Methodology Paper – ACT Housing Supply and Demand Modelling, March 2023

Introduction

The Environment Planning and Sustainable Development Directorate (EPSDD) undertakes Housing Supply and Demand modelling in consultation with ACT Treasury. The existing model used by EPSDD is built on the back of Treasury's population projections, ABS data on dwelling stock numbers (from their Estimated Dwelling Stock publication) and dwelling requirements based on the draft District Strategies. The aim of this modelling is to inform and assist in drafting the Indicative Land Release Program (ILRP), to ensure supply of adequate housing to accommodate expected demand.

The ACT Housing Supply and Demand model was first developed in 2011 and has since undergone several improvements. However, the principles of the model have remained the same; population growth is still the key component informing demand. An important new addition to the model is the use of the ACT dwelling stock to inform supply of occupiable dwellings. While Census data provides information on the average number of people per dwelling (i.e. the dwelling occupancy rate), the new model calculates this independently, using dwelling stock and estimated total population. It should be noted that ongoing improvements will continue to be made to this model.

Assessment of estimated supply

We have used the ABS data on estimated dwelling stock to inform future housing supply. The ABS has recently published this data in their Estimated Dwelling Stock publication. The data considers the number of dwellings completed in the quarter and the number of dwellings demolished, adding the net change to the existing housing stock. In our view, this represents the true available housing for families to move into. The Land Strategy team in EPSDD which manages the modelling, also undertakes analysis of the ABS data on building approvals, dwelling commencements and dwelling completions, to understand the lag that exists from the release of land through the ILRP to the completion of dwellings and additions to existing stock. This provides a validation in that the additions to the existing housing stock as reported in the ABS publication, are in-line with this data. It is also important to note that the ABS data considers the development of land held by the private sector, and as such we don't need to estimate this separately.

The forecast for dwelling stock is based on the 5-year annual average growth rate, with the assumption it will continue. This growth rate can be adjusted accordingly with more information around future housing supply. The Land Strategy team also frequently analyses the internal administrative data on development applications and have contracted with Colliers International who provide multi-unit supply data for the ACT. This analysis forms a part of the judgement around future direction of the housing supply in the market.

The annual change in dwelling stock represents annual **housing supply**. See Attachment 1 – Estimating Housing Supply.

Assessment of estimated demand

The demand side equation is based on estimated dwelling occupancy rate as this captures the future household and family structure. The dwelling occupancy rate is calculated by dividing the estimated resident population by the estimated dwelling stock. Note that while the 2021 Census reports an

average occupancy rate of 2.5 persons per dwelling, the calculation shows the number is actually lower than 2.5 persons.

The calculated dwelling occupancy rate is then adjusted using the draft District Strategies information which forecasts the dwelling stock required to cater for the increasing population. This data is available for every 5 years; we have used the available value for 2026 and adjusted the other years accordingly, using goal seek methodology to calculate the adjusted dwelling occupancy rate. The adjusted dwelling occupancy rate is the required dwelling occupancy rate to accommodate the growth in population. The projected total population is then divided by the required dwelling occupancy rate to yield the dwelling stock required to accommodate the projected population.

The annual change in the required dwelling stock represents annual **housing demand**. See Attachment 1 – Estimating Housing Demand.

Supply / Demand balance

The supply / demand balance is calculated by subtracting the housing supply from housing demand for the same year. A positive value represents excess supply, while a negative value represents excess demand.

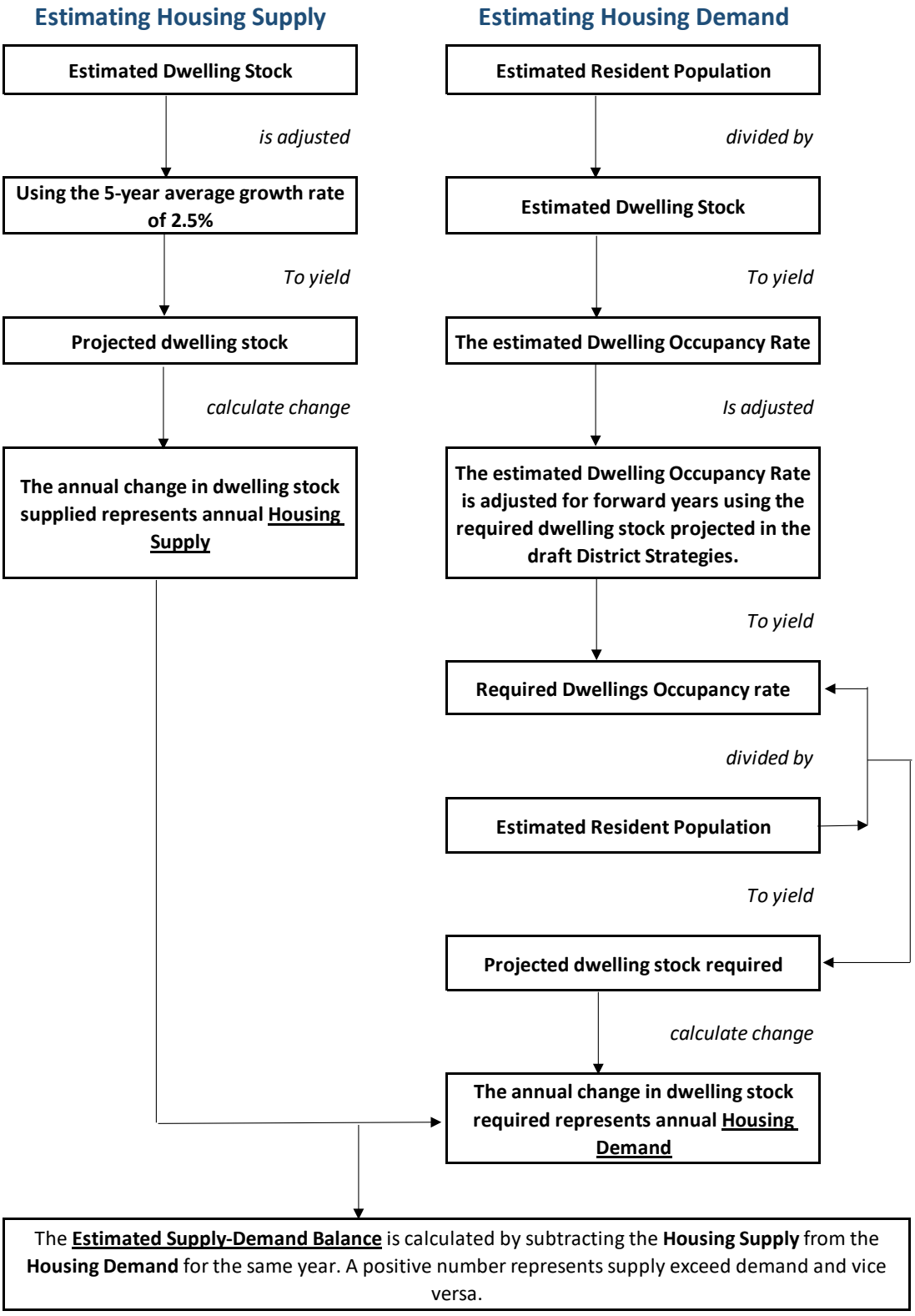
Model Output

EPSDD modelling shows that over the 5 years (2023-24 to 2027-28), the supply of dwellings has on average exceeded the demand by around 170 dwellings per year.

Future work

This modelling will continue to be improved using the housing projections information in the draft District Strategies.

Attachment A – Modelling Flowchart



Attachment B – Modelling Data Sources

Supply side Inputs		
Input	**Source**	**Description**
Dwelling stock	*ABS Estimated Dwelling Stock, June quarter 2022 (released 31/10/2022)* https://www.abs.gov.au/statistics/industry/building-and-construction/estimated-dwelling-stock/latest-release#key-statistics	This publication provides quarterly estimates of Australia's dwelling stock from the June 2016 quarter to the June 2022 quarter based on 2021 Census of Population and Housing, updated with quarterly estimates of dwelling additions (new completions) and removals (demolitions). Estimates are available at the SA2 (suburb) level. The ABS notes that the development funding for these statistics was provided through the National Housing and Homelessness Agreement. Development funding ended in 2021-22. Ongoing quarterly estimates of dwelling stock are not funded. To continue, EPSDD is looking at using the latest ABS estimate as a the base and use internal certificate of occupancy and use and demolitions certificate data as a proxy to estimate forward.
Dwelling stock (Projected)	Calculated	Calculated using 5-year average growth rate of 2.5% applied on base (June 2022) and continued for forward years.
Housing supply	Calculated	Change in total dwelling stock (estimated and projected).
Demand side Inputs		
Input	**Source**	**Description**
Estimated Residential Population	*ABS National, state and territory population, September quarter 2022 (released 16 March 2023)* . https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/latest-release	This estimated resident population series has been rebased to 2021 Census, and adjusted by the ABS using the components of natural increase (births less deaths), net overseas migration and net interstate migration. Forward year population is sourced from ACT Treasury's most recent population forecasts/projections available in most recent ACT Budget or Budget Review documents or the official ACT Government Population Projections.
	ACT Budget and ACT Budget Review	
	ACT Population Projections, 2022 - 2060, CMTEDD (published February 2023)	
Dwelling stock	As Above	As Above
Estimated dwelling occupancy rate (Persons per residential dwellings)	Calculated: Esimated Resident Population divided by Dwelling stock.	This figure indicates average perons per dwellings in the ACT. Note the dwelling stock estimates includes both private dwellings and public/Government owned dwellings, but excludes non-private dwellings which provide communal and short-term accomodation such as hospital and hotels. Building use can change over time (i.e. from a short-term holiday apartment to a long-term residential dwelling). Changes in building use that occurred between Census 2016 and 2021 have been added into the components of dwelling stock change.
Required estimated dwelling occupancy rate (Persons per residential dwellings)	Calculated: Using the dwelling stock required number in 2026 (draft District Strategies), occupancy rate is calculated for 2026 and goal seek formula is used to adjust the occupancy rate from 2023 to 2025 and for 2027 and 2028.	This required occupancy rate is based on required number of dwellings calculated in the draft District Strategies to accommodate the projected population growth (Treasury long-term population projections).
Total dwellings required	Calculated: Total population divided by the required occupancy rate.	This calculation provides the total dwelling stock required to accommodate the total population as projected.
Housing demand	Calculated	Change in total dwelling stock required (estimated and projected).
Supply / Demand balance	Calculated: Housing supply less Housing demand	A positive number represents excess supply and a negative number represents excess demand.
Other indicators considered		
Input	**Source**	**Description**
ACT Government Land Release Program	Actual number of dwellings released	The actual number of land released to support dwellings is analysed together with building approvals, dwelling commencements and completions data to assess the lag from release to being added to existing dwelling stock.
Dwelling commencements and completions	ABS Building Activity publication	As above
Building Approvals	ABS Building Approvals publication	As above
Multi-Unit Supply data (infill, private and ACT Government) and uplift in yield (e.g. on Mr Fluffy blocks)	Colliers International (via procurement)	Colliers data on multi-unit supply is procured to understand the future supply from the private sector. Colliers data has been expanded to capture an uplift in yield where a single dwelling was demolished and replaced with 2 or more dwellings. Colliers contract has been amended to include this information from 2022, however, Land Strategy is also looking at analysing BA/DA data to assess the type of development undertaken on Mr Fluffy blocks.

Technical Paper 3: Housing projections

Environment, Planning and Sustainable Development Directorate (EPSDD)

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SGS Economics & Planning

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SGS Economics and Planning Pty Ltd
ACN 007 437 729
www.sgsep.com.au

Offices in Canberra, Hobart, Melbourne, and Sydney, on Ngunnawal, muwinina, Wurundjeri, and Gadigal Country.

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This technical paper outlines the housing demand analysis undertaken to inform the dwelling targets that will be used in the preparation of the District Strategies.

Section 2 documents the population projections that underpin the analysis and implications from these for the modelling.

Section 3 outlines the method and results from the demand modelling for the ACT.

Section 4 documents the allocation of housing demand to each district.

Section 5 provides a summary of the recommended housing targets and how these will be used in the District Strategies.

2. Population projections

This section considers the ACT's population projections and implications for the demand modelling.

As has been discussed with EPSDD, there will need to be a realistic target for dwellings over the time horizon for the District Strategies, reflecting the current ACT Treasury population figures. The 100,000 additional dwelling target in the 2018 Planning Strategy was based on the high rates of growth observed in the ACT in the years preceding 2018, likely driven by the growth of Gungahlin in particular which is not likely to eventuate again or be sustained over the long term, with COVID-19 also impacting on migration levels and in turn population growth. It is important that there is a logical justification for the housing targets proposed in the District Strategies, particularly to inform conversations with the community.

The 2018 Planning Strategy was based on a time horizon to 2041. Given the time that has passed since, it is proposed to consider a 2046 horizon for the District Strategies – i.e. a roughly 25-year period from now – as well as a longer term planning horizon of 2063 when there may be demand for the additional 100,000 dwellings (see discussion in following sections).

2.1 ACT Treasury population projections

Current ACT Treasury population projections

As described previously in Technical Paper 2, the current ACT Treasury population projections show an increase of around 135,000 people across the ACT by 2046 (a 31 per cent increase from 2021), though some districts are expected to see more growth than others – shown in Table 1 below. By 2060, the projections show the population of the ACT reaching over 648,000, an increase of over 216,000 from 2021.

TABLE 1: PROJECTED POPULATION, 2021-2046

District	2021	2046	Change 2021-46	% change 2021-46	% share of ACT 2021	% share of ACT 2046
Belconnen	100,383	130,539	30,156	30%	23.2%	23.0%
Gungahlin	86,880	108,516	21,636	25%	20.1%	19.1%
Molonglo Valley	9,322	68,908	59,586	639%	2.2%	12.1%
North Canberra	59,179	94,239	35,060	59%	13.7%	16.6%
South Canberra	30,657	39,737	9,080	30%	7.1%	7.0%
Tuggeranong	83,605	65,982	-17,623	-21%	19.3%	11.6%
Weston Creek	23,143	18,908	-4,235	-18%	5.4%	3.3%
Woden Valley	36,869	39,539	2,670	7%	8.5%	7.0%
ACT	**432,266**	**568,255**	**135,989**	**31%**	**100.0%**	**100.0%**

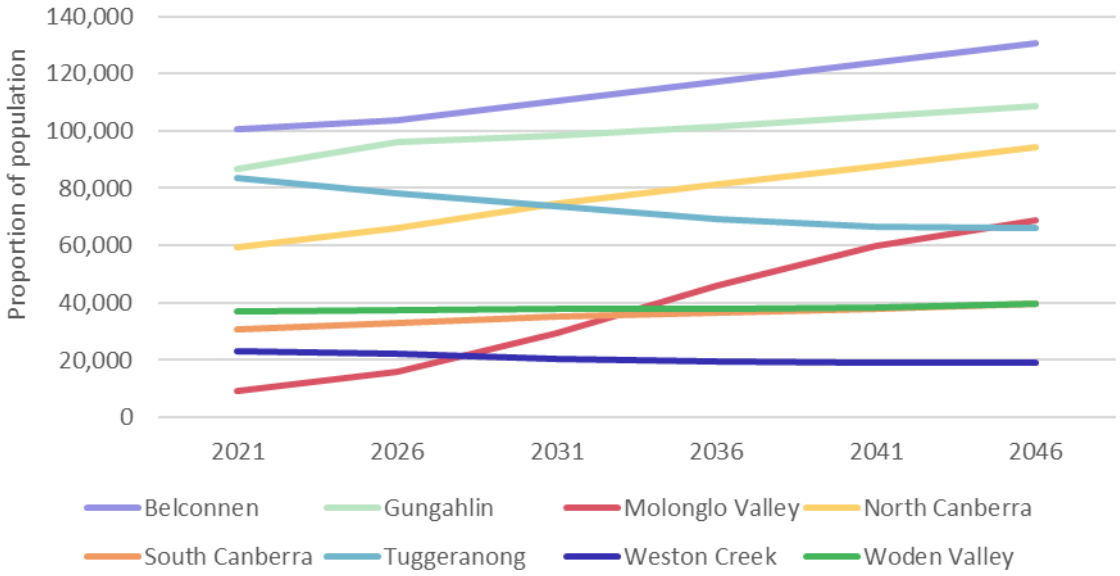
Source: ACT Treasury 2021 population projections (March 2022).[1] Note: excludes Canberra East and Uriarra-Namadgi districts.

The current projections show a decrease in population in both Tuggeranong and Weston Creek between 2021 and 2046, illustrated in Figure 1 below.

North Canberra is expected to have the largest rate of growth besides Molonglo, which as a growth area will increase its population substantially (but is projected to level off post 2046).

[1] Provided to SGS in confidence, March 2022.

FIGURE 1: PROJECTED POPULATION GROWTH BY DISTRICT, 2021-2046



Source: ACT Treasury 2021 population projections (March 2022).

The distribution of population between districts is projected to be similar in 2046 to 2021, though Molonglo will substantially increase its share, with more growth also going into North Canberra, and a declining share in the other districts, particularly in Tuggeranong.

The age profile across the ACT is also expected to shift, and particularly for some districts.

Comparison to previous projections

Table 2 below provides a comparison of the population totals identified in each district in the 2018 Planning Strategy compared to the current projections for the year 2041 (which was the planning horizon year in the Planning Strategy – for the District Strategies it is proposed to work to a 2046 horizon). This shows the current forecasts are expecting a smaller population by around 50,000 across the ACT, and much less growth in the southern districts compared to the assumptions used in the Planning Strategy.

TABLE 2: 2018 ACT PLANNING STRATEGY PROJECTIONS COMPARED TO CURRENT ACT TREASURY FORECASTS, 2041

District	2041 population in 2018 Planning Strategy	2041 population in current ACT Treasury projections	*Difference*
Belconnen	128,000	123,821	-4,179
Gungahlin	100,200	104,937	4,737
Molonglo Valley	51,400	59,783	8,383
North Canberra	78,700	87,537	8,837
South Canberra	40,300	37,765	-2,535
Tuggeranong	100,600	66,572	-34,028
Weston Creek	33,200	18,842	-14,358
Woden Valley	49,200	38,193	-11,007
ACT	**589,000**	**539,356**	***-49,644***

Source: 2018 ACT Planning Strategy and ACT Treasury 2021 population projections (March 2022). Note: excludes Canberra East and Uriarra-Namadgi districts.

Similarly, Table 3 compares the current forecasts to the previous 2018 ACT Treasury projections released in 2019 for the year 2046. This shows the current forecasts assume 53,000 fewer people in 2046 compared to the previous, with less growth expected for Tuggeranong, Belconnen, Woden, and Weston Creek.

TABLE 3: 2019 ACT TREASURY POPULATION PROJECTIONS COMPARED TO CURRENT ACT TREASURY FORECASTS

District	2019 ACT Treasury projections				2021/22 ACT Treasury projections				*Difference between projections in 2046*
	2021	2046	Change 2021-2046	% of ACT in 2046	2021	2046	Change 2021-2046	% of ACT in 2046	
Belconnen	104,250	146,851	42,602	23.60%	100,383	130,539	30,156	22.97%	*-16,312*
Gungahlin	82,121	84,470	2,349	13.60%	86,880	108,516	21,636	19.10%	*24,046*
Molonglo Valley	12,592	62,488	49,896	10.10%	9,322	68,908	59,586	12.13%	*6,420*
North Canberra	59,433	87,936	28,503	14.20%	59,179	94,239	35,060	16.58%	*6,303*
South Canberra	31,228	37,666	6,438	6.10%	30,657	39,737	9,080	6.99%	*2,071*
Tuggeranong	87,979	88,516	537	14.20%	83,605	65,982	-17,623	11.61%	*-22,534*
Weston Creek	23,724	25,498	1,774	4.10%	23,143	18,908	-4,235	3.33%	*-6,590*
Woden Valley	41,193	55,445	14,252	8.90%	36,869	39,539	2,670	6.96%	*-15,906*
ACT	**444,651**	**621,441**	**176,790**	**100.0%**	**432,266**	**568,255**	**135,989**	**100.0%**	***-53,186***

Source: ACT Treasury population projections, 2019 release and 2021 projections (March 2022). Excludes Unallocated population and districts not being considered in District Strategies.

2.2 Implications for housing demand and the District Strategies

- The lower projected population across the ACT means that there is not likely to be sufficient demand for housing to require 100,000 additional dwellings over the planning horizon in the District Strategies (e.g. the next 25 years).
- However, it is important to acknowledge that there is still uncertainty around population projections at this time with COVID-19 impacts and new Census data that will come out. It is also important to recognise that not all housing capacity in the system will necessarily be turned over/delivered, and that there is a need to plan for housing post-2046 as well.
- As such, planning for and building in a higher level of housing capacity through the Strategies is recommended – i.e. retaining the 100,000 additional dwelling target overall, with the 70/30 split between infill and greenfield – with the District Strategies to identify criteria for which areas would likely need to be developed first to meet the identified housing demand in 2046 (e.g. areas aligned with transport infrastructure should go first, etc.).
- The District Strategies document will need to have a clear narrative around this and the projections to explain the housing targets for each district for the community. The year when the ACT is likely to reach the need for the full 100,000 additional dwellings will also need to be identified – while acknowledging the uncertainty that exists around these kinds of projections.
- For the planning work for the district strategies, the important elements are 1) the distribution of population/housing between districts, and 2) the split between dwelling types, derived from the age profile and previous Census propensities (see next section). As the current ACT Treasury forecasts are similar to the distributions used for the 70% Urban Infill work, the planning work will be able to build off this as a base.

3. Housing demand modelling

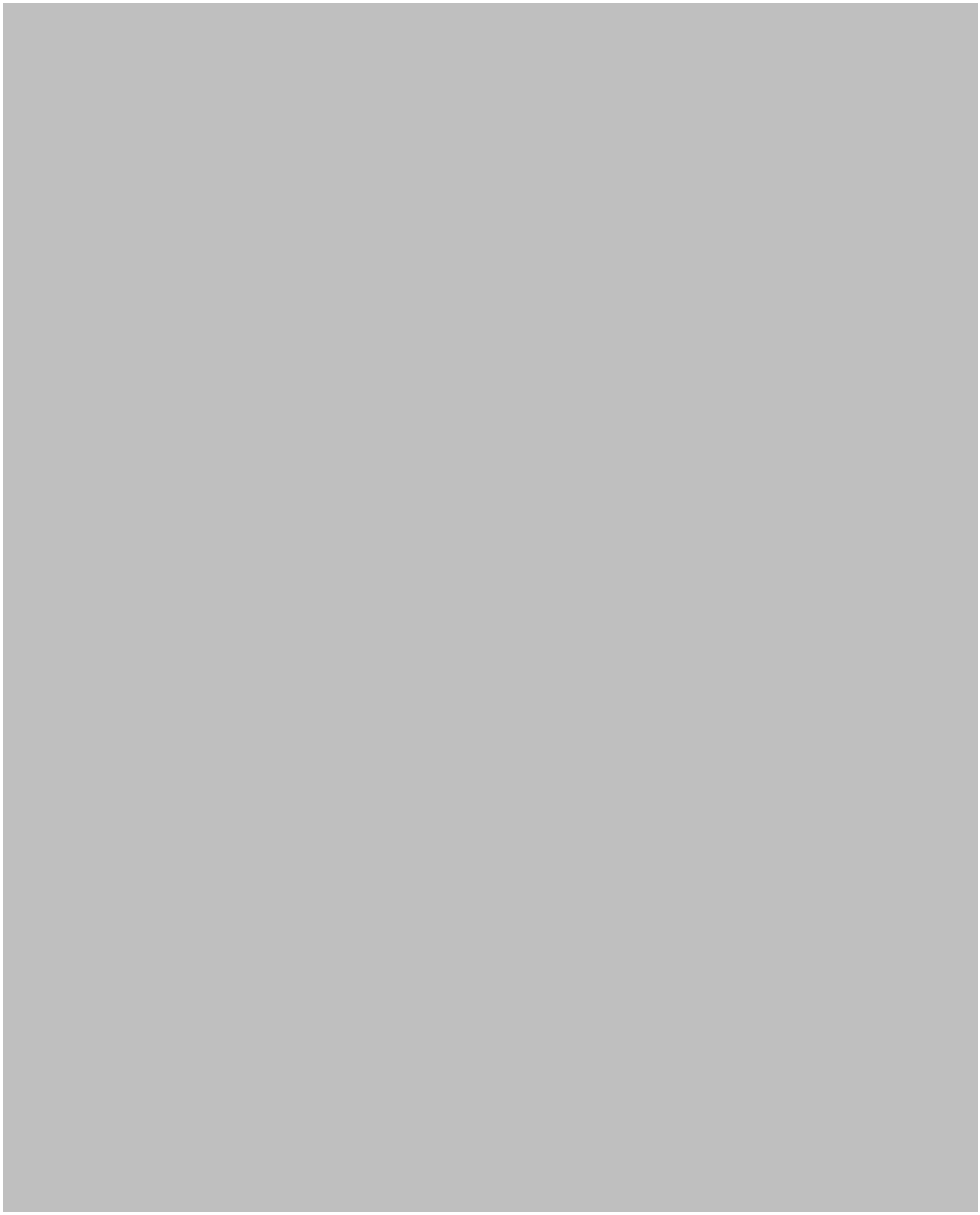
This section outlines the method and results from the housing demand modelling for the ACT.

3.1 Housing demand method

Housing demand model

The analysis in this section draws a upon a range of datasets, including population growth projections and trends in population age, family and household types. Building upon these projections and demographic factors, SGS's Housing Demand model determines how many new dwellings of each type may be required in the ACT in the future.

The operation of SGS's housing demand model is shown in Figure 2 below. Population growth projections are converted through a series of steps into demand for housing:



Source: SGS, 2022.

Housing preferences

The proportion of each household type that live in each dwelling type is commonly referred to as **revealed housing preferences**. It can also be considered as the propensity of a given household type to occupy each different type of dwelling.

As people are constrained in the kinds of housing available and affordable, they make trade-offs when choosing where and how to live. Revealed preferences can differ from people's ideal (unconstrained preferences). People may also wish to stay in their current dwelling, even if it differs from their ideal preference. Factors which influence revealed preferences include what kinds of dwellings households would like to live in, what kinds of dwellings are available and how affordable those dwellings are. Revealed preferences evolve over time as these variables change, as well as in response to shifts in local demographics.

Data from the ABS census from 2006-2016 (noting that 2016 is currently the most recent available year of data) showing revealed preferences are shown overleaf (Figure 3). As noted above, these trends reflect the dwelling market and what kinds of housing are being built in the ACT, as well as trends in what kinds of housing people will choose to live in.

These trends have been extrapolated into the future to provide a forecast for how housing preferences will change *if current trends continue*. Limits have been placed on the trends to ensure they do not deviate too far from historical averages given the inherent uncertainty in projections (for example for couples without children up to 45 years old). While this projection may be inaccurate if future trends are different from past trends, this projection provides a good basis for high-level strategic planning.

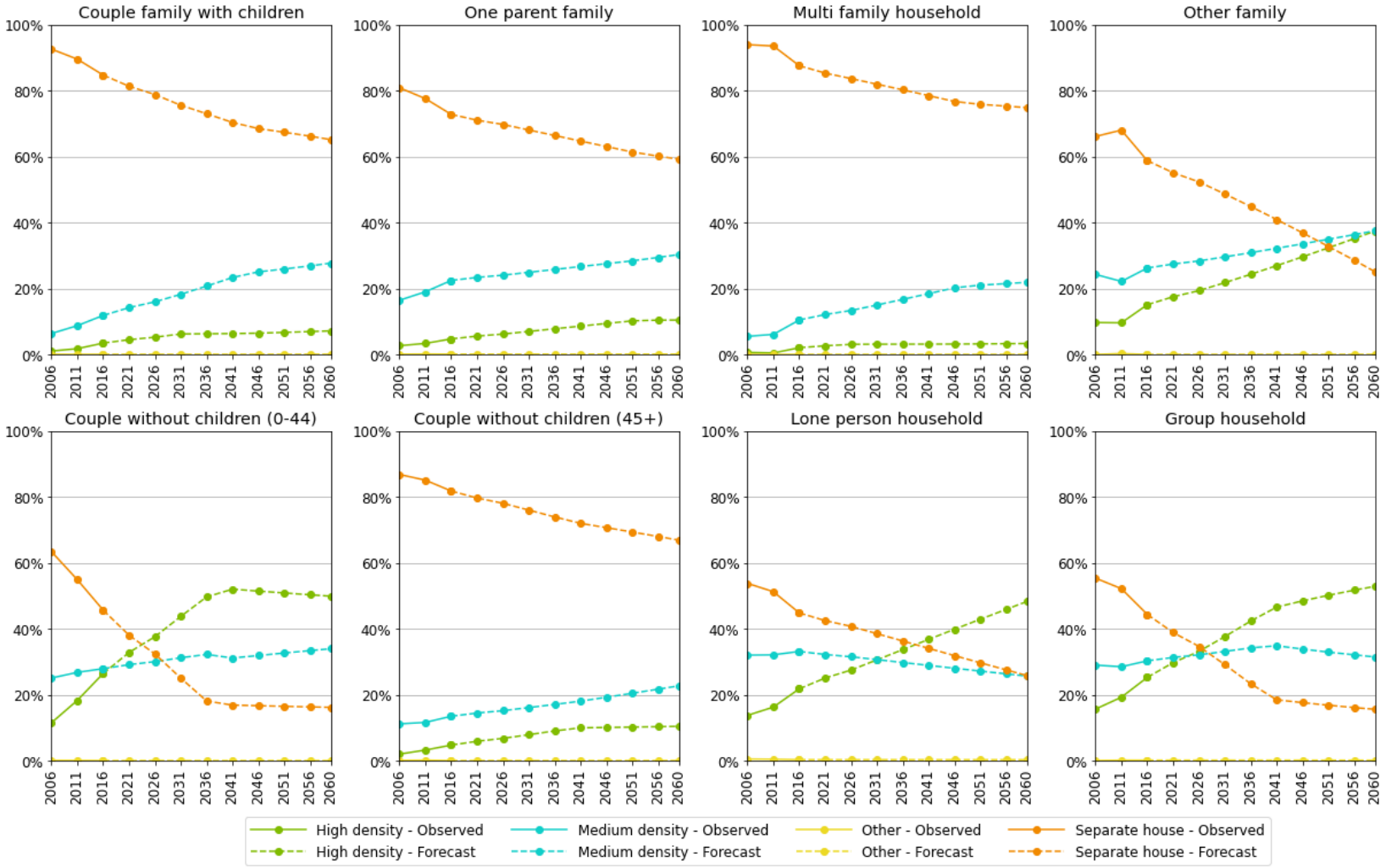
Overall, trends in revealed preferences for the ACT reveal a substantial shift in the community's living arrangements from separate houses, towards medium density and high density. This is true for almost all household types, in contrast to some other parts of Australia in which preferences of couples with children and multi-family households are staying more fixed around separate houses.

Trends towards high density living are most notable for younger couples without children (those aged up to 45 years), group households and lone person households. These are all generally younger or smaller household types who may be happy to live in a relatively small dwelling. By contrast, medium density is a more common choice than high density for couples with children, multi-family households, older couples with children including those who may want to downsize (those aged 45+) and one parent families.

While the housing mix of the ACT has in the past been dominated by separate housing with a suburban character, these results reveal that the future housing mix will need to be more diverse, which is already the goal of the ACT Government's strategic planning policies. Large increases in both medium and high density dwellings will be needed in the future to accommodate both those households who are happy to live in an apartment, and those who cannot afford a separate house, or want to live close to amenity, but would prefer the generally larger amount of space and separation that comes with medium rather than high density housing.

It is important to note that notwithstanding the need for a substantial amount of additional housing of both medium and high densities, depending on how much housing is supplied and where, some people may make different choices (for example, choosing high density instead of medium density, or medium density instead of a separate house). To some degree, preferences will be responsive to planning policies, which are driven by strategic aspirations for the ACT's sustainability and housing character.

FIGURE 3: HOUSING PREFERENCE TRENDS FOR THE ACT



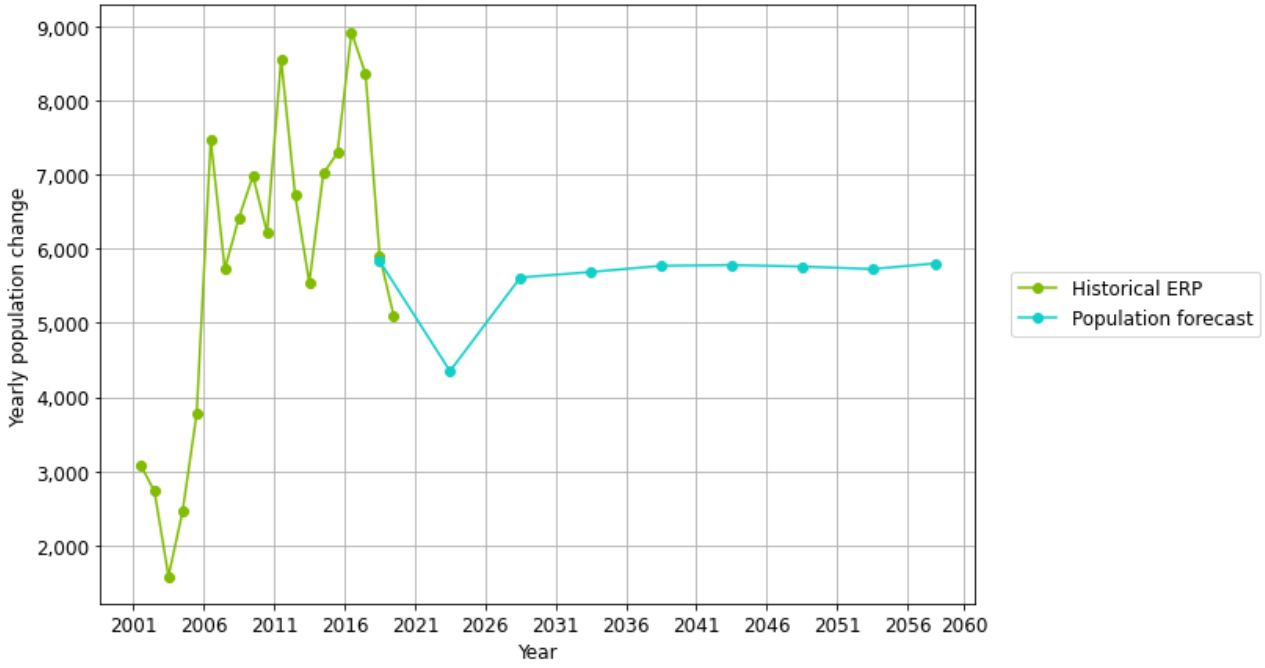
Source: SGS, 2021.

Key assumptions

The housing demand model has been run using the most recent ACT Treasury population projections (provided in March 2022) and Census data for the whole of ACT, and then separately for each district.

The ACT Treasury forecasts are for future population growth to be below peaks seen between 2011 and 2017 (as shown in Figure 4 below).

FIGURE 4: POPULATION FORECAST FOR THE ACT COMPARED TO HISTORICAL GROWTH



Source: SGS 2022, using ACT Treasury Forecasts (March 2022) and ABS *Estimated Residential Population*.

Rapid changes in living arrangements are most likely while the population is growing quickly and where a large amount of housing is being built, but more modest change is likely if population growth and housing development are happening at lower rates. To reflect the lower future growth expectations compared to the period between 2006-2016, forecast shifts in revealed housing preferences for the ACT have been adjusted to reflect forecast population growth.[2]

3.2 Housing demand results for the ACT

Table 4 below shows the results of the housing demand modelling for the ACT by dwelling types, based on the current population projections from ACT Treasury.

[2] More specifically, the forecast rate of change of revealed preferences in each case has been scaled to reflect the rate of yearly population growth.

This shows total demand for housing in 2046 of nearly 234,000 dwellings, or **around a 57,800 dwelling increase from 2021.**

If annual additional housing demand after 2060 mirrors the average value projected between 2031-2060 (there is little variation in annual additional housing demand in these years), **the demand for the full 100,000 additional dwelling target identified in the ACT Planning Strategy would not be reached until sometime in 2063**.

TABLE 4: PROJECTED HOUSING DEMAND, ACT

	2021	2046	2060	2063* (when 100,000 additional dwellings needed)
Separate house	108,829	115,082	118,582	119,301
Medium density	39,788	64,275	80,929	84,433
High density	27,155	54,234	68,989	72,037
Other	320	320	320	320
Total	**176,092**	**233,910**	**268,820**	**276,092**
Change from 2021	-	*57,818*	*92,729*	*100,000*

Source: SGS, 2022, housing demand modelling, based on ACT Treasury 2021 population projections (March 2022).
*Note that the 2063 estimated dwelling demand splits have been created based on the 2060 results, and assuming that the percentage composition of additional housing demand between 2060-2063 is the same as modelled results for the period 2056-2060.

Assuming the target for 70 per cent of new dwellings to be infill/within the existing urban boundary, this essentially means a target in 2046 of around:

- 40,473 additional infill dwellings,
- 17,345 additional greenfield dwellings.

4. Demand and dwelling targets by district

This section describes the method for allocating the housing demand between districts for the purpose of the District Strategies.

4.1 Allocation to districts

Method

The overall dwelling need in the ACT for each dwelling type has been allocated into the ACT's districts.

To do this, the housing demand model was applied to the ACT Treasury population projections for each district. The resulting district by district forecasts were adjusted to ensure the total change by dwelling type lines up with the whole of ACT projection, which is likely to be a more accurate reflection of overall housing need.

As noted in Section 2.2, the ACT Treasury forecasts predict that the populations of Tuggeranong and Weston Creek will decline in the future, with a particularly notable decline predicted for Tuggeranong. This is likely to be a reflection of the following factors:

- An expectation of limited development (recent trends of lower growth Territory-wide being reflected in future projections, as well as of continued limited development in some areas).
- An aging population and resulting decline in average household size, with children having moved out of their parent's homes.
- Other model-specific factors tied to age of development and demographics like different internal migration rates for different age groups.

As a result of the forecast decline in population, modelling housing demand at a district level starting from district by district projections would likely suggest declining housing demand in these two districts.

However, a decline in housing demand in these districts is not likely to occur. Rather, household sizes, housing preferences and prices may to shift to prevent any large decline in housing demand in any district. In addition, it is likely that there would be demand for some medium and higher density housing in Tuggeranong if the ACT Government were to facilitate this development through changes to planning controls allowing additional development supported by investments in amenity and infrastructure. From a strategic planning point of view, and considering the sunk infrastructure investment in these areas, this is likely to be a preferable outcome than no (or almost no) development occurring in these districts.

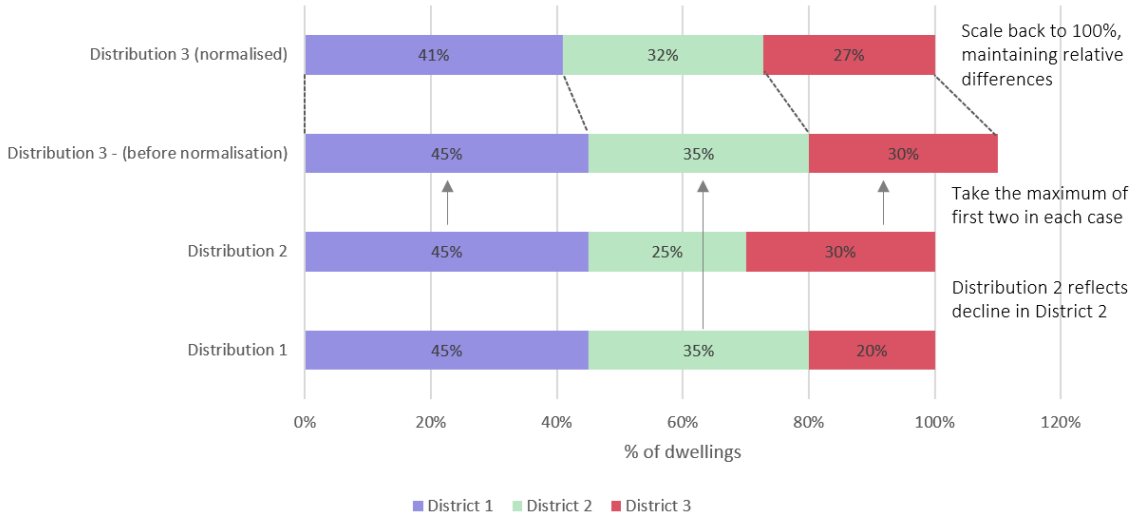
As a result, it is not reasonable to assume that almost no development will occur in Tuggeranong or Weston Creek, or that housing demand will decline. For this reason, it was necessary to reallocate forecast demand for additional dwellings by housing type between the ACT's districts to provide at least a baseline increase in demand in each district.

To provide a range of options modelling how overall housing demand may be distributed across districts in the ACT, three alternative housing distributions were created for each modelled year:

- **Distribution 1 (current distribution):** The percentage distribution of housing in each district (e.g. the percentage of medium density in Tuggeranong, Woden, North Canberra etc.) staying at 2021 levels.
- **Distribution 2 (Modelled distribution):** The percentage distribution of housing in the future following the distribution implied by district by district housing demand modelling results (e.g. Territory wide medium density allocated proportionally to 2046 district-specific medium-density results).
- **Distribution 3 (In-between distribution)** The maximum percentages are taken from the above two options for every district and dwelling type, and then the result is re-normalised to ensure that no more than 100 per cent of the forecast housing need is distributed.
    - This in-between distribution intends to reduce the size of declines in any given district, while still allowing other districts to increase their share of housing.

An illustration of how the third distribution is created for hypothetical model outcomes and districts, and for a single hypothetical housing type, is shown in Figure 5 below.

FIGURE 5: ILLUSTRATION OF THREE DISTRIBUTIONS FOR A HYPOTHETICAL DWELLING TYPE AND THREE HYPOTHETICAL DISTRICTS



Source: SGS, 2022.

To create a final series of percentage distributions of housing demand across the ACT's districts, a weighted average of the three distributions was taken for 2046 and 2063 for each dwelling type. The weights were manually adjusted to create a gradual shift away from the 2021 distribution and towards the modelled distribution while providing at least small increases in demand in each district and maintaining the overall demand picture implied by forecasts.[3]

[3] The weights used were: **for 2026**: 20% Distribution 1, 80% 2046 version of Distribution 3; **for 2063**: 20% 2060 version of Distribution 2, 80% 2060 version of Distribution 3

District by district housing demand forecasts were then generated by multiplying the % distributions for each district by total modelled ACT housing demand for each housing type, and subtracting 2021 forecasts to calculate s change in demand.

Results

The housing demand results by type for each district are shown below, based on the housing demand in 2046 (Table 5) and when the demand reaches 100,000 additional dwellings post-2060 (Table 6).

Table 5 shows the largest demand for additional dwellings in Molonglo (as is expected with it being a growth area) among the districts by 2046. Of the established districts North Canberra, Belconnen and Gungahlin show the highest level of demand at over 8,000 additional dwellings by 2046 – though for Gungahlin a lot of this would be able to be met by the remaining greenfield suburbs, or could be considered to be interchangeable from a housing demand point of view with greenfield development elsewhere.

These results should be considered as only a starting point for planning rather than a prescription of how much development should occur and where. They do not explicitly incorporate the assumption that 70 per cent of development will be infill (addressed in the following section), or any other strategic planning considerations of liveability, sustainability and opportunities and constraints on development.

Rather, the district by district amount of growth in these forecasts is based on:

- Where ACT Treasury's projections indicate the population is likely to grow (which is likely to encode assumptions around the development capacity of growth areas).
- Recent demographic trends.
- Recent housing market and development trends.

TABLE 5: ADDITIONAL HOUSING DEMAND RESULTS BY DISTRICT, PROJECTED CHANGE TO 2046

District	Separate house	Medium density	High density	Total	% share
Belconnen	-1,255	6,180	3,939	**8,864**	15.3%
Gungahlin	1,676	3,922	2,739	**8,344**	14.4%
North Canberra	-453	3,403	7,120	**10,068**	17.4%
South Canberra	-233	1,355	5,778	**6,901**	11.9%
Tuggeranong	-1,219	2,815	518	**2,114**	3.7%
Weston Creek	-345	773	90	**514**	0.9%
Woden Valley	-425	1,800	1,944	**3,320**	5.7%
Molonglo Valley	8,508	4,238	4,950	**17,696**	30.6%
Total	**6,253**	**24,487**	**27,079**	**57,818**	**100.0%**

Source: SGS, 2022, housing demand modelling based on ACT Treasury 2021 population projections (March 2022). Note: 'Other' category has been excluded.

The demand at 100,000 additional dwellings shows a similar distribution of the additional demand between districts, though by this time Molonglo would have a lower share of the growth.

TABLE 6: ADDITIONAL HOUSING DEMAND RESULTS BY DISTRICT, AS AT 100,000 ADDITIONAL DWELLINGS (2063)

District	Separate house	Medium density	High density	Total	% share
Belconnen	-539	12,029	6,652	**18,143**	18.1%
Gungahlin	4,191	7,331	4,816	**16,349**	16.3%
North Canberra	-301	7,435	13,251	**20,382**	20.4%
South Canberra	-369	2,334	9,577	**11,542**	11.5%
Tuggeranong	-2,293	5,244	799	**3,750**	3.8%
Weston Creek	-361	1,237	135	**1,002**	1.0%
Woden Valley	-529	3,364	3,020	**5,855**	5.9%
Molonglo Valley	10,672	5,671	6,633	**22,977**	23.0%
Total	**10,472**	**44,645**	**44,883**	**100,000**	**100.0%**

Source: SGS, 2022, housing demand modelling based on ACT Treasury 2021 population projections (March 2022). Note: 'Other' category has been excluded.

4.2 Conversion to infill targets

Method

Territory-wide housing demand results by dwelling type were split into infill and greenfield components using the following method:

Greenfield

- Calculate total greenfield demand for additional housing as 30 per cent of total additional housing demand.
- Assume that all modelled increases in separate house demand from any district represents additional greenfield housing demand for separate houses.
- Calculate total medium or high density greenfield housing demand as total greenfield demand minus demand for additional separate houses.
- Split medium or high density greenfield housing demand into attached housing and apartment categories proportionally to an average greenfield housing split for the ACT between attached and apartment development.

  This average was given by the average of proportional dwelling compositions of several recent greenfield developments as reported in the 2016 census (Crace, Bonner, Harrison, Molonglo), as well as the planned housing mix for Molonglo Valley Stage 2. This gives a suggested greenfield housing mix of 56 per cent separate houses, 24 per cent attached dwellings and 20 per cent apartments.

Infill

- Calculate Territory-wide infill housing demand for each housing type as total Territory-wide housing demand minus what may be met through greenfield development, amounting to 70 per cent of additional housing demand.
- Calculate an initial estimate of infill housing demand in each district by assuming what proportion of the district's allocated demand (as discussed in Section 4.2) will be infill development.

  Initial assumptions were:

  - 100 per cent of medium or high density demand in North Canberra, South Canberra, Tuggeranong, Weston Creek and Woden Valley.
  - 90 per cent of high density demand in Belconnen.
  - 75 per cent of medium density demand in Belconnen and high density demand in Gungahlin.
  - 25 per cent of medium density demand in Gungahlin.
- Rescale the initial infill demand estimates to reach total calculated infill demand for medium and high density, making up 70 per cent total target.
- Allocate modelled declines in separate house demand into districts to reflect the relative amounts of infill development expected, with medium density assumed to be at a lower density than high density and so to require replacement of a relatively higher number of separate houses.

Results

Greenfield demand results are shown below in Table 7. For the greenfield dwellings required, it is expected that greenfield precincts will progress as planned by the ACT Government at present, and that these areas at their 'built out' stage will largely be able to meet the 30 per cent of the 100,000 additional dwelling long term target (i.e. 30,000 dwellings) without additional interventions. **The focus of the spatial planning and identification of change areas will be largely focused on the infill areas of the districts,** though enhanced planning and design principles for greenfield development reflecting best practice will be encouraged and identified.

The dwelling typology results below should not be taken to be a definitive indication of the housing mix needed in greenfield development areas, as they are highly sensitive to shifts in the district by district housing allocations used in the housing demand modelling, and are influenced by the dwelling mix achieved in recent greenfield suburbs.

However, these results indicate that a range of housing types will likely be needed through greenfield development, including separate houses, medium and high density. This is consistent with current planning and outcomes achieved in greenfield development areas in the ACT like the Molonglo Valley.

TABLE 7: ADDITIONAL GREENFIELD HOUSING DEMAND RESULTS, 2046 AND 2063

Year	Separate house	Medium density	High density	Total
2046	10,184	3,887	3,274	**17,346**
2063	14,863	8,217	6,920	**30,000**

Source: SGS, 2022, housing demand modelling based on ACT Treasury 2021 population projections (March 2022).

Table 8 shows infill targets for 2046. Figures shown are for the net change in dwellings, that is including any decrease in separate houses through the replacement of existing housing with infill development. For example, a net change of 500 could be accomplished through the addition of 500 additional dwellings on a formerly vacant site, or the replacement of 100 existing houses with 600 new dwellings.

TABLE 8: TARGETS FOR INFILL DWELLINGS, 2046 (NET CHANGE IN DWELLINGS)

District	Medium density	High density	Total	% share
Belconnen	5,302	3,509	**8,811**	21.8%
Gungahlin	1,281	2,323	**3,605**	8.9%
North Canberra	4,286	7,759	**12,046**	29.8%
South Canberra	1,722	6,351	**8,073**	19.9%
Tuggeranong	2,627	418	**3,046**	7.5%
Weston Creek	696	70	**767**	1.9%
Woden Valley	2,133	1,993	**4,127**	10.2%
Total	**18,048**	**22,425**	**40,473**	**100.0%**

Source: SGS, 2022, housing demand modelling based on ACT Treasury 2021 population projections (March 2022).

Table 9 below the results for when 100,000 additional total dwellings are needed (i.e. 70,000 in infill areas).

TABLE 9: TARGETS FOR INFILL DWELLINGS, AS AT 100,000 ADDITIONAL DWELLINGS (2063) (NET CHANGE IN DWELLINGS)

District	Medium density	High density	Total	% share
Belconnen	10,445	6,050	**16,495**	23.6%
Gungahlin	2,191	3,769	**5,960**	8.5%
North Canberra	8,771	13,644	**22,415**	32.0%
South Canberra	2,710	9,706	**12,415**	17.7%
Tuggeranong	4,246	565	**4,811**	6.9%
Weston Creek	1,149	109	**1,259**	1.8%
Woden Valley	3,726	2,919	**6,644**	9.5%
Total	**33,239**	**36,761**	**70,000**	**100.0%**

Source: SGS, 2022, housing demand modelling based on ACT Treasury 2021 population projections (March 2022).

These results are a better starting point for spatial planning than the district-based housing demand results in Section 4.2 because these results consider the need to accommodate 70 per cent of additional housing development through infill, and perform some reallocation of demand between districts to reflect this.

4.3 Total housing targets

Total housing targets for each district have been created by allocating modelled greenfield housing demand into districts, and adding this to the infill targets, for 2046 and 2063 respectively in Table 10 and Table 11 below.

A high level allocation of modelled greenfield demand into Molonglo, Gungahlin and Belconnen has been performed proportionally to potential population based on ACT Treasury's population projections for Molonglo and Gungahlin, and on Gininderry ultimately accommodating around 17,000 people in the ACT (as reported in the Housing Development Requirements for Strathnairn). This results in around 16 per cent of greenfield demand being allocated into Belconnen, 69 per cent into Molonglo and 15 per cent into Gungahlin. Greater proportions of medium and high density housing, as opposed to separate housing, has been allocated into Molonglo in line with recent development trends and current planning.

TABLE 10: TARGET NET INCREASE IN HOUSING BY DISTRICT, 2046 (BOTH GREENFIELD AND INFILL)

District	Separate house	Medium density	High density	Total	% share
Belconnen	1,675	5,777	3,909	**11,361**	20%
Gungahlin	1,478	1,701	2,676	**5,855**	10%
North Canberra	0	4,286	7,759	**12,046**	21%
South Canberra	0	1,722	6,351	**8,073**	14%
Tuggeranong	0	2,627	418	**3,046**	5%
Weston Creek	0	696	70	**767**	1%
Woden Valley	0	2,133	1,993	**4,127**	7%
Molonglo Valley	7,031	2,993	2,521	**12,545**	22%
Total	**10,184**	**21,935**	**25,699**	**57,818**	**100.0%**

Source: SGS, 2022, based on ACT Treasury 2021 population projections (March 2022). Note: 'Other' category has been excluded.

TABLE 11: TARGET NET INCREASE IN HOUSING BY DISTRICT, AS AT 100,000 ADDITIONAL DWELLINGS (2063) (BOTH GREENFIELD AND INFILL)

District	Separate house	Medium density	High density	Total	% share
Belconnen	2,444	11,450	6,896	**20,790**	21%
Gungahlin	2,157	3,078	4,515	**9,750**	10%
North Canberra	0	8,771	13,644	**22,415**	22%
South Canberra	0	2,710	9,706	**12,415**	12%
Tuggeranong	0	4,246	565	**4,811**	5%
Weston Creek	0	1,149	109	**1,259**	1%
Woden Valley	0	3,726	2,919	**6,644**	7%
Molonglo Valley	10,262	6,326	5,328	**21,915**	22%
Total	**14,863**	**41,456**	**43,681**	100,000	100.0%

Source: SGS, 2022, based on ACT Treasury 2021 population projections (March 2022). Note: 'Other' category has been excluded.

5. Summary demand results and dwelling targets

This section summarises the results from the housing demand analysis and how this will be used in preparing the District Strategies.

5.1 Housing demand for the ACT

The results of the housing demand modelling, based on the current ACT Treasury population projections, have identified:

- In 2046 an increase in demand for around 57,800 dwellings across the ACT.
- That demand for 100,000 additional dwellings (as outlined in the 2018 Planning Strategy) is not likely to be reached until around 2063.

Assuming the target for 70 per cent of new dwellings to be infill/within the existing urban boundary, this essentially means an overall target in 2046 of around 40,400 additional infill dwellings, and 17,300 additional greenfield dwellings.

Given the need for a robust evidence base to support any housing targets and the difference between the likely housing demand and the additional 100,000 dwelling target in the Planning Strategy, it is proposed that the planning work for the District Strategies aims to facilitate capacity for the additional 100,000 dwellings over the long term, but identifies the areas that should be prioritised to meet the potential demand in 2046 in the District Strategies.

5.2 Housing targets by district

Table 12 below shows the overall targets for net additional housing demand by district for when the additional dwellings required to meet demand likely reaches 100,000 (estimated to be around 2063). Net additional housing in this case means that any decline in separate house numbers through replacement are included – so for example, if 100 existing separate houses are replaced by 600 medium density dwellings, the net increase would be 500 dwellings.

TABLE 12: ADDITIONAL HOUSING DEMAND RESULTS BY DISTRICT, AS AT 100,000 ADDITIONAL DWELLINGS (2063)

District	Separate house	Medium density	High density	Total
Belconnen	2,444	11,450	6,896	**20,790**
Gungahlin	2,157	3,078	4,515	**9,750**
North Canberra	0	8,771	13,644	**22,415**
South Canberra	0	2,710	9,706	**12,415**
Tuggeranong	0	4,246	565	**4,811**
Weston Creek	0	1,149	109	**1,259**
Woden Valley	0	3,726	2,919	**6,644**
Molonglo Valley	10,262	6,326	5,328	**21,915**
Total	**14,863**	**41,456**	**43,681**	**100,000**

Source: SGS, 2022, housing demand modelling based on ACT Treasury 2021 population projections (March 2022).

However, for the purposes of the District Strategies planning, targets for greenfield and infill development respectively have also been developed, with the latter largely forming the basis of the spatial planning work. Given the advanced state of planning for the greenfield suburbs, it is expected that they will largely develop as planned by the ACT Government at present, and will be able to meet the additional dwelling long term target (i.e. 30,000 dwellings by 2063).

Table 13 below summarises the proposed infill targets for the districts (excluding Molonglo Valley) to be used in the spatial planning.

TABLE 13: TARGETS FOR INFILL DWELLINGS

District	Total in 2046	Total in 2063 (when demand reaches 100,000 total additional)
Belconnen	8,811	16,495
Gungahlin	3,605	5,960
North Canberra	12,046	22,415
South Canberra	8,073	12,415
Tuggeranong	3,046	4,811
Weston Creek	767	1,259
Woden Valley	4,127	6,644
Total	**40,473**	**70,000**

Source: SGS, 2022, housing demand modelling based on ACT Treasury 2021 population projections (March 2022).

5.3 Application in District Strategies

The targets by type for each district will be used as the basis for the spatial planning work for each district. As noted above, greenfield precincts will be assumed to largely develop as per current ACT Government plans given the advanced state of this planning, though enhanced planning and design principles for greenfield development reflecting best practice will be encouraged and identified through the District Strategies. Furthermore, sufficient capacity or future opportunities in infill areas will be identified to enable a diversion of growth from greenfield to infill areas over time such that the infill share could be greater than 70 per cent.

A data model developed for the 70% Urban Infill study prepared for the SLA will be utilised to allocate housing to particular areas based on their suitability for housing, with the overall dwelling yield to meet the infill dwelling targets identified above. The yields are expected to be made up of three components:

- 'Baseline' development – development that will largely occur without additional government intervention, such as conversion of single dwellings to dual occupancies/townhouses and/or release of ILRP sites.
- Transects – application of transect methodology to areas most suitable for housing to identify the most suitable type of housing. May require rezoning or other changes (via the proposed District and Development Codes for example) to facilitate.
- Key sites – redevelopment of key sites to deliver significant public benefits. May require more government intervention to deliver.

The spatial location of these three elements will inform the identification of the change areas in the District Strategies and accompanying actions.

MELBOURNE
Level 14, 222 Exhibition Street
Melbourne VIC 3000
+61 3 8616 0331
sgsvic@sgsep.com.au

CANBERRA
Level 2, 28-36 Ainslie Avenue
Canberra ACT 2601
+61 2 6257 4525
sgsact@sgsep.com.au

HOBART
PO Box 123
Franklin TAS 7113
+61 421 372 940
sgstas@sgsep.com.au

SYDNEY
Suite 2.01/50 Holt Street
Surry Hills NSW 2010
+61 2 8307 0121
sgsnsw@sgsep.com.au

SGS Economics & Planning

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Technical Paper 3: Housing projections (Revised for Final District Strategies)

Environment, Planning and Sustainable Development Directorate (EPSDD)

11 | 04 | 2023

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SGS Economics and Planning Pty Ltd
ACN 007 437 729
www.sgsep.com.au

Offices in Canberra, Hobart, Melbourne, and Sydney, on Ngunnawal, muwinina, Wurundjeri, and Gadigal Country.

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This technical paper outlines the housing demand analysis undertaken to identify projected, indicative dwelling requirements to be used in the preparation of the final District Strategies.

Section 2 provides an overview of the methodology used to generate the housing demand analysis and identify dwelling requirements.

Section 3 documents the population projections and Census data that underpin the analysis and implications of these for the modelling.

Section 4 outlines the results from the demand modelling for the ACT and allocation to each district.

Section 5 provides a summary of the housing demand results and the indicative dwelling requirements for 2050 to be used in the final District Strategies.

Note: this Technical Paper was initially prepared for EPSDD in March 2022 based on 2016 Census data. The paper has now been updated to consider 2021 Census data and new population projections from the ACT Government (ACT Treasury) published in February 2023.

2. Methodology

This section provides an overview of the methodology used to estimate housing demand for the District Strategies.

A realistic projected requirement for dwellings over the time horizon for the District Strategies, reflecting the current ACT Treasury population projections, is required. The 100,000 additional dwelling target by 2041 in the 2018 Planning Strategy was based on the relatively high rates of growth observed in the ACT in the years preceding 2018, particularly the growth of Gungahlin in particular. Since then, COVID-19 has impacted on growth, and international and internal migration levels have changed. **Identifying future housing requirements is important to inform the initiatives and directions in the District Strategies, and to aid conversations with the community about the planning and growth management task.**

2.1 Methodology

To forecast housing need, SGS has calculated the number of dwellings by type that would be needed to accommodate the future population of the ACT, in line with the current endorsed ACT Treasury population projections.[1]

The ACT Treasury population projections have forecast the population of the ACT and its districts based on a range of assumptions, including past trends, future international and domestic migration, fertility rates and death rates and how the COVID-19 pandemic could have altered these.

No validation or alteration of the population projections has taken place as part of producing the matching housing projections. As a result, no further assumptions have been made regarding variables like migration and fertility rates which would change the overall population or the population-age structure (both of which are covered by the population projections). **These assumptions were made by the ACT Treasury in creating the population projections.** How the projections relate to the housing needs modelling is summarised in Figure 1 below.

It is important to acknowledge in the District Strategies that there is inherent uncertainty around the use of any kind of population projections, particularly over longer time horizons. However, the projections provide a common set of assumptions for government to use in planning for Canberra's future.

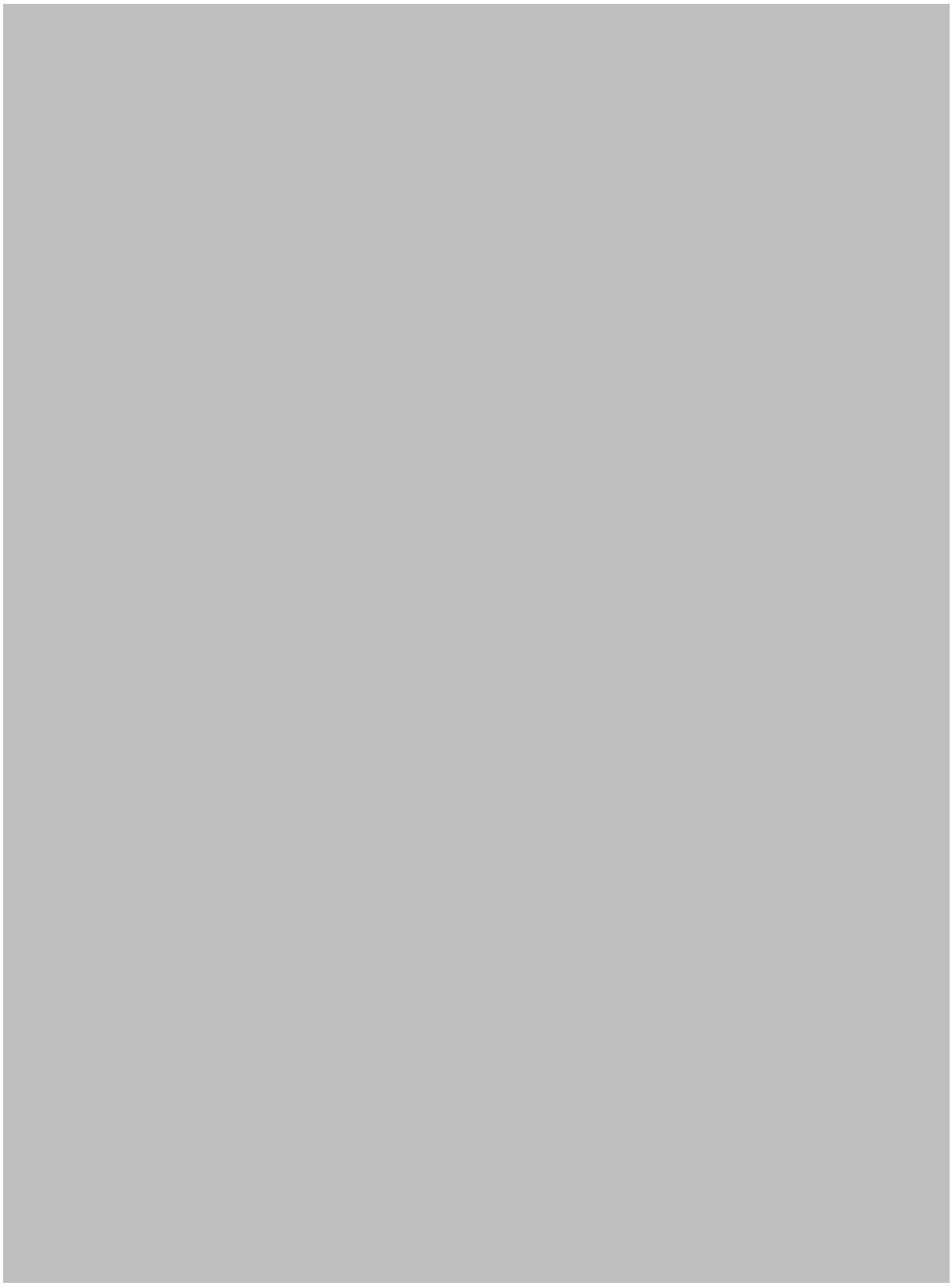
[1] Provided to SGS in December 2022.

Source: SGS, 2023.

Housing demand model

The SGS housing demand model was used to estimate the need for future dwellings to accommodate the projected population growth. SGS's housing demand model makes demographic and housing market assumptions drawing on ABS Census data – including the results of the 2021 Census.

The operation of the SGS Housing Demand model is summarised by Figure 2. Population growth projections are converted through a series of steps into need for housing, with trends extrapolated from ABS Census data in each step:



Source: SGS, 2023.

2.2 Housing demand for the ACT and districts

As the District Strategies are required to translate the ACT's metropolitan aims to the district level, potential future housing demand needs to be understood from both the whole ACT and district-specific perspective.

As such, the SGS housing demand model has been run for the whole ACT, and then individually for each district within the ACT. The results generated for each district[2] have then been reviewed and modified to align with the whole of ACT result for:

- People in private and non-private dwellings by age group.
- Number of households by household type.
- Number of dwellings by dwelling type.

The share of households and dwellings in each district suggested by the model results and population projections has been maintained in the latter two cases, while matching the totals and breakdown by household and dwelling type for the whole of the ACT.

In general housing needs modelling is most accurate for larger areas which function as well-contained housing submarkets, and for which reliable Census data on demographic and housing market trends are available for long time periods.

The districts are arguably too small to function as fully self-contained housing submarkets, and a lack of housing development in one district may be able to be made up by additional development in another nearby district. This means that ACT-wide modelling, and then alignment of the ACT-wide results with district-by-district results will be more accurate than district-specific modelling by itself.

2.3 Other notes on methodology

COVID-19

As a result of the COVID-19 pandemic and lockdowns in various parts of Australia when the 2021 Census took place, demographic and housing market trends evident in the 2021 Census results may deviate from trends evident in earlier Censuses.

These deviations may not reflect likely future trends. Due to this, all demographic and housing preference trends were checked during the modelling process.

Dwelling categorisation

Dwellings have been categorised into four types which are based on definitions used by the ABS in the Census and other data sources. These categories are:

[2] Note: housing demand modelling has been undertaken for eight districts (Belconnen, Gungahlin, Molonglo Valley, Inner North and City, Inner South, Tuggeranong, Weston Creek and Woden). While a District Strategy has been prepared for East Canberra, this district is not planned for residential growth and has not been included in the modelling.

- **Separate house** – means a dwelling which is not attached to any other dwelling.
- **Medium density dwellings** – includes attached dwellings (such as semi-detached, terraced houses and townhouses), as well as two storey apartments buildings.
- **Higher density dwellings** – flats and apartment buildings with three or more storeys.
- **Other dwellings** – includes caravans and cabins, improvised dwellings (for example sheds, tents or humpies), houseboats and flats attached to shops.

Note: A common categorisation of housing type is between *separate houses*; *attached dwellings* (in which each dwelling shares one or more walls with another and no dwelling is above another); and *apartments* (which share vertical as well as horizontal walls). For the modelling, one and two storey attached dwellings have been combined with apartments to generate the **medium density** category – this is due to the similarity in these development forms and associated discrepancies in the ABS's data categorisations between different Census periods.

3. Population projections and 2021 Census data

This section considers the key inputs for the modelling and potential implications.

The following sections outline the key elements of the data and the implications for the housing demand modelling in the following sections of this paper.

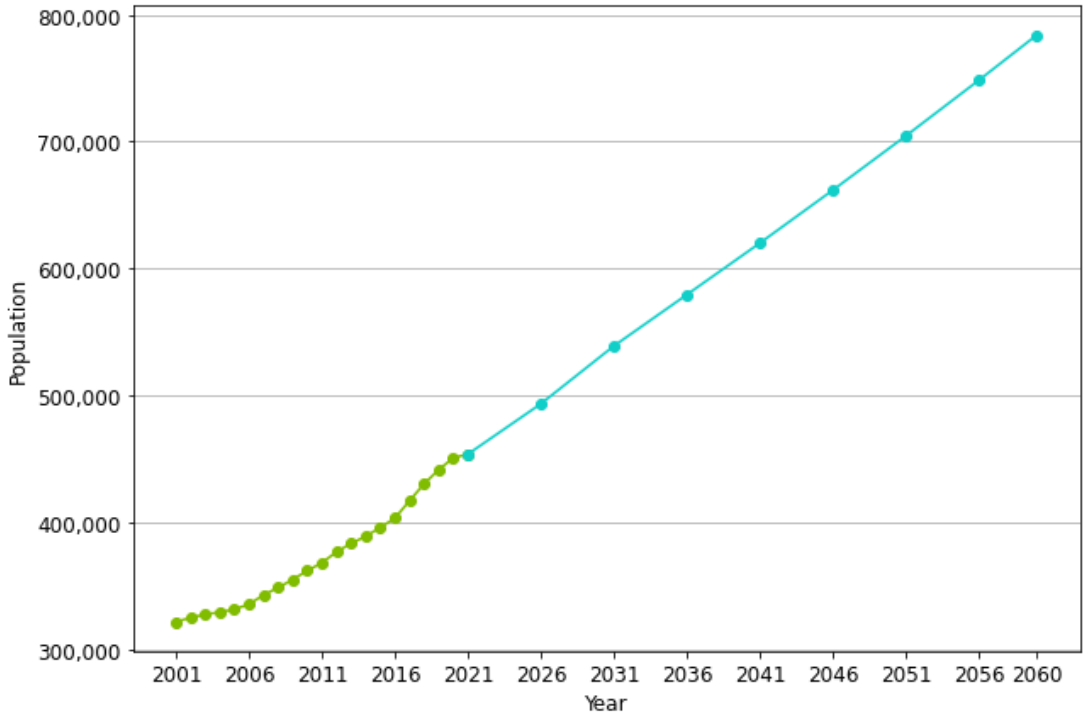
3.1 Population projections

Current ACT Treasury population projections (February 2023)

The charts in Figure 1 and Figure 2 respectively show the historical growth in the population of the ACT (in green) combined with the expected growth in ACT Treasury's population projections (in blue). The historical population data shows that the ACT population has grown every year since 2000 at varying rates of between around 2,000 and 14,000 people per year. Population growth rates dropped in 2020-21 due to a drop in migration and births, but unlike other major cities in Australia, Canberra's population continued to grow.

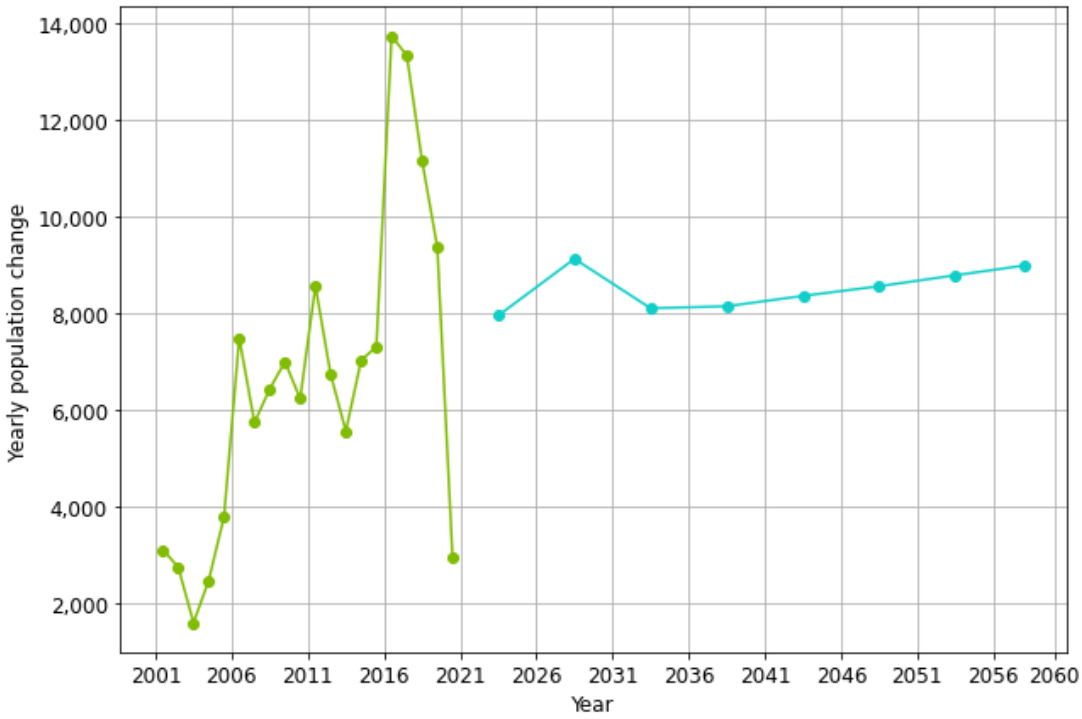
The population of the ACT is projected to continue to increase in the future, with the addition of around 8,000 to 9,000 people per year. While this is above the long-term rate of growth prior to 2017, it is below the higher rates seen between 2017 and 2020 during the development boom and early stages of COVID-19.

FIGURE 3: HISTORICAL AND PROJECTED POPULATION GROWTH, ACT



Source: SGS, 2023, based on ABS ERP data and ACT Treasury 2022 Population Projections (February 2023).

FIGURE 4: HISTORICAL AND PROJECTED YEARLY POPULATION GROWTH, ACT



Source: SGS, 2023, based on ABS ERP data and ACT Treasury 2022 Population Projections (February 2023).

Overall, the current ACT Treasury population projections show an increase of around 162,000 people across the ACT by 2041 (a 35 per cent increase from 2022), though some districts are expected to see more growth than others – shown in Table 1 below. By 2060, the projections show the population of the ACT reaching over 784,000, an increase of over 326,000 from 2022.

The current projections show a small decrease in population in Tuggeranong and minimal growth in Weston Creek over this period, also illustrated in Figure 5 below. The Inner North and City is expected to have the largest rate of growth (with the population more than doubling by 2060) besides Molonglo Valley, which as a growth area will increase its population substantially (but is projected to level off post 2041).

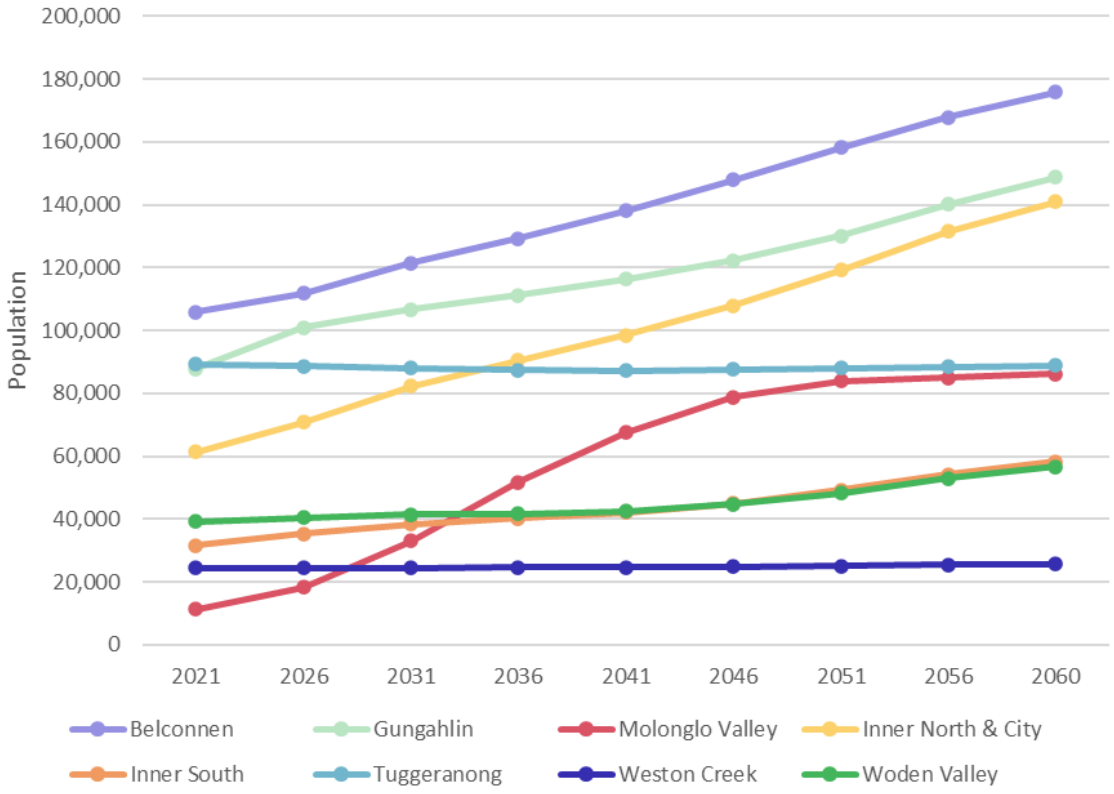
> The distribution of population between districts is projected to be largely similar in 2041 and 2060 compared to 2022, though Molonglo Valley would substantially increase its share, with **more growth also going into the Inner North and City**. **Belconnen and Gungahlin are expected to see substantial growth**, with Belconnen remaining the largest district in terms of overall population, while Gungahlin would overtake Tuggeranong as second largest. Declining shares or very limited amount of growth are projected in some districts – most substantially in Tuggeranong – however, **it is likely that with planning initiatives and other trends, more housing development and growth than has been projected could be accommodated in these areas**.

TABLE 1: PROJECTED POPULATION, 2022, 2041 AND 2060

District	2022	2041	2060	*Change 2022-41*	*Change 2022-60*	% change 2022-41	% change 2022-60	% share of ACT 2022	% share of ACT 2041	% share of ACT 2060
Belconnen	105,976	138,195	175,826	*32,219*	*69,850*	30%	66%	23.2%	22.3%	22.4%
Gungahlin	90,383	116,451	148,799	*26,068*	*58,416*	29%	65%	19.8%	18.8%	19.0%
Molonglo Valley	12,102	67,594	86,148	*55,492*	*74,046*	459%	612%	2.6%	10.9%	11.0%
Inner North and City*	62,045	98,469	140,999	*36,424*	*78,954*	59%	127%	13.6%	15.9%	18.0%
Inner South*	32,119	42,070	58,342	*9,951*	*26,223*	31%	82%	7.0%	6.8%	7.4%
Tuggeranong	88,965	87,287	88,914	*-1,678*	*-51*	-2%	0%	19.4%	14.1%	11.3%
Weston Creek	24,315	24,634	25,671	*319*	*1,356*	1%	6%	5.3%	4.0%	3.3%
Woden	39,238	42,474	56,643	*3,236*	*17,405*	8%	44%	8.6%	6.9%	7.2%
ACT	**457,565**	**619,876**	**784,043**	***162,311***	***326,478***	**35%**	**71%**	**100.0%**	**100.0%**	**100.0%**

Source: SGS, 2023, based on ACT Treasury 2022 population projections (February 2023). Note: excludes Canberra East and Uriarra-Namadgi districts. *'Inner North and City' is referred to as North Canberra in ACT Treasury projections; 'Inner South' is referred to as South Canberra.

FIGURE 5: PROJECTED POPULATION GROWTH BY DISTRICT, 2021-2060



Source: SGS, 2023, based on ABS data and ACT Treasury 2022 population projections (February 2023).

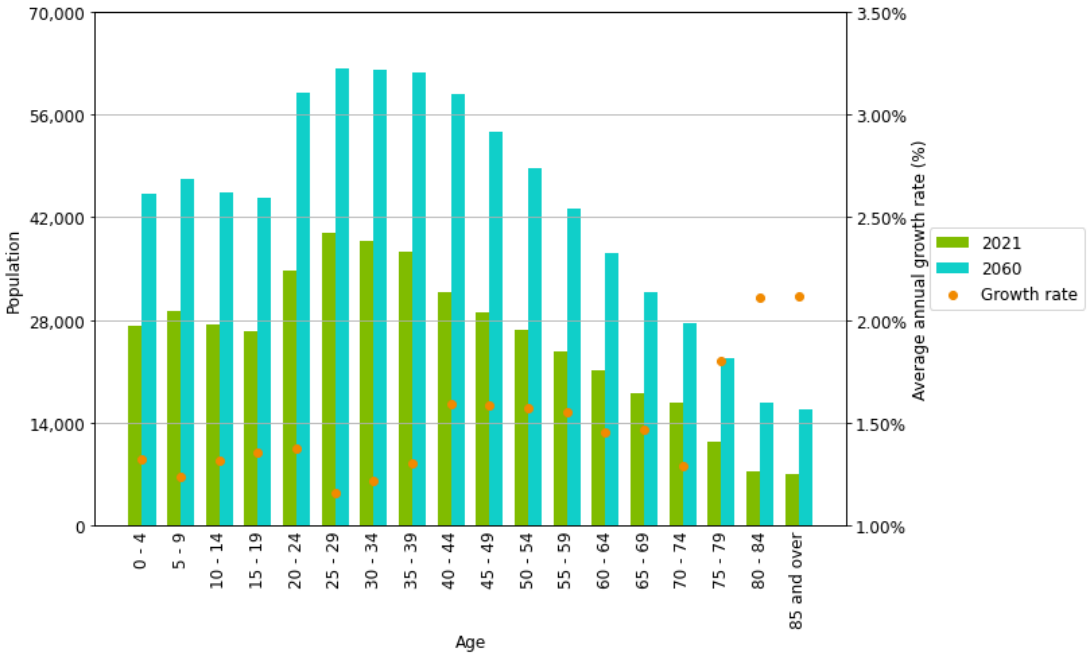
Age distribution

Figure 6 and Figure 7 below show the population age distribution forecast for the ACT in the ACT Treasury projections. Overall, the population is expected to age slightly, with higher proportions of people aged 40 and over and lower proportions aged under 40 (with larger drops in the 20-29 and 30-34 age brackets).

Similarly, growth rates for people aged 80 and over are expected to be double or greater than the long-term growth rates in most other age groups, which are generally around one per cent per year or less.

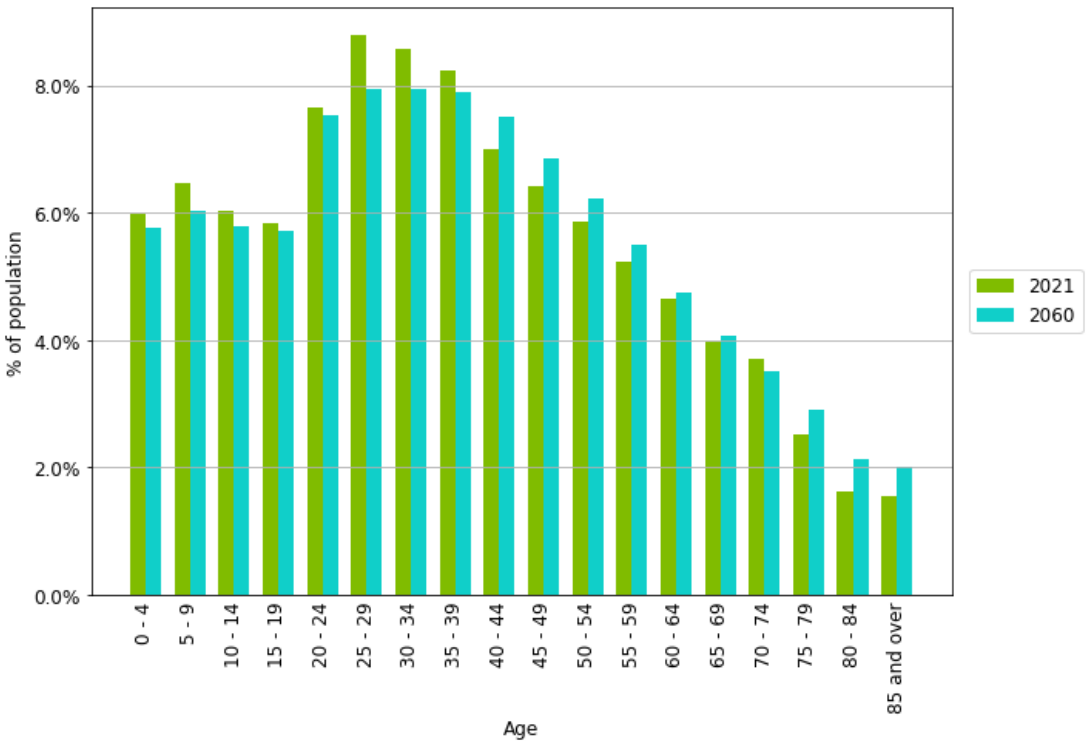
> In terms of housing need, an ageing of the population would usually lead to a reduction in the average household size, as older people are more likely to live in couple or lone person households rather than larger family households (although ACT specific trends in household type are discussed later). **This would mean more dwellings would be needed to house the same population**.
>
> Some older people may downsize to smaller dwellings, freeing up larger dwellings like separate houses and leading to less overall need for these larger dwellings. **However, if older people do not downsize to smaller dwellings in general, ageing of the population may not reveal this reduction in need for larger dwellings**. Trends in the kinds of dwellings that older couples live in can be seen in the revealed housing preferences in Section 4 below.

FIGURE 6: POPULATION BY AGE GROUP, ACT, 2021 AND PROJECTED 2060



Source: SGS, 2023, based on ABS data and ACT Treasury 2022 Population Projections (February 2023).

FIGURE 7: SHARE OF POPULATION BY AGE GROUP, ACT, 2021 AND PROJECTED 2060



Source: SGS, 2023, based on ABS data and ACT Treasury 2022 Population Projections (February 2023).

Comparison to projections in the 2018 Planning Strategy

Table 2 below provides a comparison of the population totals identified in each district in the 2018 Planning Strategy compared to the current projections for the year 2041 (which was the planning horizon year in the Planning Strategy).

> **This shows the current forecasts are expecting a larger population by around 30,000 across the ACT,** though the growth is projected to be much more concentrated in districts in the northern half of Canberra, with less growth in the southern districts compared to the assumptions used in the Planning Strategy.

TABLE 2: 2018 ACT PLANNING STRATEGY PROJECTIONS COMPARED TO CURRENT ACT TREASURY FORECASTS, 2041

District	2041 population in 2018 Planning Strategy	2041 population in current (February 2023) ACT Treasury projections	*Difference (current projection minus Planning Strategy)*
Belconnen	128,000	138,195	+10,195
Gungahlin	100,200	116,451	+16,251
Molonglo Valley	51,400	67,594	+16,194
Inner North and City	78,700	98,469	+19,769
Inner South	40,300	42,070	+1,770
Tuggeranong	100,600	87,287	-13,313
Weston Creek	33,200	24,634	-8,566
Woden	49,200	42,474	-6,726
ACT	**589,000**	**619,876**	**+30,876**

Source: 2018 ACT Planning Strategy and ACT Treasury 2022 population projections (February 2023). Note: excludes Canberra East and Uriarra-Namadgi districts.

Some of this difference may be accounted for by the underestimate of population in the ACT by the ABS prior to the results of the 2021 Census. This highlights the challenges for planning when the Census reveals that previous projections have not eventuated in reality.

3.2 2021 Census data

Data from the ABS Census concerning household composition is an important input to the modelling of future housing demand. The following sections outline some of the observed changes in household composition between the 2016 and 2021 Censuses which may influence the demand results.

Changes in household composition 2016-2021

Housing composition in 2021 was affected by the COVID-19 pandemic and associated lockdowns and shifts in housing markets, which caused some people to change their living arrangements. This is shown in the ABS data in Table 3 below. Between 2016 and 2021 in the ACT:

- The proportion of couples with children dropped substantially, potentially as a result of people putting off starting a family. The proportion of households who are young couples without children increased roughly commensurately.
- The proportion of people living by themselves increased.
- The proportion of other non-classifiable households decreased (likely related to Census methodology, and not relevant to housing needs modelling).
- The number of multi-family households increased by 47 per cent, much more than any other household type (although the changes in yearly change in household composition before and after 2016 were not as large as other changes in terms of percentage of all households). This may be partly related to people choosing to live with extended family during COVID and COVID-lockdowns and so this may not be a long-lived trend.
- While the proportion of older couples without children did not change substantially, the proportion of people who are older is increasing (in line with projections for the future), while older people are becoming more likely to live in other household types as their children stay at home longer into adulthood.

Comparing the change in household composition between 2006-16 and 2016-21 shows that the changes highlighted above deviate from past trends, and are much greater than them in magnitude. As such, COVID-19 and other changes in the housing market have made a moderate difference to the Territory's household composition, although most of the household composition percentages are still similar to what they were.

> As the increase in multi-family households is so out of pace with earlier changes, and this may be related primarily to COVID-19, there is significant uncertainty in how the proportion of people in multi-family households will behave in the future. As a result, **for the purposes of the modelling the likelihood of people being in multi-family households for each age group has been fixed at the 2021 value rather than being modelled with linear extrapolations** (the approach used for other household types). **Trends covering the commonality of other household types were evaluated using ABS Census data from 2006-2021**.

TABLE 3: CHANGE IN HOUSEHOLD COMPOSITION, ACT, 2016 AND 2021 CENSUSES

	2016 Household composition	2021 Household composition	Change 2016-2021	Average yearly change in household composition 2006-2016	Average yearly change in household composition 2016-2021
Couple family with children	31.5%	30.4%	-1.1%	-0.07%	-0.23%
Couple family without children (aged 0-44)	9.6%	10.6%	1.0%	0.05%	0.20%
Couple family without children (aged 45+)	15.1%	15.2%	0.0%	-0.03%	0.01%
Group household	4.7%	4.5%	-0.1%	-0.05%	-0.03%
Lone person household	23.8%	25.0%	1.2%	0.15%	0.25%
Multi-family household	1.1%	1.4%	0.3%	0.03%	0.06%
One parent family	9.1%	9.1%	0.0%	-0.10%	0.01%
Other family	1.0%	1.0%	0.0%	-0.01%	0.01%
Other non-classifiable household	4.2%	2.8%	-1.4%	0.04%	-0.27%

Source: SGS, 2023, based on ABS 2016 and 2021 Census data.

4. Housing demand results

This section outlines the results from the housing demand modelling for the ACT.

4.1 Conversion of population to household types

As outlined in the methodology above, the housing modelling takes the population projections and converts these to an expected number of households, based on ABS Census data for household types and age groups.

> It is important to note that the population projections, and the resulting housing projections described below, are a statistical projection – which reflect unconstrained prospects for population growth and past trends rather than actual carrying capacity and infrastructure constraints. The projections do not necessarily consider the desirable development outcomes consistent with desired planning outcomes and the opportunities that are suggested by the District Strategies.

Number of households

Figure 8 below illustrates that the number of households of every type is expected to increase between now and 2060 based on the ACT Treasury projections. Couples with children are the most common household types (in terms of both the *number of households* and the *number of people living in them*), and this will remain the case in 2060 under the projections. However, couples with children make up only 30 per cent of all households, and accommodate only 47 per cent of people living in private dwellings. Lone person households are the next most common type of household in the ACT, and are projected to remain so in the future, followed by couples without children.

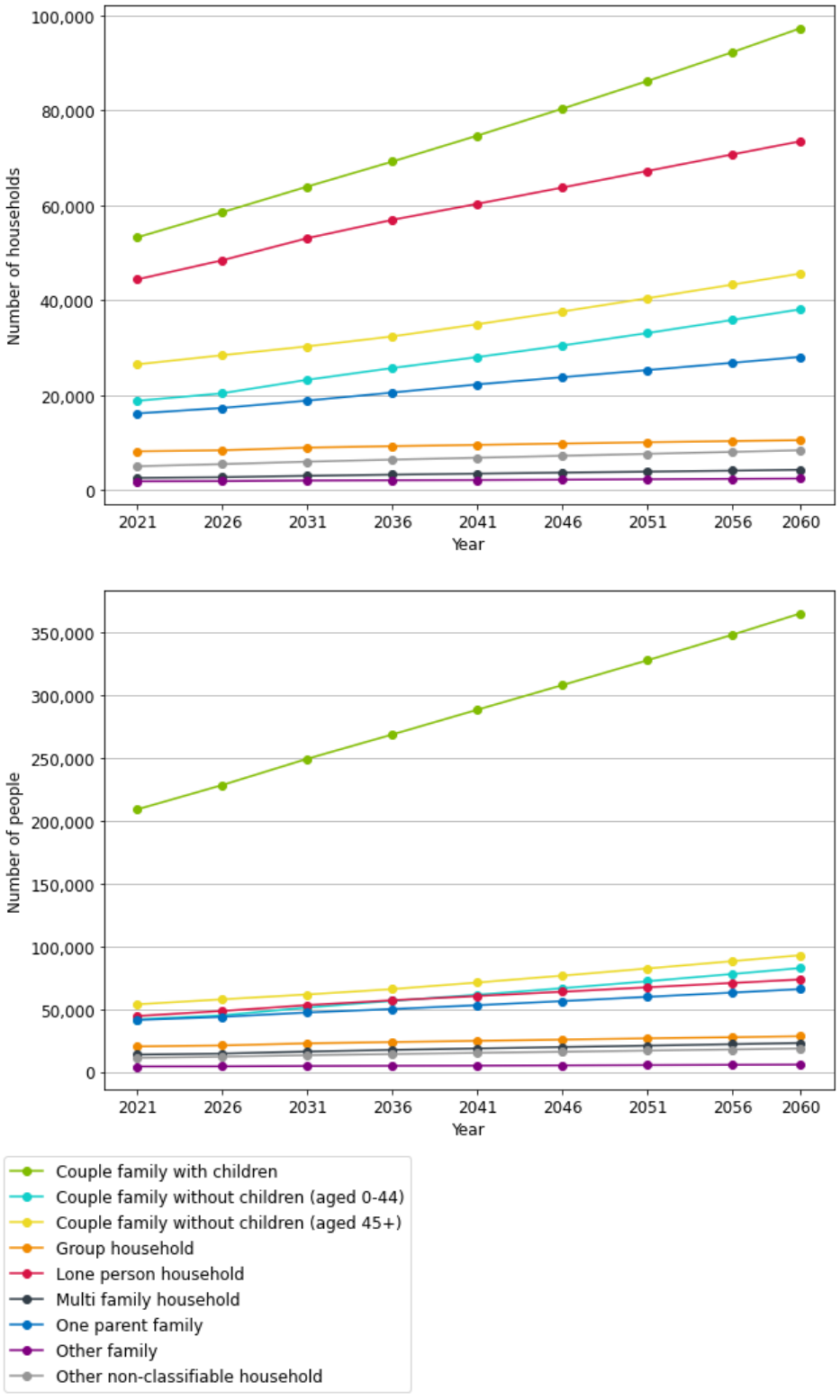
Changes in household composition

The results of the modelling show that between now and 2060 under the projections:

- Couples with children are forecast to become more common, partly as a result of adult children staying with their parents for longer.
- Couples without children are forecast to become more common than they are currently.
- Lone person households are forecast to become less common, with people instead living in couple households or shared housing, and with young people less likely to live by themselves as housing is less affordable.
- Group households are also forecast to become less common. This is partly a result of the ageing population, and partly a result of younger people becoming less likely to live in group households (a trend that has been evident in the ACT over the past several Censuses).

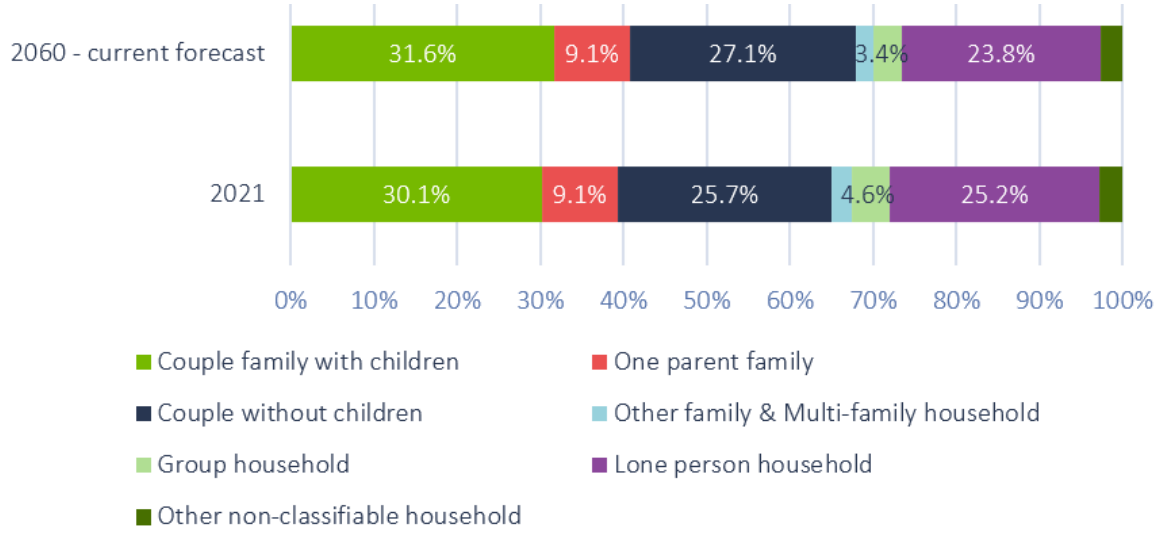
These shifts in household composition are illustrated below in Figure 9.

FIGURE 8: MODELLED NUMBER OF HOUSEHOLDS AND NUMBER OF PEOPLE BY HOUSEHOLD TYPE, 2021 TO 2060



Source: SGS, 2023.

FIGURE 9: PROJECTED CHANGE IN SHARE OF HOUSEHOLD TYPES, ACT, 2021 AND 2060



Source: SGS, 2023.

4.2 Modelled household sizes

Household sizes across the ACT

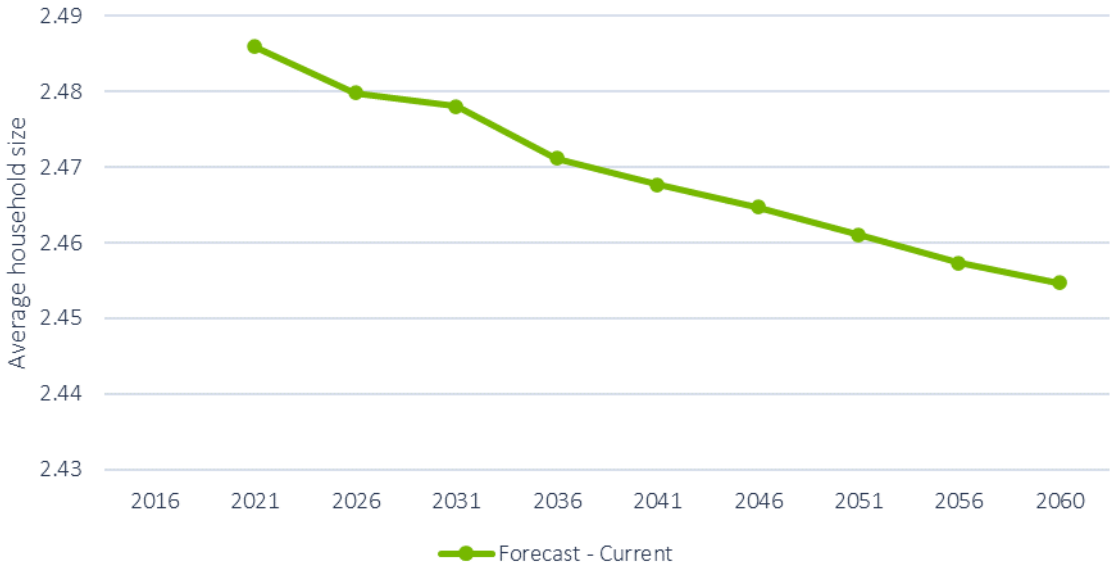
Under the modelling, the average household size in the ACT is forecast to decrease in the future. This is driven by two factors:

- Change in the overall household composition of the ACT – in some cases favouring smaller types of households over larger types of households, and
- Modelled changes in the average household size for individual household types in line with demographic trends.

Figure 10 below illustrates the projected change in average household size across the ACT under the modelling.

Note: the modelled average household sizes will differ slightly from the results indicated by ABS Census data. This is due to the Census being an undercount of the population, and some people being away from home on Census night. **As SGS's housing demand modelling includes the total population, both the people not counted in the Census and the people who were away from home on Census night are accounted for.**

FIGURE 10: PROJECTED AVERAGE HOUSEHOLD SIZE TO 2060, ACT



Source: SGS, 2023.

Household sizes by type

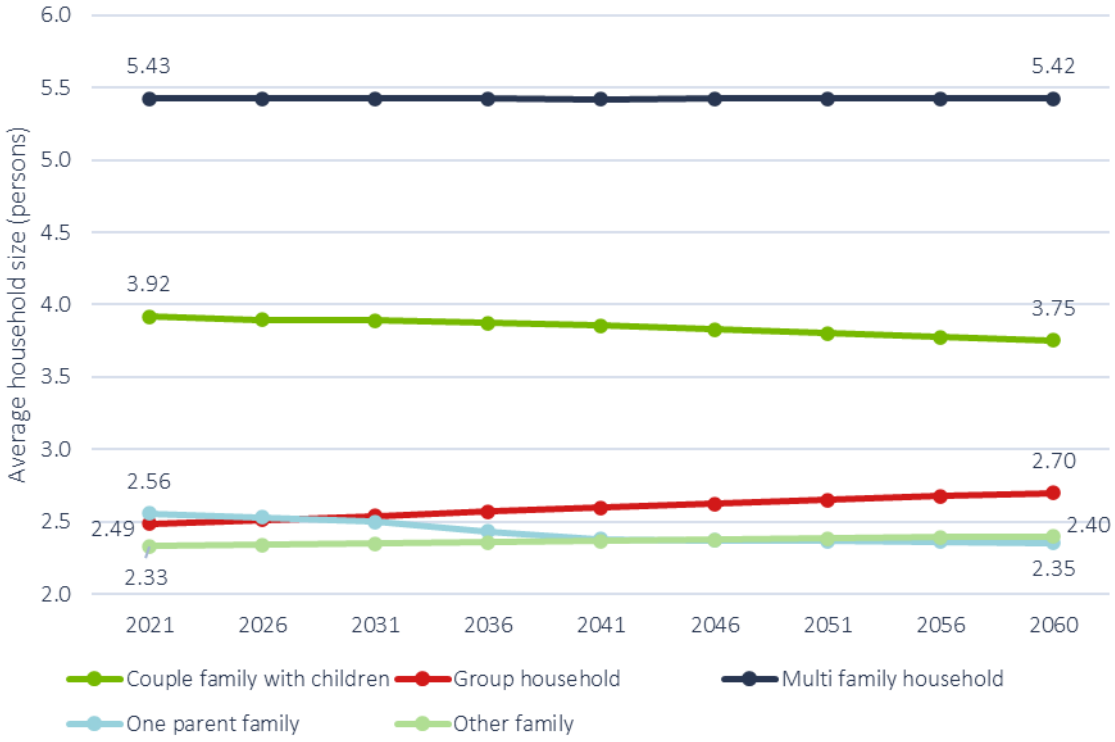
In the modelling, average household sizes by type are also important. The following assumptions have been applied for different household types:

- Results from the ABS Census show that the average household size of *multi-family households* increased moderately between 2016 and 2021 in the ACT. However, given the uncertainty in the number and characteristics of multi-family households in the future (as this trend may have been driven by COVID-19 related impacts), for the modelling the average sizes of these households were fixed at the value indicated by the 2021 Census.
- The average sizes of *group households* and *other families* were forecast based on extrapolations of the trends observed in ABS Census data between 2006 and 2021.
- The forecast average household sizes for *couple families with children* and *one parent families* in the modelling reflect the forecast population-age structure and forecast living arrangements (described above).

The results of the modelling (summarised in Figure 11 below) show that the average number of children in couple families with children and one parent families is forecast to decrease in the future, reflecting projected changes in the population-age structure. This leads to a reduction in the forecast average size of households of these types.

The average sizes of other families and group households are forecast to increase over time, in line with past trends. However, as these households are forecast to become less common over time, this does not lead to the ACT's overall average household size increasing.

FIGURE 11: MODELLED AVERAGE HOUSEHOLD SIZES BY HOUSEHOLD TYPE, ACT, 2021-2060



Source: SGS, 2023.

Household sizes by district

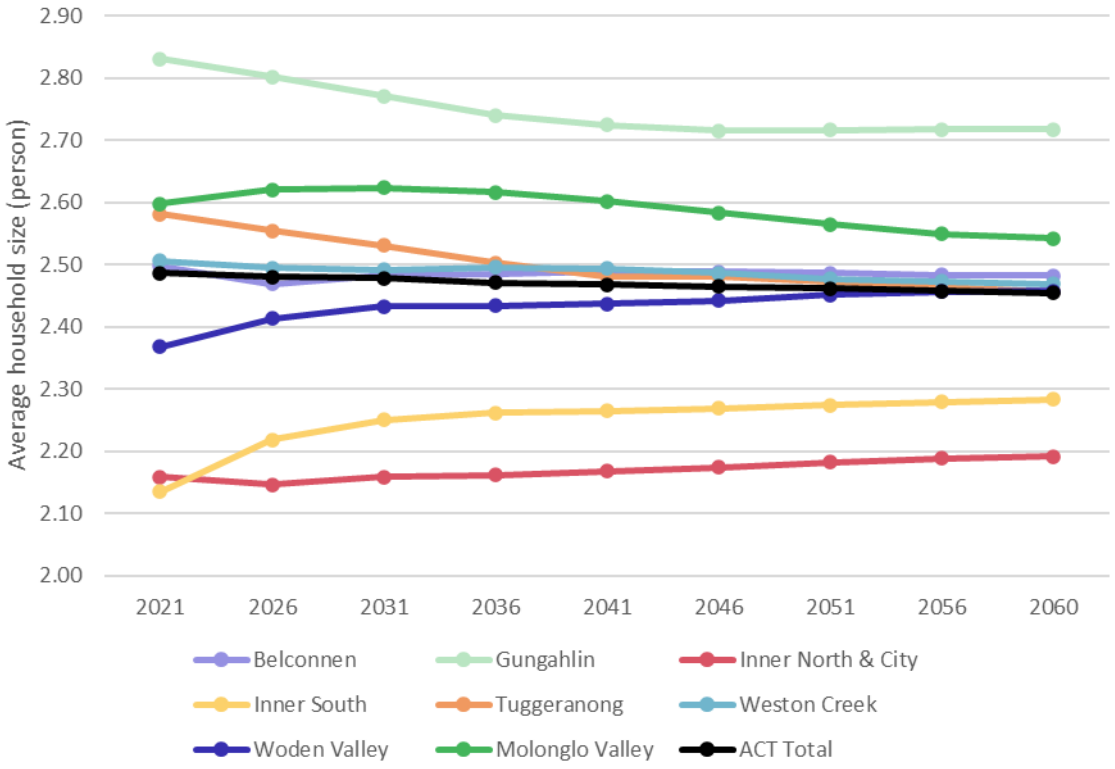
SGS has forecast the average household size in each district based on district-by-district housing demand model calculations. The results of this are illustrated below in Figure 12 for each district and compared to the ACT overall.

The modelled changes are the result of shifts in the projected population-age distribution (provided in the ACT Treasury population projections), and trends in common living arrangements and average household sizes for specific household types. In all cases, these trends have been checked and extrapolated from the ABS Census for the relevant district, before all districts are aligned with the overall ACT results.

Through the modelling process some adjustments have been made to account for the projected decline/low growth in population projected for Tuggeranong and Weston Creek. For these districts, the average household size has been decreased slightly (via an adjustment to modelled living arrangements) to ensure that the forecast housing demand does not decline, or become negative (which would be unlikely to occur in reality) in any time period despite low or negative population growth.

Gungahlin and Molonglo Valley, the most recently developed districts and districts with relatively high proportions of families, have the highest average household sizes in the ACT. The Inner North and City and Inner South districts contain relatively high proportions of apartments compared to other districts, and so have smaller average household sizes.

FIGURE 12: MODELLED AVERAGE HOUSEHOLD SIZE BY DISTRICT, 2021-2060



Source: SGS, 2023.

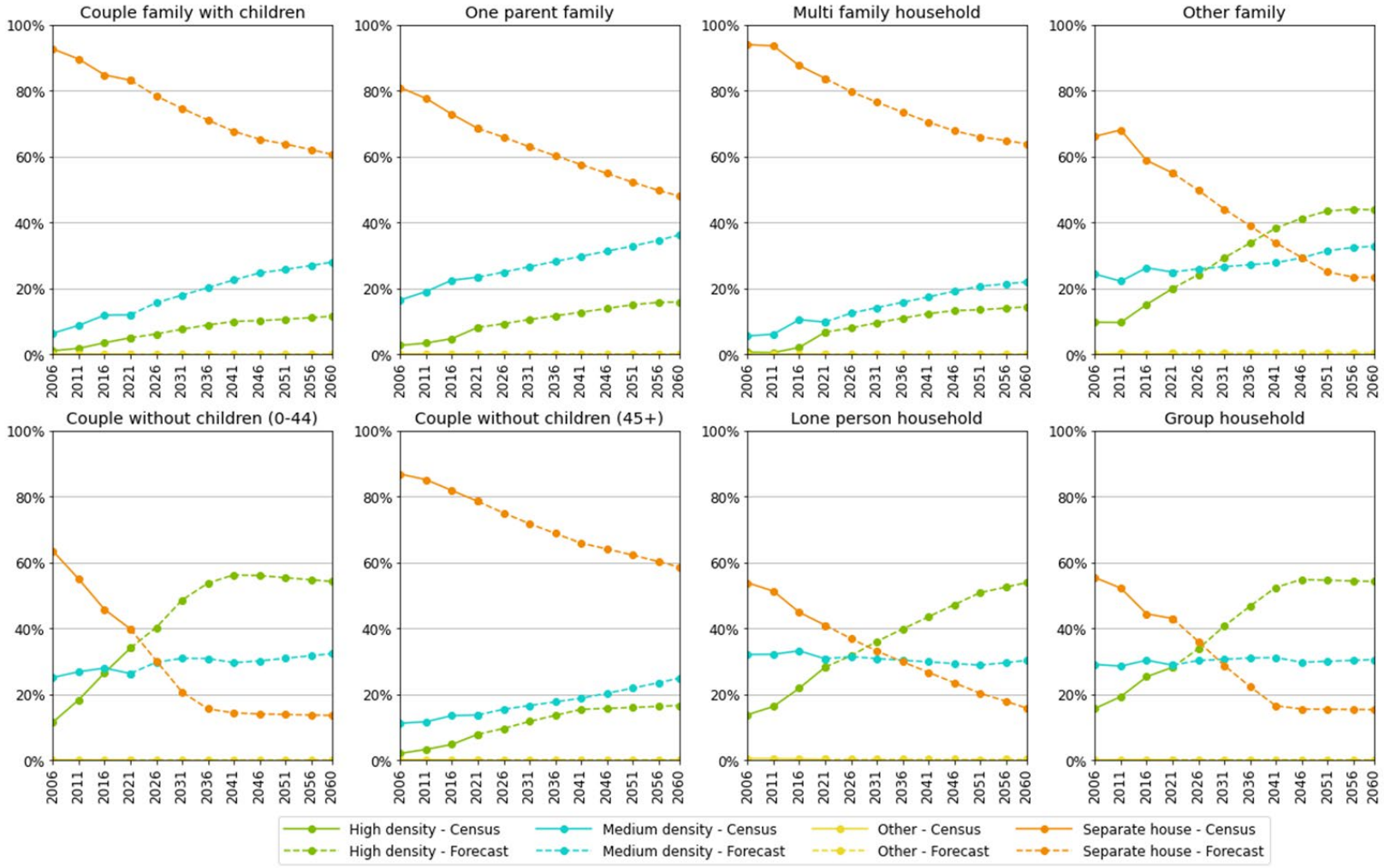
Average household sizes are forecast to decline in most districts to 2060, with the largest declines seen over this period in Gungahlin and Tuggeranong, followed by Molonglo Valley and Weston Creek. Average household sizes for the Inner North and City, Inner South and Woden districts, for which the average size are all currently below the ACT average, are forecast to increase in this time.

Housing preferences

Figure 13 shows the proportion of households of each type who live in each kind of dwelling over time, as indicated by historical data from ABS Censuses and the projection from the modelling of how it may change in the future (based on the extrapolation of past trends for each household type).

This proportion is commonly referred to as *revealed housing preferences*. It can also be considered as the propensity of a given household type to occupy each different type of dwelling. These trends reflect the dwelling market and what kinds of housing are being built in the ACT, as well as trends in what kinds of housing people will choose to live in.

FIGURE 13: REVEALED HOUSING PREFERENCES, 2006-2021 (HISTORICAL) AND 2021-2060 (PROJECTED), ACT, BY HOUSEHOLD AND DWELLING TYPE



Source: SGS, 2023.

> It is important to note that notwithstanding the need for a substantial amount of additional housing of both medium and high densities, depending on how much housing is supplied and where, some people may make different choices (for example, choosing high density instead of medium density, or medium density instead of a separate house). To some degree, preferences will be responsive to planning policies, which are driven by strategic aspirations for the ACT's sustainability and housing character.

As people are constrained in the kinds of housing available and affordable, they make trade-offs when choosing where and how to live. Revealed preferences can differ from people's ideal (unconstrained preferences). People may also wish to stay in their current dwelling, even if it differs from their ideal preference. Factors which influence revealed preferences include what kinds of dwellings households would like to live in, what kinds of dwellings are available and how affordable those dwellings are. Revealed preferences evolve over time as these variables change, as well as in response to shifts in local demographics.

Overall, **higher density and medium density housing are becoming more popular housing choices over time for almost all household types** (as indicated in 'revealed preferences'). Trends towards high density living are most notable for younger couples without children (those aged up to 45 years), group households and lone person households. These are all generally younger or smaller household types who may be happy to live in a relatively small dwelling. Medium density is a more common choice than high density for couples with children, multi-family households, older couples with children including those who may want to downsize (those aged 45 and over), and one parent families.

Note regarding ABS dwelling type classifications

Between 2016 and 2021 there were large spikes in the proportions of people living in high density dwellings, and drops in proportions living in medium density. Given the discrepancy between this and past trends, it is likely that this change reflects shifts in how the ABS classifies dwellings rather than real shifts in housing preferences or propensities – for example, some dwellings previously classified as medium density in the 2016 Census were classified as high density in the 2021 Census. The proportion of people living in separate houses also saw a spike, which may also have resulted from reclassification of dwellings previously classified as medium density.

As a result of this issue, changes in medium density revealed housing preferences between 2016 and 2021 are likely to be unreliable for use in the forecasting of future housing preferences. **To reflect this, 2021 data for medium density housing preferences only was not included in the modelling process.**

While the housing mix of the ACT has in the past been dominated by separate housing with a suburban character, these results reveal that the future housing mix will likely need to be more diverse, in line with many of the ACT Government's existing strategic planning policies. Large increases in both medium and high density dwellings will be needed in the future to accommodate both those households who are happy to live in an apartment, and those who cannot afford a separate house or want to live close to amenity, but would prefer the generally larger amount of space and separation that comes with medium rather than high density housing.

4.3 Housing demand results for the ACT

The results of the housing demand modelling at the ACT level are provided in Table 4 and Figure 14 below, which show the projected number of dwellings needed by dwelling type. By 2060, the modelling projects a future housing need of **around 329,800 dwellings** to cater to the projected population. This suggests a need for **around 3,500 to 4,000 additional dwellings per year**.

In line with the updated trends in housing preferences – particularly the large increase in the proportion of people living in high density between 2016 and 2021 – the modelling shows high density dwellings making up a higher proportion of dwellings in the future, with separate houses making up a smaller proportion.

Population, households and dwellings for the ACT are expected to grow at the following average annual growth rates (AAGRs):

- 1.41 per cent for population.
- 1.44 per cent for households.
- 1.47 per cent for dwellings.

The AAGR for dwellings is slightly higher than that for households because high density dwellings will make up a greater proportion of housing stock, and tend to have slightly higher vacancy rates, meaning the overall dwelling vacancy rate will increase slightly.

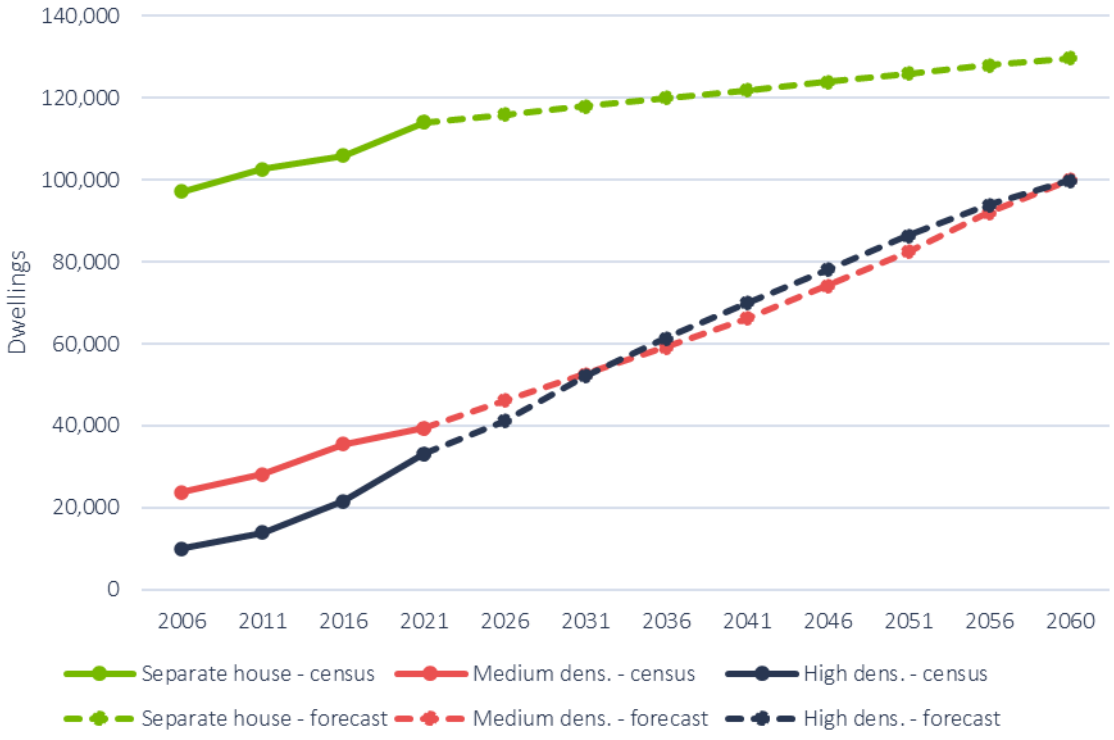
> **Time horizon for District Strategies – need for 100,000 additional dwellings**
>
> As noted above, the 2018 Planning Strategy was prepared based on the need for an additional 100,000 dwellings by around 2041. With the current ACT Treasury population projections, the housing demand modelling undertaken for the District Strategies indicates that the need for 100,000 additional dwellings above the existing number of dwellings in the ACT in 2021 will be reached in around 2049.
>
> As such, **for consistency with the Planning Strategy and to reflect the current projections of the future population in the ACT, the planning horizon for the preparation of the final District Strategies has been set at the year 2050**.

TABLE 4: PROJECTED HOUSING DEMAND, ACT, TO 2060

Dwelling type	2021	2031	2041	2051	2060	*Change 2021-60*	*AAGR**
High density	33,100	52,000	70,000	86,300	99,700	*66,600*	*2.9%*
Medium density	39,400	52,600	66,200	82,500	100,000	*60,600*	*2.4%*
Other	300	400	400	500	500	*200*	*1.3%*
Separate house	114,100	118,000	121,800	125,800	129,600	*15,500*	*0.3%*
Total ACT	**186,900**	**223,000**	**258,400**	**295,000**	**329,800**	***142,900***	***1.5%***

Source: SGS, 2023. *Average annual growth rate. Note: results have been rounded to the nearest 100, so sums of column totals may appear to be different from reported total, and differences in row values may appear different from the reported change. In these cases the reported totals, change values and AAGRs have been calculated on unrounded results, and then rounded, and so are more accurate.

FIGURE 14: PROJECTED HOUSING DEMAND BY DWELLING TYPE, ACT, TO 2060



Source: SGS, 2023.

4.4 Housing demand results by district

The results of the modelling for each district for the total number of dwellings needed is shown in Table 5 and Figure 15 below for the period to 2060 (the extent of ACT Treasury's population projections).

In line with the population projections, the largest increases in demand for dwellings are expected to be in the Inner North and City, Gungahlin, Molonglo Valley and Belconnen districts.

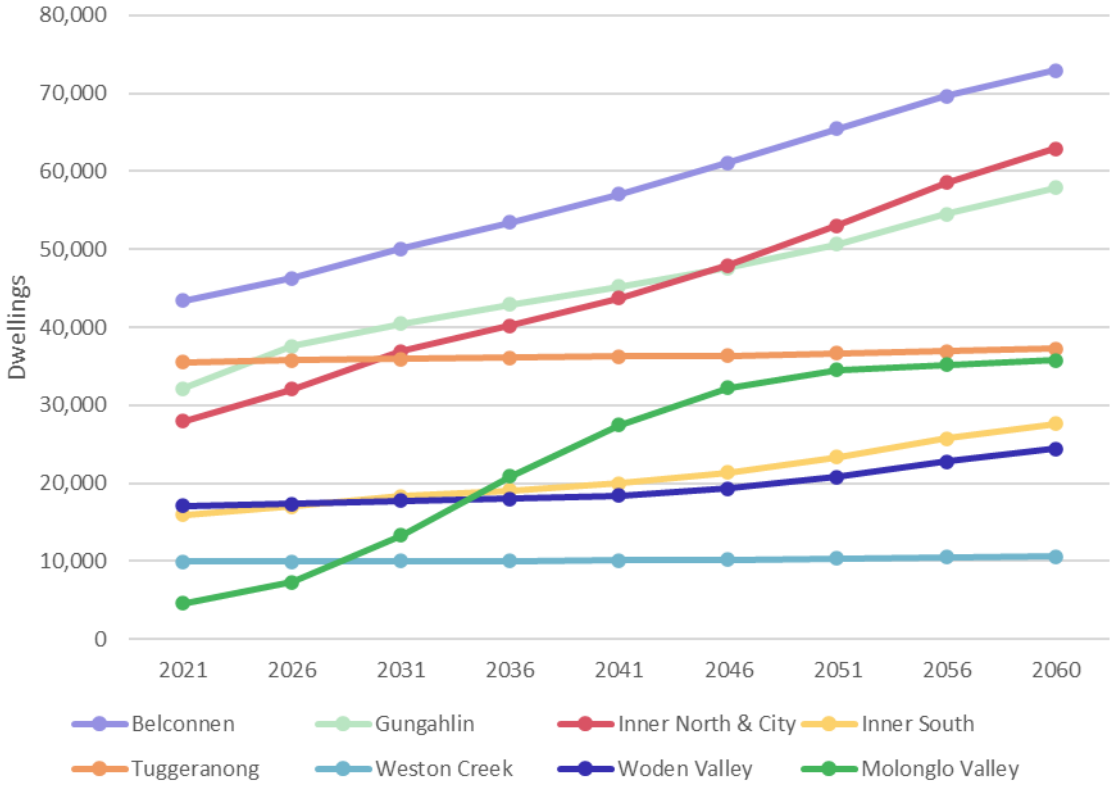
Additional dwellings are needed in all districts, but the low projected population growth for Weston Creek and Tuggeranong (and to some extent Woden) translates to less housing growth being forecast for those districts – however, as noted above, if additional housing development is facilitated in these districts through planning and other initiatives, the districts with high forecast growth may need fewer dwellings.

TABLE 5: PROJECTED HOUSING DEMAND BY DISTRICT, 2021 TO 2060

District	2021	2060	*Change 2021-60*	*% change 2021-60*	*% share of ACT in 2021*	*% share of ACT in 2060*
Belconnen	43,500	73,000	29,500	68%	23%	22%
Gungahlin	32,100	57,900	25,800	80%	17%	18%
Inner North and City	28,000	62,900	35,000	125%	15%	19%
Inner South	16,000	27,600	11,700	73%	9%	8%
Tuggeranong	35,500	37,300	1,800	5%	19%	11%
Weston Creek	10,000	10,600	700	7%	5%	3%
Woden	17,100	24,400	7,300	43%	9%	7%
Molonglo Valley	4,600	35,800	31,200	676%	2%	11%
ACT	**186,900**	**223,000**	**142,900**	**76%**	**100%**	**100%**

Source: SGS, 2023. Note: results have been rounded to the nearest 100, so sums of column totals may appear to be different from reported total, and differences in row values may appear different from the reported change. In these cases, the reported totals, change values, and AAGRs have been calculated on unrounded results, and then rounded, and so are more accurate. Other parts of the ACT, including Canberra East, have not been shown due to their low number of dwellings.

FIGURE 15: PROJECTED HOUSING DEMAND BY DISTRICT, TO 2060



Source: SGS, 2023.

Additional dwelling demand

Table 6 below shows the base case dwelling count by type in each district from the 2021 ABS Census, and Table 7 the forecast additional need between 2021 and 2060 for each district.

Additional separate houses would be delivered in greenfield development in Gungahlin, Molonglo Valley and Belconnen districts (and some of this greenfield development has already occurred since the 2021 baseline for the housing demand model). Additional medium and high density housing would also be expected to be delivered in these districts through greenfield development, consistent with current ACT development practice. Substantial infill development and urban renewal would also be needed in Belconnen to accommodate the forecast need for medium and high density development.

Other districts would expect to have no increase in separate houses, or a decrease if needed to facilitate housing intensification. Medium and high density dwelling numbers are projected to increase in all cases, with the most additional high density in Inner North and City district, and medium density making up a higher share of all development in other districts like Tuggeranong, Woden Valley and Belconnen.

A large share of the additional dwelling need is projected to be concentrated in the Inner North and City, potentially doubling the existing number of dwellings in the district as of 2021.

TABLE 6: EXISTING DWELLINGS BY DISTRICT, 2021

District	Separate house	Medium density	High density	Other	Total
Belconnen	29,500	9,000	5,000	0	**43,500**
Gungahlin	20,800	6,900	4,200	200	**32,100**
Inner North and City	10,100	7,400	10,400	50	**28,000**
Inner South	6,000	3,100	6,900	0	**16,000**
Tuggeranong	27,900	6,100	1,500	0	**35,500**
Weston Creek	8,000	1,800	100	100	**10,000**
Woden	9,700	4,000	3,400	0	**17,100**
Molonglo Valley	1,800	1,200	1,600	0	**4,600**
ACT	**113,900**	**39,400**	**33,100**	**300**	**186,700**

Source: ABS 2021 Census.

TABLE 7: ADDITIONAL HOUSING NEED BY DISTRICT, 2021-2060

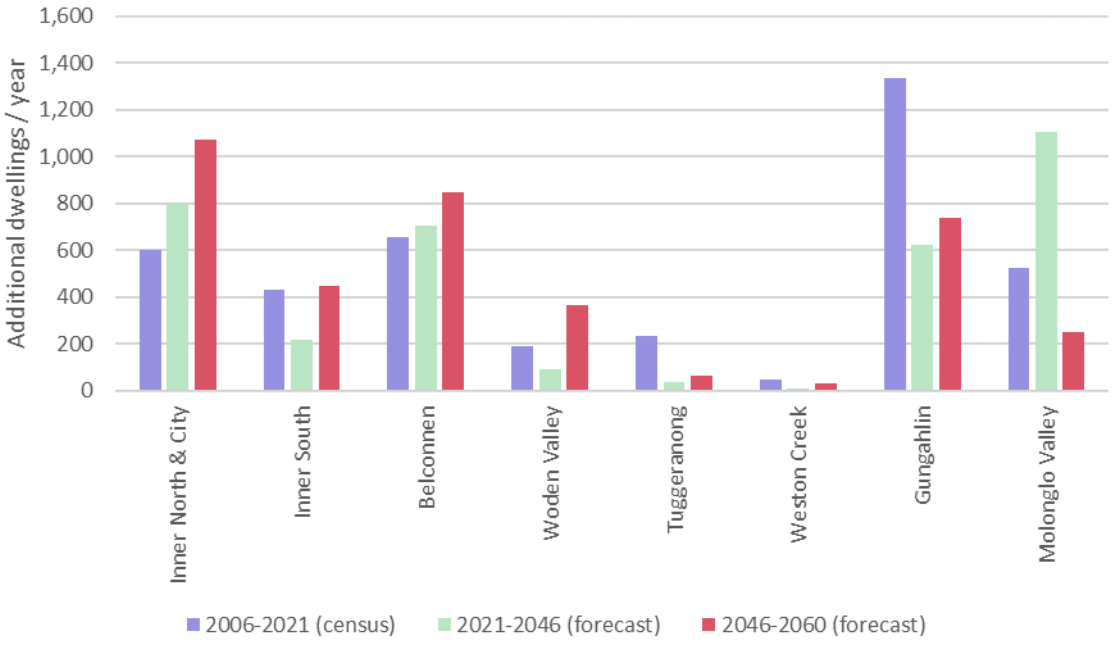
District	Separate house	Medium density	High density	Other	Total	% share of ACT-wide need
Belconnen	5,300	15,200	9,000	0	**29,500**	21%
Gungahlin	5,900	9,000	10,800	100	**25,800**	18%
Inner North and City	-2,000	14,200	22,700	100	**35,000**	24%
Inner South	-900	3,200	9,400	0	**11,700**	8%
Tuggeranong	-700	2,200	400	0	**1,800**	1%
Weston Creek	-100	700	50	20	**700**	0%
Woden	-800	4,600	3,500	0	**7,300**	5%
Molonglo Valley	9,000	11,500	10,700	0	**31,200**	22%
ACT	**15,500**	**60,600**	**66,600**	**200**	**142,900**	**100%**

Source: SGS, 2023. Note: results have been rounded to the nearest 100, so sums of column totals may appear to be different from reported total, and differences in row values may appear different from the reported change. In these cases, the reported totals, change values and AAGRs have been calculated on unrounded results, and then rounded, and so are more accurate. Other parts of the ACT, including Canberra East, have not been shown due to their low number of dwellings.

There are also some notable differences between the historical rate of housing development in different districts and the modelling results for future years, illustrated in Figure 16 below:

- The development rate for the Inner North and City is forecast to remain at or above recent highs seen between 2016-2021, and substantially above the longer-term historical average.
- In the short-medium term, development rates in the Inner South and Woden districts are forecast to decline from recent rates, but to pick-up over the longer term.
- Belconnen's development rate is forecast to increase slightly from the historic rate of development, likely in part due to future greenfield development (e.g. Ginninderry).
- Tuggeranong and Weston Creek are forecast to have much lower development rates in the future than the historical averages.
- The development rate in Gungahlin is forecast to decline from the high historical rate, likely due to greenfield capacity being mostly exhausted, but is forecast to remain high and near historical recent average rates for the Inner Noth and City and Belconnen districts.
- The development rate in the Molonglo Valley in the short-medium term is forecast to be very high as greenfield development occurs, but will drop over the longer term once most greenfield capacity is exhausted.

FIGURE 16: ADDITIONAL DWELLINGS BY DISTRICT, HISTORICAL AND PROJECTED



Source: SGS, 2023.

It is noted that while demographic and housing trends from the Census have been checked to ensure reasonableness, these results from the housing demand modelling included here are based on the ACT Treasury population projections provided to SGS.

No reallocation of housing need between districts has been completed to reflect limits to greenfield growth and housing capacity or potential in infill areas, specific and precinct interventions to facilitate new development or future desirable planning outcomes. In this way the results for some districts may exceed the housing that is anticipated given current planning settings and policy.

As these results are based on district-by-district population projections, they ultimately reflect the modelling assumptions underpinning the population projections. As noted earlier, a shift in the housing market or in development patterns may lead to more growth in some districts like Tuggeranong or Woden Creek than is revealed by the modelling. In addition, the planning system and policy ambition have a role in influencing where development occurs. As such, **these results should be taken as a starting point rather than as a final prescription of where growth can occur**. Shares of projected growth could be shifted between districts, from greenfield to infill development or from one potential infill location to another, in response to planning policy and aspirations. In this way the housing projections can evolve to housing targets.

District demand for 2050 – dwelling requirements for the District Strategies

As the final District Strategies will have a 2050 time horizon, Table 8 below shows the forecast demand in each district for each district by type in that year, with the total demand being just over the 100,000 dwelling mark.

TABLE 8: ADDITIONAL DWELLING DEMAND BY DISTRICT AND TYPE, 2050 – INDICATIVE DWELLING REQUIREMENTS FOR THE DISTRICT STRATEGIES

District	Separate house	Medium density	High density	Other	Total	% share of ACT-wide need
Belconnen	2,900	10,600	7,600	0	**21,200**	20%
Gungahlin	3,200	5,900	8,800	100	**17,900**	17%
Inner North and City	-1,300	9,200	16,100	100	**24,000**	23%
Inner South	-700	1,300	6,400	0	**7,000**	7%
Tuggeranong	-400	1,200	300	0	**1,100**	1%
Weston Creek	-100	300	100	0	**300**	0%
Woden	-500	2,100	1,900	0	**3,400**	3%
Molonglo Valley	8,200	10,800	10,500	0	**29,500**	28%
ACT	**11,300**	**41,400**	**51,500**	**100**	**104,400**	**100%**

Source: SGS, 2023.

5. Summary demand results and dwelling targets

This section summarises the results from the housing demand analysis and how this has been used in the preparation of the final District Strategies.

5.1 Housing demand for the ACT

The results of the housing demand modelling, based on the current ACT Treasury population projections (February 2023), have identified:

- A future need for around 329,800 dwellings in total by 2060 in the ACT (or 3,500-4,000 additional dwellings per year)
- That the milestone of an additional 100,000 dwellings being needed (as included in the 2018 Planning Strategy) is projected to occur around 2049
- Most of the additional need will be in medium and high density housing types.

Given the need for a robust evidence base to support any summary of projected housing requirements and the time since the preparation of the 2018 ACT Planning Strategy, **the final District Strategies will have a planning horizon and an indication of dwelling requirements to the year 2050** – approximately when an additional 100,000 dwellings will be needed in the ACT, catering to an additional population of around 695,000 people (an increase of around 240,000 compared to 2021).

5.2 Housing requirements by district

Table 9 below shows the overall additional dwelling demand for each district and by type to 2050. These indicative requirements do not distinguish between infill and greenfield dwellings, as this will need to be determined through future planning work and analysis at a more detailed level.

Application in District Strategies

The housing demand analysis and resultant dwelling requirements identified will be included in the final District Strategies to provide an indication of the quantum of new housing in each district. This will also provide a basis for future spatial planning work in each district, including the refinement of Future Investigation Areas and other areas of potential change identified in the final District Strategies, and a further understanding of the implications for infrastructure.

TABLE 9: INDICATIVE DWELLING REQUIREMENTS FOR 2050, FOR INCLUSION IN DISTRICT STRATEGIES

District	Separate house	Medium density	High density	Other	Total	% share of ACT-wide need
Belconnen	2,900	10,600	7,600	0	**21,200**	20%
Gungahlin	3,200	5,900	8,800	100	**17,900**	17%
Inner North and City	-1,300	9,200	16,100	100	**24,000**	23%
Inner South	-700	1,300	6,400	0	**7,000**	7%
Tuggeranong	-400	1,200	300	0	**1,100**	1%
Weston Creek	-100	300	100	0	**300**	0%
Woden	-500	2,100	1,900	0	**3,400**	3%
Molonglo Valley	8,200	10,800	10,500	0	**29,500**	28%
ACT	**11,300**	**41,400**	**51,500**	**100**	**104,400**	**100%**

MELBOURNE
Level 14, 222 Exhibition Street
Melbourne VIC 3000
+61 3 8616 0331
sgsvic@sgsep.com.au

CANBERRA
Level 2, 28-36 Ainslie Avenue
Canberra ACT 2601
+61 2 6257 4525
sgsact@sgsep.com.au

HOBART
PO Box 123
Franklin TAS 7113
+61 421 372 940
sgstas@sgsep.com.au

SYDNEY
Suite 2.01/50 Holt Street
Surry Hills NSW 2010
+61 2 8307 0121
sgsnsw@sgsep.com.au

SGS Economics & Planning

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