residents, but include 'visitor-only' or 'unclassifiable households'. 'Visitor-only' households could be thought of as holiday houses. 'Unclassifiable households' are those where the Census form was not returned or completed, and are probably mainly temporarily empty houses (whose usual residents were probably counted in the Census somewhere else in Australia). This dwelling count is the best estimate of occupied dwelling stock.

The population shown in Table 12 is the number of people who were counted in these dwellings on Census night. This includes visitors (except overseas visitors), but not local residents who were away that night. Most places have a few percent of residents away, and a smaller number visiting, so their resident population will be a little more than the number counted. However, Winter holiday areas will have had many more visitors than absentee residents, so their overnight population will be higher than their resident population, as counted by the Census.

The overnight population also includes people who were in the area but not in a private dwellings. They were staying in institutional accommodation (ie where facilities are shared), such as nursing homes, hospitals, prisons, boarding schools, motels, hotels, boarding houses and such like.

12. Census night, 2006	**dwellings occupied on Census night**				**population in these dwellings on Census night**					
	houses	semi/town-houses	flats / other	total	in houses	in semi/town-houses	in flats / other	in private dwellings	in institutions	total people
Camperdown	99	710	426	**1,235**	238	1,544	698	2,480	5	2,485
Dulwich Hill	2,090	552	2,697	**5,339**	5,696	1,282	5,159	12,137	42	12,179
Enmore	274	741	558	**1,573**	702	1,640	924	3,266	20	3,286
Lewisham	574	174	383	**1,131**	1,476	405	640	2,521	143	2,664
Marrickville	2,427	1,357	1,861	**5,645**	6,847	3,393	3,634	13,874	367	14,241
Newtown	290	1,870	983	**3,143**	669	4,129	1,640	6,438	8	6,446
Petersham	1,065	609	1,346	**3,020**	2,766	1,465	2,257	6,488	81	6,569
St Peters	1,483	296	2,072	**3,851**	4,396	750	4,010	9,156	36	9,192
Stanmore	420	477	227	**1,124**	1,054	1,031	467	2,552	18	2,570
Sydenham	1,179	725	1,235	**3,139**	3,020	1,777	2,042	6,839	72	6,911
Tempe	157	191	32	**380**	426	446	77	949	4	953
South Marrickville	983	204	48	**1,235**	2,638	433	85	3,156	8	3,164
1420313	10	10	297	**317**	33	12	616	661		661
1420708	77		62	**139**	222	4	130	356		356
Marrickville	**11,041**	**7,906**	**11,868**	**30,815**	**29,928**	**18,295**	**21,633**	**69,856**	**804**	**70,660**
Inner Sydney SSD	28,226	33,957	83,264	145,447	75,774	78,288	152,465	306,527	31,068	337,595
Sydney	939,073	180,164	402,225	1,521,462	2,821,257	431,997	783,691	4,036,945	111,626	4,148,571

This data is from the ABS Place of Enumeration Profile (PEP) which reports the overnight population (ie all who completed a Census form in that place) and the dwellings these people occupy. Some of these people may be visitors staying in holiday houses.

Table 13 shows the 2006 Census counts for the number of resident-occupied dwellings and their residents on Census night. This differs from the previous table. The resident-occupied dwellings exclude the 'visitor-only' or 'unclassifiable households' (as these have no reported residents). The population is the number of permanent residents reported in those dwellings in the Census. All overnight visitors are excluded, as are residents who were away Census night.

13. Census residents, 2006	**resident-occupied dwellings**				**resident population on Census night**					
	houses	semi/town-houses	flats / other	total	in houses	in semi/town-houses	in flats / other	in private dwellings	in institutions	total people
Camperdown	87	676	359	**1,122**	220	1,479	587	2,286	10	**2,296**
Dulwich Hill	1,985	512	2,417	**4,914**	5,370	1,167	4,611	11,148	80	**11,228**
Enmore	257	672	458	**1,387**	661	1,429	747	2,837	74	**2,911**
Lewisham	538	167	355	**1,060**	1,395	389	600	2,384	264	**2,648**
Marrickville	2,303	1,285	1,605	**5,193**	6,474	3,190	3,192	12,856	620	**13,476**
Newtown	266	1,644	771	**2,681**	622	3,629	1,265	5,516	45	**5,561**
Petersham	1,006	562	1,186	**2,754**	2,635	1,389	1,997	6,021	285	**6,306**
St Peters	1,441	285	1,940	**3,666**	4,288	722	3,785	8,795	100	**8,895**
Stanmore	391	449	193	**1,033**	970	974	408	2,352	47	**2,399**
Sydenham	1,092	674	1,036	**2,802**	2,800	1,671	1,742	6,213	310	**6,523**
Tempe	149	175	25	**349**	392	421	68	881	12	**893**
South Marrickville	889	182	44	**1,115**	2,406	378	77	2,861	28	**2,889**
1420313	9	10	283	**302**	31	11	585	627		**627**
1420708	72		42	**114**	207	4	88	299		**299**
Marrickville	**10,404**	**7,283**	**10,389**	**28,076**	**28,233**	**16,838**	**19,079**	**64,150**	**1,875**	**66,025**
Inner Sydney SSD	26,252	30,138	64,674	121,064	70,484	69,066	116,841	256,391	21,710	**278,101**
Sydney	905,635	168,433	349,467	1,423,535	2,725,636	403,253	679,087	3,807,976	97,524	**3,905,500**

The 2001 Census was reported differently from 2006, with the population in most tables being the overnight population. Table 14 shows the number of inhabited and vacant dwellings on Census night, and the population counted in these. Vacant dwelling data is restricted: the type of dwelling is not recorded. While the resident population is available for some areas (ie excluding the visitors and including absentees), the number of dwellings they occupied is not. The counted overnight population is used to develop occupancy trends between Censuses, since this 2001 data is consistent with Table 12.

14. Census 2001	occupied and vacant dwellings 2001					counted population 2001				
	houses	semi/town-houses	flats / other	vacant	total	houses	semi/town-houses	flats / other	in institutions	total
Camperdown	107	713	371	100	**1,291**	260	1,484	617	30	**2,391**
Dulwich Hill	1,878	609	2,667	323	**5,477**	5,410	1,367	5,593	103	**12,473**
Enmore	276	671	701	104	**1,752**	704	1,437	1,233	157	**3,531**
Lewisham	478	225	477	97	**1,277**	1,281	543	836	273	**2,933**
Marrickville	2,253	1,368	1,793	386	**5,800**	6,851	3,336	3,876	704	**14,767**
Newtown	209	1,855	969	246	**3,279**	534	4,021	1,664	114	**6,333**
Petersham	860	678	1,330	253	**3,121**	2,387	1,636	2,274	270	**6,567**
St Peters	1,481	362	2,033	279	**4,155**	4,561	1,015	4,335	160	**10,071**
Stanmore	384	475	105	72	**1,036**	991	1,019	209	59	**2,278**
Sydenham	1,053	745	1,192	236	**3,226**	2,765	1,810	2,035	379	**6,989**
Tempe	141	211	36	27	**415**	408	482	85	18	**993**
South Marrickville	936	230	75	42	**1,283**	2,560	552	149	89	**3,350**
1420313	15	7	293	9	**324**	44	12	622		**678**
1420708	47	31	60	10	**148**	172	82	120		**374**
Marrickville	**10,057**	**8,144**	**11,740**	**2,164**	**32,105**	**28,713**	**18,711**	**22,902**	**2,354**	**72,680**
Inner Sydney SSD	25,626	33,943	68,679	11,907	**140,155**	70,581	77,022	126,865	31,606	**306,074**
Sydney	907,195	162,320	368,879	108,297	**1,546,691**	2,759,933	383,438	714,679	105,808	**3,963,858**

All data taken from ABS Basic Community Profiles of the areas or Collectors Districts within them. Data copyright Australian Bureau of Statistics.A122

More recent dwelling and population data

Table 2 gives the ABS estimated resident population and recent building approvals data for Marrickville LGA, extracted from the National Regional Profile data series (updated annually) and other ABS publications. The estimated dwelling completions are calculated by using the house approvals of a year earlier and the other dwellings approvals of two years ago, allowing this time from approval to habitation.

Over mid-2000 to mid-2008, 271 houses and 2,264 medium density dwellings were approved for construction, averaging 283 houses and 317 other dwellings a year. Over recent years, from mid-2003 to mid-2008, the estimated number of completions, allowing for delay, were 36 houses and 305 other dwellings.

Recent population estimates and building approvals data can be used calibrate the Community Projector. First, adjust the dwelling completions in Table 1 so they approximately add up to the recent number of completions for houses and other dwellings (ie town houses + flats). Update the projections and compare the projected population with the estimated resident population over years since 2006. If the projections differ from the ABS estimates, adjust the occupancy trends used in Table 5 until a close match is obtained. This means that the set of assumptions used in the Projector produce a plausible result in the short term, increasing confidence they will remain accurate over the longer term.

15. Recent data	2001	2002	2003	2004	2005	2006	2007	2008	2009	average trend
Resident population	76,743	76,287	75,497	75,091	75,220	75,546	76,494	77,480	78,271	0.3%
Dwelling approvals										
houses	20	24	41	59	47	24	30	26		34
other dwellings	474	300	376	534	260	111	77	132	-	283
total approvals	**494**	**324**	**417**	**593**	**307**	**135**	**107**	**158**		**317**
Est'd completions										
houses		20	24	41	59	47	24	30	26	36
other dwellings			474	300	376	534	260	111	77	305
total dwellings	**-**	**20**	**498**	**341**	**435**	**581**	**284**	**141**	**103**	**341**

The trend is calculated as the average of the annual changes. Dwelling completions are estimated by assuming a one-year delay from approval to occupation for houses and a 2 year delay for other dwellings. Source: ABS National Regional Profile 2010

Detailed projections

The following table gives the detailed dwelling and population projections for each suburb in Marrickville LGA, consistent with the main projections table on page 1.

Projections for Marrickville LGA	2006	2007	2008	2009	2011	2016	2021	2026	2031	change 2011–2031
Population										
Camperdown	2,625	2,651	2,678	2,705	2,757	2,891	2,966	2,990	3,017	260
Dulwich Hill	12,879	12,976	13,071	13,166	13,360	13,843	14,334	14,829	15,095	1,735
Enmore	3,517	3,551	3,583	3,616	3,682	3,847	3,980	3,989	4,001	319
Lewisham	2,924	2,982	3,040	3,097	3,215	3,508	3,807	4,110	4,164	949
Marrickville	15,251	15,357	15,465	15,574	15,791	16,314	16,811	17,312	17,715	1,924
Newtown	6,837	6,896	6,954	7,013	7,133	7,431	7,727	8,020	8,133	1,000
Petersham	7,129	7,173	7,218	7,264	7,353	7,581	7,812	8,046	8,188	835
St Peters	9,757	9,819	9,882	9,945	10,067	10,372	10,680	10,988	11,098	1,031
Stanmore	2,740	2,776	2,811	2,847	2,918	3,099	3,237	3,260	3,283	365
Sydenham	7,522	7,541	7,562	7,582	7,621	7,721	7,770	7,744	7,719	98
Tempe	1,015	1,042	1,069	1,097	1,152	1,289	1,312	1,332	1,352	200
South Marrickville	3,358	3,396	3,435	3,474	3,553	3,751	3,951	4,152	4,358	805
1420313	698	699	699	700	701	705	709	712	715	14
1420708	371	371	371	372	372	373	373	374	375	3
Marrickville	**75,554**	**76,160**	**76,768**	**77,380**	**78,602**	**81,647**	**84,387**	**86,772**	**88,123**	**9,521**
Private dwellings										
Camperdown	1,326	1,337	1,348	1,359	1,381	1,436	1,460	1,460	1,460	79
Dulwich Hill	5,741	5,787	5,833	5,879	5,971	6,201	6,431	6,661	6,772	801
Enmore	1,688	1,704	1,720	1,736	1,768	1,847	1,910	1,910	1,910	142
Lewisham	1,212	1,248	1,284	1,320	1,392	1,572	1,752	1,932	1,974	582
Marrickville	6,047	6,103	6,159	6,215	6,327	6,607	6,887	7,167	7,399	1,072
Newtown	3,373	3,399	3,425	3,451	3,503	3,633	3,760	3,885	3,920	417
Petersham	3,245	3,271	3,297	3,323	3,375	3,505	3,635	3,765	3,855	480
St Peters	4,144	4,174	4,204	4,234	4,294	4,444	4,594	4,744	4,793	499
Stanmore	1,202	1,218	1,234	1,250	1,282	1,362	1,421	1,426	1,431	149
Sydenham	3,368	3,379	3,390	3,401	3,423	3,478	3,506	3,511	3,516	93
Tempe	406	417	428	439	461	516	522	527	532	71
South Marrickville	1,313	1,332	1,351	1,370	1,408	1,503	1,598	1,693	1,788	380
1420313	345	345	345	345	345	345	345	345	345	
1420708	149	149	149	149	149	149	149	149	149	
Marrickville	**33,065**	**33,369**	**33,673**	**33,977**	**34,585**	**36,104**	**37,476**	**38,681**	**39,350**	**4,765**

Projections for Marrickville LGA	2006	2007	2008	2009	2011	2016	2021	2026	2031	change 2011–2031
Houses										
Camperdown	105	106	107	108	110	115	120	120	120	10
Dulwich Hill	2,217	2,218	2,219	2,220	2,222	2,227	2,232	2,237	2,242	20
Enmore	291	292	293	294	296	300	300	300	300	4
Lewisham	609	610	611	612	614	619	624	629	634	20
Marrickville	2,574	2,575	2,576	2,577	2,579	2,584	2,589	2,594	2,599	20
Newtown	308	309	310	311	313	318	320	320	320	7
Petersham	1,130	1,131	1,132	1,133	1,135	1,140	1,145	1,150	1,155	20
St Peters	1,573	1,573	1,573	1,573	1,573	1,573	1,573	1,573	1,573	
Stanmore	446	447	448	449	451	456	461	466	471	20
Sydenham	1,251	1,252	1,253	1,254	1,256	1,261	1,266	1,271	1,276	20
Tempe	167	168	169	170	172	177	182	187	192	20
South Marrickville	1,043	1,047	1,051	1,055	1,063	1,083	1,103	1,123	1,143	80
1420313	11	11	11	11	11	11	11	11	11	
1420708	82	82	82	82	82	82	82	82	82	
Marrickville	**11,714**	**11,728**	**11,742**	**11,756**	**11,784**	**11,853**	**11,915**	**11,970**	**12,025**	**241**

Semi's and town houses										
Camperdown	757	762	767	772	782	807	813	808	803	21
Dulwich Hill	589	594	599	604	614	639	664	689	696	82
Enmore	790	795	800	805	815	840	859	844	831	16
Lewisham	186	191	196	201	211	236	261	286	282	71
Marrickville	1,448	1,453	1,458	1,463	1,473	1,498	1,523	1,548	1,557	84
Newtown	1,995	2,000	2,005	2,010	2,020	2,045	2,070	2,095	2,068	48
Petersham	650	655	660	665	675	700	725	750	764	89
St Peters	316	321	326	331	341	366	391	416	428	87
Stanmore	509	514	519	524	534	559	571	554	538	4
Sydenham	773	778	783	788	798	823	838	844	850	52
Tempe	204	209	214	219	229	254	244	235	229	-0
South Marrickville	218	223	228	233	243	268	293	318	343	100
1420313	11	11	11	11	11	11	11	11	11	
1420708										
Marrickville	**8,435**	**8,495**	**8,555**	**8,615**	**8,735**	**9,035**	**9,252**	**9,388**	**9,389**	**654**

Flats and units										
Camperdown	464	469	474	479	489	514	527	532	537	48
Dulwich Hill	2,935	2,975	3,015	3,055	3,135	3,335	3,535	3,735	3,834	699
Enmore	607	617	627	637	657	707	751	766	779	122
Lewisham	417	447	477	507	567	717	867	1,017	1,058	491
Marrickville	2,025	2,075	2,125	2,175	2,275	2,525	2,775	3,025	3,243	968
Newtown	1,070	1,090	1,110	1,130	1,170	1,270	1,370	1,470	1,532	362
Petersham	1,465	1,485	1,505	1,525	1,565	1,665	1,765	1,865	1,936	371
St Peters	2,255	2,280	2,305	2,330	2,380	2,505	2,630	2,755	2,792	412
Stanmore	247	257	267	277	297	347	389	406	422	125
Sydenham	1,344	1,349	1,354	1,359	1,369	1,394	1,402	1,396	1,390	21
Tempe	35	40	45	50	60	85	96	105	111	51
South Marrickville	52	62	72	82	102	152	202	252	302	200
1420313	323	323	323	323	323	323	323	323	323	
1420708	67	67	67	67	67	67	67	67	67	
Marrickville	**12,916**	**13,146**	**13,376**	**13,606**	**14,066**	**15,216**	**16,309**	**17,323**	**17,936**	**3,870**

Projections for Marrickville LGA	2006	2007	2008	2009	2011	2016	2021	2026	2031	change 2011–2031
0-1 bedrooms										
Camperdown	205	207	209	211	215	225	230	232	234	18
Dulwich Hill	1,072	1,090	1,108	1,125	1,161	1,252	1,343	1,437	1,494	333
Enmore	259	263	267	271	279	299	317	323	329	50
Lewisham	163	175	186	197	220	278	337	397	417	197
Marrickville	820	840	860	880	921	1,024	1,130	1,237	1,333	412
Newtown	489	496	503	510	525	561	597	634	656	131
Petersham	557	566	575	583	601	646	692	738	774	173
St Peters	813	825	837	848	872	931	992	1,053	1,083	210
Stanmore	122	126	130	134	142	162	179	187	193	51
Sydenham	525	529	532	536	543	561	573	579	586	43
Tempe	27	29	31	33	37	48	52	55	57	20
South Marrickville	48	53	57	62	71	94	118	142	166	95
1420313	111	111	111	112	112	113	115	116	117	5
1420708	24	24	24	25	25	25	26	27	27	2
Marrickville	**5,101**	**5,198**	**5,295**	**5,392**	**5,588**	**6,082**	**6,560**	**7,013**	**7,323**	**1,735**

2 bedrooms										
Camperdown	660	665	669	674	683	705	711	705	700	17
Dulwich Hill	2,502	2,521	2,540	2,559	2,597	2,687	2,774	2,856	2,873	276
Enmore	803	810	817	824	838	872	898	890	883	44
Lewisham	476	495	514	533	569	660	747	830	840	271
Marrickville	2,486	2,513	2,539	2,566	2,618	2,746	2,868	2,984	3,071	453
Newtown	1,660	1,672	1,684	1,695	1,719	1,775	1,828	1,879	1,882	164
Petersham	1,428	1,439	1,450	1,461	1,482	1,534	1,584	1,632	1,657	175
St Peters	1,824	1,836	1,848	1,860	1,883	1,939	1,992	2,043	2,039	156
Stanmore	497	505	513	521	536	574	600	598	595	59
Sydenham	1,448	1,451	1,453	1,456	1,461	1,474	1,472	1,458	1,444	-17
Tempe	160	165	171	176	187	213	215	215	216	29
South Marrickville	387	396	405	414	432	475	518	559	599	168
1420313	193	192	192	191	190	186	183	179	176	-14
1420708	58	58	58	58	57	57	56	55	55	-3
Marrickville	**14,332**	**14,468**	**14,604**	**14,739**	**15,005**	**15,654**	**16,205**	**16,651**	**16,800**	**1,795**

3 bedrooms										
Camperdown	367	370	374	378	385	404	415	419	423	38
Dulwich Hill	1,569	1,576	1,584	1,591	1,607	1,647	1,691	1,736	1,768	161
Enmore	485	489	493	497	506	527	543	545	548	42
Lewisham	413	418	422	427	437	463	491	520	530	93
Marrickville	2,009	2,017	2,024	2,031	2,047	2,087	2,131	2,177	2,218	172
Newtown	972	978	984	990	1,003	1,035	1,067	1,100	1,110	107
Petersham	927	932	937	942	953	980	1,009	1,039	1,063	110
St Peters	1,087	1,093	1,098	1,103	1,115	1,144	1,174	1,207	1,227	112
Stanmore	437	440	443	447	454	471	484	484	484	31
Sydenham	1,027	1,031	1,035	1,039	1,046	1,066	1,081	1,092	1,102	55
Tempe	164	167	170	173	178	193	193	194	195	16
South Marrickville	625	629	633	637	645	666	687	709	731	87
1420313	32	32	33	33	34	36	38	40	42	8
1420708	47	47	47	47	47	47	47	47	48	0
Marrickville	**10,083**	**10,140**	**10,198**	**10,256**	**10,375**	**10,683**	**10,966**	**11,222**	**11,398**	**1,023**

4+ bedrooms										
Camperdown	367	370	374	378	385	404	415	419	423	38
Dulwich Hill	1,569	1,576	1,584	1,591	1,607	1,647	1,691	1,736	1,768	161
Enmore	485	489	493	497	506	527	543	545	548	42
Lewisham	413	418	422	427	437	463	491	520	530	93
Marrickville	2,009	2,017	2,024	2,031	2,047	2,087	2,131	2,177	2,218	172
Newtown	972	978	984	990	1,003	1,035	1,067	1,100	1,110	107
Petersham	927	932	937	942	953	980	1,009	1,039	1,063	110
St Peters	1,087	1,093	1,098	1,103	1,115	1,144	1,174	1,207	1,227	112
Stanmore	437	440	443	447	454	471	484	484	484	31
Sydenham	1,027	1,031	1,035	1,039	1,046	1,066	1,081	1,092	1,102	55
Tempe	164	167	170	173	178	193	193	194	195	16
South Marrickville	625	629	633	637	645	666	687	709	731	87
1420313	32	32	33	33	34	36	38	40	42	8
1420708	47	47	47	47	47	47	47	47	48	0
Marrickville	**10,083**	**10,140**	**10,198**	**10,256**	**10,375**	**10,683**	**10,966**	**11,222**	**11,398**	**1,023**