



AFFORDABLE HOUSING STRATEGY DISCUSSION PAPER



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EXECUTIVE SUMMARY

Rising house prices and rents, and limited investment in social and affordable housing, have led to an increase in the number of households experiencing housing stress in the community. In response, SGS has been commissioned to assist Monash Council to develop a Social and Affordable Housing Strategy.

Discussion paper purpose

The purpose of this discussion paper is to provide analysis and evidence for Monash's Affordable Housing Strategy. This includes an estimate of the current and future unmet need for housing assistance in Monash.

The paper discusses Council's role, and presents options and mechanisms, to facilitate social and affordable housing. It poses several questions for further discussion with Council.

Measuring the need for housing assistance (demand for social and affordable housing)

The need for housing assistance in Monash has been estimated by considering the number of homeless persons, households living in social housing, and the prevalence of renting households that are in housing stress. Housing stress is defined as a households paying more than 30 per cent of their gross income on rent.

These groups combined represent 9,230 households in housing stress or 13 per cent of all households. Housing stress is felt by 13 per cent of all households and 50 per cent of renters. Of the households in housing stress, group person households account for the largest single cohort; over 3,200 households. More than half of all households in housing stress are very-low income households. A significant share – more than 50 per cent – of households in rental stress are experiencing severe housing stress, that is, they are paying more than 50 per cent of their income on rent.

What is the scale of unmet need?

A small number of households in Monash are already fortunate enough to be housed in subsidised accommodation. There are currently just under 1,839 social housing dwellings in the municipality, which accounts for around 2 per cent of all dwellings. (This is comparable with neighbouring areas but significantly lower than the Melbourne average, which is 3.3 per cent). By deducting the number of households already in social housing dwellings from the total estimated need, the unmet need for affordable housing is in the order of **8,250** dwellings. Looking ahead to 2036, it is estimated the level of unmet need will increase further to some **9,960** dwellings.

Evidently, without some form of intervention, a significant number of households in Monash will have no choice but to endure housing stress or homelessness. As a result, some households may move to a more affordable location, although such displacement is likely to result in higher commuting costs, and strain established ties within the Monash community. It is likely that over time, Monash will become a less diverse community as lower income households, who make a fundamental contribution to the economic and social life of the municipality, are unable to afford to rent housing at market rates, or even contemplate the option of home ownership.

NEED FOR AFFORDABLE HOUSING ASSISTANCE IN MONASH IN 2016

Household type	No. of Households	Minimum target	Need for housing assistance	Need as a % of total households
People experiencing homelessness	840	100%	840	1.2%
Social housing	1,610	100%	1,610	2.3%
Very low-income households	3,220	90%	2,900	4.1%
Low income households	2,380	85%	2,000	2.9%
Moderate income households	1,170	80%	900	1.3%
Total	9,230	n/a	8,250	11.8%

Source: SGS Economics and Planning

How can Council respond?

This paper describes a role for Council and presents a three-tiered framework for responding to unmet need in Monash.

- Tier 1: Facilitate efficient housing markets (housing affordability)
- Tier 2: Facilitate affordable housing supply
- Tier 3: Affordable housing provision.

This approach addresses different areas of market failure that have led to a lack of affordable housing. For most councils, the first step in correcting market failures is to address the inefficiencies in Tiers 1 and 2. Following this, some councils have extended their efforts into providing ratepayer funds or land to further stimulate the supply of affordable and social housing (Tier 3).

Under each of the three tiers SGS reports back on findings from engagement with Council so far, presents additional prompts and questions for further development and puts forward preliminary recommendations.

Tier 1: Questions for Council

- Is Council interested in a community engagement and/or a communications strategy?
- What are the thoughts within Council on the current resident's appetite for more affordable housing in the City of Monash?
- Are there any opportunities under this tier, for example through regulatory reforms or innovations, to improve housing affordability?

Tier 2: Questions for Council

- Does Council have views on ways to seek affordable housing contributions through value sharing (i.e. capturing a portion of any 'unearned' increase in land value created by rezoning for more intense development, and dedicating this for affordable housing)?
- What does Council consider to be an appropriate rate of value capture – 50%, 75% or some other figure?
- What type and format of guidance materials would help Council to negotiate affordable housing contributions?
- Which RHAs does Council have existing relationships with?
- Are there other RHAs Council is aware of that are present in the municipality?

Tier 3: Questions for Council

- What is the nature of the Council-owned sites? Roughly how many are there?
- Would Council be interested in a competitive open tender process and/or rezoning which defines affordable housing outcomes?

1. INTRODUCTION

SGS Economics and Planning (SGS) has been commissioned to assist in the preparation of a social and affordable housing strategy. This discussion paper provides background context to assist in the development of the strategy and an upcoming workshop with Council officers.

1.1 Background

Monash City Council is developing a Social and Affordable Housing Strategy (the Strategy). This will deliver on a commitment made in Council's state legislated health and wellbeing plan to deliver an Affordable Housing Strategy and to "advocate for affordable, innovative and suitable housing options in Monash close to family, friends, social groups, shops and health services."

The development of this strategy also aligns with the *Monash Housing Strategy 2014*, which states an objective to ensure appropriate and affordable housing is available to suit the social and economic needs of the community.

To date, Council has shown its commitment to increasing the supply of social and affordable housing on strategic sites. This includes supporting an affordable housing requirement on the rezoning of the PMP Printing site in Clayton.

Council also takes an active role in advocacy and is a member of the Eastern Affordable Housing Alliance (EAHA). The EAHA recently launched 'Zone in' a campaign demanding real action on social housing and calling for the introduction of mandatory requirements on all surplus government land and strategic redevelopment sites.

1.2 Purpose

The purpose of this paper will be to provide the analysis and evidence for Monash's affordable housing strategy. It will present options and mechanisms to deliver affordable housing, discuss them and make recommendations for the final strategy.

In its current preliminary draft form, the paper describes the policy context, assesses the level of need for affordable housing and offers an introductory discussion of the options available to Council. This will form the basis of an initial workshop with Council staff.

The paper will be further developed following the workshop with fully developed and refined options, input from stakeholder engagement, and recommendations to Council.

The remainder of the paper is set out as follows:

- Section 2 describes the benefits of social and affordable housing
- Section 3 presents the state and local government policy context
- Section 4 defines important concepts for affordable housing
- Section 5 estimates the level of need for affordable housing in Monash
- Section 6 explores some of the options and mechanisms available to Council.

2. BENEFITS OF SOCIAL AND AFFORDABLE HOUSING

This section discusses the rationale for and benefits of social and affordable housing provision for cities and regions.

2.1 Creating region-wide value for Monash

Expanded availability of social and affordable housing brings benefits not only to the people who are provided with a secure home or removed from housing stress. It also creates value for the economic, social and cultural environment of an area and its wider community. Research into the impacts of increased social and affordable housing supply note the following key benefits:

- improved community cohesion and wellbeing
- improved competitiveness through more efficient local labour markets
- greater capacity for business and social innovation, and
- stronger place culture and branding.

Community cohesion and well being

Community inclusion

Wiesel *et al.* (2017) note the extent to which the contemporary planning discourse has consistently justified the uneven allocation of resources across metropolitan areas to enhance economic productivity.¹ In many cities, government investment in infrastructure has been targeted to regions with the highest economic growth potential, with these well-endowed areas (typically the CBD or central city) often correlated with high housing costs and poor affordability.^{2 3}

Those who cannot secure affordable housing in these areas are required to find housing in an alternative location; frequently in parts of the city that are defined by significantly poorer access to employment, services, transport, lower amenity and higher levels of social 'dysfunction'.^{4 5}

Such processes act to create areas of both concentrated advantage and disadvantage across the metropolitan region. Berry (2003) notes the way this process of locational disadvantage effectively traps or locks people in areas and contributes to cyclical processes of "decline and deprivation".⁶

There is a significant body of literature exploring the consequences of locational disadvantage and social segregation. The costs to individuals include poor psychological and health and

¹ Wiesel, I., Lui, F. and Buckle, C. (2017), 'Locational disadvantage and the spatial distribution of government expenditure on urban infrastructure and services in metropolitan Sydney (1988-2015)', *Journal of Geographical Research*, 56(3): 285-297.

² *Ibid.*

³ SGS Economics and Planning (2019), *Rental Affordability Index*, Melbourne: SGS Economics and Planning. Accessed 14 January from: <https://www.sgsep.com.au/publications/rental-affordability-index>

⁴ Wiesel, I., Lui, F. and Buckle, C. (2017), 'Locational disadvantage and the spatial distribution of government expenditure on urban infrastructure and services in metropolitan Sydney (1988-2015)', *Journal of Geographical Research*.

⁵ Berry, M. (2003) 'Why is it important to boost the supply of social housing in Australia', *Urban Policy and Research* 24(1), 413-435.

⁶ *Ibid.*

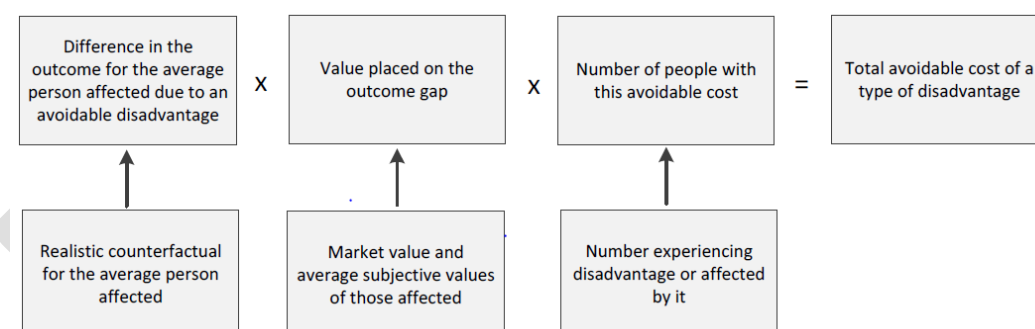
wellbeing outcomes. Local communities suffer in terms of reduced social capital and cohesion, and increased rates of crime and violence. Meanwhile, the broader metropolitan and regional landscape sees decreased productivity and rising fiscal costs to government⁷

People who are unable to find suitable affordable, appropriately located, housing and who remain in housing stress or insecure housing situations disproportionately suffer from a broad range of poor health, educational and social outcomes including⁸:

- poor self-esteem and sense of self-worth, stress and poor mental health
- higher rates of depression, substance abuse and risk of suicide
- experience of financial hardship and poverty
- diminished educational performance for young people
- reduced rates of secure and ongoing employment, and decreased participation in employment related assistance and job training programs
- living in poor quality, poorly designed, overcrowded and unsanitary housing conditions (featuring, for example, mould and noise exposure)
- social exclusion and isolation.

In exploring deep and persistent disadvantage in Australia, McLachlan, Gilfillan and Gordon of the Productivity Commission found that this condition imposes a range of costs on the people who experience it, those near to them and the broader community. They devised a model for estimating the totality of this cost as shown in the following diagram. Alleviating disadvantage by providing social and affordable housing, for example, can be expected to conversely generate value for the host society⁹.

FIGURE 1 PROCESS FOR CALCULATING THE COSTS OF DISADVANTAGE



Source: McLachlan, Gilfillan and Gordon (2013)

Community diversity

As discussed above, significant costs to the community arise from the segregation and concentration of communities of disadvantage across metropolitan regions. In contrast to this, a long line of academic work has explored the potential benefits that arise from the creation of places that support diverse and inclusive communities.

Fainstein (2010) notes that diversity extends beyond simply the acceptance of differences in others, to the social composition of places, with Rolnik (2014) emphasising housing diversity

⁷ Berry, M. (2003) 'Why is it important to boost the supply of social housing in Australia', Urban Policy and Research 24(1), 413-435.

⁸ Phibbs, P. and Young, P. (2005), Housing assistance and non-shelter outcomes. Retrieved from Australian Housing and Urban Research Institute: <https://www.ahuri.edu.au/research/final-reports/74>; Ravi, A., & Reinhardt, C. (2011). The social value of community housing in Australia Retrieved from Australia: Net Balance.

⁹ McLachlan, R., Gilfillan, G. and Gordon, J. (2013) Deep and Persistent Disadvantage in Australia, Productivity Commission Staff Working Paper

(including diversity of tenure, type and price) as a crucial element in stimulating broader socio-demographic diversity.^{10 11}

The merits of diversity in the city first came to popular consciousness through the writings of Jane Jacobs (1961), who argued that a mix of people of different cultures, social class, life-cycle stage, and immigration status are important for fostering interaction and trust between different people, as well as promoting economic opportunity. In the words of Jacobs (1961: 14):

“places that are diverse offer fertile grounds for the plans of thousands of people”.

In contrast, Jacobs says that:

“no diversity offers little hope for growth, in the form of both personal and economic development”.

These ideas have been taken up by many urbanists and expanded on in various ways. A recurrent central principle is that diversity maximises “exchange possibilities”, both economic and social, and brings significant benefits for people and places.¹²

Some authors have suggested that some forms of community diversity (predominantly racial or ethnic diversity) has a negative effect on social cohesion by reducing the collective sense of belonging and social solidarity.¹³ Ariely (2014) notes that this is typically the consequence of differences in defining a concept as complex and multi-dimensional as ‘social capital’ or ‘social cohesion’. Nevertheless, belief in the positive outcomes of diversity in cities continues to prevail in academic writing and professional practice.

Driving competitiveness

Labour market functioning

Concerns for the lack of social and affordable housing frequently stem from a social welfare or equity perspective, as highlighted in the discussion above. Somewhat less prevalent is consideration of the consequences of high housing costs for urban economic growth in employment locations. This is despite a clear and widely investigated recognition by policymakers, researchers and industry professionals of the macro-economic impacts of housing.^{14 15}

Policy discussion and academic research regarding the consequences of ‘spatial mismatch’ for the productivity of urban areas has attracted renewed attention in recent years.^{16 17} Initially conceived by Kain (1968) in reference to the processes of the suburbanisation of employment occurring at the time, the spatial mismatch theory laments the increasing disjuncture between the location of jobs growth and concentrations of socially and economically

¹⁰ Fainstein, S. (2010), *The Just City*, Ithaca: Cornell University Press.

¹¹ Rolnik, R. (2014), ‘Place, Inhabitation, and Citizenship: The right to housing and the right to the city in the contemporary urban world’, *International Journal of Housing Policy*, 14(3): 293-300

¹² Hirt, S. (2012), *The urban wisdom of Jane Jacobs*, New York: Routledge.

¹³ Ariely, G (2014), ‘Does diversity erode social cohesion? Conceptual and methodological issues’, *Political Studies*, 62(3).

¹⁴ Van den Nouwelant, R. Crommelin, L., Herath, S. and Randolph, B. (2016), ‘Housing affordability, central city economic productivity and the lower income labour market’, Melbourne: Australia Housing and Urban Research Institute (AHURI).

¹⁵ SGS Economics and Planning (2012), ‘Understanding the property and economic drivers of housing’, Melbourne: SGS Economics and Planning.

¹⁶ Spiller, M. (2013), ‘Affordable housing: the productivity dimension’, *The Quarterly Magazine*, Melbourne: SGS Economics and Planning.

¹⁷ SGS Economics and Planning (2013), ‘Understanding the property and economic drivers of housing’, Melbourne: SGS Economics and Planning.

disadvantaged workers, and the associated impacts on economic prosperity and social wellbeing.¹⁸

INVESTIGATING THE IMPACT OF AFFORDABLE HOUSING ON PRODUCTIVITY

Several local and international studies have sought to explore the links between housing costs and the productivity of key industries. This includes research undertaken by the Australian Housing and Urban Research Institute (AHURI) investigating the impact of housing costs on businesses that are largely reliant on lower wage rate workers in central areas of Australia's major cities (Sydney, Perth, Melbourne, Brisbane, Darwin).⁵⁶

This study found that low income, central city workers in Australia are spatially separated from their jobs to a much greater degree than metropolitan workers in general (found to be roughly double that of metro-wide median). Six industries were identified as likely to be affected by a shortage of low income central city workers based on a combination of the total number of low income workers, reliance on these workers and competition for these workers outside of the central city. These include hospitality, support services (travel and recruitment agency), professional services (legal and accounting), finance-insurance and government services. This research showed that while employers in these industries were aware of the issues, the burden was largely seen to be borne by employees with little consequence for businesses. It was felt that a number of mitigating factors, such as higher salaries, amenities and "buzz" of the central city, accessibility and the large supply of short-term workers (students and foreign workers), helped to thicken the supply of low-income workers in the city. While not quantified, the study identified a shortage of supply of low income workers to support the hospitality industry – particularly tourism and accommodation.

This finding is reinforced by Yates *et al.* (2006) who found that hospitality workers and sales assistants experienced the greatest levels of housing stress. These workers are more likely to be in lower skilled, casual and part time occupations that offer less opportunity for career progression.⁵⁷

Research examples drawn from the UK have shown some evidence of recruitment issues and associated impacts on productivity due to local housing costs. Tym (2003) found evidence of recruitment difficulties in the public sector sometimes prompting actual or contemplated disinvestment in the region as a result.¹ Propper and van Reenen (2010) found that some areas of high housing costs had poorer performing hospitals as a result of difficulties in retaining quality medical staff, while Gordon and Monastiriotis (2007) found that the combination of high house prices in economically successful areas with a public sector pay structure which is unresponsive to this (or very unevenly so) leads to a qualitative 'crowding out' of public sector work such as that of teachers, leading to lower quality provision.

In the contemporary Australian context, a significant body of literature has documented a clear trend, whereby lower income households are increasingly being displaced (either relatively or absolutely) from locations largely as a result of ongoing processes of gentrification, urban renewal and related housing cost increases.²¹ This spatial mismatch has

¹⁸ Kain, J.F. (1968), 'Housing segregation, negro employment, and metropolitan decentralization', *The Quarterly Journal of Economics*, vol. LXXXII, no. 2, pp.175–197.

¹⁹ Van den Nouwelant, R. Crommelin, L., Herath, S. and Randolph, B. (2016), 'Housing affordability, central city economic productivity and the lower income labour market', Melbourne: Australia Housing and Urban Research Institute.

²⁰ Yates, J., Randolph, B. and Holloway, D. (2006), *Housing affordability, occupation and location in Australian cities and regions*, AHURI.

²¹ Randolph, B. and Tice, A. (2014), 'Suburbanizing disadvantage in Australian cities: Sociospatial change in an era of neoliberalism', *Journal of Urban Affairs*, 36(1): 384–399.

been considered in the annual State of Australian Cities (SOAC) report for some years now, with the most recent report noting:

*“Australia’s cities are increasingly characterised by the significant spatial divide between areas of highly productive jobs and the areas of population-based services, reflected through the price premiums associated with houses that have better access to the city centre”.*²²

This has been conceptualised as a concern for the economic productivity of cities and due to a thinning of the local labour market of the central city area, whereby a decline in the total diversity of workforce pool (i.e. fewer low income workers) will result in poor labour matching. This, in turn, is seen to lead to labour market shortages, staff retention (and hence, retraining) problems and reductions in economic productivity and efficiency.²³ In the context of the central city, the SOAC report goes on to state that:

*“Ensuring that Australia’s most productive regions – the inner areas of cities – remain unconstrained, efficient and productive is critical. With such dense economic activity occurring within these relatively small areas, even minor inefficiencies can have a major impact on Australia’s national economy and remedying those inefficiencies can reap large economic benefits”.*²⁴

While there is somewhat limited direct evidence to support the notion that employers in high cost areas cannot attract key workers because of housing affordability, there is evidence to support the claim that those who work and live in inner city locations and metropolitan hubs experience significantly greater housing affordability problems.²⁵

In choosing to work in high-cost housing areas, many of the studies discussed above have noted the extent to which low income and key workers make trade-offs between location, housing cost and transport accessibility. Some accept longer commutes for cheaper rent while others suffer housing stress to maintain continuity of work and access to other opportunities.

A significant body of literature also demonstrates the extent to which each of these conditions can contribute to lost labour productivity through adverse impacts on individual health and wellbeing, including increased stress and mental ill-health, capped career progression, reduced ability to upskill and diminished workforce participation.^{26 27}

²² Department of Infrastructure and Regional Development (2015) State of Australian Cities 2014–2015: Progress in Australian regions, accessed 30 Sep 2015, http://infrastructure.gov.au/infrastructure/pab/soac/files/2015_SoAC_full_report.pdf. pp. 41.

²³ Van den Nouwelant, R., Commelin, L., Herath, S. and Randolph B. (2016), ‘Housing affordability, central city economic productivity and the lower income labour market’, Australia Housing and Urban Research Institute (AHURI).

²⁴ *Ibid*, 64.

²⁵ Van den Nouwelant, R. Crommelin, L., Herath, S. and Randolph, B. (2016), ‘Housing affordability, central city economic productivity and the lower income labour market’, Melbourne: Australia Housing and Urban Research Institute.

²⁶ Ravi, A., & Reinhardt, C. (2011), ‘The social value of community housing in Australia’, Melbourne: Net Balance.

²⁷ Phibbs, P. and Young,, P. (2005), ‘Housing assistance and non-shelter outcomes’, Melbourne: Australian Housing and Urban Research Institute: <https://www.ahuri.edu.au/research/final-reports/74>

3. POLICY CONTEXT

3.1 Overview

In Australia, the task of supplying social and affordable housing has generally been borne by broad-based tax systems operated by the Australian Government and state governments. Recent state government policy in Victoria and New South Wales has signaled a shift towards increased government support for facilitating the supply of social and affordable housing through the planning system. At the local level, Monash City Council has several actions identified under its *Monash Housing Strategy* and its public health and wellbeing plan, *A Healthy and Resilient Monash*.

These state and local government policy developments are detailed over the remainder of this chapter.

3.2 State Government policy context

Plan Melbourne

Plan Melbourne acknowledged several planning related barriers including the lack of clarity in the legislation as to what constitutes affordable housing and the absence of clear planning tools and/or mechanisms.

Plan Melbourne highlights a number of areas in which affordable housing is to be addressed by the planning system. The most relevant policies are:

- Policy 2.3.2 – Streamline decision-making processes for social housing proposals (applicable to both the government and the community housing sector)
- Policy 2.3.3 – Strengthen the role of planning in facilitating and delivering the supply of social and affordable housing
- Policy 2.3.4 – Create ways to capture and share value uplift from rezoning

Actions include adopting definitions of social and affordable housing into the planning system and the creation of planning provisions/tools to deliver social and affordable housing. Other actions include exploring inclusionary zoning and mechanisms to capture and share value created through planning controls.

Homes for Victorians

Released in 2017, *Homes for Victorians* is the Victorian Government's strategy for responding to the housing affordability crisis in Victoria. The strategy includes a range of measures that encompass housing supply, housing services and reforms to the rental sector.

The strategy recognises the "growing appetite" from local councils to apply affordable housing provisions to:

- Rezoned land, and
- Permit applications for major developments.

It identifies ways in which affordable housing could be provided by developers, including:

- Transfer of ownership of an agreed number of dwellings to a community housing association or the Director of Housing for use as social housing, and
- The sale of dwellings to a community housing association at an agreed discounted price to be used in perpetuity as affordable rental.

The strategy allocates funding towards developing a clear framework for a 'voluntary benefits scheme' to guide the process by which affordable housing provisions could be made. This will include the amendment of state planning policy to incorporate the scheme, the development of a voluntary tool to enable affordable housing agreements, and a value capture tool to set out how arrangements can be structured.

In relation to social housing, the strategy includes three initiatives:

- Establishment of a \$1 billion Victorian Social Housing Growth Fund;
- Development of around 6,000 social housing dwellings including new builds, subsidised rentals and renewal of up to 2,500 ageing public housing dwellings; and
- \$100 million in low-cost loans and \$1 billion in government guarantees to housing associations to enable them to substantially expand their stock.²⁸

The \$1 billion Social Housing Growth Fund includes permanent pool of capital (\$1 billion), the interest from which will be used to fund the two programs:

- The Build and Operate Program (BOP) that will help fund construction of new social and affordable housing dwellings on non-Victorian Government land; and
- The New Rental Developments Program (NRDP) that will increase the availability of social housing rental stock by providing recurrent funding to lease new dwellings from the private sector.

The government's indicative modelling suggests "the Fund could support around 2,200 households" over the next five years.

Amendments of the Planning and Environment Act

Both *Plan Melbourne* and *Homes for Victorians* foreshadowed the need for amendments to the *Planning and Environment Act 1987* to facilitate affordable housing contributions through voluntary planning agreements.

A series of legislative amendments to the Planning and Environment Act came into effect on 1 June 2018 with a view to legitimising the role of the planning system in contributing to affordable housing. The amendments included:

- The introduction of a new objective to the Act: "to facilitate the provision of affordable housing in Victoria";
- A definition of Affordable Housing (see Section 4.4 of this report); and
- Affirmation that Section 173 agreements can be used to secure commitments to provide affordable housing as part of a development.

Ministerial notice

In addition to the changes cited above, a Ministerial Notice was published specifying matters that must be considered in determining whether housing provided under an Affordable Housing Agreement is appropriate for the needs of very low, low and moderate-income households. The notice also came into effect on 1 June 2018.

The notice lists the following matters as matters to which regard must be had for the purposes of determining what is appropriate for the housing needs of very low, low and moderate-income households:

- Allocation
- Affordability (in terms of the capacity for very low income, low income and moderate-income households that it is intended for)
- Longevity (in terms of the public benefit of the provision)
- Tenure
- Type of housing, in terms of form and quality

²⁸ "Increasing and renewing social housing stock" from <https://www.vic.gov.au/affordablehousing/social-housing.html>, viewed 26 January 2019.

- Location, in terms of site location and proximity to amenities, employment and transport
- Integration, in terms of the physical build and local community
- The following official estimates of housing need:
 - Australian Bureau of Statistics Community Profiles
 - Census profiles for Victoria
 - Department of Health and Human Services Rental Report
 - Metropolitan regional housing plans to guide housing growth
 - Public housing waiting list (Victorian Housing Register list)
 - Victoria in Future data tables."

Further information on the list of matters was provided to at a Department of Environment, Land, Water and Planning (DELWP) seminar held on 14 August 2018: "Affordable Housing Implementation Symposium". There is, however, no definitive guidance on how these matters might be assessed by either Council or developers when negotiating an Affordable Housing Agreement. Advice from the Victorian Government to date has tended to suggest that each location and development is unique and should therefore be assessed on its individual merits.

3.3 Local policy context

Monash City Council references Affordable Housing as a priority project and key issue impacting the city in the *Monash Council Plan 2017 – 2021*.

This section provides an overview of Monash’s local policy setting by providing a summary of relevant policy documents and recent developments.

Monash Housing Strategy Final Report (2014)

The *Monash Housing Strategy 2014* acknowledges the need to provide accommodation for a diverse and growing population. This includes ensuring appropriate infill housing and the revitalisation of Monash’s activity centres with higher residential and mixed use development.

A lack of housing diversity and affordable housing is identified as a key issue and the strategy responds with an objective to “ensure appropriate and affordable housing is available to suit the social and economic needs of the community.”

Council’s strategy takes an integrated and partnership approach to increasing the supply of social and affordable housing, and promotes working alongside registered housing associations, developers and relevant state government departments to achieve outcomes. This includes capitalising on the redevelopment of strategic sites, including railway stations, to address gaps in relation to desired housing typologies.

The document includes several strategies to support affordability:

- Locate social housing or housing that meets special needs close to public transport and retail and community facilities.
- Require a variety of dwelling sizes and types to promote greater affordability of housing and choice in medium and large urban developments.
- Investigate affordable housing options that can be promoted in the City, including joint ventures with housing associations, developers, and/or other government agencies, or education providers.
- Consider the needs of people with limited mobility in the design of multi-storey developments, particularly in relation to access and car parking.
- Encourage the construction of accessible one and two bedroom dwellings near existing or proposed aged care facilities, and near public transport facilities.

This is complemented by several actions to:

- Monitor the supply of, and demand for, affordable housing and investigate different models aimed at facilitating affordable housing including evaluating examples of best practice in the provision of well-designed affordable housing.
- Advocate to the State Government for the introduction of new initiatives in support of housing affordability, diversity, and accessibility.
- Continue the redevelopment and renewal of public housing stock in Ashwood through participation in the Office of Housing's Neighbourhood Renewal Strategy.
- Coordinate housing information sources and relevant agencies that assist older people to remain in their home, or, if appropriate, to age within the locality (e.g. information regarding access to nursing homes and support services).

This report considers there may be some barriers to provision of affordable dwellings such as:

- Permit processes
- Market preferences
- Community concerns regarding neighbourhood preferences.

The needs of several household types vulnerable to housing stress are identified, including newly arrived migrants, older persons and the student population.

Residential growth zone

In 2018, the minister approved Part 1 of Amendment C125 to introduce the Neighbourhood Residential zone and Residential Growth zone to areas within Monash as adopted by Council.

Part 2 of the amendment in which Council requested to introduce a 2 storey height limit in the General Residential Zone areas was not approved by the Minister. This request was in response to changes to the residential zones in 2017, which introduced height limits in general residential areas to three storeys.

The Minister advised:

"I consider Part 2 requires further strategic work on the council's application of the GRZ. The adopted GRZ features a 9-metre-high discretionary building height control. This approach is no longer possible due to changes to the Victoria Planning Provisions introduced by VC110. Consequently, the council should review the application of the zone."

The Design and Development Overlay (DDO13) and Development Contributions Plan Overlay (DCPO1) proposed for the Clayton Activity Centre and within the Monash National Employment and Innovation Cluster was also refused.

It has been suggested Council spend time further reviewing the application of the General Residential zones and there may be areas that warrant the application of the Neighbourhood Residential zone or the Residential Growth zone to better align with the revised residential zones and Councils Housing Strategy.

Council is currently in the process of reviewing this application.

A Healthy and Resilient Monash: Integrated Plan (2017 – 2021)

A Healthy and Resilient Monash: Integrated Plan (2017 – 2021) is a state legislated municipal public health and wellbeing plan, developed in accordance with the *Public Health and Wellbeing Act 2008*.

This plan is Council's response to the health and wellbeing priorities of the community, the plan brings together all the priorities from all other plans, activities and services that contribute to the health, happiness and wellbeing of the Monash community.

The plan's framework sets out three themes:

- Active and Healthy: A city dedicated to optimal health and wellbeing for its community.

- Engaged, confident and connected: A city which actively listens, engages and values community wisdom in shaping its own future.
- Safe and Respectful: A city where every single member of the community is important.

The accompanying two year *Action Plan 2018 – 2019* under the theme Safe and Respectful commits to the following actions relevant to this strategy:

- Explore the development of an affordable housing strategy
- Facilitating opportunities for older people to remain living independently at home
- Advocating for affordable, innovative and suitable housing options in Monash close to family, friends, social groups, shops and health services.

Zone in: Real Action on Social Housing Campaign Launch (2018)

'Zone in' is a campaign by the Eastern Affordable Housing Alliance (EAHA), a consortium of six local governments including Knox, Manningham, Maroondah, Monash, Whitehorse and Yarra Ranges.

This campaign calls on all Victorian political parties to commit to:

- Legislating to introduce mandatory inclusionary zoning in Victoria at a rate at least 10 per cent on all surplus government land and strategic redevelopment sites, and
- Deliver at least 11,420 new social housing dwellings in the Eastern Metropolitan Region by 2036.

Research by the EAHA revealed a shortfall of 7,970 homes in the Eastern Metropolitan Region and forecast the shortfall to increase by 11,420 by 2036. EAHA aims to ensure that the most disadvantaged people in the Eastern Region have access to 'safe, secure and affordable housing'. The EAHA understand the benefits of ensuring vulnerable households can 'remain in their community, close to family, friends and support services'.

4. IMPORTANT DEFINITIONS

Policy makers, housing providers, analysts and others have adopted many different definitions of affordable housing. This section defines a practical and precise definition for identifying the need for affordable housing in the City of Monash and how Council might address that need.

4.1 Affordable housing versus housing affordability

Affordable housing and housing affordability are two closely related but independent concepts. While aspects of this discussion paper are relevant to the issue of housing affordability, the focus is on measures that Council might pursue to increase the supply of affordable housing. We distinguish between the two terms below.

The term *housing affordability* refers to the general cost of housing relative to incomes. Housing affordability has become a significant concern in recent decades as house prices have increased significantly relative to wages, making it more difficult for households to purchase dwellings. On the other hand, for many households that are already 'in the market' this increase in prices has generated significant wealth.

The term *affordable housing* generally refers to rental housing that is available to lower income households which is affordable for their level of income. There is, however, no universal or precise definition of affordable housing. The specific forms and models that affordable housing can take are many and varied.

Unlike the analysis of housing affordability, which considers people at all income levels, affordable housing is typically targeted at lower income households. Affordable housing also focusses on the affordability of renting a dwelling, while the analysis of housing affordability is more focussed on property ownership (although rents are sometimes also considered).

This section defines affordable housing for the later discussion of how Council might address the need for affordable housing in its municipality.

4.2 What housing is affordable?

The affordability of housing depends on the income of the household. When housing costs are too high, relative to their income, a household can find themselves in housing stress. Housing stress is a situation in which a household's rental payments are so high that they must sacrifice on food, health care, education and other necessities.

A household that spends more than 30 per cent of their income on housing can be in moderate housing stress. And a household that spends more than 50 per cent of their income on housing can be in severe housing stress. These thresholds are commonly used by researchers and policy makers, such as the Australian Housing and Urban Research Institute.

When households have low or moderate incomes and experience housing stress, we consider them in need of affordable housing. Households with higher incomes are excluded because high housing costs do not typically impact their ability to pay for necessities. Housing costs are also mostly a choice for higher income households because they are often able to reduce their housing expenditure (by moving) while lower income households often cannot.

Therefore, housing is considered affordable if the costs of that housing do not place the household into housing stress. Specifically, if the housing costs are below 30 per cent of household income.

4.3 Different types of affordable housing

Our communities require a range of housing types to cater for the needs of all households. It is useful to think of the various types of housing as forming a housing supply continuum where the level of assistance or subsidy required is highest at one end of the continuum, progressively decreases at the other. This concept is illustrated below in Figure 2.

Private market affordable rental housing is the affordable housing category furthest to the right of the spectrum. This is housing provided on the open market without any government subsidy. This makes up the largest portion of affordable housing because most households can generally find themselves a dwelling that they can afford when searching the rental market. However, in Australia's major cities, where housing costs have risen significantly relative to incomes, the share of 'market affordable' housing is declining. Hence, the need for policies and interventions to increase the supply of other types of affordable housing.

Social housing is a subset of affordable housing. This term typically refers to housing that is owned by government or a not-for-profit organisation (Housing Associations or Housing Providers which are collectively referred to as 'Registered Housing Agencies') and made available at affordable rents for eligible households.

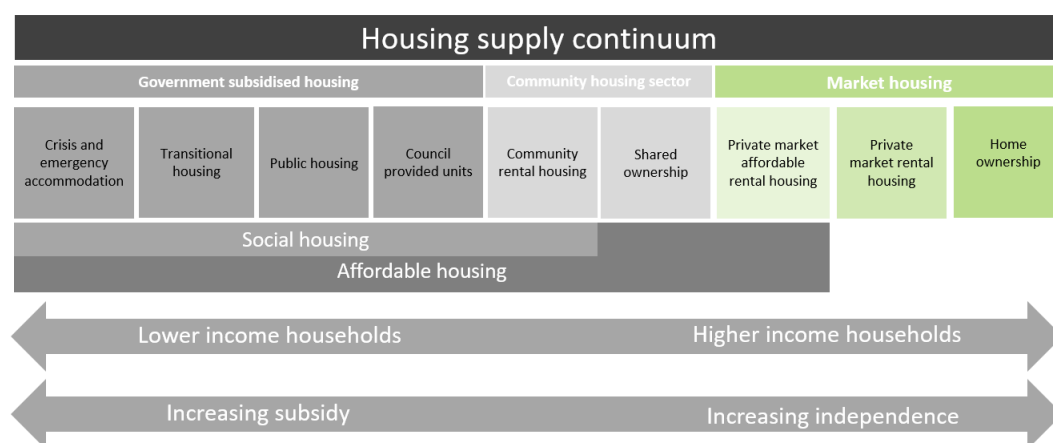
Public housing owned by the Victorian Government is generally made available to the lowest income groups and households with the highest needs who are homeless, escaping or have escaped family violence, with a disability or significant support needs or with special housing needs. Crisis and emergency accommodation and transitional housing are also funded by government (although they are not always government owned).

Community rental housing – that is, housing owned and operated by Registered Housing Agencies – accommodates a broader range of households. They accommodate both high needs households that have very little or no income as well as some households that can afford to pay higher rents that may, in some instances, be much closer to market rents.

Some include models designed to help people purchase a home in the affordable housing spectrum, such as shared ownership in the spectrum below. However, these models and their associated policies should be kept separate from affordable housing because they have different objectives and impacts.

Affordable housing policies address failure in the rental housing market such that segments of society are not excluded from living, working and participating in the local community. Policies that support home ownership have broader objectives that address the financial security of households, their long-term investments, and retirement savings. The primary impact of these policies is on the asset and investments of a household.

FIGURE 2: HOUSING SUPPLY CONTINUUM



Source: SGS Economics and Planning

4.4 Technical definitions under state government legislation

A definition of affordable housing was introduced into the *Planning and Environment Act 1987* in June 2018. Affordable housing is defined as housing (including social housing) that is appropriate to the housing needs of very low, low, and moderate-income households.

Income ranges for the three income 'quintiles' are provided for three different household types: single adults, couples without dependents and families with dependents. These are updated periodically, and the current ranges are shown in Table 1 below. State Government guidance does not specify whether the income bands are gross income or net income after tax. However, SGS interprets the income bands as gross income because they are very similar to other estimations of household income quintiles derived from Census data.

As noted above, social housing is a subset of affordable housing. The Department of Health and Human Services defines social housing as "housing that is provided to eligible households, with rents subsidised to ensure that households pay an affordable rent" and is owned and managed by either the Director of Housing (public housing) or Registered Housing Agencies (community housing).²⁹

TABLE 1: ANNUAL INCOME RANGE FOR HOUSHOLDS ELIGIBLE AFFORDABLE HOUSING

Household	Very low (Bottom 20%)	Low (Bottom 20%-40%)	Moderate (Middle 40%-60%)
Single adult	Up to \$25,220	\$25,221 to \$40,340	\$40,341 to \$60,510
Couple, no dependents	Up to \$37,820	\$37,821 to \$60,520	\$60,521 to \$90,770
Family with dependents (one or two parents)	Up to \$52,940	\$52,941 to \$84,720	\$84,721 to \$127,080

Source: Planning and Environment Act 1987, Section 3AB – Specification of Income ranges (Order in Council), dated 29 May 2018

Other than the income bands for these households, there are no other limitations or stipulations on what might constitute affordable housing, such as tenure type (rental versus ownership) or the proportion of household income eligible households might be expected to pay (for example, 30 per cent of household income).

To obtain a practical and precise definition of affordable housing, SGS extends the state government definition above by clarifying what is meant by 'appropriate to the needs' of households within the income bands above. We consider housing costs below 30 per cent of income to be appropriate to the needs of these households because it this implies that they would not be experiencing housing stress.

In the next section, we use this combination of income thresholds and housing costs to estimate the number of households in Monash experiencing housing stress and subsequently identify the associated need for affordable housing.

²⁹ From "Delivering social housing as an affordable housing contribution", <https://dhhs.vic.gov.au/delivering-social-housing-affordable-housing-contribution>, accessed 26 January 2019.

5. NEED FOR AFFORDABLE HOUSING IN MONASH

The need for social and affordable housing in Monash can be understood by considering how many households are experiencing housing stress. This section explores the mix of households in the municipality, how many are experiencing housing stress and how that might change in the future.

A QUICK LOOK AT SOCIAL AND AFFORDABLE HOUSING NEEDS IN MONASH

- Monash had 70,500 households in 2016. One third were couples with children, one quarter were couples without children and one fifth were lone person households.
- SGG's Housing Assistance Demand model tells us about households with different income levels and rent payments across Melbourne.
- The model suggests that 9,230 households are in housing stress, including 3,580 in rental stress, 3,210 in severe stress, 1,610 in social housing and 840 people experiencing homelessness.
- Housing stress is felt by 13 per cent of all households and 50 per cent of renters., typically by low income, lone person, single parent or group households.
- By 2036, Monash could have between 10,690 and 11,120 households in stress – an increase of between 16 and 26 per cent. The range depends on population growth and income growth relative to rising rents.
- After discounting for temporary housing stress, the need for housing assistance in Monash is around 8,250 households in 2016 and could reach 9,960 by 2036.

5.1 A snapshot of the Monash community

Table 2 to the right provides the household mix in the Monash municipality. And Figure 3 below compares Monash to the Eastern region and Greater Melbourne.

There were 70,500 households in the municipality in 2016. One third of these are couple families with children, one quarter are couples without children and one fifth are lone person households.

Monash has an above average share of group households when compared to the region and Greater Melbourne. Many of these households would be made up of students living close to Monash University.

It also has an above average share of couple family households and below average share of one person and single-parent households.

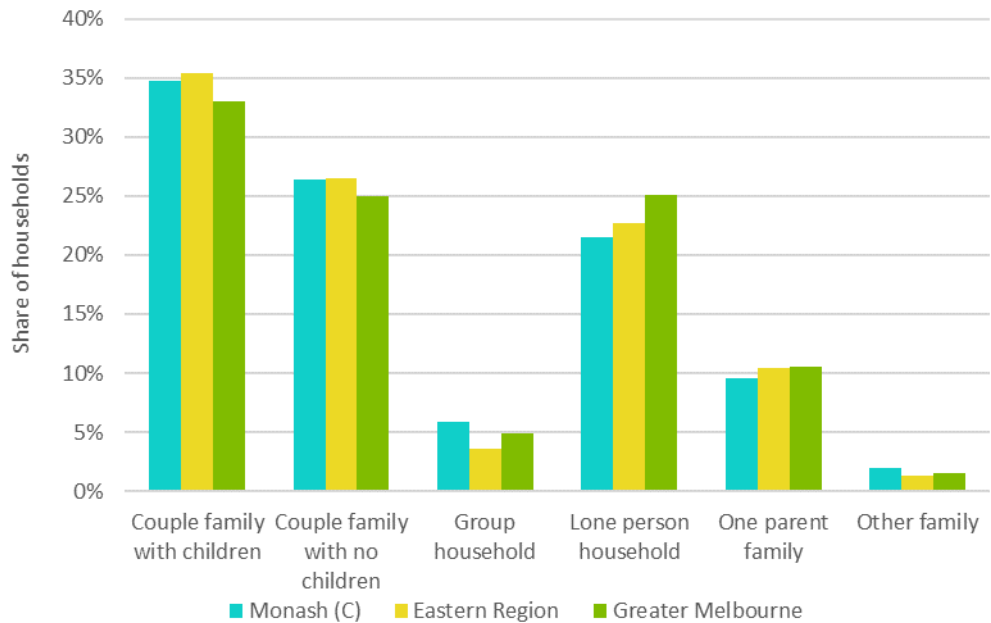
TABLE 2: HOUSEHOLDS IN MONASH (2016)

Household Type	Number
Couple family with children	24,450
Couple family with no children	18,590
Group household	4,140
Lone person household	15,190
One parent family	6,750
Other family	1,370
Household Income*	Number
Very low income	18,570
Low income	13,580
Moderate income	13,670
Higher income	24,670

Source: SGS Economics and Planning, Housing Assistance Demand Model 2019

*Income follows DELWP definitions in Table 1 on p14

FIGURE 3: MIX OF HOUSEHOLD TYPES (2016)



*The Eastern region is made up of the Monash, Knox, Manningham, Maroondah, Whitehorse and Yarra Ranges councils
 Source: SGS Economics and Planning, Housing Assistance Demand Model 2019

5.2 Households on the Victorian Housing Register

In Victoria, social housing allocations are managed via a wait list for which people eligible for assistance can register their interest. Eligible people include those on very low and low to moderate incomes. Prior to 2017, the public housing system operated on a separate wait list to Registered Housing Agencies. More recently, the Victorian Government has developed a common housing register, which is one list where people eligible for assistance can register and nominate locational preferences for where they are seeking housing assistance. Applicants cannot nominate a particular Registered Housing Agency but can flag their preference for public housing or community housing assistance. The implementation of the common housing register is in transition as Registered Housing Agencies are going through a process to sign up to the register and once signed will transfer existing applications.

The Department of Health and Human Services is updating the Victorian Housing Register regularly and currently reporting on the transfer list by local area every three months. This report provides an indication of the number of people waiting to move and transfer to a social housing property.³⁰

Victoria

As of the September quarter in 2018, the total number of people on the Victorian Housing Register was 46,150. This includes:

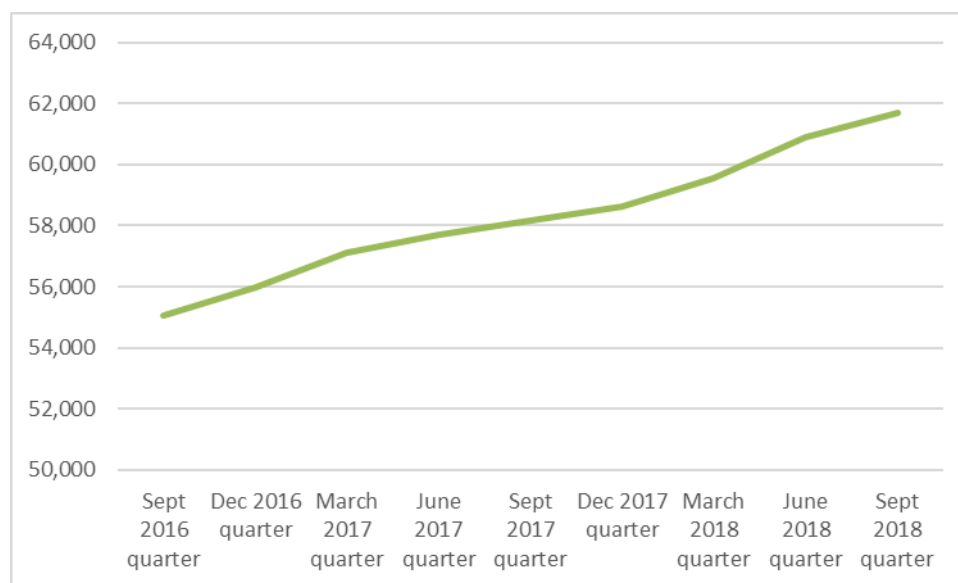
- Existing priority access and register of interest public housing applications transferred to the new register
- New applications submitted since August 2016 in the Register (where applicants have chosen public housing, community housing or both)

It is worth noting that community housing applications transferred from community housing waiting lists as of September 2015 are estimates only. The September 2018 quarter estimates the number of applications at 15,528, as registered housing agencies formally sign up to the housing register, this number will change.

³⁰ <https://housing.vic.gov.au/victorian-housing-register>

FIGURE 4 shows the total number of applications for social housing in Victoria continues to grow, having increased from 55,056 in the September quarter of 2016 to 61,678 in 2018.

FIGURE 4: TOTAL APPLICATIONS FOR SOCIAL HOUSING IN VICTORIA



Source: Victorian Housing Register, Transition Report September 2018.

Monash

Within the Victorian Housing Register, Monash falls within the Eastern Division of the register, in the Inner Eastern Melbourne area (see table below). These figures do not include an estimate of the Registered Housing Agencies existing applications.

The table shows there are 1,839 households on the priority access and register of interest waiting to move and transfer to a social housing property in the Inner Eastern Melbourne region.

TABLE 3: VICTORIAN HOUSING REGISTER (EAST DIVISION) 2018

Area (office)	Priority access	Register of Interest	Total
Inner Eastern Melbourne (Box Hill)	992	847	1,839

Source: DHHS, September 2018.

5.3 Social housing dwellings in Monash

There are currently 1,830 social housing dwellings available in Monash, approximately 2 per cent of all households.³¹ Around 1,565 of these dwellings are owned by DHHS, and the majority are medium density attached dwellings (see Table 2). Registered Housing Agencies own 265 dwellings in Monash.

TABLE 4: SOCIAL HOUSING DWELLINGS

	House	Medium density attached	Medium density detached	Low-rise flat	High-rise flat	Movable Unit	Multiple Unit facility unit	Other	Community owned	Total
Monash	467	816	52	176	0	37	10	7	265	1,830

Source: DHHS, September 2018.

³¹ Department of Health and Human Services (DHHS), Housing Assistance Delivery Data 2017 – 18.

5.4 Experience of housing stress in Monash

SGS Housing Assistance Demand (HAD) Model

The analysis uses SGS's HAD Model to measure the number of renter households who currently need affordable housing. The micro-simulation model segments households by demographic and spatial variables and forecasts the evolution of this need into the future. A full account of the methodology is available in Appendix 1.

Prevalence of housing stress

Table 5 provides the breakdown of housing stress by household type and income while Figure 5 shows the likelihood of housing stress for each household type. SGS estimates that 9,230 households in Monash are in housing stress – this includes 3,280 lone person households, 1,640 couple families without children and 1,510 couple families with children. Households in rental stress represent 13 per cent of all 70,500 households (or 1 in 7) and 50 per cent of the 18,330 renter households (or 1 in 2).

Group households and one-parent families have fewer households in housing stress because they make up a smaller portion of all Monash households. Despite this, they are the most likely household type to experience stress – 33 per cent of group households and 18 per cent of one-parent families experience housing stress. The next most likely group to experience housing stress is lone person households, at 13 per cent.

Housing stress is broken down into severe stress, moderate stress, households in social housing and people experiencing homelessness.³² Of those in rental stress, group households, lone person households and one-parent families are particularly likely to experience severe stress. Owing to this susceptibility to severe housing stress, these household types are also more likely to be in social housing than other household types.

There was an estimated 840 people experiencing homelessness in Monash – 1.2 per cent of all households. This includes people living in improvised dwellings, tents or sleeping out, as well as those in supported accommodation; temporarily staying with other households; living in boarding houses; persons in temporary lodgings; and persons living in severely crowded dwellings. It is worth noting that the ABS survey typically undercounts the prevalence of homelessness so the number in Monash may be higher than in the table below.

The likelihood of experiencing rental stress is inversely related to the level of household income. Around 5,670 very low-income (31 per cent) and 2,380 low-income households (18 per cent) were experiencing rental stress in Monash in 2016. Very low-income households are particularly likely to be in severe rental stress (13 per cent). Households in this category are considered to be at risk at homelessness.

TABLE 5: HOUSING STRESS, BY HOUSEHOLD TYPE AND INCOME (2016)

Category	Household	Severe Stress (rent >50% of income)	Mod. Stress (rent >30% of income)	Social Housing	Homeless	Total*
Household Type	Couple family with children	490	900	120	0	1,510
	Couple family with no children	580	890	170	0	1,640
	Group household	700	560	60	0	1,320
	Lone person household	930	640	870	840	3,280
	One parent family	410	460	370	0	1,240

³² We note that people in social housing pay lower than 30 per cent of their income in rent, however, they are included here as an indication of need because they would most likely be in housing stress without the social housing services.

	Other family	110	130	20	0	260
Income**	Very low income***	2,370	850	1,610	840	5,670
	Low income	660	1,720	0	0	2,380
	Moderate income	170	1,000	0	0	1,170
Total*		3,210	3,580	1,610	840	9,230

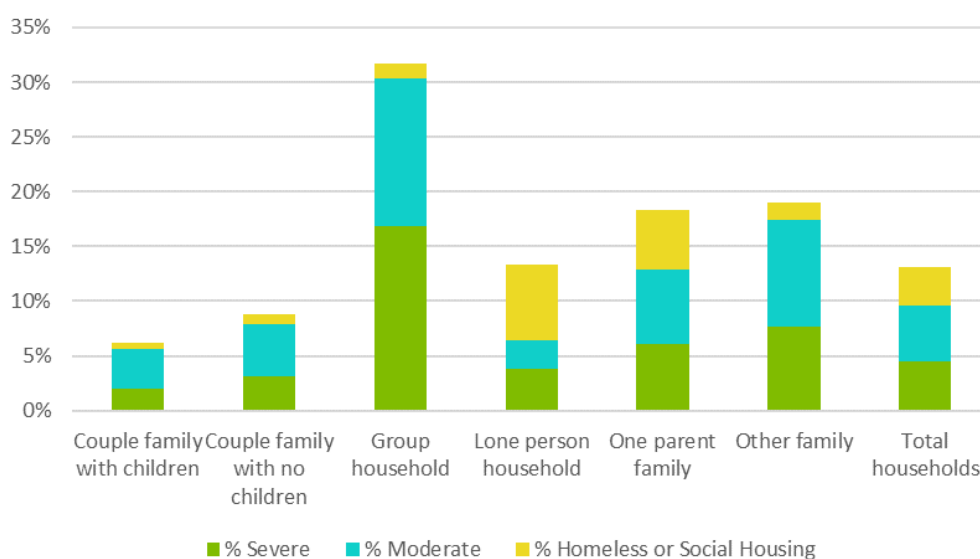
*Figures may not sum to totals due to rounding

**Income follows DELWP definitions in Table 1 on p14

***All households in social housing and people experiencing homelessness are assumed to have very low income

Source: SGS Economics and Planning, Housing Assistance Demand Model 2019

FIGURE 5: MEASURED NEED FOR HOUSING ASSISTANCE IN MONASH, BY HOUSEHOLD TYPE (2016)

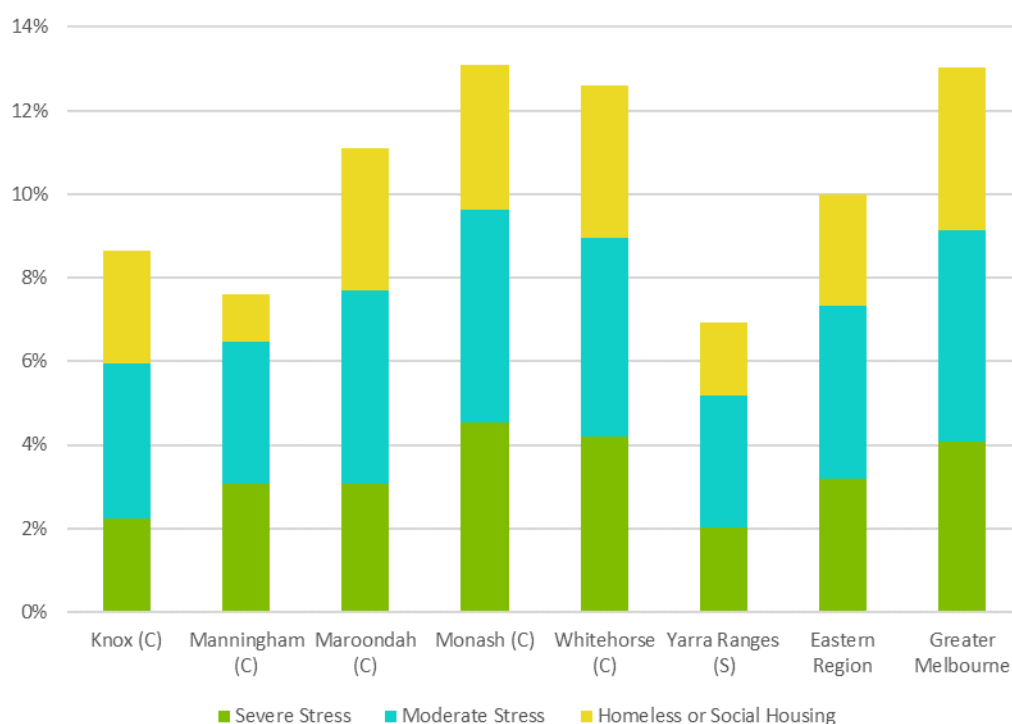


Source: SGS Economics and Planning, Housing Assistance Demand Model 2019

Figure 6 compares the prevalence of housing stress across Councils in the Eastern Region with Greater Melbourne. Monash is in line with the average for broader Melbourne at 13 per cent, although it does have a slightly higher rate of severe housing stress. However, Monash also has the highest incidence of housing stress in the Eastern Region, which averages 10 per cent. There is a low rate of housing stress in the Yarra Ranges, Manningham and Knox, while Maroondah and Whitehorse are closer to Monash.

It is worth noting that the prevalence of housing stress throughout this chapter is measured via rental stress. We have not considered households experiencing mortgage stress via high monthly repayments. The numbers therefore underrepresent the number of households experiencing housing stress in Monash. However, as outlined in Section 4.3, mortgage stress raises different questions and policies that support home ownership have broader objectives because their primary impact is on the assets and investments of a household. For these reasons, it is not considered within this analysis.

FIGURE 6: MEASURED NEED FOR HOUSING ASSISTANCE IN THE EASTERN REGION (2016)



Source: SGS Economics and Planning, Housing Assistance Demand Model 2019

Housing stress will likely grow in the future

The need for affordable housing is likely to increase as Melbourne’s population grows. The *Victoria in Future* population forecast for Monash predicts that the total households in the municipality will grow by 14,300 households in the 20 years from 2016 to 2036. This represents growth of 0.9 per cent per annum, which is somewhat lower than the expected growth of 1.8 per cent across Greater Melbourne.

SGS used the Housing Assistance Demand model to forecast how the need for affordable housing might change with this population growth. Three scenarios were used to capture the uncertainty in predicting the housing market in the future. The base case, or central scenario, assumes that incomes and rents grow at the same rate over the next 20 years. The optimistic scenario assumes that incomes grow faster than rents and the pessimistic scenario assumes that rents grow faster than incomes. Table 6 details the differences in these assumptions.

TABLE 6: FORECAST SCENARIO ASSUMPTIONS

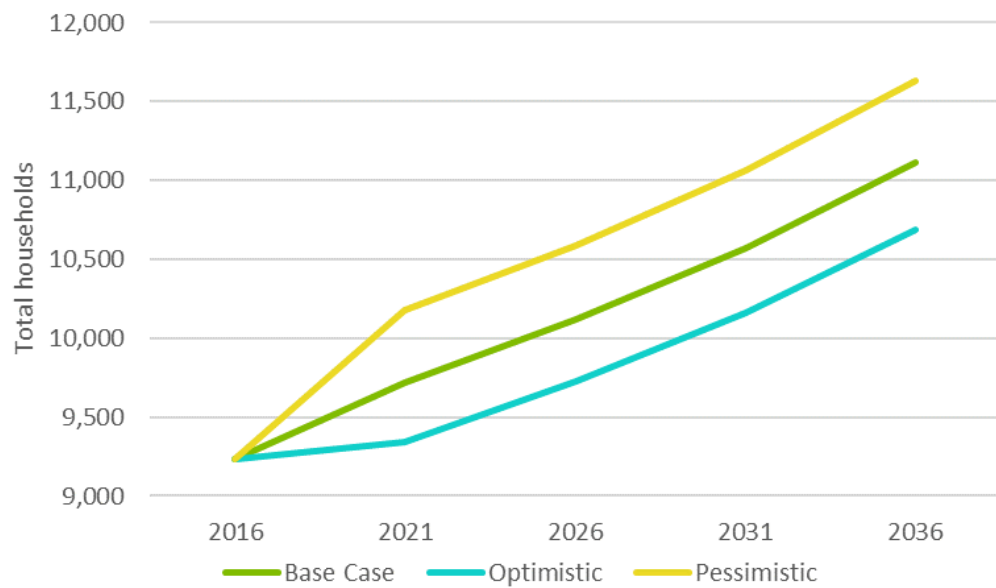
Base Case	Optimistic	Pessimistic
<ul style="list-style-type: none"> Income growth = rent growth 20-year time horizon 	<ul style="list-style-type: none"> Year 1-5: Income Growth > Rent Growth (1% pt) Year 6-20: Income Growth = Rent Growth 	<ul style="list-style-type: none"> Year 1-5: Income Growth < Rent Growth (1% pt) Year 6-20: Income Growth = Rent Growth

Source: SGS Economics and Planning

The modelling suggests that, without any intervention, the number of households in housing stress in Monash could rise from 9,230 by 20 per cent to 11,120 over the next 20 years. However, this could range from 10,690 (a 16 per cent rise) to 11,630 households (a 26 per cent rise), depending how incomes and rents change in the coming years.

Figure 7 shows the expected rise in demand for affordable housing. The scenarios diverge in the five years and then approximately rise at the same rate with population growth. This is due to the assumptions described in the table above.

FIGURE 7: FORECAST HOUSEHOLDS IN RENTAL STRESS (2016-2036)



Source: SGS Economics and Planning, Housing Assistance Demand Model 2019

Table 7 shows the breakdown of expected rental stress by household type and income. As with the 2016 results, the most vulnerable groups are lone person households and very low-income households. In the next 20 years, there could be 4,080 lone person households and 6,880 very low-income households in rental stress under the base case. Similarly, despite low numbers in housing stress, group households and one parent families are highly likely to be in housing stress, and severe housing stress in particular.

The number of people experiencing homelessness in Monash is expected to rise to 1,050 persons. SGS forecasts the number in social housing to remain stable. This is unlikely, given the current policy development and current attention at the State Government level. However, the purpose of this modelling is to build the evidence for new policy by showing the expected need without any further policy intervention. It subsequently shows a higher number of households in severe housing stress without the provision of any new social housing.

TABLE 7: HOUSING STRESS, BY HOUSEHOLD TYPE AND INCOME (2036 BASE CASE)

Category	Household	Severe Rental Stress	Moderate Rental Stress	Social Housing	Homeless	Total*
Household Type	Couple family with children	630	1,100	120	0	1,850
	Couple family with no children	690	1,020	170	0	1,880
	Group household	790	630	60	0	1,480
	Lone person household	1,370	790	870	1,050	4,080
	One parent family	580	560	370	0	1,510
	Other family	130	150	20	0	300
	Income**	Very low income***	3,200	1,020	1,610	1,050
Low income		790	2,050	0	0	2,840
Moderate income		210	1,190	0	0	1,400
Total*		4,200	4,260	1,610	1,050	11,110

*Figures may not sum to totals due to rounding

**Income follows DELWP definitions in Table 1 on p14

***All households in social housing and people experiencing homelessness are assumed to have very low income

Source: SGS Economics and Planning, Housing Assistance Demand Model 2019

5.5 Households in need of housing assistance

Further analysis of the 2016 rental stress estimates was carried out to get an indication of the need for housing assistance in Monash. This involves accounting for those that might be temporarily in stress or have high housing costs by choice. It also accounts for unformed households that are priced out of the market. Overall, SGS applies a discount to the number of households experiencing rental stress to estimate the need for housing assistance.

Rowley and Ong (2014) describe a number of reasons why households might choose housing that placed them within the technical definition of housing stress. Households may voluntarily enter a situation where they pay more than 30 per cent of their income on housing to live in a better house, live in a better neighbourhood, or live in a location where other households expenses such as transport costs are lower.

The research also notes that it is normal for some households to experience a temporary periods of housing stress. This can be due to temporary changes in circumstances such as the birth of a child, short term unemployment, or adjusting to the breakdown of a relationship. Consideration of these factors would suggest that measured housing stress, using the 30 per cent of income threshold, could overestimate the actual number of households that are likely to be experiencing housing stress in the longer term.

This should be considered alongside more recent research from the Australian Housing and Urban Research Institute (Rowley, Leishman, Baker, Bentley, & Lester, 2017). The authors suggest that there is likely to be additional demand for affordable housing from households unable to form under current market conditions. These 'unformed' households might include younger family members that would prefer to leave the parental home but cannot afford to, elderly family members that must live with other family members to have affordable accommodation, or multiple families occupying a single dwelling.

These research findings show that the prevalence of housing stress does not neatly align with the need for housing assistance. Some of the factors identified above would inflate the need and others would deflate it. On the balance of evidence, we have applied a slight discount to derive an estimate of the actual need.

The discount is applied according to household income. The reduction is shown in the third column in table below and applies to very low, low and moderate-income households in rental stress. A smaller discount (10 per cent) is applied to very low income earners than the other groups because they are more likely to experience actual stress than higher income earners.

No discount is applied to people in social housing or those experiencing homelessness since all of those households require housing assistance. These groups are subtracted from the household total for very low income.

Therefore, for 2016, SGS's estimate of the need for assistance, is **8,250 dwellings** (see Table 8 below). This is somewhat less than the 9,230 households experiencing rental stress.

The *unmet* need for housing assistance can be estimated by subtracting the existing number of social housing dwellings from this total.

For 2036, SGS's estimate of the need for assistance, is **9,960 dwellings** (see Table 9 below). Again, this is somewhat below the 11,110 households forecast to experience rental stress in 2036.

TABLE 8: NEED FOR AFFORDABLE HOUSING ASSISTANCE IN MONASH IN 2016

Household type	No. of Households	Minimum target	Need for housing assistance	Need as a % of total households
People experiencing homelessness	840	100%	840	1.2%
Social housing	1,610	100%	1,610	2.3%
Very low-income households	3,220	90%	2,900	4.1%
Low income households	2,380	85%	2,000	2.9%
Moderate income households	1,170	80%	900	1.3%
Total	9,230	n/a	8,250	11.8%

Source: SGS Economics and Planning

TABLE 9: NEED FOR AFFORDABLE HOUSING ASSISTANCE IN MONASH IN 2036

Household type	No. of Households	Minimum target	Need for housing assistance	Need as a % of total households
People experiencing homelessness	1,050	100%	1,050	1.3%
Social housing	1,610	100%	1,610	1.9%
Very low-income households	4,220	90%	3,800	4.5%
Low income households	2,840	85%	2,400	2.8%
Moderate income households	1,400	80%	1,100	1.3%
Total	11,120	n/a	9,960	11.8%

Source: SGS Economics and Planning

6. OPTIONS AND MECHANISMS

This section provides an overview of local government’s role and outlines potential options and mechanisms available to Council to meet unmet need for social and affordable housing.

6.1 Local government’s role

It is helpful to distinguish between the various roles that Council can play in influencing housing markets and housing supply.

A council’s largest and most significant role in affecting housing affordability is in **facilitating efficient housing markets**, which supply well over 90 percent of all housing. Thereafter, local government can also have a role in **facilitating** the supply of social and affordable housing. Finally, local government can also have a role in **actual provision and/or management** of social and affordable housing; that is, Council could become a social housing landlord or partner with such landlords in a material way.

This approach addresses different areas of market failure that have led to a lack of affordable housing. For most councils, the first step in correcting market failures is to address the inefficiencies in Tiers 1 and 2. Following this, some councils have extended their efforts into providing ratepayer funds or land to further stimulate the supply of affordable and social housing (Tier 3).

While this strategy focusses on facilitative measures for Council to consider as ways to address the supply of social and affordable housing, it is acknowledged that Council performs a wide variety of functions and services that contribute to maintaining and improving health and wellbeing outcomes for Monash residents. These initiatives are important for Council’s broader agenda for a well-planned, liveable city supported by infrastructure to meet future needs.

FIGURE 8: THREE-TIERED APPROACH FOR THE PROMOTION OF AFFORDABLE HOUSING



Source: SGS Economics and Planning

6.2 Tier 1: Facilitating efficient housing markets

Planning system measures

The planning system is one of the most effective tools at local government's disposal in facilitating housing market efficiency. The planning system can affect the operation of housing markets through a range of policies affecting land supply, density and mix of new housing and the development assessment processes. It is important that relevant Monash strategies and policies provide clear signals to the market. For example, reasonable and unambiguous planning rules can help to create certainty and therefore attract investment.

Land supply and availability

Ensuring there is sufficient supply of land for new housing in existing urban areas typically means providing opportunities for intensification of existing and suitable urban land or rezoning from non-residential uses where appropriate.

Planning policies and strategies

Policies that impact housing supply should be supportive of new development that contributes to an appropriate dwelling mix and the provision on new dwellings in appropriate locations.

Clear and consistent planning policies and controls are particularly important in locations where infill development is likely or desired. New developments in such areas are required to respond to various development standards, existing neighbourhood character, car parking requirements and community expectations. This combination of hurdles – each well intentioned in itself – can effectively stifle the potential for new development if not considered as a consolidated package of planning requirements.

Other key planning system measures that Council could also consider might include: addressing barriers to smaller and more affordable dwellings (e.g. mandatory parking requirements, dwelling size requirements, open space provision, etc.).

Development approvals processes

Lengthy, unpredictable or protracted development approvals processes are a barrier to housing supply. Uncertainty in approvals is a significant risk for both developers and individuals seeking to undertake new housing development. Problems with the approvals process can stem from planning department resourcing, the failure of strategic policy and statutory tools to support expeditious development assessments, or the influence of community opposition to new developments. Regardless of the causes, it is important that assessment times and uncertainties do not unnecessarily increase commercial risk and add to administrative and holding costs of development.

Infrastructure provision

Local governments are responsible for providing various types of infrastructure including stormwater drainage, local roads, and community and social infrastructure. Councils are also typically responsible for the ongoing maintenance and operation of this infrastructure.

Ensuring areas nominated for additional housing are adequately equipped with supporting infrastructure is an important element of not just the cost of providing housing, but the total cost of living in a location. Inadequate supporting infrastructure in any given location increases the cost of living and diminishes the overall efficiency of the housing market.

Information dissemination

Council can contribute to the efficiency of housing markets by providing information on trends, best practice, innovative tenures and designs to active and prospective builders and

developers. This can help ensure the type of housing that is being supplied is appropriately responding to demand.

Specific initiatives the Council may take include:

- Compiling data on housing needs including market research;
- Compiling and making available information on best practice in housing design;
- Monitoring housing outcomes; and
- Creating a 'one stop shop' (potentially online) with all information builders and developers would require, including links to relevant websites.

This work may be done in conjunction with peak bodies and other interested parties.

WHAT WE HEARD FROM COUNCIL ABOUT TIER 1

- Council already has policies and strategies in place to facilitate efficient housing markets. Current work through the Huntington and Clayton PSPs may also contribute to this.
- Council has attempted to deliver more housing diversity through its residential growth zone, however, the outcomes from that zoning have not necessarily met expectations.
- Information dissemination to the community about the benefits of affordable housing is a potential priority for Council.

WHAT WE WOULD LIKE TO KNOW

- Is Council interested in a community engagement and/or a communications strategy?
- What are the thoughts within Council on the current resident's appetite for more affordable housing in the City of Monash?
- Are there any opportunities under this tier to improve housing affordability?

POSSIBLE RECOMMENDATIONS

- Council pursue a community engagement strategy / communications strategy about the benefits of affordable housing.

6.3 Tier 2: Facilitating affordable housing supply

The second tier of considerations for Council are those that might facilitate the supply of affordable housing, this is owned and/or operated by government or Registered Housing Agencies.

Council can play a range of roles in increasing the supply of this type of affordable housing. Options include applying purpose designed planning measures, partnership mechanisms and advocacy.

Specific options include:

- Providing a clear justification for the need to intervene in the housing market to ensure adequate supply of affordable housing
- Applying purpose designed planning measures, including inclusionary provisions and value sharing arrangements to secure affordable housing (or cash contributions), and
- Brokering joint ventures and partnerships between Registered Housing Agencies and developers.

Purpose designed planning measures

In Australian jurisdictions outside of Victoria and overseas a range of mechanisms are used by local governments to leverage affordable housing supply through the planning systems. These mechanisms fall broadly into two different categories:

- Inclusionary zoning requirements that mandate a share of new development be designated as social and/or affordable housing; and
- Value sharing approaches that use land value uplift as the incentive for social and affordable housing provision.

Inclusionary zoning for affordable housing

Inclusionary requirements in planning are premised on minimum acceptable standards that must be met as a condition of planning approval, to ensure sustainable and liveable places. Examples of other forms of inclusionary requirements include on-site car parking provision, open space requirement, heritage protection, and so on. Proponents sometimes have the option of cash-in-lieu contributions to pay for off-site provision.

In the case of affordable housing, it could be argued that a minimum level of this housing is required in all communities to ensure social sustainability.

A key benefit of an inclusionary zoning approach is that it would provide certainty for developers, land owners and the community regarding affordable housing contributions.

At present, the Victorian planning framework does not provide a planning mechanism that would enable councils to require developers to provide affordable housing as an inclusionary requirement which effectively is a mandatory tool.

Council is already advocating for change through the Eastern Affordable Housing Alliance. The Alliance calls for legislation to introduce mandatory inclusionary zoning in Victoria at a rate at least 10 per cent on all surplus government land and strategic redevelopment sites

Value sharing arrangements for affordable housing

Plan Melbourne refers to inclusionary zoning and mechanisms to capture and share value created through the planning controls. To date the state government's focus has been on the latter, which implies the use of incentives to encourage developers to provide affordable housing dwellings, and voluntary as opposed to mandatory requirements, that are facilitated via planning agreements.

The premise of value capture or value sharing arrangements is that land value uplift is created by planning decisions such as re-zoning or development approvals that exceed as-of-right limits. Under these circumstances, councils can seek to capture part of this value to benefit the broader community. This is the basis for the floor area uplift (FAU) scheme in central Melbourne (Amendment C270) and the social housing/FAU scheme for Fishermans Bend (Amendment GC81).

We understand that Council is contemplating FAU arrangements in its activity centres for other types of community benefit.

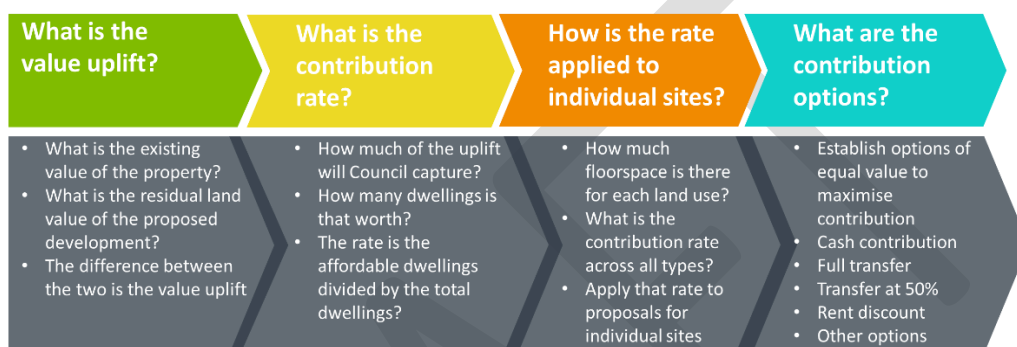
There are three potential opportunities for Council to seek affordable housing contributions based on value capture arrangements where the actions of Council result in the granting of additional development rights:

- Rezoning of larger sites that are in single/multiple ownership (e.g. from industrial to residential);
- Rezoning of entire precincts, with multiple land owners, via routine strategic planning; and
- Planning approvals that take advantage of discretion in the planning scheme to provide for increased height or density (via section 173 agreements).

The figure below outlines a high-level approach to seeking affordable housing contributions through value sharing arrangements. This is the same process that was outlined in SGS’s review of the Draft PMP Site Affordable Housing Strategy. The first step is to estimate the amount of new value created through the development proposal. The second step is apply a value sharing rate to the value uplift and work out the contribution rate across the whole development. The third step is to apply that rate to individual sites (where a multi-lot precinct development is in question). The fourth step is to establish equivalent contribution options that give the developer flexibility and can maximise the contribution amount.

If Council adopts a similar clear and transparent method, this can be clearly signalled to the development market. Developers can then price the contributions into their financial modelling and project expectations. This would make for smoother negotiations on each proposal.

FIGURE 9: APPROACH TO AFFORDABLE HOUSING CONTRIBUTIONS THROUGH VALUE SHARING



Source: SGS Economics and Planning

Partnership mechanisms

Council can play a role in brokering joint ventures and partnerships between the state government, Registered Housing Agencies and developers.

Leverage existing Registered Housing Agency assets

In partnership with Registered Housing Agencies Council can assist in facilitating the redevelopment of existing assets to realise an increased affordable housing yields, through appropriate redevelopment. This option relies on Council formulating a working relationship with the agencies active in the area, to understand their asset portfolios and capacity.

Public housing renewal

In partnership with the state government, Council can identify and facilitate opportunities to pilot new delivery models and increase the yield, diversity and/or quality of housing in existing public housing estates in Monash.

WHAT WE HEARD FROM COUNCIL ABOUT TIER 2

- Council would like to pursue affordable housing contributions through rezonings and would like guidance on a suitable process to negotiate those contributions.
- Council is less interested in seeking contributions in return for exceeding the relevant height limit.
- Council may want to develop stronger relationships with local RHAs.

WHAT WE WOULD LIKE TO KNOW

- Does Council have views on the proposed method for seeking affordable housing contributions through value sharing?
- What does Council consider to be an appropriate rate of value capture – 50%, 75% or some other figure?
- What type and format of guidance materials would help Council to negotiate affordable housing negotiations?
- Which RHAs does Council have existing relationships with?
- Are there other RHAs that they are aware of that are present in the municipality.

POSSIBLE RECOMMENDATIONS

- The strategy should outline a clear process for negotiating affordable housing contributions through rezonings.
- Council should investigate opportunities to partner with local RHAs through targeted engagement and develop a strategy to do so.

6.4 Tier 3: Investing in affordable housing

The third tier of considerations are those that include Council funded subsidies through land and rate payer investment in affordable housing provision. This would include direct investment.

Several councils across metropolitan Melbourne are currently exploring the possibility of direct investment in social and affordable housing. A role involving direct provision is far more resource intensive, and requires a skill set which covers public land management, legal agreements, contract administration and procurement.

For example, Moreland City Council is in the process of establishing Moreland Affordable Housing Ltd (MAH), a charitable entity which will operate at arm's length from council and take responsibility for the redevelopment of several parcels of council owned land.

As a charitable entity the MAH will be able to participate in innovative development and financing models.³³ This includes joint ventures with other agencies, Victorian Government and other local governments to pool other funding sources to deliver social and affordable housing outcomes on sites across Moreland.

If Council has the appetite for a more proactive role in the provision of social and affordable housing in Monash, it could pursue this via:

- Ad hoc joint ventures
- Equity investment in housing associations
- Formation of a Housing Trust

Each of these options are explored in detail below:

³³ <https://www.moreland.vic.gov.au/community-care/advocacy-services/housing-and-employment/affordable-housing/>

Ad hoc joint ventures

Joint ventures can involve a government agency or local government formally partnering with a private sector developer, housing association or other non-government organisations to develop and/or manage a housing project. Such developments often encompass mixed tenure options (a mix of social, affordable and/or private market housing).

Joint ventures can involve direct financial contributions by all parties, or, for example, through a local government 'gifting' land or air-rights to a social housing provider.

Ad hoc joint ventures apply when a local government wishes to contribute some asset or funding to the development of affordable housing, and to have the ability to influence the nature and location of a development but does not wish to have an ongoing ownership or management role.

In such ventures, Council can lead the market with its own demonstration projects. SGS would recommend that Council seek, at a minimum, 10 per cent affordable housing in any development on Council owned land. This would then at least be broadly in line with the level of need in Monash.

There is currently no clear cut method for seeking affordable housing on development of Council-owned land. Two possible options for further investigation include:

- A **competitive tender process**, whereby Council invites proposals from housing developers to bid for the rights to develop the land. Certain minimum requirements could be set, such as the suggested 10 per cent minimum affordable housing contribution, as well as other community benefits identified by Council. This process would allow the market to deliver the best outcomes for the minimum price, and may also allow for the delivery of affordable dwellings above the minimum threshold.
- A **rezoning process**, whereby Council defines the outcomes it wants to meet through the planning scheme and then sells the land to any developer willing to meet those requirements.

Equity investment in housing associations

This intervention would see Council making a long-term commitment to investing ratepayer equity in the provision of local social housing, recognising that this is important local infrastructure. It could occur via a Trust (as outlined below), or via a direct recurrent injection of capital into one or more housing associations that will be providing social housing in Monash.

The exemplar Council in this area is Port Phillip. Port Phillip has a 30-year history of involvement in the provision of social housing. The City owned and managed social housing stock from 1985 to 2006, much of which was rooming house accommodation. The City of Port Phillip Municipal Strategic Statement lists 'supporting a diversity of people across all six of its neighbourhood planning areas' as a key community goal. In meeting this goal, Council chose to become actively involved in the provision of housing to protect disadvantaged residents from rental inflation in an otherwise rapidly gentrifying municipality.

The Port Phillip Housing Association (PPHA) was established in 1985 to manage the City's housing stock. In 2006 the City of Port Phillip and the PPHA established the Port Phillip Housing Trust (PPHT). PPHA acts as the Trustee and the City of Port Phillip serves as governor of the Trust. The PPHA sought and received official registration with the Victorian Government to continue to access joint venture funding from the DHHS. The City of Port Phillip transferred the titles of 12 of its 17 social housing projects to the PPHT in 2006. In part, these reforms reflected Council's desire to divest itself of the role of housing developer.

The City has supported the PPHA (as trustee of the PPHT) with an ongoing capital injection of around \$400,000 subsidy per year, plus access to surplus Council properties for social housing projects. More recently, the City has canvassed the possibility of spreading its annual

investment to a broader range of local providers, including niche organisations geared to the needs of particular demographic groups or districts.

Housing Trust

Council could form a Trust to hold and disburse assets for social and affordable housing generated via the development approval system. The Trust could also be used to leverage contributions from community groups and not for profits, as well as any asset dedications that Council might make from time to time. The Trust would be governed and administered at arm's length from Council.

City of Hobsons Bay is currently exploring the establishment of a Housing Trust. The purpose of the trust will be to ensure monetary and/ or unit contributions from site specific negotiations are held in perpetuity for the provision of social and affordable housing. This mechanism also affords Council superior influence over where and how the funds are reinvested. It is expected the trust will be established through an EOI process in order to appoint a Registered Housing Association to take on the management and responsibility of the trust funds.

The City of Port Phillip is the first Victorian council to establish a housing trust and continues to maintain the Port Phillip Housing Trust (PPHT). The Port Phillip Housing Association has recently undergone a rebranding exercise to Housing First. This change reflects the association's coverage across several local government areas. Housing First now manages 1,194 houses and apartments across Melbourne and provides homes for 1,600 people.³⁴ The City of Port Phillip is exploring the possibility of spreading its annual investment to a broader range of local providers which may result in Council reviewing the role of the housing trust and its structure.

This option is a consideration for Monash, particularly should it be determined that Council will play a more active role in the supply of affordable housing. The establishment of a trust would allow for Council to play an oversight role in the administration of contributions.

This may be a longer-term option once Council releases its policy and sets out the way in which any equity investments may be managed in the future.

WHAT WE HEARD FROM COUNCIL ABOUT TIER 3

- Council has some sites which have development potential and could be locations for affordable housing contributions, however, Council does not have a process in place for developing those sites.
- A proposal for one site in an activity centre was abandoned by Council in lieu of a clear process for affordable housing development on Council-owned land.

WHAT WE WOULD LIKE TO KNOW

- What is the nature of the Council-owned sites? Roughly how many are there?
- Would Council be interested in the suggested open tender and/or rezoning processes?

POSSIBLE RECOMMENDATIONS

- Council develop and test a process for developing appropriate Council-owned sites for affordable housing outcomes.

³⁴ <https://housingfirst.org.au/news/287-port-philip-housing-association-new-name-and-new-office>

APPENDIX 1: DEMAND FORECAST METHODOLOGY

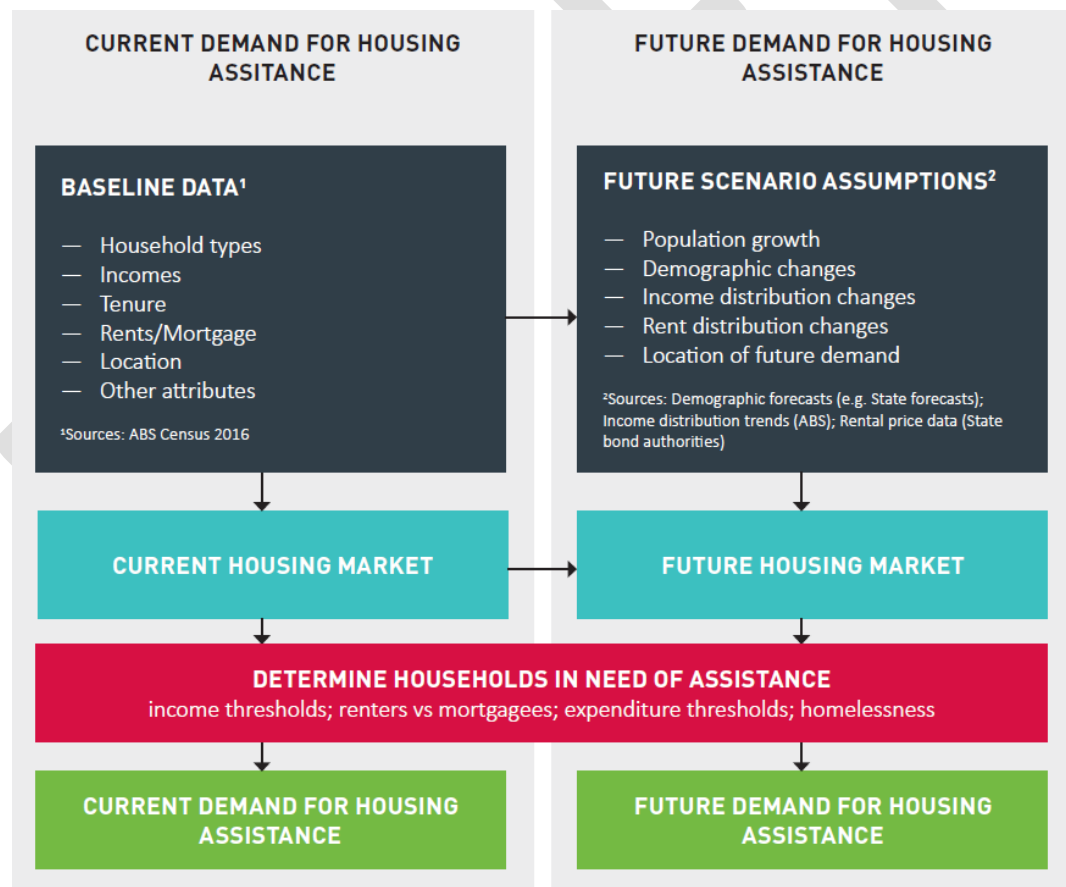
Overview

The SGS Housing Assistance Demand Model measures the number of households who currently need affordable housing, segmented by demographic and spatial variables, and forecasts the evolution of this need subject to factors such as expected population growth, demographic shifts, changes in household incomes, and the evolution of rental rates.

The model uses the following key datasets:

- ABS Census 2016. A detailed list of ABS Census data appears in Table 11
- 2016 ABS estimation of homelessness (cat 2049.0)
- Forecasts of household by type – Victoria in Future 2016

FIGURE 10: HOUSING ASSISTANCE DEMAND MODEL OVERVIEW



Source: SGS Economics & Planning

Methodology

The structure of the Housing Assistance Demand model follows three key steps:

- Preparation of an initial market state, based on 2016 ABS Census data
- Evolution of the market state over time, based on user-defined assumptions (e.g. changes in household incomes and rents)
- Query for the count of households in need of affordable housing

Initial market state

An initial market state is prepared using 2016 ABS Census data, and household forecast data (VIF 2016 and City of Melbourne forecasts). The main data inputs are 2016 census data, which is used to prepare a detailed attribute-by-attribute market state distribution. Household forecast data provides control totals against which the market state is adjusted, ameliorating systematic errors in Census data (e.g. undercount). The attributes necessary to identify financial stress appear in Table 10.

TABLE 10: CENSUS ATTRIBUTES

Variable	Use
Weekly rent	Weekly rent is used to identify households spending a large proportion of their income on rent.
Weekly household income	Weekly household income is used to identify households spending a large proportion of their income on rent.
Household type	Lone person, Group household, or several family sub-types. The appropriate housing response for households in need of SAH will vary based on household type.
Tenure type	Used to differentiate between home-owner households, rental households, social housing households, and households with no tenure types (includes homeless households).
LGA	Spatial component used to show distribution of SAH demand across NSW
Weekly equivalised income ³⁵	Equivalised income converts household income to a 'Lone-person household equivalent' income. This allows for the incomes of different household types to be compared, which is necessary in order to identify 'low income' households. Use of equivalised income in such a way is an OECD ³⁶ standard.

Source: SGS Economics & Planning, 2018

Ideally, census data could be obtained to identify the number the households fitting any criteria with any given set characteristics. However, for reasons of privacy, ABS products will not provide accurate data where the number of persons fitting a category is small, returning a small random number instead. Because of the detailed breakdown, using ABS Census Table Builder to obtain a cross tabulated table with all the variables listed above returns unreliable numbers.

Therefore, one must collect data more carefully and build a quintuple-attribute model, at an LGA level, in a more sophisticated manner than a simple query of ABS data. The data tables in Table 11 were obtained from ABS Census Table Builder and used in the preparation of the market state.

³⁵ Despite being included, this is an unused variable for the purpose of this analysis, as income thresholds are defined based on total household income and not income percentiles (the 40th income percentile is a common alternative)

³⁶ Organisation for Economic Cooperation and Development

TABLE 11: CENSUS 2016 INPUT DATA TABLES

Single attribute tables	Double attribute tables
<ul style="list-style-type: none"> ▪ LGA by HCFMD Family Household Composition (Dwelling) ▪ LGA by TENLLD Tenure and Landlord Type ▪ LGA by RNTRD Rent (weekly) Ranges ▪ LGA by HIND Total Household Income (weekly) ▪ LGA by HIED Equivalised Total Household Income (weekly) 	<ul style="list-style-type: none"> ▪ LGA by HCFMD Family Household Composition (Dwelling) and HIED Equivalised Total Household Income (weekly) ▪ LGA by HCFMD Family Household Composition (Dwelling) and RNTRD Rent (weekly) Ranges ▪ LGA by HCFMD Family Household Composition (Dwelling) and RNTRD Rent (weekly) Ranges ▪ LGA by HIND Total Household Income (weekly) and HCFMD Family Household Composition (Dwelling) ▪ LGA by HIND Total Household Income (weekly) and HIED Equivalised Total Household Income (weekly) ▪ LGA by HIND Total Household Income (weekly) and RNTRD Rent (weekly) Ranges ▪ LGA by HIND Total Household Income (weekly) and TENLLD Tenure and Landlord Type ▪ LGA by RNTRD Rent (weekly) Ranges and HIED Equivalised Total Household Income (weekly) ▪ LGA by TENLLD Tenure and Landlord Type and HCFMD Family Household Composition (Dwelling) ▪ LGA by TENLLD Tenure and Landlord Type and HIED Equivalised Total Household Income (weekly) ▪ LGA by TENLLD Tenure and Landlord Type and RNTRD Rent (weekly) Ranges

A model of the market state is prepared at a local government area level, using a process called iterative proportional fitting (statistics), or the RAS algorithm (economics). This process is described in the breakout box below.

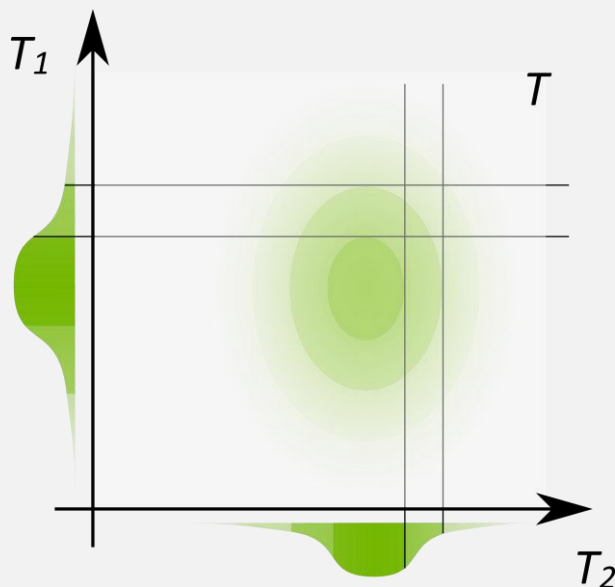
The goal is to use the 10 double-attribute and 5 single-attribute tables to prepare a seed for the 4-attribute target table. This is performed LGA by LGA. The process is as follows:

1. Scale all tables listed in Table 11 so that each sums to 1.
2. As a preliminary step, for each double-attribute table, use the RAS algorithm to align it to the margins provided by the two corresponding single-attribute tables. This is a necessary to ensure consistency needed in the following steps.
3. Prepare a collection of 5-attribute tables by combining two double-attribute tables and one single-attribute table, without repeating factors. For instance
 - LGA by HCFMD Family Household Composition (Dwelling) and HIED Equivalised Total Household Income (weekly)
 - LGA by TENLLD Tenure and Landlord Type and RNTRD Rent (weekly) Ranges
 - LGA by HIND Total Household Income (weekly)
4. Take the average of all these tables, to produce one 5-attribute table that combines all the data input tables. This is the seed for the following step.
5. Use the table prepared in step 3 as the seed in a final use of the RAS algorithm. In this step, the 10 double-attribute tables adjusted in step 2 are the margins against which the seed is aligned.
6. The output of step 5 is a five-attribute data table that aligns with all tables in Table 11
7. As the census household types do not align with the VIF family types, the 5-attribute table output above is aggregated to align with the household types in that publication.
8. The five-attribute table is scaled (by household type) to align to the control totals of VIF 2016. This gives the data of the market state for a given LGA in 2016.

THE RAS ALGORITHM

The RAS algorithm is a process for building an unknown n -dimensional table T of positive numbers, given known tables T_1, T_2, \dots which form margins of T (i.e., totals along various axes of T). It is a generalization of the method of using “control totals” to align data. An illustration of the output of the RAS algorithm is presented in Figure 11.

FIGURE 11: OUTPUT OF THE RAS ALGORITHM



The process is simple in the case when T is a two-dimensional table (i.e., as in a spreadsheet) with rows and columns. Say, T_1 are the row-totals of T , while T_2 are the column totals of T .

1. Begin with an initial “seed” for T . For the sake of this example, assume T is a table of 1s.
2. Scale each row of T such that it matches the row total as per T_1 .
3. Scale each column of T such that it matches the column total as per T_2 .
4. Iterate through steps 1 and 2 repeatedly until T stabilizes sufficiently.

Under reasonable conditions for T , this process is guaranteed to stabilise.

However, while the resulting table for T will align with both T_1 and T_2 , difference in choice of seed can result in considerably different output for T , as seen in Figure 11

Future market state

Time evolution of the market state is inspired by a Markov-like process: a household with certain attributes (a) in year y may become a household of another type (a') in year $y+1$, occurring with a certain probability. Global parameters in the Model, determine those probabilities.

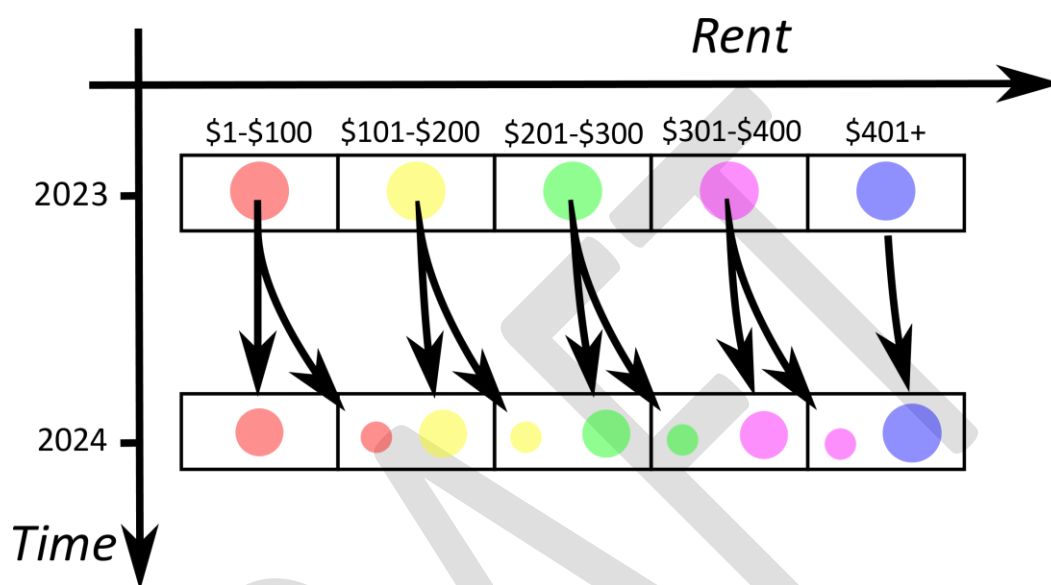
The implemented model differs from a true Markov process in two ways:

- It is deterministic – the large volume of households tracked means probabilistic effects are washed out in practice.
- To make the Model more intuitive, household rent increases over time in alignment with global assumptions, rather than in a distributional manner.

Additionally, new households are added to the existing market state in alignment with existing household projections. These new households are assigned to the market in proportions matching the existing market state.

Scenario-defined parameters specify how the state of the market steps forward in time. In each time step, households are re-allocated to other attribute sets based on their initial set of attributes. This process is portrayed in Figure 12. For this analysis, it is assumed that there will be **no future change in the relative distribution of rents and incomes** (i.e. transition process depicted in Figure 12 does not allow for changes in category)

FIGURE 12: ATTRIBUTE REALLOCATION



Query of financial stress

Finally, for each year in the forecasting period, households with attributes that fit the criteria of a household in need of affordable housing are identified and counted.

To understand the definition of demand for social and affordable housing, consider first the base year of 2016. A household is considered if it falls within any of the following categories:

- Rental stress - The household income is below a certain threshold (defined further below) and the proportion of income spent on rent is above a certain threshold
- Very low income households in rental stress (paying over 30 per cent of income on rent)
- Low income households in rental stress (paying over 30 per cent of income on rent)
- Moderate income households in rental stress (paying over 30 per cent of income on rent)
- Social housing - The household resides in social housing, indicating that they would be in financial stress were it not for this assistance. This implicitly assumes that these are very low income households.
- Homeless or no tenure - The household is homeless, indicating that they need of affordable housing despite not experiencing rental stress. This implicitly assumes that these are very low income households.

The model identifies households that comprise demand based on their attributes (weekly rent, weekly household income, household type, and tenure type). The query of the above categories from the initial market state is as follows:

- Rental stress - Weekly rent and weekly household income are used to compute whether a household earns a moderate income or lower, and the proportion of income spent on rent³⁷.
- Social housing – The tenure and landlord type of the household is defined as either ‘Rented: State or territory housing authority’ or ‘Rented: Housing co-operative, community or church group’
- Homeless or no tenure – This group consists of households who are not counted in either of the previous categories but are nonetheless in financial stress. They are most commonly ‘homeless’ individuals who were residing in non-private dwellings (boarding houses or supported accommodation with no tenure). To account for this category, the Model incorporates an external estimate of these individuals (assumed to be lone person households) and adds them to the query of the two other categories. This external estimate draws on the ABS Homelessness Estimate (Cat. 2049.0), and is defined as the sum of:
 - Homeless persons in ‘Improvised dwellings, tents or sleeping out’
 - Homeless persons in a ‘Hostel for homeless, night shelter, or refuge’³⁸
 - Homeless persons staying in boarding houses

In forecast years, the Model queries the number of households in rental stress based on the same attributes, which have evolved due to population growth and various user-defined assumptions. When considering the ‘social housing’ and homeless or no tenure’ categories, it is important to note that the Model does not forecast changes to the social housing supply or the incidence of homelessness. Rather, it ensures that the individuals in these categories are represented in the query of demand for affordable housing.

WHO ARE VERY LOW, LOW AND MODERATE INCOME HOUSEHOLDS?

The annual household income ranges for all households across Melbourne are shown in the table below.

Household	Very Low Income	Low Income	Moderate Income
Couple family with children	Up to \$52,940	\$52,940 to \$84,720	\$84,720 to \$127,800
Couple family without children	Up to \$37,820	\$37,820 to \$60,520	\$60,520 to \$90,770
One-parent family	Up to \$52,940	\$52,940 to \$84,720	\$84,720 to \$127,800
Other family*	Up to \$52,940	\$52,940 to \$84,720	\$84,720 to \$127,800
Group household**	Up to \$37,820	\$37,820 to \$60,520	\$60,520 to \$90,770
Lone person	Up to \$25,220	\$25,220 to \$40,340	\$40,340 to \$60,510

Planning and Environment Act, Section 3AA(2)

* Other family set equivalent to couple family with children

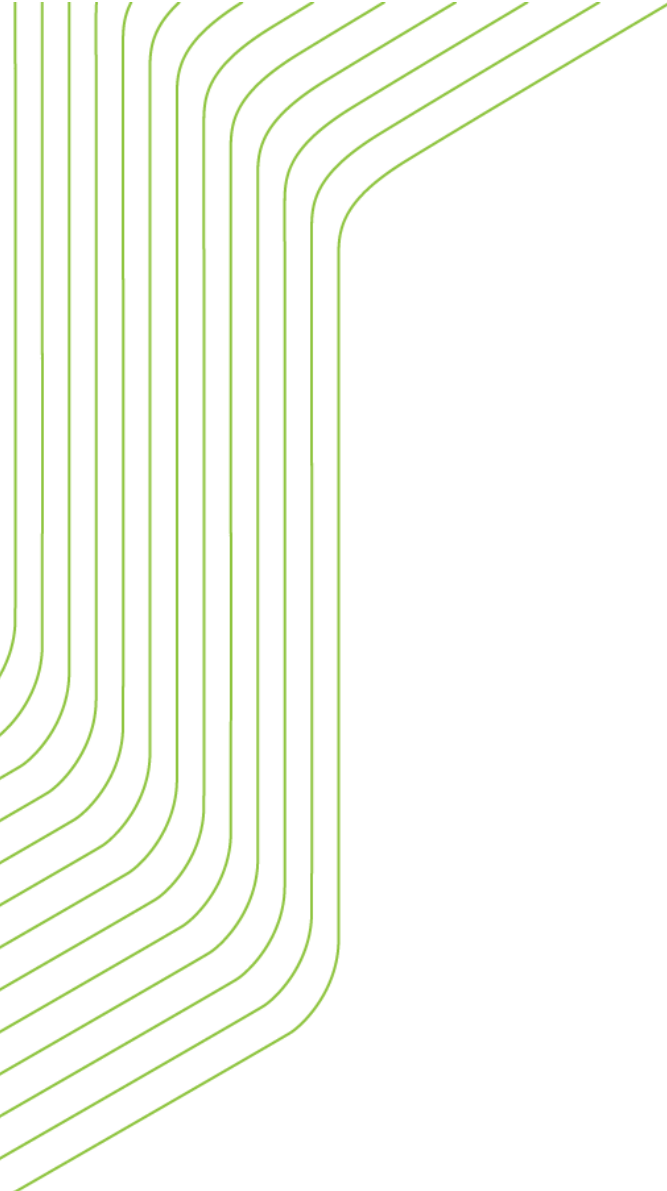
** Group household set equivalent to couple family without children

To contextualise these income ranges, consider the annual income for the following key worker occupations (only applicable to lone person households)

- **Moderate-income:** Music professionals (\$46,000), Registered nurses (\$60,000)
- **Low-income:** Commercial cleaners (\$33,000), Aged and disabled carers (\$39,000)
- **Very low-income:** Café workers (\$21,000)

³⁷ Note that some households may not be counted as being in rental stress due to them receiving assistance (i.e. rental assistance). However, data limitations at the time of analysis did not permit this to be accounted for, as the proportion of households who both receive rental assistance and remain in rental stress can't be determined

³⁸ Differs to ABS homelessness estimate definition, which includes persons in private dwellings which were identified as being used for ‘supported accommodation’. However, these households should be captured under the second category (social housing) of the module



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