Ballarat's Future Housing Needs: 2021-2041

SGS Draft report

City of Ballarat

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Background

The purpose of this Housing Needs Study is to provide detail on how much housing is needed to support the future population of Ballarat. Updated projections of the number of Ballarat residents have been modelled to account for potential changes driven by responses to the COVID-19 pandemic, and to account a degree of uncertainty with respect to future growth trajectories.

Based on population projections, forecasts of housing demand have been modelled. These projections provide estimates of different types of housing that will be demanded into the future and can be used to inform future planning decisions.

Policy context

Ballarat is identified as a 'major regional city' in state and regional planning policy and is promoted as a place for focused population growth and Victorian Government investment. It is expected that Ballarat will continue to strengthen its existing role as a services hub for the western regions of Victoria.

Critically, Clause 11.02-1S of the Planning Policy Framework sets a statutory obligation for local governments to accommodate projected population growth over at least a 15-year period. The City of Ballarat's long-term strategic plan, *Ballarat Strategy 2040,* seeks to respond to these state-level directions by identifying high level strategies to accommodate the projected growth. This overarching policy framework is supported by a suite of strategies and plans that identify preferred places for housing growth, including both greenfield and urban renewal locations.

To ensure that the local housing policy framework in the Planning Scheme meets the housing needs of the community over the long-term, Council is currently undertaking a body of strategic work that will culminate in the preparation of the Ballarat Housing Strategy.

Housing supply in 2021

The 2021 Census recorded 50,204 dwellings in Ballarat (both occupied and unoccupied). The stock of housing in Ballarat has grown steadily over time, increasing by 14,049 dwellings between 2006 and 2021 at an average rate of 2.2 per cent per annum.

FIGURE 1: TOTAL DWELLING SUPPLY, CITY OF BALLARAT, 2006 TO 2021
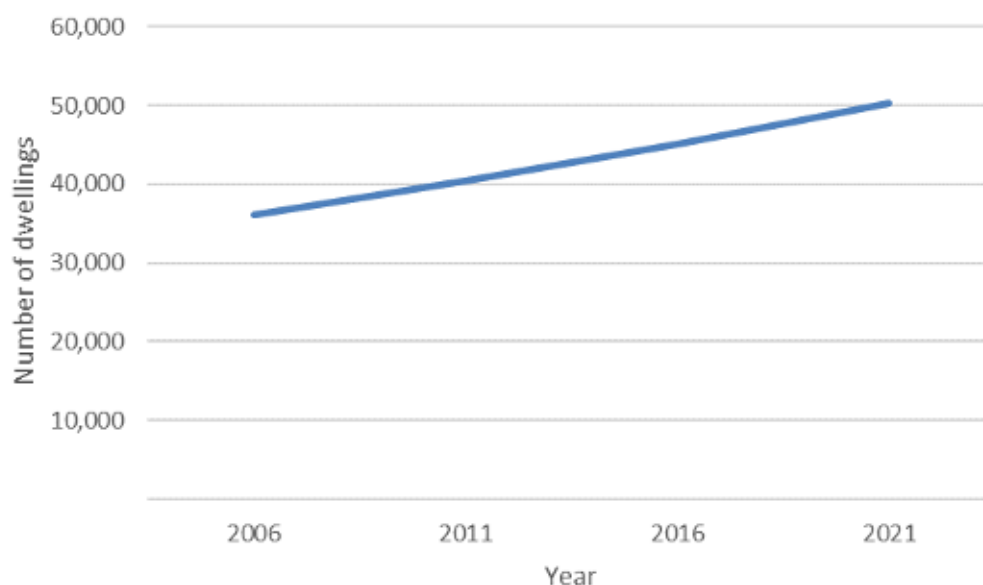
Source: ABS (2016) and City of Ballarat (2021)

Inconsistencies in data collection across Census years make an exact estimate of shifts in housing stock by dwelling type difficult (particularly in counting non-separate dwelling types). However separate houses comprise the largest share of total dwellings in the LGA, albeit a declining share over time.

TABLE 1: DWELLING TYPE, BALLARAT LGA, GROUPED, 2006, 2011, 2016 AND 2021

DWELLING TYPE	2006	2011	2016	2021	CHANGE 2006-2021	AAGR
Separate house	30,679	34,355	36,706	42,262	11,583	2.2%
Non-separate dwellings*	5,211	5,771	8,150	7,744	2,533	2.7%
Other	265	226	203	198	-67	-1.9%
Total	36,155	40,352	45,059	50,204	14,049	2.2%

Source: ABS Census (2006, 2011, 2016 and 2021)
Note: *Combining attached dwelling, flat, units and apartments dwelling classifications

Population projection scenarios to 2041

The Victorian Government's most recent official Victoria in Future (VIF19) projections pre-date the COVID pandemic and release of the 2021 Census. Therefore, three population projections have been prepared to demonstrate possible long run population growth trends for use as an input into housing demand modelling, accounting for recent population trends. These are:

- **Low growth scenario:** This scenario leverages the Victorian Government's official Victoria in Future population projections as the basis for updated population estimates to 2041, rebased to the 2021 Census.

- **Moderate growth scenario:** This scenario draws on historical growth rates and Centre for Population commentary on long-run growth rates for regional Victoria.

- **High growth scenario:** This scenario reflects a situation in which the recent high population growth experienced in Ballarat in 2021/2? is sustained over the long term to 2041.

Together, these population scenarios result in a forecast range of between 43,423 and 57,947 additional residents in Ballarat by 2041.

TABLE 2: POPULATION PROJECTIONS, BY SCENARIO, 2021-2041

POPULATION	2021	2041	CHANGE	CHANGE (%)	AVERAGE ANNUAL GROWTH RATE
Low Scenario	113,482	156,905	43,423	38%	1.6%
Moderate Scenario	113,482	163,897	50,415	44%	1.8%
High Scenario	113,482	171,429	57,947	51%	2.1%

Source: SGS Economics and Planning (2023)

The population of Ballarat is expected to age over time, albeit those under 40 will continue to comprise the largest share of the total population.

With regard to household group formation, all family groups are projected to increase over the time period across all three scenarios. Lone person families are expected to experience the largest total increase of all family types and will continue to represent the largest share of all household types to 2041. Couples with children increase in outright terms but decrease as a share of all family types.

Dwelling demand to 2041

These combined effects of population growth and demographic changes are projected to result in demand for between 22,254 and 28,961 additional dwellings to 2041. Separate houses will maintain the largest share of dwellings demanded in the future; however this type of housing will represent a declining share of total housing stock to 2041.
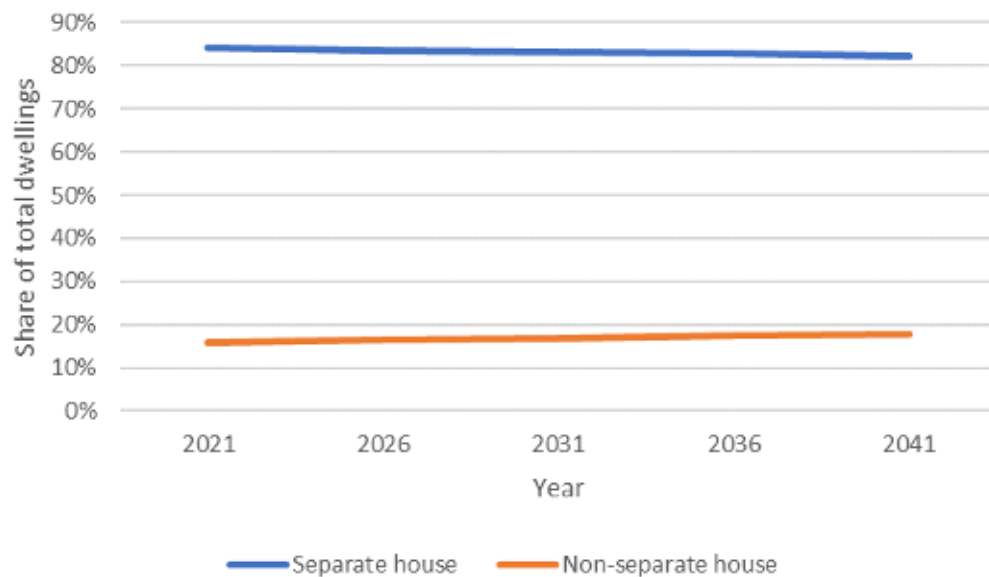
Source: SGS Economics and Planning (2023)

Housing preference scenarios

The baseline housing preferences in this study are modelled using historical trends, but this is heavily influenced by supply from the housing market. Two alternative housing preferences scenarios have been prepared with reference to:

- Research demonstrating a mismatch between extant housing supply and the housing people might choose if a greater diversity of stock were provided.

- Council's policy aspiration for a 50:50 split of dwelling growth between established area and greenfield development by 2041 (from the current split of approximately 30:70).

These alternative housing scenarios show that if the locations of future housing supply were to shift is response to resident preferences for diverse housing in established areas and Council's policy aspirations, a greater number of non-separate and smaller (two bedrooms or less) will be needed.

Conclusion

The analysis and forecasts in this report document a range of reasonable population and housing scenarios that should inform future strategic planning processes, namely the development of the Ballarat Housing Strategy.

It has been shown that population growth and underlying demographic shifts could result in future demand for between 22,254 and 28,961 dwellings to 2041.

Estimates of dwelling mix in the base dwelling demand scenarios reflect past trends in housing choices. However, research indicates that these revealed housing preferences may reflect constraints on housing choices in the Ballarat housing market.

Policy settings that enable and encourage the provision of a greater diversity of housing stock in Ballarat, particularly in established areas of the City, may result in demand for a greater diversity of housing stock, in terms of type and size, provided they can meet the needs of households in terms of affordability.

1. Introduction

Ongoing growth in resident numbers and a changed landscape due to the COVID-19 pandemic has meant that Council has had to reconsider future housing requirements to meet the minimum 15 year supply of residential growth set out in State policy. Changes to forecasts of resident numbers and housing demand will have important implications for future planning decisions.

1.1   Background

The City of Ballarat is committed to supporting the delivery of sustainable housing outcomes across the municipality over the long term. Critically, Clause 11.02-1S of the Planning Policy Framework sets a statutory obligation for the City of Ballarat to accommodate projected population growth over at least a 15-year period. Achieving this requires consideration of the quantity and types of housing that will be needed to support the city's growing and changing population into the future.

Direction 6.2 of the Victorian Governments metropolitan strategic plan, *Plan Melbourne 2017-2050,* seeks to rebalance the state's population growth from Melbourne to rural and regional Victoria over the life strategy. The *Central Highlands Regional Growth Plan 2014* further supports this vision by identifying Ballarat as a primary location for population and employment growth outside of Melbourne.

The City of Ballarat's long-term strategic plan, *Ballarat Strategy 2040,* seeks to respond to these state-level directions by identifying high level strategies to accommodate the projected growth. The Ballarat Strategy, however, does not provide detailed guidance as to changes required to land use planning controls in the Ballarat Planning Scheme to accommodate projected housing demand.

To ensure that the local housing policy framework in the Planning Scheme aligns with the objectives of Plan Melbourne and the Regional Growth Plan, and meets the future housing needs of the community, Council is currently undertaking a body of strategic work, culminating in the preparation of the Ballarat Housing Strategy.

The Ballarat Housing Strategy will integrate the findings of the Neighbourhood Character Assessment and other strategic work, and will include proposed changes to Ballarat's residential zones and associated planning scheme policies.

1.2   The impact of COVID-19

COVID-19 and our societal response to the pandemic has a number of important implications for housing demand. Changes to migration have arguably been the most significant, with international migration having all but stopped since March 2020 as international borders closed. This has meant that population growth and housing demand growth driven by international migration has largely ceased.

Working from home arrangements in response to lockdowns have meant that people's needs and wants with regard to housing have changed, with people increasingly seeking more rooms in their

homes. Furthermore, many residents have become more willing to trade proximity to work for home size and location, given a reduced need to commute. Outer city and regional house prices and rents have increased in response.

The Victorian Government responded to the pandemic with a variety of new policies aimed at stimulating the economy in reaction to the pandemic related economic downturn. One example that has important implications for housing demand is the *Big Housing Build* program, which aims to deliver substantial social and affordable housing for the state and revitalise some of the existing stock. The total program is forecast to cost $5 billion, a minimum 25 per cent of which is to be spent in regional Victoria. Ballarat has been guaranteed one of the largest shares of this, with a minimum of $80 million to be spent on social housing in the area. Despite significant funding, the Big Housing Build does not guarantee that there will be a net increase in social and affordable housing stock.

Given these factors will significantly shape future housing demand, it is important that expectations of future housing growth are reviewed and adjusted. This includes reconsidering population and demographic projections for the City of Ballarat local government area (LGA) and adjusting housing demand projections to meet these potential changes.

1.3   Purpose

The purpose of this Housing Needs Assessment is to provide a key input to the development of the Ballarat Housing Strategy. It provides guidance on how much housing is needed in Ballarat, based on projected population growth, to 2041. The assessment considers the implications from factors such as population and household formation trends, existing housing supply, housing type (such as detached houses, semi-detached houses, or units/apartments) and housing size (number of bedrooms).

To generate the housing needs assessment, SGS has estimated future dwelling demand in Ballarat with the SGS Housing Demand Model. The model estimates *revealed* demand for dwelling types by analysing the likelihood (or propensity) of various age groups forming different household types, and then the likelihood of those household types residing in different dwelling forms based on past trends.

Five key scenarios are generated with the Housing Demand Model:

- Three housing demand scenarios utilising low, moderate high population growth scenarios which account for uncertainty with respect to future growth trajectories in Ballarat.

- Two alternative housing preference scenarios, which leverages recent research demonstrating that a lack of appropriate housing options in Ballarat limits people's housing choices, and demonstrate the dwelling mix required to move towards Council's policy aspiration 50 of future housing development in established areas of the City.

The substantive sections of this report are structured as follows:

- **Section 2** reviews relevant policy and strategy documents to gain an understanding of the policy environment impacting upon the provision of housing in the City of Ballarat.

- **Section 3** covers the population projection scenarios modelled for Ballarat, which form the core of the housing demand forecasts.

- **Section 4** examines supply of housing in the Ballarat local government area.

- **Section 5** contains results of housing demand modelling for Ballarat, including identifying how many of each kind of dwelling are likely to be required into the future.

- **Section 6** examines three housing preference scenarios that address different housing mixes required to better meet the long-term housing needs of Ballarat residents and move towards Council's policy aspiration for the locations of future housing growth.

- **Section 7** provides a conclusion with a brief overview of findings and an outline of potential implications.

1.4 Data definitions and geographies

In this report, dwellings are categorised into four types which are defined by the Australian Bureau of Statistics (ABS) and used in the Census and other statistics. These categories are:

- **Separate house** means a dwelling which is not attached to any other dwelling and is structurally independent. In planning instruments these are called single dwellings.

- **Attached/semi-detached dwellings** are attached on one or more walls, such as semi-detached, terraced and villa-style housing. In planning instruments these are called dual occupancies, semi-detached dwellings, attached dwellings and multi-dwelling housing.

- **Flats or apartments** are dwellings sharing vertical as well as horizontal walls. In planning instruments these are called shop-top housing and residential apartments.

- **Other dwellings** are dwellings that fall outside of the above categories, they include caravans and cabins, improvised dwellings such as tents, houseboats and flats attached to shops or any non-residential structure.

This categorisation refers only to *private dwellings,* which are those in which only a single household life. Ballarat also contains *non-private dwellings* in which more than a single household lives or in which people do not live in traditional households. These dwellings include boarding houses, student accommodation and aged care facilities. Secondary dwellings and granny flats, otherwise referred to as dependent persons units, are inconsistently classified and may not be accurately counted in the ABS Census or in the above categories.

2. Policy review

Victorian Government has provided a series of policies that direct investment into regional areas, with a significant proportion of this allocated to Ballarat. These investments will have an impact on the liveability and attractiveness of Ballarat to current and future residents. The City of Ballarat has responded to this with a variety of strategic plans and strategies.

2.1   State planning policy

Planning Policy Framework

The Victorian Planning Provisions (VPP) establish the policy framework for planning practice in Victoria. Clause 11 of the VPP promotes the sustainable growth and development of Victoria to deliver choice and opportunity for all Victorians through a network of settlements. This clause also promotes focused investment in places of state significance, including in Ballarat which is identified as a 'major regional city', along with Bendigo, Geelong, Horsham, Latrobe City, Mildura, Shepparton, Wangaratta, Warrnambool and Wodonga. The planning policy framework outlines that Ballarat, as a major regional city, is expected to "provide for growth in population and development of facilities and services across a regional or sub-regional network".

Clause 11 is informed by several relevant background policy documents, including the *Central Highlands Regional Growth Plan.* This regional policy supports Ballarat as the main centre for regional growth, services and employment. Ballarat's Central Business District is identified as the primary focus for commercial, retail and service activity in the city and region, supporting urban consolidation. The Ballarat West Growth area is positioned to primarily accommodate new residential growth.

Plan Melbourne 2017-2050

Plan Melbourne 2017-2050 is the Victorian Government's plan to guide population growth and investment in Victoria over the long term (35 years). The plan primarily comments on desired future land use and development outcomes in metropolitan Melbourne, however, does address growth and change in regional Victoria at a high level.

In particular, the plan highlights that between 2011 and 2031, regional Victoria's most populous municipalities – Greater Geelong, Greater Bendigo and Ballarat – are projected to account for 50 per cent of all population growth outside of Melbourne. In response, Plan Melbourne supports infrastructure and services investment to assist in rebalancing.

Directions and strategies relevant to planning for housing in Ballarat include:

> ### Direction 7.1 Invest in regional Victoria to support housing and economic growth
>
> *Investing in regional Victoria will support housing and economic growth and bring significant social and lifestyle benefits to regional communities.*

The Victorian Government will:

- *Work with the nine Regional Partnerships and local governments to support the growth of housing and employment in regional cities and towns.*

- *Ensure the right infrastructure and services are available to support the growth and competitiveness of regional and rural industries and their access to global markets*

An addendum to *Plan Melbourne 2017-2050* was released in 2019. This document provides an update on Melbourne's projected population, housing and employment growth (superseding the projections set out in Plan Melbourne). It also provides an update on key land use and transport planning that has occurred since 2017 that advance the achievement of Plan Melbourne outcomes and directions (namely the Suburban Rail Loop). There document does not contain policy relevant to planning for future housing needs in Ballarat.

Ballarat GovHub project

Development Victoria have led the development of a new government office within the Civic Hall Site in Ballarat CBD in partnership with Regional Development Victoria, the Department of Premier and Cabinet and City of Ballarat. With funding from the Victorian Government in the order of $47 million, the GovHub has the capacity to accommodate up to 1,000 public sector employees from government agencies.[1] This includes Regional Development Victoria, Department of Education and Training, Department of Justice and Community Safety, State Revenue Office, VicRoads and Services Victoria.

The project aligns with the Victorian Government's broader plans around decentralisation and addressing the professional job and salary discrepancies across the regions. The project's aim is to relocate 600 public sector jobs from Melbourne to Ballarat.[2] The project was completed and opened in April 2021.

The pandemic response

In May 2020, the Victorian Government announced a $2.7 billion Building Works package in response to the COVID-19 pandemic, as well as the 2019-20 summer bushfires. The funding from this package has been allocated to a variety of new projects across Victoria including housing, education, community and tourism projects, suburban revitalisation, upgraded roads, freight routes and agricultural supply chains. Over half of the projects emerging from this funding package are located in regional and rural Victoria.[3] One of the key components of the Building Works package is the allocation of $1.18 billion to

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[1] Development Victoria (2022) *Ballarat GovHub*, https://www.rdv.vic.gov.au/grants-and-programs/victorian-govhubs/ballarat-govhub
[2] Peck (2021) *GovHub opens in Ballarat as Victoria moves to decentralise public sector workforce*, https://www.abc.net.au/news/2021-04-21/100-million-dollar-public-sector-office-opens-in-ballarat/100084196
[3] Regional Development Victoria (2021) *Building Works package to create jobs and drive our state's recovery*, https://www.rdv.vic.gov.au/resources/coronavirus/building-works

fund education infrastructure projects across the state. This includes repairing ageing buildings, providing extra classrooms and building new schools. Within Ballarat, the schools that will share $39 million of the total funding are Delacombe Primary School, Miners Rest Primary School, Ballarat High School and Phoenix P-12 Community College. It is estimated that the education infrastructure projects will create space for over 21,000 additional students across Victorian schools.[4]

Increasing the capacity of local schools could have an impact on housing supply and demand, with more families seeking to locate in proximity. This includes a need for rental housing that is affordable and accessible to support families and employment growth in the regions. While this relationship has not been specifically outlined by the Victorian Government, a need for increased and improved housing has also been addressed in response to the pandemic, through the Big Housing Build package. This project seeks to increase the supply of social and affordable housing and is being led by a newly established organisation, Homes Victoria. Twenty-five per cent of the total number of new dwellings are estimated to be located in regional Victoria, amounting to around $1.25 billion. An aim of the Big Housing Build is to provide a Minimum Investment Commitment to regional local government areas that are experiencing high population growth or have a significant regional city. Ballarat is one of the 18 selected local government areas, and has been allocated a Minimum Investment Guarantee of $80 million.[5] To date the program has funded 74 projects, and completed 128 homes with 232 underway.[6]The project expected to reach completion in 2024.

2.2   Local policy

Ballarat Planning Scheme

The Ballarat Planning Scheme identifies Ballarat as a 'regional centre', servicing people from surrounding rural areas, particularly those to the west. Major retail, health and education facilities are listed as the City's primary attractors, along with its significant history, character, and lifestyle.

The Planning Scheme notes that Ballarat attracts many people from the Melbourne metropolitan area, including families seeking more affordable housing with good access to employment opportunities and better lifestyle choices. It anticipates that Ballarat's population will grow from 100,000 in 2014 to approximately 160,000 by 2040, making Ballarat one of Australia's fastest growing inland centres.

The Planning Scheme includes a vision of Ballarat as:

- *A successful community that has built its future on its beautiful city and great lifestyle*

- *A proud community that has retained its unique sense of identity*

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[4] Premier of Victoria (2020) *Building Works: Better Schools in Education Jobs Blitz,*
https://www.premier.vic.gov.au/building-works-better-schools-education-jobs-blitz
[5] Homes Victoria (2021), *Regional investment,* https://www.homes.vic.gov.au/regional-investment
[6] Homes Victoria (2023), What's happening in my area? https://www.homes.vic.gov.au/whats-happening-my-area#ballarat

- *A desirable city that we love to live and work in, with excellent facilities and services*
- *A friendly city where the sense of community is a daily cornerstone of our life*
- *A healthy and safe community that supports and values its residents.*

The Ballarat West Growth Area is acknowledged as the primary greenfield development location. Other medium- to long-term greenfield investigation areas are identified within the Planning Scheme, each requiring a detailed feasibility assessment to determine the potential for development.

'Ongoing Change Areas' and the municipality's smaller townships are identified for incremental change; change that responds to valued character and community visions identified through local area planning processes.

Ballarat Strategy 2040

Today Tomorrow Together: The Ballarat Strategy 2040 is the city's long-term plan for Ballarat. This strategy was released in 2015 and is undergoing a review in response to the findings of this housing needs assessment and the implementation framework.

The strategy identifies that Ballarat's population will increase, age and diversify over the period from 2015 to 2040 and that family structures will be different. In turn, there will be a greater demand for semi-detached and unit type homes.

Ballarat Council Plan 2021 – 2025

The Council Plan envisions Ballarat, Victoria's heritage city, as a leader in sustainability, innovation and inclusivity. It outlines Council's strategic direction and objectives over a four-year period, with an emphasis on environmental sustainability, innovation and inclusion. A key objective identified in the Plan to achieve both a *healthy, connected and inclusive community* and a *city that fosters sustainable growth* is ensuring that the housing supply is diverse and affordable, meeting the needs of the community. Council's aim is to facilitate increased investment in new social and affordable housing by actively collaborating with Homes Victoria, housing providers and developers.

The City's annual plan 2021/22 highlights a key action towards ensuring affordable housing is to develop the *Ballarat Housing Strategy*.

Ballarat Station Precinct Redevelopment (2020)

This redevelopment seeks to transform the Ballarat Station Precinct into a commercial, community and transport space. It is led by the Victorian Planning Authority, City of Ballarat and VicTrack with the Victorian Government investing a total of $28.3 million through the Regional Infrastructure Fund. The redevelopment project includes a Quest Apartment hotel, a Goods Shed Convention Centre with retail, dining and event spaces, a public plaza, commuter car park and bus exchange. While it seeks to attract investment and jobs into the city to aid recovery from the COVID-19 pandemic, there does not seem to be any consideration for housing need within the redevelopment. The only accommodation so far provided comprises of hotel apartments.

The Quest apartments and Convention Centre are already open to the public, but the broader delivery of the Master Plan has been paused since January 2022 and is awaiting further technical analysis.

Bakery Hill and Bridge Mall Precinct Renewal (2019)

The Bakery Hill and Bridge Mall Precinct plays a significant role as a historic and commercial nexus within Ballarat's CBD. The renewal of this Precinct is being undertaken by the City of Ballarat and the Victorian Planning Authority. The Urban Renewal Plan identifies key strategic projects to enhance the local economy, catalyse renewal and attract visitors and residents. These include the Bridge Mall opening, the redevelopment of Yarrowee River Parkland and Little Bridge Street car park, the intersection of Grenville Street and Sturt Street, and the Peel Street redevelopment site.

The Urban Renewal Plan is underpinned by the three key pillars of: *Thriving, Connected* and *Distinctive*. The *Thriving* pillar speaks to a diverse economy and a resilient and engaged community. The pillar has several key targets to 2050 relating to housing, which include:

▪ Accommodate approximately 5,000 new residents

▪ More diverse tenancy mix

▪ 5 per cent new dwellings delivered as affordable housing.

The Plan seeks to facilitate greater residential densities and diversity through shop top housing, apartments, townhouses, student accommodation, hotel/serviced apartment accommodation and Small Office / Home Office development. The Peel Street redevelopment site has been identified in the Plan as a residential demonstration project of affordable and medium-density housing. Overall, the Bakery Hill and Bridge Mall Precinct is positioned to accommodate a vibrant mix of uses and housing, including at medium densities.

Ballarat Creative City Precinct (2019)

Ballarat's Creative City Strategy guides the development of the arts and creative sector in Ballarat to 2040. Several key projects and initiatives have been identified including policy and capital works that support public realm upgrades, building modifications and the promotion of activation and engagement events. The provision of affordable housing for students and key workers in proximity to employment, education and public transportation is highlighted as a key principle. The Strategy also seeks to increase the number of people residing within the Creative Precinct by encouraging the redevelopment of strategic sites for housing. This includes the GovHub, Health Precinct and strategic landholdings owned by the Victorian Government and Federation University near the station.

The western edge of the Creative Precinct is zoned as Residential Growth Zone (RGZ) and Mixed Use Zone (MUZ). The purpose of these zones is to facilitate housing at increased densities, with the RGZ allowing for buildings of up to four storeys and the MUZ allowing for buildings at heights exceeding this. It is therefore expected that a higher proportion of dwellings and the population will be concentrated in this location within the Creative Precinct.

Ballarat West Structure Plan (2016)

The Ballarat West PSP is a comprehensive plan which provides direction for future urban development within the Ballarat West Precinct and is informed by the Ballarat West Growth Area Plan (2009). The Ballarat West PSP describes how land is expected to be developed and identifies the community infrastructure and services required to support development.

The Ballarat West PSP applies to approximately 1,290 hectares of land in the Ballarat West Growth Area.

Alfredton West Precinct Structure Plan (2011)

Located within the Ballarat West Growth Area, the Alfredton West Precinct (sub-precinct 3) Structure Plan area covers a 317 hectare site. In relation to housing the Structure Plan seeks to achieve "socially sustainable housing" by creating a diversity of lot sizes to underpin housing affordability and 'ageing n place.

At full development, Alfredton West is expected to have 11,000 residents, primarily composed of couple families with children.

Ballarat Long-Term Growth Options Investigation (2018)

Council have currently approved 1,290ha of future urban expansion known as the Ballarat West Growth Area, which provides sufficient land to accommodate urban development extending through to approximately 2040.Three Greenfield Investigation Areas (GIAs) to the north, east and west of the city were nominated by the Ballarat Strategy for further analysis.

The Ballarat Long-Term Growth Options Investigation sought to determine the suitability of the GIAs to accommodate Ballarat's long-term growth. The Northern GIA was found to be the preferred area to facilitate growth in the long-term.

It is significant to note that the identification of GIAs in the Planning Scheme does not confer a decision on the identified land being appropriate for residential uses. Clause 21.02-4 of the Planning Scheme states that medium to long-term GIAs require a more detailed feasibility assessment to provide strategic support for any land use changes. Further, the Planning Scheme recommends several strategies such as discouraging rezoning of additional greenfield land that would compete with the growth area until the market requires additional supply. Ad-hoc and unplanned and 'leap frog' development is also discouraged.

Amendment C194

Amendment C194 sought to formally implement The Ballarat Strategy as well as the recommendations from the Long-Term Growth Options Investigation into the Ballarat Planning Scheme. The associated Planning Panel Report recommended that a fourth area be considered as part of the Greenfield Investigation Area; North West GIA (Ballarat Resort/TIGA - Comprehensive Development Zoned land).

The four Greenfield Investigation Areas (GIAs) are identified in Figure 3 and include:

- Western GIA (Adjacent to existing Growth area)
- Northern GIA (North of Freeway/Mt Rowan)
- Eastern GIA (Warrenheip).
- North West GIA (Ballarat Resort/TIGA - Comprehensive Development Zoned land)

FIGURE 3: GREENFIELD INVESTIGATION AREAS
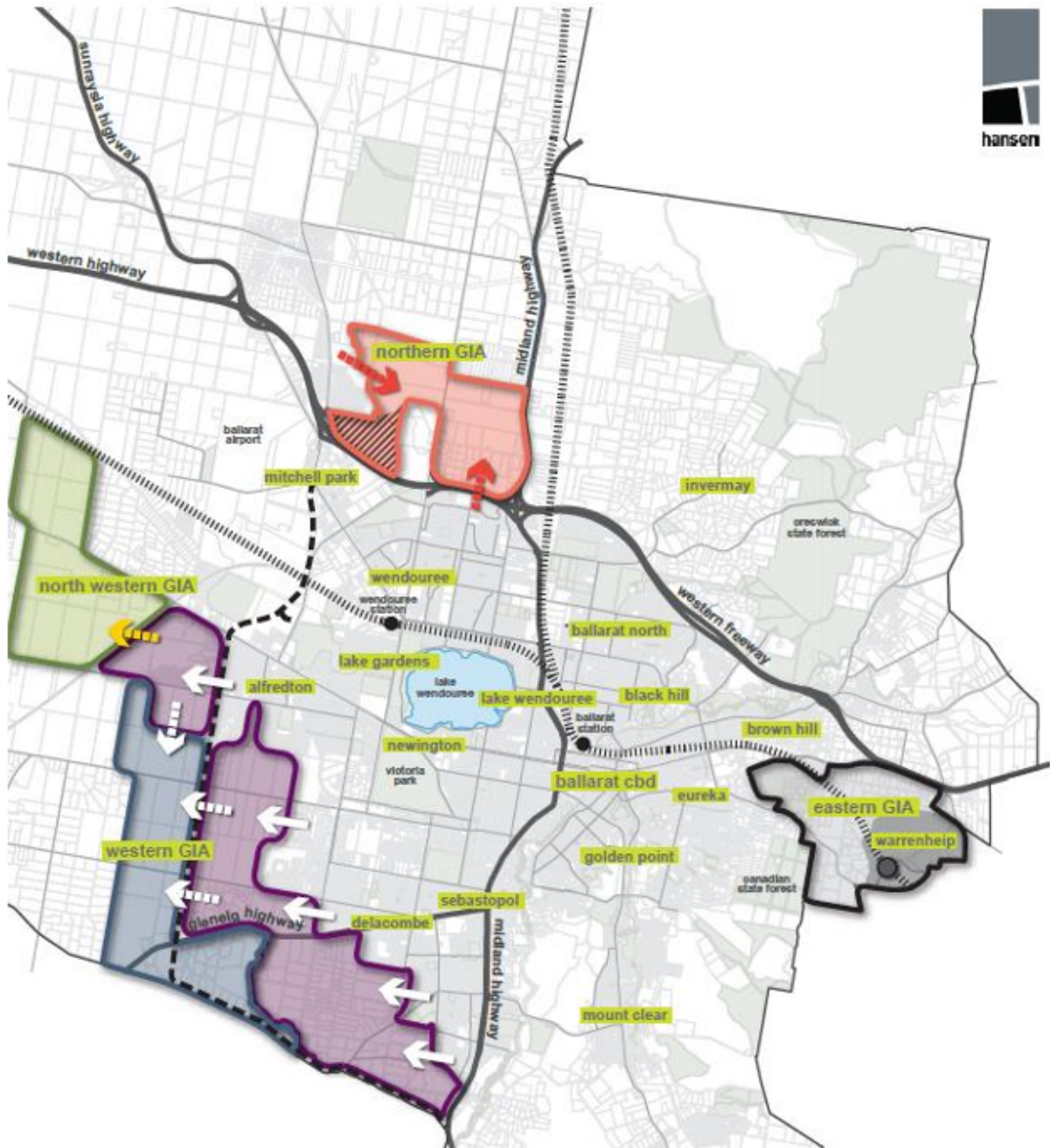
Source: Hansen Partnership (2018)

Clause 21.02-4 provides the following objectives and strategies in relation to the identified GIA's:

Objective:

To ensure that greenfield development is connected to the existing urban area.

Strategies:

4.1 Discourage rezoning of additional greenfield land, which would compete with Ballarat West, until the market requires additional supply.

4.2 Ensure that future greenfield development is focused within roughly an 8km arc from the centre of Ballarat.

4.3 Avoid ad-hoc and unplanned greenfield development.

4.4 Discourage disconnected or 'leap frog' development.

4.5 Minimise the impacts of development on Ballarat's historic urban landscape, the environment and Ballarat's natural resource base.

4.6 Ensure the need for buffers to protect major water and sewerage assets and treatment plants from encroachment by sensitive land uses is taken into account as part of any greenfield investigation.

Table 3 provides a high-level summary of the housing capacity each of the GIAs. The report ultimately identified the Northern GIA as the preferred option, followed by the Western GIA.

TABLE 3: HIGH LEVEL COMPARISON OF FOUR GREENFIELD INVESTIGATION AREAS

GIA	ESTIMATED FZ LAND ARE	INDICATIVE HOUSING CAPACITY (15 LOTS/HA)	INDICATIVE YEARS CAPACITY (520 DWELLINGS/ YEAR)
Western	790ha	6,900 lots	17 years
North West (TIGA)	570ha	6,500 lots	12 years
Northern	560ha	6,400 lots	12 years
Eastern	610ha	6,900 lots	13 years

Source: City of Ballarat (2020), Council Minutes 27 May 2020

On 30 October 2019, Council resolved to:

Seek authorisation from the Minister for Planning to prepare a Planning Scheme Amendment, pursuant to Section 8A of the Planning and Environment Act 1987, to include a local policy that identifies the Northern and Western Greenfields Investigation Areas as Ballarat's future greenfield growth areas. Place the Amendment on exhibition pursuant to Section 19 of the Planning and Environment Act 1987.

The February Council meeting in 2022 resolved to support the rezoning of three new growth areas in Ballarat, the Northern, Western and North-Western growth areas. The Minister for Planning, authorised the Department of Environment, Land, Water and Planning (now the Department of Transport and Planning) to prepare, adopt and approve an amendment to rezone the core area of the Northern Growth Area and to make the policy changes to the Ballarat Planning Scheme.

The Minister has also appointed the Victorian Planning Authority (VPA) to be the planning authority to prepare the required Precinct Structure Plan, Developer Contribution Plan and Planning Scheme Amendment.

The City of Ballarat applied to the VPA innovation pathway pilot program in July 2022. The pilot program aims to encourage significant innovations in a PSP that might otherwise be difficult to achieve due to policy and practice constraints. The Ballarat North PSP project was chosen by the VPA Board in February 2023 as the successful pilot PSP to test planning and design of desired sustainability outcomes for the Ballarat North precinct.

The VPA has commenced working with Council officers to develop an Implementation Plan that will outline outcomes for each innovation, the necessary technical assessments, funding and resource requirements, timelines, governance and responsibilities for consideration and adoption by Council the VPA and State agencies.

The VPA has also been requested by the Minister for Planning to undertake a high-level strategic review of Ballarat's proposed greenfield and urban renewal areas. The VPA has reviewed the scope of the High-Level Strategic Review and renamed it to IGAF (Infrastructure Growth Alignment Framework). The purpose of the IGAF is to provide a clear strategy for future staging and sequencing of residential growth opportunities to ensure the projected population growth over 15 years can be accommodated for, clear directions on where growth should occur, an evaluation of growth projections within the municipality, a high-level look at land capability, service limitations, infrastructure costs, market trends, an infrastructure review and the need for any upgrades to accommodate population growth.. At this stage, the output is advice to the Minister for Planning and the project is anticipated to be completed before mid-2023.

Ballarat Diverse and Affordable Housing Discussion Paper (2023)

The *Ballarat Affordable Housing Discussion Paper* sets out the context of need for increasing the supply of diverse and affordable housing in Ballarat, including additional social and affordable housing. The strategy identifies three tiers of influence for Council in supporting housing affordability and diversity more broadly and enabling social and affordable housing supply.

The strategy proposes strategies and actions for improving housing diversity and affordability which can be broadly grouped into "three tiers" of influence' each level distinguished by the relative level of direct involvement and investment by Council. These include:

- Tier 1: Facilitating efficient housing markets
- Tier 2: Facilitating affordable housing supply
- Tier 3: Investing in affordable housing.

The contents of the Discussion Paper will inform relevant directions of the *Ballarat Housing Strategy*.

3. Population projections

The onset of the pandemic and release of the 2021 Census have meant that official Victorian Government population projections are now out of date. In this report, new population projections were modelled for use in projecting future housing demand within Ballarat.

3.1 Population scenarios

Population growth is the most fundamental drivers of increasing housing demand. The Victorian Government provides official population growth forecasts of local government area population growth through its Victoria in Future (VIF) projections; however, the most recently available projections predate both the onset of the pandemic and release of the 2021 Census. As such, VIF19 does not reflect changes in migration, living arrangements and housing markets caused by COVID-19 or the most up-to-date population data for Ballarat.

As a result, SGS has modelled three municipal-level population growth forecasts (low, moderate and high) for Ballarat to account for uncertainty with respect to the future growth trajectories.

These scenarios have been prepared with reference to:

▪ ABS Estimated Residential Population (ERP) 2011 to 2022 (past population growth trends).

▪ Victoria in Future population projections to 2036 (VIF19).

▪ The Australian Government's Centre for Population (CfP) predictions regarding long running post-COVID population trends for regional Victoria.

Each of these inputs is described in further detail below, followed by a summary of adopted populations scenarios for Ballarat LGA to 2041.

Past population growth trends

The Estimated Resident Population (ERP) is the official measure of the population prepared by the ABS and is based on the concept of usual residence. It refers to all people, regardless of nationality, citizenship, or legal status, who usually live in a location, with the exception of foreign diplomatic personnel and their families. The ERP includes adjustments to Census population counts to correct for under enumeration relating to usual residents temporarily overseas, incomplete Census data (identified by the Post Enumeration Survey), and back dating of estimates to 30th June of the relevant Census year.

ERP estimates of population in Ballarat between 2006 and 2022 are shown in Figure 4. It shows that over this period, the population of the City has grown by 29,200 residents, or by 134 per cent. The rate of population growth has varied over time (as shown in Figure 5), ranging from 1.1 per cent between 2005 and 2006 to 2.2 per cent between 2009 and 2010 (the post- Global Financial Crisis era).

FIGURE 4: ESTIMATED RESIDENT POPULATION, BALLARAT LGA, 2006-2022
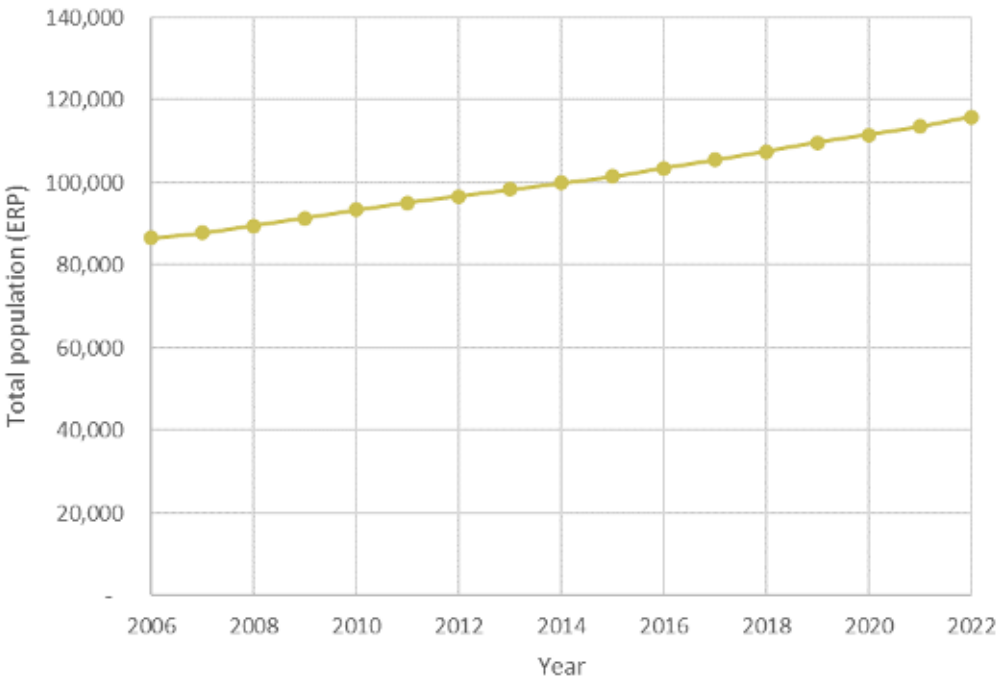
Source: ABS ERP (2022)

FIGURE 5: ESTIMATED RESIDENT POPULATION, AVERAGE ANNUAL GROWTH RATE, BALLARAT LGA, 2006-2022
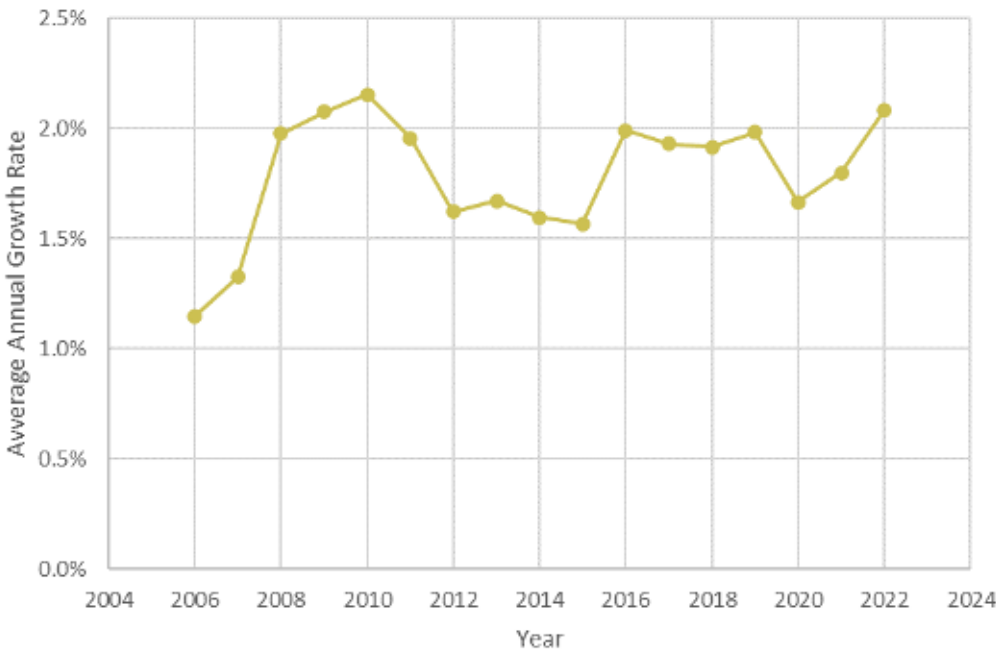
Source: ABS ERP (2022)

A summary of population growth for the ten-year (2011 to 2021) and five year (2016 to 2021) inter-censal periods, as well as the peak growth rate experienced as a result of the COVID pandemic (2021 to 2022) is shown in the table below.

TABLE 4: SUMMARY OF ANNUAL AVERAGE GROWTH RATES

PERIOD	TOTAL POPULATION CHANGE	YEARLY CHANGE	AVERAGE ANNUAL GROWTH RATE
2011 to 2021	18,297	1,830	1.8%
2016 to 2021	9,982	1,996	1.9%
2021 to 2022	2,365	2,365	2.1%

Source: ABS ERP (2022)

Victoria in Future Projections

As noted above, the VIF19 projections are the official Victorian Government projection of population and households. Projections are based on trends and assumptions for births, life expectancy, migration, and living arrangements across all of Victoria to a horizon year of 2036 for each of the state's LGAs.

Figure 6 plots historic population growth against the VIF19 projections. It shows that actual population growth measured by ERP closely aligns with Victorian Government projections from 2016 to 2022. It also shows a forecast decline in population growth rates to 2036, tapering from 1.9 per cent in 2017 to 1.5 per cent by 2036.

FIGURE 6: VIF19 PROJECTIONS, 2016 TO 2036
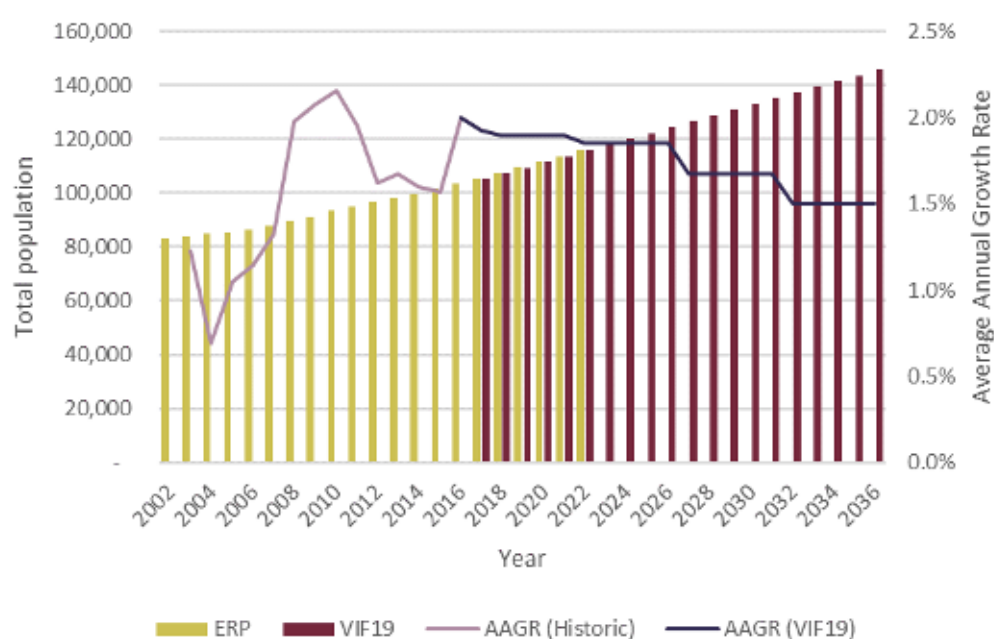
Source: Victoria in Future (2019)

Centre for Population, Population Statement 2022

The 2022 Population Statement details the early effects of the COVID-19 pandemic on Australia's population and projects its impact over the next decade, providing population forecast estimates at several geographies: states and territories, capital cities and 'rest of state'. A key insight from the statement is the extent to which the impacts of the pandemic has impacted on population trends has been highly varied across the country.

The CfP notes that the pandemic affected Victoria's population growth more than any other state due to large falls in both net overseas and interstate migration. Annual population growth declined to -0.9 per cent in 2020–21, after averaging 2.1 per cent annual growth between 2014 and 2019. Victoria's population growth is expected to recover to 1.8 per cent by 2024 and then slowly decline to 1.5 per cent in 2033.

At the sub-state level, the statement documents how Greater Melbourne's population growth declined further than other cities in 2021, with the loss of overseas migration compounded by falls in net internal migration. Melbourne's population growth pre-pandemic was 1.8 per cent. By 2020–21, population growth had declined to -1.6 per cent.

Population growth in the rest of Victoria was much stronger than in Melbourne over the pandemic period, supported by strong internal migration in the early stages of the pandemic, which helped offset the decline in overseas migration. While CfP forecasts aggregate expected trends across the whole of regional Victoria, impacts on population growth have been highly variable across the state, with particular spikes in growth experienced in regional cities, and high-amenity and peri-urban areas.

CfP projects that growth rates in regional Victoria will decline and stabilise to 2024 (Figure 7), driven by the declining contribution of natural increase.

FIGURE 7: CFP FORECAST POPULATION GROWTH RATES, REST OF VICTORIA, 2022 TO 2034
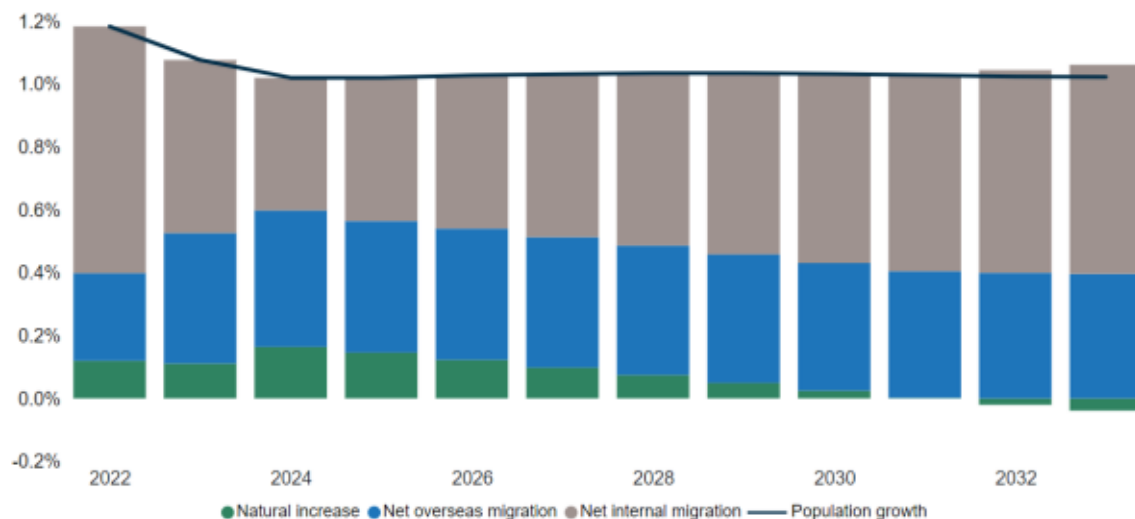
Source: Centre for Population, Population Statement 2022 (2022)

Population scenarios summary

Drawing on the information above, Figure 6 provides a summary of population scenarios adopted to inform modelling of Ballarat's future housing needs. These should be viewed as a range of *possible* populations scenarios, acknowledging that the future (particularly in the post-COVID era) is uncertain.

Low growth scenario: This scenario leverages the Victorian Government's official Victoria in Future population projections as the basis for updated population estimates to 2041.

Annual population growth rates to 2036 reported by the VIF forecasts are utilised to estimate year-on-yeat population increases, rebasing total population estimates at 2021 using Census ERP data. Population projections were made to 2041 by extending the forecast growth at 2036 for a further five years.

Moderate growth scenario: This scenario draws on historical growth rates and Centre for Population commentary on long-run growth rates for regional Victoria.

It assumes that the peak population growth rate experienced in Ballarat as a result of the COVID pandemic (2021-22) of 2.1% will continue for two years. Growth is then expected to taper back to the five-year (2016-2021) AAGR of 1.9% for five years, followed by the 10-year (2011-2021) AAGR for the remainder of the forecast period to 2041.

High growth scenario: This scenario reflects a situation in which the peak AAGR experienced because of the COVID pandemic of 2.1 per cent is sustained over the long term to 2041.

FIGURE 8: AVERAGE ANNUAL GROWTH RATE COMPARISON, HISTORIC AND PROJECTED, ALL SCENARIOS, 2001-2041
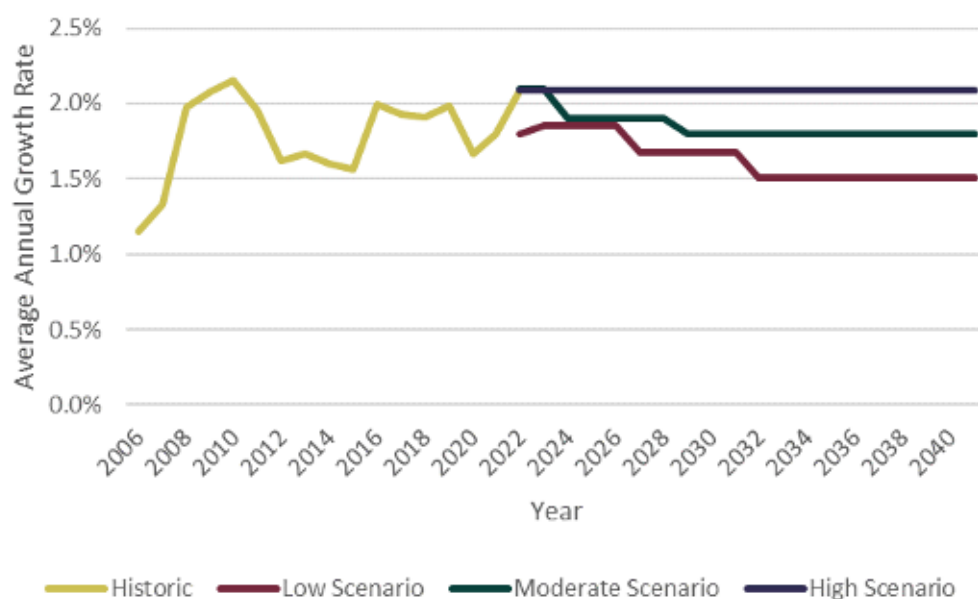
Source: SGS Economics and Planning (2023)

3.2   Population estimates to 2041

Figure 9 shows the population forecasts to 2041 for each of the three scenarios described above. These projections show:

- In the **low growth scenario**, total population increases by 43,423 between 2021 and 2041 (a total increase of 38 per cent, or at an average rate of 1.6 per cent per annum).

- In the **moderate growth scenario**, total population increases by 50,415 between 2021 and 2041 (a total increase of 44 per cent, or at an average rate of 1.9 per cent per annum).

- In the **high growth scenario**, total population increases by 57,947 between 2021 and 2041 (a total increase of 51 per cent, or at an average rate of 2.1 per cent per annum).

These results are shown in further detail in Table 5.

FIGURE 9: POPULATION FORECAST, BY SCENARIO 2021-2041
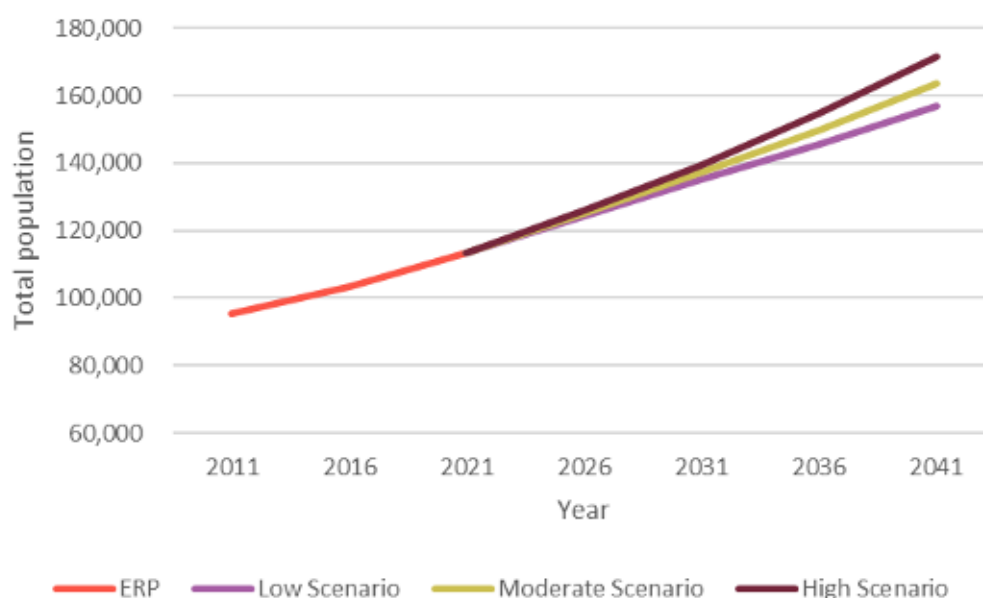
Source: SGS Economics and Planning (2023)

TABLE 5: POPULATION PROJECTIONS, BY SCENARIO, 2041-2041

POPULATION	2021	2026	2031	2036	2041	CHANGE	CHANGE (%)	AAGR
Low Scenario	113,482	124,373	135,161	145,627	156,905	43,423	38%	1.6%
Moderate Scenario	113,482	125,170	137,117	149,910	163,897	50,415	44%	1.8%
High Scenario	113,482	125,810	139,478	154,630	171,429	57,947	51%	2.1%

Source: SGS Economics and Planning (2023)

3.3 Population by age

A breakdown of total population by 10-year age group is shown in Table 6 to Table 8 below. These estimates have been made by applying the VIF19 forecast age distribution to total population estimates for each of the three scenarios. As such, while total population by age group will vary between scenarios, however the percentage distribution will remain the same. A comparison of the percentage share of 5-year age groups in 2021 and 2041 is shown in Figure 10.

These results show that the population is projected to increase across in absolute terms across all age groups. The population ages across the forecast timeline, with the 60 to 79 and 80+ age groups increasing as a total share of the population, while most age groups below this are declining by share.

The ageing of the population will have implications for housing type demanded, with people downsizing as they approach the retirement age. However, while older age groups are increasing, younger cohorts (those aged under 40) will continue to comprise the largest share of the total population, almost 48 per cent in 2041. Those with young families tend to prefer larger houses in outer, affordable locations and single or young couples without children tend to prefer well located, smaller dwelling types like semi-detached dwellings and apartments.

The following sections will show how the individual population is modelled into households and subsequently into housing demand.

TABLE 6: POPULATION FORECAST, BY AGE GROUP, LOW SCENARIO, 2021, 2031 AND 2041

	0-19	20-39	40-59	60-79	80 AND OVER	TOTAL
2021	28,514	30,294	27,215	22,010	5,449	113,482
2031	31,773	34,789	32,175	28,108	8,316	135,161
2041	35,280	39,088	38,048	32,944	11,543	156,905

Source: SGS Economics and Planning (2023)

TABLE 7: POPULATION FORECAST, BY AGE GROUP, MODERATE SCENARIO, 2021, 2031 AND 2041

	0-19	20-39	40-59	60-79	80 AND OVER	TOTAL
2021	28,514	30,294	27,215	22,010	5,449	113,482
2031	32,233	35,292	32,641	28,515	8,436	137,117
2041	36,852	40,830	39,744	34,413	12,058	163,897

Source: SGS Economics and Planning (2023)

TABLE 8: POPULATION FORECAST, BY AGE GROUP, HIGH SCENARIO, 2021, 2031 AND 2041

	0-19	20-39	40-59	60-79	80 AND OVER	TOTAL
2021	28,514	30,294	27,215	22,010	5,449	113,482
2031	32,788	35,900	33,203	29,005	8,581	139,478
2041	38,546	42,707	41,570	35,994	12,612	171,429

Source: SGS Economics and Planning (2023)

FIGURE 10: POPULATION FORECAST, BY AGE GROUP, PERCENTAGE, 2021 AND 2041
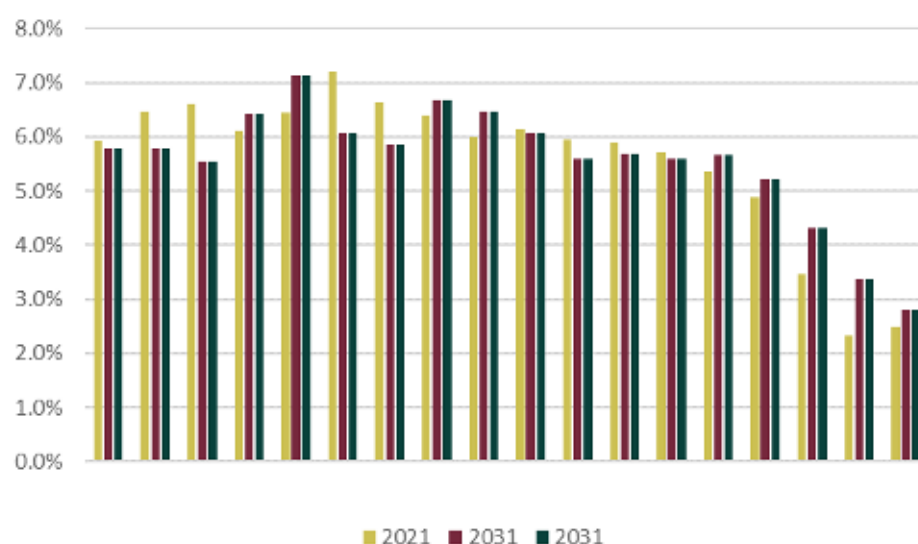
Source: SGS Economics and Planning (2023)

3.4   Forecast household formation

Having forecast population by age groups, we can also forecast population by household types. This is crucial for understanding the types of housing demanded and is done by modelling the propensity for individuals to form households based on age and gender. Propensities are calculated as a function of historical averages across the LGA.

The results of this modelling, including total change as well as average annual growth, are shown in Table 9, Table 10 and Table 11 below. As above, the total count of households by type will vary under each of the population scenarios (as shown in the respective tables), however the share of households will be the same across each (Figure 11) as each scenario leverages the forecast age distribution presented in VIF19.

When projecting household formation across the forecast period, the following observations can be made:

- All family groups are projected to increase over the time under all scenarios.

- Lone person families are expected to experience the largest total increase of all family types, with between an additional 7,112 and 9,068 lone person households added between 2021 and 2041 across the three population scenarios. This group will continue to represent the largest share of all household types, increasing from 29.5 per cent in 2021 to 30.6 per cent in 2041.

- Couple families without children will experience the second highest rate of total growth (between 5,609 and 7,227 additional households) and will increase from a share of 24.9 per cent of all households in 2021 to 25.4 per cent in 2041.

- Couples with children increase in number across all scenarios, but decrease as a share of all family types, going from 24.7 per cent in 2021 to 22.7 per cent in 2041.

- Multifamily households, one parent families and other households are projected to remain fairly stable, with marginal increases in the total number of households across each household type. Albeit each of these groups will decline marginally as a share of total households over the forecast period.

TABLE 9: HOUSEHOLD PROJECTION, BY HOUSEHOLD TYPE, LOW SCENARIO, 2021 TO 2041

	2021	2041	TOTAL CHANGE 2021 TO 2041	AAGR
Couple family with children	11,763	15,629	3,866	1.4%
Couple family without children	11,872	17,481	5,609	2.0%
Group household	1,808	3,229	1,421	2.9%
Lone person household	14,018	21,130	7,112	2.1%
Multi-family household	402	547	145	1.6%
One parent family	5,658	8,129	2,471	1.8%
Other family	467	632	165	1.5%
Other non-classifiable	1,602	2,180	578	1.6%
Total	47,590	68,957	21,367	1.9%

Source: SGS Economics and Planning (2023)

TABLE 10: HOUSEHOLD PROJECTION, BY HOUSEHOLD TYPE, MODERATE SCENARIO, 2021 TO 2041

	2021	2041	TOTAL CHANGE 2021 TO 2041	AAGR
Couple family with children	11,763	16,300	4,537	1.6%
Couple family without children	11,872	18,230	6,358	2.2%
Group household	1,808	3,367	1,559	3.2%
Lone person household	14,018	22,036	8,018	2.3%
Multi-family household	402	571	169	1.8%
One parent family	5,658	8,478	2,820	2.0%
Other family	467	659	192	1.7%
Other non-classifiable	1,602	2,274	672	1.8%
Total	47,590	71,915	24,325	2.1%

Source: SGS Economics and Planning (2023)

TABLE 11: HOUSEHOLD PROJECTION, BY HOUSEHOLD TYPE, HIGH SCENARIO, 2021 TO 2041

	2021	2041	TOTAL CHANGE 2021 TO 2041	AAGR
Couple family with children	11,763	17,076	5,313	1.9%
Couple family without children	11,872	19,099	7,227	2.4%
Group household	1,808	3,527	1,719	3.4%
Lone person household	14,018	23,086	9,068	2.5%
Multi-family household	402	598	196	2.0%
One parent family	5,658	8,882	3,224	2.3%
Other family	467	691	224	2.0%
Other non-classifiable	1,602	2,382	780	2.0%
Total	47,590	75,341	27,751	2.3%

Source: SGS Economics and Planning (2023)

FIGURE 11: HOUSEHOLD TYPE PROJECTION, BY SHARE, ALL SCENARIOS, 2021 TO 2041
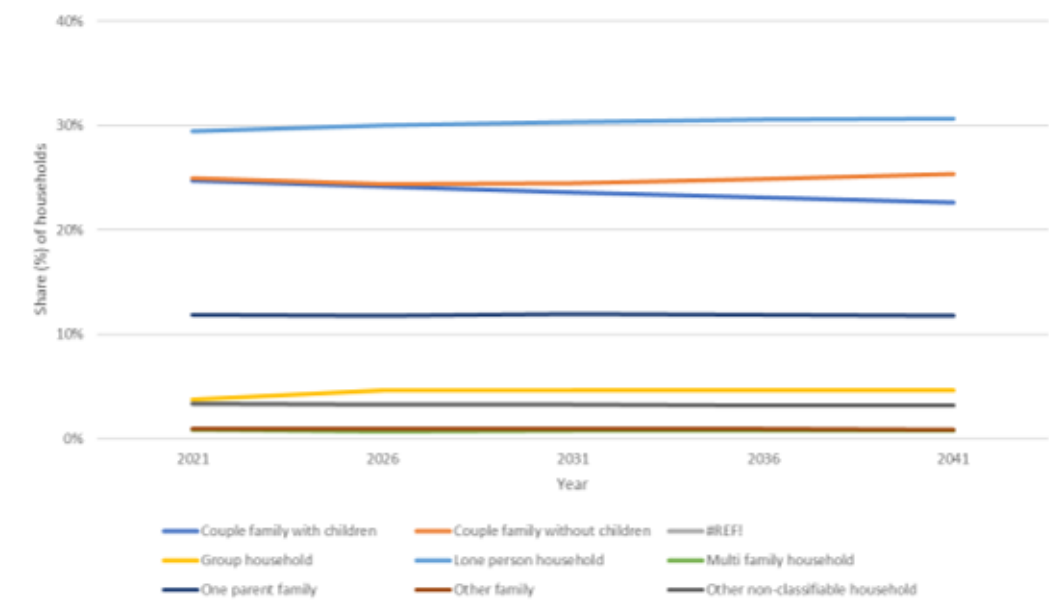
Source: SGS Economics and Planning (2023)

4. Housing supply

Housing supply here relates to the stock of dwellings currently in Ballarat. Understanding the number of dwellings and their type has important implications for the types of houses future residents will have available to them. This also provides trends which allow for the forecast of future demand.

4.1 Overall supply

Understanding the characteristics of the current housing supply is an important first step in modelling future housing demand. Total dwelling supply refers to the summed total of all dwellings currently present in the area, regardless of occupancy status.

Figure 12 below illustrates dwelling supply in the Ballarat using the latest ABS Census data (2021). The data shows that there were approximately 50,204 dwellings in 2021, an increase of 5,145 from 45,059 in 2016 (or approximately 11 per cent over the five-year period). Figure 12 shows a relatively consistent pattern of growth in dwellings between 2006 and 2021.

FIGURE 12: TOTAL DWELLING SUPPLY, BALLARAT LGA, 2006 TO 2021
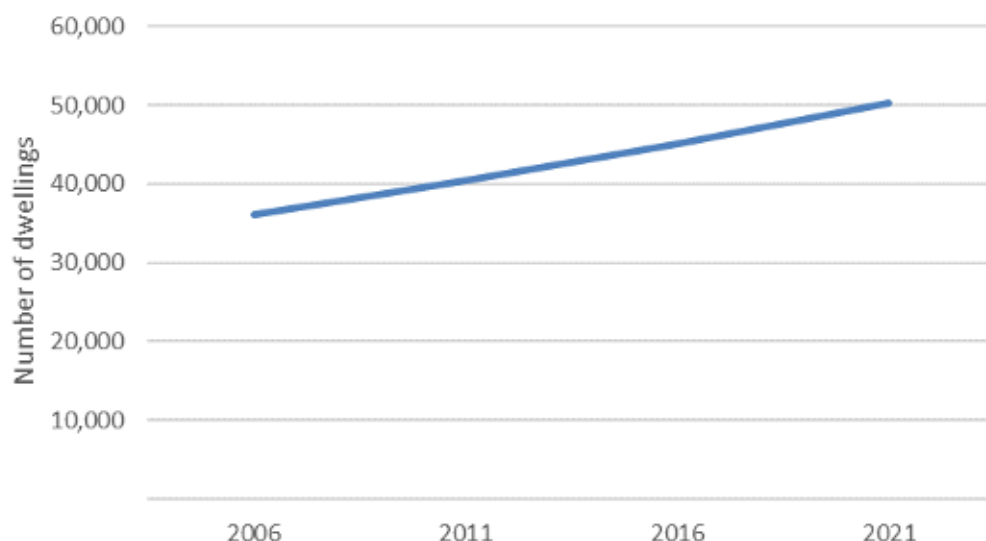
Source: ABS (2021)

4.2 Dwelling types

Using ABS Census data, the share of different types of housing can be investigated over time. Table 12 below shows an increase of all dwelling types in the Ballarat LGA between 2006 and 2021. However, between 2006 and 2016, a decline in the number of flats, units or apartments is registered, and a sharp

increase in the number of attached dwellings is observed. It is unlikely that such a high number of flats, units or apartments were demolished during this period. This change is likely caused by discrepancies in the allocation of dwelling structure type across Census years.

The ABS website notes a change in the dwelling structure data collection method in 2016 compared to previous Censuses. The ABS notes that:

> "While there were no classification or definition changes to dwelling structure, the change in procedures for collecting this information has resulted in differences between 2011 and 2016 data for mail out areas. This is particularly noticeable in the separate house, semi-detached, row or terrace house, townhouse etc categories, as well as flat or apartment in a one or two storey block."[7]

There have also been some methodological changes between the 2016 and 2021 Censuses, and there are resulting inconsistencies in housing classifications.

The most reasonable interpretation of the data is that number of flats, units or apartments stayed relatively steady in Ballarat over the 10-year period and semi-detached dwellings increased. To account for these discrepancies to some degree, data is presented in Table 13 by housing type, as well as 'separate houses' and 'non-separate houses', which combines medium and higher density housing stock (attached dwellings, flats, units and apartments) as well as Other. It is noted that counts of separate houses were also affected by data collection changes.

TABLE 12: DWELLING TYPE, BALLARAT LGA, 2006, 2011, 2016 AND 2021

DWELLING TYPE	2006	2011	2016	2021	CHANGE 2006-2021	AAGR
Attached dwelling	1,420	2,510	6,490	6,335	4,915	10.5%
Flat or apartment	3,791	3,261	1,660	1,409	-2,382	-6.4%
Other	265	226	203	198	-67	-1.9%
Separate house	30,679	34,355	36,706	42,262	11,583	2.2%
Total	36,155	40,352	45,059	50,204	14,049	2.2%

Source: ABS Census (2006, 2011, 2016 and 2021)

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[7] Australian Bureau of Statistics (2016), 2900.0 - Census of Population and Housing: Understanding the Census and Census Data, Australia, 2016. Available at: https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/2900.0main+features101352016

TABLE 13: DWELLING TYPE, GROUPED, BALLARAT LGA, 2006, 2011, 2016 AND 2021

DWELLING TYPE	2006	2011	2016	2021	CHANGE 2006-2021	AAGR
Separate house	30,679	34,355	36,706	42,262	11,583	2.2%
Non-separate	5,211	5,771	8,150	7,744	2,533	2.7%
Other	265	226	203	198	-67	-1.9%
Total	36,155	40,352	45,059	50,204	14,049	2.2%

Source: ABS Census (2006, 2011, 2016 and 2021)

Table 13 and Table 15 show the percentage share of dwellings by type across Census years by dwelling type and grouped dwelling types (as above). While the data collection inconsistencies described above are also evident in these results, these tables show that separate houses comprise a large share of total housing stock, albeit there appears to have been a modest increase in non-separate houses over time.

TABLE 14: DWELLING TYPE BY PERCENTAGE, BALLARAT LGA, 2006, 2011, 2016 AND 2021

DWELLING TYPE	2006	2011	2016	2021
Separate house	84.9%	85.1%	81.5%	84.2%
Attached dwelling	3.9%	6.2%	14.4%	12.6%
Flat or apartment	10.5%	8.1%	3.7%	2.8%
Other	0.7%	0.6%	0.5%	0.4%
Total	100.0%	100.0%	100.0%	100.0%

Source: ABS Census (2006, 2011,2016 and 2021)

TABLE 15: DWELLING TYPE BY PERCENTAGE, GROUPED, BALLARAT LGA, 2006, 2011, 2016 AND 2021

DWELLING TYPE	2006	2011	2016	2021
Separate house	84.9%	85.1%	81.5%	84.2%
Non-separate	14.4%	14.3%	18.1%	15.4%
Other	0.7%	0.6%	0.5%	0.4%
Total	100.0%	100.0%	100.0%	100.0%

Source: ABS Census (2006, 2011,2016 and 2021)

4.3   Dwelling size

The size of the dwellings in Ballarat LGA can be considered through the proxy measure of how many bedrooms they contain. The Ballarat LGA contains dwellings of a variety of sizes. Three-bedroom dwellings are most prevalent (57.8 per cent), followed by four bedroom (28.8 per cent), and 2 bedroom dwellings (16 per cent). The proportion of each dwellings size is very similar to that of regional Victoria.

TABLE 16: NUMBER OF BEDROOMS, BALLARAT LGA VS REGIONAL VICTORIA, 2021

LOCATION	NONE (INCL. BEDSITTERS)	1 BEDROOM	2 BEDROOMS	3 BEDROOMS	4 BEDROOMS	5 BEDROOMS OR MORE
Ballarat LGA	0.2%	3.4%	16.0%	47.8%	28.8%	3.8%
Regional Victoria	0.4%	3.3%	15.8%	48.3%	27.5%	4.6%

Source: ABS Census (2021)

Table 17 shows changes in dwelling size in Ballarat LGA over the period between 2006 and 2021. There has been a slight decline in shares for smaller and medium housing stock, and an increase in the share larger housing stock. This increase was most pronounced for four bedroom houses, with a seven point increase in between 2011 and 2021. One bedroom houses decreased from 4.4 per cent of all dwellings in 2006 to 3.4 per cent in 2021.

The trend here of increasing dwelling size is somewhat counter to the trend above of the shift away from separate houses and towards semi-detached dwellings. This could be explained by an overall increase in size of new dwellings, with both new detached and new semi-detached dwellings being constructed with four bedrooms.

TABLE 17: NUMBER OF BEDROOMS, BALLARAT LGA, 2006, 2011, 2016 AND 2021

YEAR	NONE (INCLUDES BEDSITTERS)	1 BEDROOM	2 BEDROOMS	3 BEDROOMS	4 BEDROOMS	5 BEDROOMS OR MORE
2006	0.3%	4.4%	18.0%	54.8%	19.5%	3.0%
2011	0.2%	4.1%	18.0%	53.2%	21.3%	3.1%
2016	0.2%	3.7%	17.5%	51.0%	24.1%	3.6%
2021	0.2%	3.4%	16.0%	47.8%	28.8%	3.8%

Source: ABS Census (2016 and 2021)

Table 18 below shows the average number of bedrooms by dwelling type for Ballarat LGA and regional Victoria. The average number of bedrooms for separate houses is highest for all dwelling types at 3.2 bedrooms per dwelling in 2021.

Semi-detached houses, flats and apartments are smaller, with 2.4 and 1.9 bedrooms per dwelling in 2016, respectively. Average dwelling sizes in Ballarat LGA were largely consistent with those across regional Victoria. They have also remained relatively stable over time in Ballarat LGA.

TABLE 18: AVERAGE NUMBER OF BEDROOMS, BALLARAT LGA VS REGIONAL VICTORIA, 2021

LOCATION	YEAR	SEPARATE HOUSE	SEMI-DETACHED	FLAT OR APARTMENT	OTHER	OVERALL AVERAGE
Ballarat LGA	2006	3.1	2.4	1.8	2.0	3.0
	2011	3.2	2.2	1.9	1.5	3.0
	2016	3.2	2.4	1.9	2.1	3.1
	2021	3.3	2.3	1.9	1.8	3.1
Regional Victoria	2021	3.3	2.1	1.9	1.6	3.1

Source: ABS Census (2006 to 2021)

5. Housing demand

In the previous section, population projections were used to determine household type projections. This section projects the housing demanded by those households, based on trends in household preferences for dwellings of different types and sizes.

5.1   Dwelling demand forecast method

The analysis in this section draws a upon a range of datasets, including population growth projections and trends in population age, family and household types. Building upon these projections and demographic factors, SGS's Housing Demand Model (HDM) determines how many new dwellings of different types will be required in Ballarat LGA in the future.
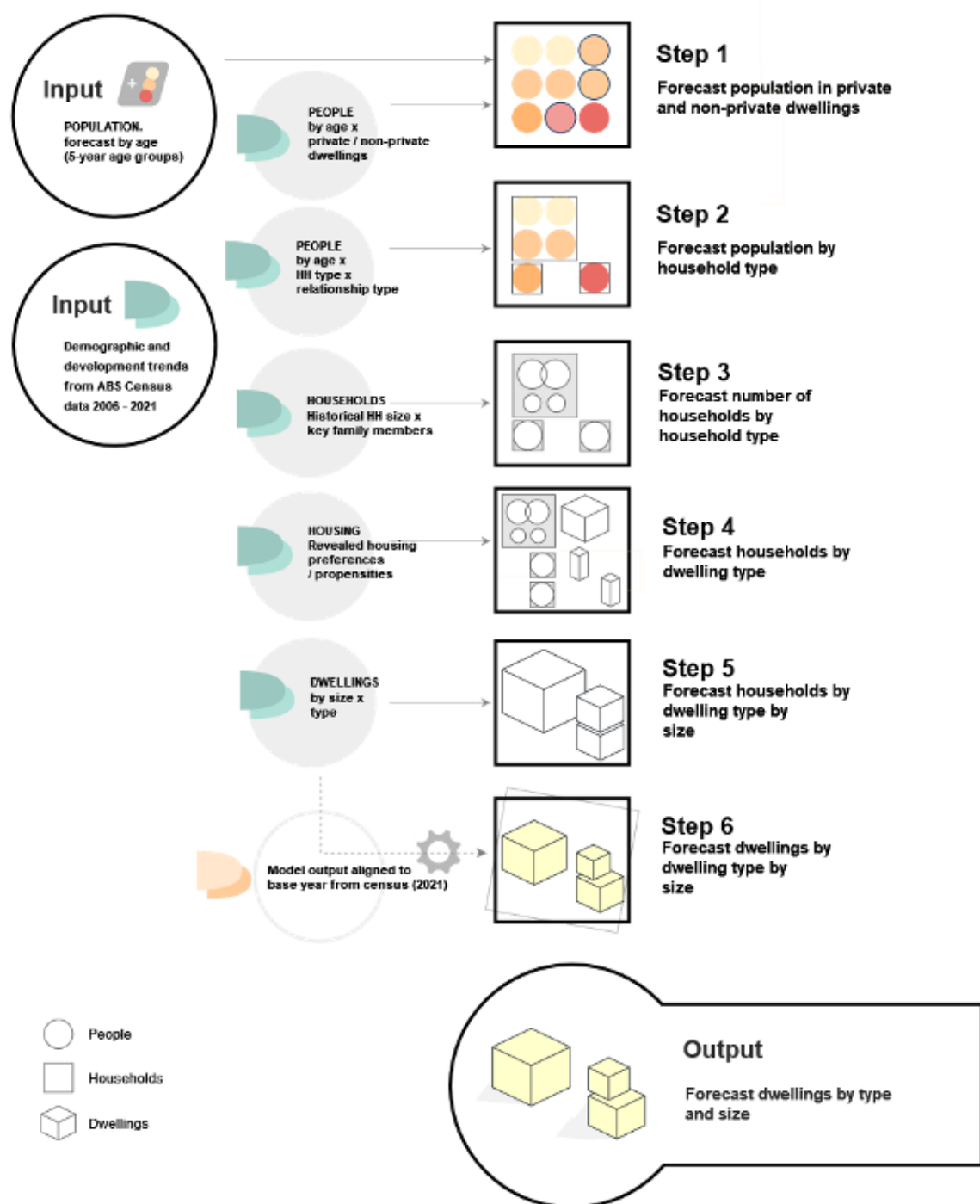
Household projection

The operation of the HDM is shown in Figure 13. Projections for population growth by age in five-year periods are converted to number of people by household and relationship type, and then to number of households by type. In each case, trends in ABS Census data from 2006-2021 have been extrapolated into the future, with checks in place to ensure that they do not deviate too far from historical averages. Trends used include the following, each of each varies over time:

- The proportion of people in each age group living in private dwellings as opposed to non-private dwellings like aged care.

- The likelihood of a person of a given age to live in each kind of household (and different relationship types within each household).

- The average sizes of particular kinds of households.

- The likelihood of a household of a given type to live in each kind of dwelling.

The population forecasts modelled by SGS as outlined previously were used in the housing demand model. This meant that the model accounts for future population changes in response to the pandemic.

Input

POPULATION. forecast by age (5-year age groups)

Input

Demographic and development trends from ABS Census data 2006 – 2021

PEOPLE by age x private / non-private dwellings

Step 1
Forecast population in private and non-private dwellings

PEOPLE by age x HH type x relationship type

Step 2
Forecast population by household type

HOUSEHOLDS Historical HH size x key family members

Step 3
Forecast number of households by household type

HOUSING Revealed housing preferences / propensities

Step 4
Forecast households by dwelling type

DWELLINGS by size x type

Step 5
Forecast households by dwelling type by size

Model output aligned to base year from census (2021)

Step 6
Forecast dwellings by dwelling type by size

Output
Forecast dwellings by type and size

People

Households

Dwellings

Source: SGS (2021)

As has been discussed in earlier sections, the COVID pandemic resulted in disruption to many established population and housing trends, likely reflected in 2021 Census results (such as to vacancy rates, household sizes etc.). Some of these changes may persist to some degree, but it is unlikely that living arrangements as expressed in the 2021 Census influenced by the COVID pandemic and lockdowns are a reliable indicator of long-term housing and demographic trends.

To account for this in housing demand modelling, each demographic and housing market trend used in the housing demand model was reviewed, with Census data available from 2006, 2011, 2016 and 2021 (and in some cases 1996 and 2001). Where 2021 data represented a substantial deviation from the long term trend visible in earlier Censuses, it was assumed that the 2021 Census data is an outlier and should have limited impact on future modelling. In these cases, the 2021 Census point was either excluded from the model entirely, or the trend extrapolation method used to moderate and forecast a lower change in over time (for example in average household size).

More specifically:

- The proportions of people living in group households, multi-family households, or with family households that they were either related to but not a core member of or unrelated to generally increased substantially between 2016 and 2021. This was assumed to be a product of COVID during which many people moved in with family or friends during lockdowns. As such, the 2021 data reflecting these results was not included in modelled trends in living arrangements.

- Similarly, the proportions of older people living as parents in couple family with children households, and of people aged 20+ living with parents, increased between 2016-2021 likely as people stayed with their parents during and around lockdowns. This data was also excluded from longer term trend prediction.

- The proportion of people in several age ranges in lone person households has changed rapidly between recent Censuses, and it was deemed to be unreasonable to assume that it will continue to change as rapidly in the future, so the size of this trend was moderated.

- The average size of multi-family and other family households changed substantially between 2016 and 2021, and is volatile in the historical Census due to the low number of households of these types. As a result, the average size of multi-family households was not extrapolated into the future (it was fixed at the 2021 value), while a reduced rate of change was applied to the average size of other family households.

To calculate what kinds of housing will be needed to accommodate the forecast community, an assumption is required about housing needs and preferences (that is, what kind of housing a given household type will choose or needs).

The proportion of each household type who is observed to live in each dwelling type is commonly referred to as *revealed housing preferences*. As households are constrained by the kinds of housing available and their affordability, trade-offs are required when they choose where to live. As a result, revealed preferences can differ from people's ideal (unconstrained preferences). Households may also wish to stay in their current dwelling, even if it differs from their ideal preference. Housing preferences, and how people's choices may be constrained by the housing market, are discussed in more detail in Chapter 6.

To forecast housing demand by different dwelling types, trends in revealed preference data from the ABS Census (either 1996 to 2021 or 2006 to 2021) are extrapolated into the future. These trends are broken down by household type and so represent, for example, what proportion of lone person households are likely to live in separate houses versus high density housing forms. As the trends are extrapolated, the model assumes that housing preferences will continue to change in the future, but as it is based on historical Census data it is still constrained by what kind of housing is being delivered.

As such, the model reflects trade-offs made by households based on available housing supply in the Ballarat LGA. For example, the greater incidence of freestanding houses in Ballarat compared with metropolitan areas means that some smaller household types (e.g. single person families) become more likely to choose houses over units. By comparison, smaller households are more likely to choose units in capital cities where affordability and availability make this choice more likely.

As detailed earlier in Section 4 there is substantial 'noise' across the attached and apartment housing categories between 2006 and 2021 Censuses. Dwellings that were previously classified and flats, units or apartments have since been reclassified as attached dwellings, while some housing previously classified as attached dwellings was reclassified in 2021 as separate housing. As a result, it is not possible to make a reliable estimate based on past Census data of how preferences for attached dwellings and flats and apartments might change relative to each other in the future. In addition, there are relatively few flats and apartments in Ballarat and so the small current size of this housing segment provides limited predictive power if higher densities were to become a more popular dwelling choice

To combat these issues, the apartment and attached dwelling categories were combined in the housing demand model and so the dwelling categories used were:

- Separate houses

- Other dwelling types, including attached dwellings and townhouses.

This grouping makes revealed preferences data across Censuses reliable enough to construct long-term trends and make predictions regarding housing demand. However, it does not completely resolve data problems with the ABS Census as there are still some classification issues between the 2016 and 2021 Censuses between attached dwellings and separate houses (this issue cannot be resolved simply).

The resulting forecast of housing propensities, otherwise known as revealed preferences, is shown in Figure 14.

A breakdown of the non-separate houses category into attached dwellings and apartments was conducted based on the 2021 Census results alone (i.e. assuming that the proportion of this combined category that is apartments will remain at its 2021 baseline).

FIGURE 14: FORECAST CHANGE IN HOUSING PROPENSITIES OVER TIME, BALLARAT LGA
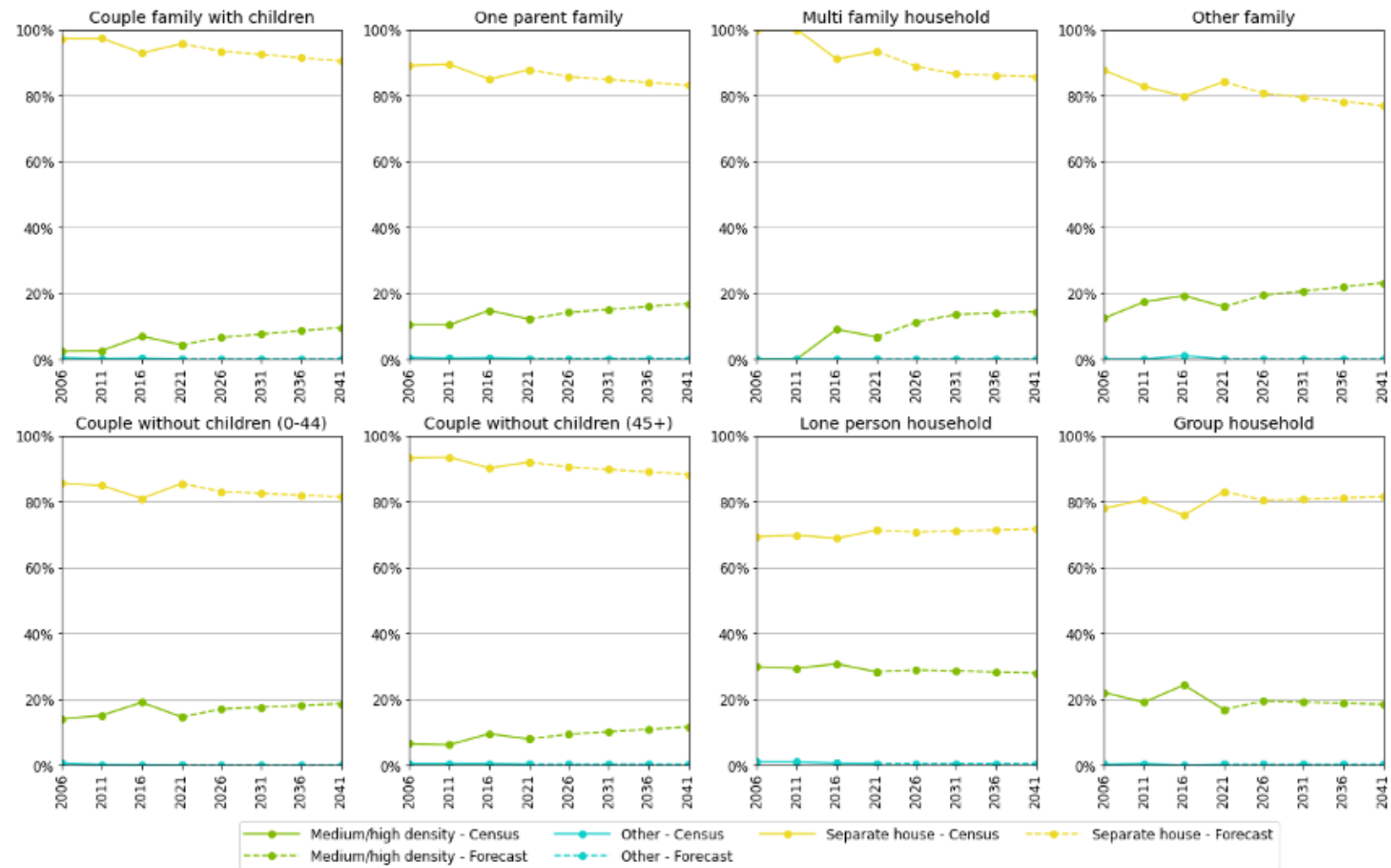
Source: SGS (2021) using ABS Census 2006, 2011, 2016

5.2 Forecast dwelling demand

Total dwelling demand

SGS has forecast dwelling demand by drawing on the population forecast scenarios outlined in Section 2. Total dwelling demand for the five year periods between 2021 and 2041 for each of the population scenarios is shown in Table 19. It shows that:

- The **low growth scenario** will result in demand for an additional 22,254 dwellings over the forecast period or increasing by an average annual growth rate of 1.9 per cent.

- The **moderate growth scenario** will result in demand for an additional 25,483 dwellings over the forecast period or increasing by an average annual growth rate of 2.1 per cent.

- The **high growth scenario** will result in demand for an additional 28,961 dwellings over the forecast period or increasing by an average annual growth rate of 2.3 per cent.

TABLE 19: DWELLING DEMAND FORECAST, BY SCENARIO, FROM 2021 TO 2041

SCENARIO	2021	2026	2031	2036	2041	CHANGE 2021 TO 2041	AAGR
Low	50,204	56,184	61,490	66,866	72,458	22,254	1.9%
Moderate	50,204	56,544	62,380	68,833	75,687	25,483	2.1%
High	50,204	56,833	63,454	71,000	79,165	28,961	2.3%

Source: SGS Economics and Planning (2023)

Forecast Dwelling demand by type

The forecasts below show separate houses are likely to account for the greatest total volume of growth, with a range of 17,311 (low scenario) to 22,825 (high scenario) separate dwellings expected to be added between 2021 and 2041. This represents 78 per cent of all additional demand across each of the growth scenarios over the forecast period. Attached dwellings are forecast to make up approximately 19 per cent, while flats, units and apartments comprise a much smaller 3 per cent.

While separate houses are expected to remain the dominant housing types over the period, smaller semi-detached dwellings, and flats, units and apartments are expected to grow at faster rates. Separate houses will increase at an average rate of 1.7 per cent per annum, while attached dwellings, and flats, units and apartments will increase at rates of 2.6 per cent and 2.1 per cent per annum respectively. Overall, separate houses are expected to decline from 84.2 per cent of total dwelling stock in 2021 to 82.2 per cent in 2041 (-2.0 per cent). While non-separate houses (accounting for attached dwellings, flats units and apartments as a combined category) are forecast to make up an increased share of housing by the end of the forecast period, representing 17.8 per cent of all housing in 2041 compared with 15.8 per cent in 2021.

Projected decreases in average family sizes are the key driver behind the forecast growth in demand for smaller dwellings. In particular, significant growth in lone person households is expected to contribute to demand for smaller types of housing.

TABLE 20: HOUSING DEMAND FORECAST, LOW SCENARIO, BY DWELLING TYPE, BALLARAT LGA, 2021 TO 2041

DWELLING TYPE	2021	2026	2031	2036	2041	CHANGE 2021 - 2041	AAGR	SHARE OF CHANGE
Separate house	42,262	46,976	51,120	55,294	59,573	17,311	1.7%	78%
Attached dwelling	6,335	7,403	8,398	9,441	10,534	4,199	2.6%	19%
Flat, unit or apartment	1,409	1,601	1,768	1,934	2,135	726	2.1%	3%
Other	198	204	203	198	217	19	0.5%	0%
Total	50,204	56,184	61,490	66,866	72,458	22,254	1.9%	100%

Source: SGS Economics and Planning (2023)

TABLE 21: HOUSING DEMAND FORECAST, MODERATE SCENARIO, BY DWELLING TYPE, BALLARAT LGA 2021 TO 2041

| DWELLING TYPE	2021	2026	2031	2036	2041	CHANGE 2021 - 2041	AAGR	SHARE OF CHANGE
Separate house	42,262	47,277	51,860	56,920	62,228	19,966	1.9%	78%
Attached dwelling	6,335	7,450	8,520	9,718	11,003	4,668	2.8%	19%
Flat, unit or apartment	1,409	1,611	1,793	1,991	2,230	821	2.3%	3%
Other	198	205	206	204	226	29	0.7%	0%
Total	50,204	56,544	62,380	68,833	75,687	25,483	2.1%	100%

Source: SGS Economics and Planning (2023)

TABLE 22: HOUSING DEMAND FORECAST, HIGH SCENARIO, BY DWELLING TYPE, BALLARAT LGA, 2021 TO 2041

| DWELLING TYPE	2021	2026	2031	2036	2041	CHANGE 2021 - 2041	AAGR	SHARE OF CHANGE
Separate house	42,262	47,518	52,753	58,712	65,087	22,825	2.2%	79%
Attached dwelling	6,335	7,488	8,667	10,024	11,509	5,174	3.0%	19%
Flat, unit or apartment	1,409	1,619	1,824	2,053	2,332	923	2.6%	3%
Other	198	207	210	210	237	39	0.9%	0%
Total	50,204	56,833	63,454	71,000	79,165	28,961	2.3%	100%

Source: SGS Economics and Planning (2023)

FIGURE 15: HOUSING DEMAND FORECAST, SHARE OF DWELLINGS, BY DWELLING TYPE, BALLARAT LGA, 2021 TO 2041
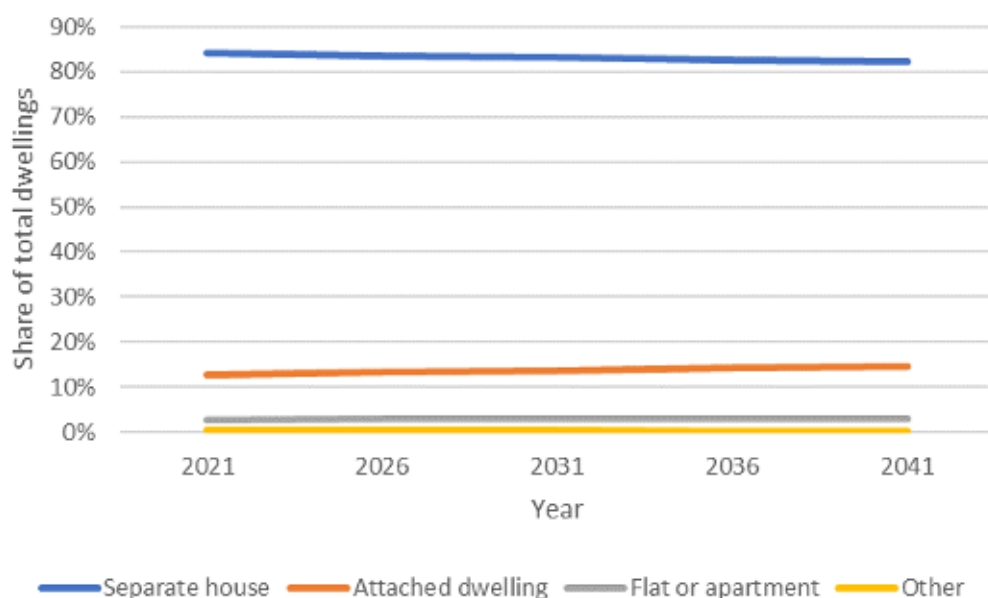
Source: SGS Economics and Planning (2023)

FIGURE 16: HOUSING DEMAND FORECAST, SHARE OF DWELLINGS, SEPARATE AND NON-SEPARATE DWELLINGS, BALLARAT LGA, 2021 TO 2041
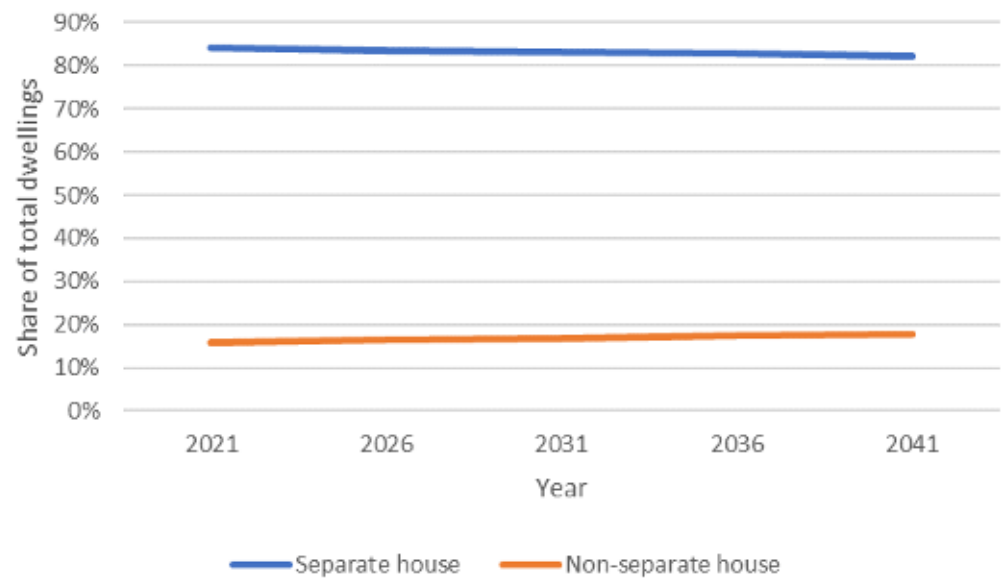
Source: SGS Economics and Planning (2023)

6. Housing preferences

Research demonstrates a mismatch between the housing preferences of households and the stock of housing available within local housing markets. This section investigates the extent to which this is likely the case in Ballarat and presents two alternative dwelling demand scenarios that model to varying degrees shifts towards providing an increased share of housing in established areas of the City, and the implication for the mix and size of dwellings demanded in the future.

6.1   Overview

A limitation of forecast that use historic trends to predict future dwelling demand is the implicit assumption that the economic and social conditions of the past will be largely unchanged in the future. However, there is a high likelihood that these conditions will change over time, shifting both the supply and demand for housing (by type, location, features and price). Existing and proposed government policies in relation to planning, transport policy and infrastructure investments will also continue to have an impact on future housing outcomes.

Another limitation of housing demand forecasts is that they are unconstrained in the sense that they do not consider a range of capacity limitations that can cap the extent to which the forecast housing demand might be realised in a subject location. Potential capacity constraints include the availability of developable land, planning policies, development feasibility and industry capacity.

This section will briefly canvas evidence that future demand for housing by type and location in Ballarat may differ from past trends in a manner that is not fully captured in the base dwelling demand forecasts. It concludes with some alternative housing demand forecasts that seek to explore the potential implications for future housing growth of changing housing preferences.

6.2   Recent research and advocacy

The housing growth challenges for Australian cities has generated considerable interest in the question of housing preferences, and more specifically, whether there is now a mismatch between housing demand and the extant housing stock. Work by the Grattan Institute based on a large choice modelling survey found that in both Sydney and Melbourne there was an undersupply of medium density housing in middle ring locations when compared to demand. A more recent study by Infrastructure Victoria used a similar survey approach to explore the housing preferences of households in Melbourne, Geelong and Ballarat. This study suggested that more households would be attracted to established areas if the dwellings on offer had the same number of bedrooms and were a similar price to new dwellings in greenfield areas. But the quality and affordability of medium density development in established areas were revealed as barriers to greater demand for this type of housing.

The concept of the 'missing middle' (or missing middle housing) has been invoked in a number of jurisdictions (most notably in NSW and Queensland but also in many parts of North America) to highlight the absence of good quality and diverse forms of medium density housing that are sought

after by household but rarely delivered. In Victoria, the Better Homes initiative is aimed at addressing this issue through the release of exemplar plans for four storey apartment developments.

Research on housing preferences and advocacy for quality medium-density developments lends support to long standing planning policies in capital cities (and regional cities to a lesser extent) that have sought to increase the proportion of new housing that is provided in established areas. These policies are aimed at reducing infrastructure costs, achieving sustainability objectives, and preventing spatial disadvantage, rather than satisfying latent housing preferences, although there are obvious synergies between these goals.

The COVID pandemic and associated changes to work practices has added another layer to the complexity to the drivers of dwelling preferences, particularly in Victoria. Many households that can now benefit from more flexible working arrangements and working from home have either sought larger dwellings and/or moved to more distant places as the importance of the daily commute to work on housing location decisions has diminished. These trends would appear to be shifting housing preferences in the opposite direction of increasing demand for more compact living in more central urban areas. On the other hand, COVID travel restrictions brought attention to the role and quality of neighbourhood and local services and facilities for community wellbeing. The extent to which these shifts will become persistent trends is as yet unclear. These trends may continue over the longer term, but it is also conceivable that post-pandemic environment induces a 'correction' towards previous trends, particularly as housing affordability pressures limit the extent to which the households can 'consume' more or larger housing.

6.3   Housing preferences in Ballarat

A survey of 266 households in Ballarat was undertaken to better understand the housing preferences of the local community. The survey asked respondents about their current housing arrangements and the reasons for their choices. They were also asked if they intended to move house and, if so, what are the locational and dwelling features would influence the choice of their future home. One hundred and twenty one households indicated an intention to move in the next 10 years. It should be noted that the survey was conducted in October and November 2022 and as a result the responses may have been coloured by the recent experience of the COVID pandemic.

Some of the key themes arising from the survey included:

- **Changes in housing needs at the community level were inconclusive:** While individual households indicated they expected to have changing housing needs over time (seeking both smaller and larger dwellings), at the overall population level it is unclear what the trends might mean in aggregate (i.e. the survey did not capture the preferences of those households who might move to Ballarat and conceivably bring with them slightly different preferences to the current population).
- **Evidence that limited housing diversity and affordability is having a negative impact on housing choices:** Fifty per cent of households that indicated an intention to move stated it was difficult to find an affordable home; 48 per cent stated it was difficult to find a large yard; 28 per cent stated they would likely move away from Ballarat. Of those that might leave Ballarat, 60 per cent felt there were few/no suitable homes to choose from in the LGA, and of those planning on moving house but staying in Ballarat, 43 per cent felt there were few or no suitable homes to choose from. Almost 60 per cent of couple households without children felt that there are few suitable choices in

Ballarat; and smaller homes and smaller yards were also flagged as features that residents may struggle to find.

- **Evidence of demand for more compact dwellings and/or housing options in established areas:** 21 per cent of moving households had a preference for a 1 or 2 bedrooms dwelling (and 79 per cent had a preference for 3 of more bedrooms). Eight per cent of moving households would seek a medium or high-density dwelling (although by contrast, 13 per cent said they would seek a farm or acreage). Only 22 per cent of households suggested that living in a new modern suburb was a preference, whereas 59 per cent indicated that an older established suburb was desirable.

- **Safety and friendliness of neighbours was a high priority**: These area attributes featured highly in both the reasons for existing housing choices and in the future housing choices of households that indicated an intention to move.

6.4   Alternative dwelling demand forecasts

As noted above, housing demand forecasts are generally tied to past trends and by design do not account for the potential for future shifts in preferences, policies and broader socio-economic conditions. Several recent pieces of credible research had indicated that households in Australia's larger capital cities are seeking more medium density housing in established areas than is currently available. Decades of planning policy have also sought to increase supply of housing in established areas and decrease the reliance on greenfield areas to accommodate housing growth. A survey of Ballarat residents provides some evidence of gaps in Ballarat's housing market for smaller dwellings, dwellings in established areas and affordable homes. A lack of appropriate housing options was also sited reason households might move away from Ballarat in the future.

City of Ballarat has adopted a policy aspiration for a 50:50 split of new housing between established areas and greenfield growth. This represents a departure from recent past trends which have seen a split of around 30:70.[8] This aspiration has been used as the basis of an alternative dwelling preference forecasts.

The **'base case' scenario (S1)** assumes the 'business as usual' split of development between established vs greenfield locations. Two alternative dwelling preference scenarios assume a greater share of development will occur in established areas in future, as foreshadowed in a variety of studies and surveys that have examined the issue of dwelling preferences over the past decade or so.

The **first alternative scenario (S2)** implies a progressive shift away from 'business as usual' towards a higher share of established area development; and the **second alternative scenario (S3)** reflects Council's policy aspiration for a 50:50 split of new housing in established and greenfield locations over a 20 year period.

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[8] Estimates of this ratio vary based on geographies and classification approach – e.g. Census data vs permit data – but are this ratio. The balance of established area vs other development, where established area is classified as the redevelopment of previously occupied urban land has been estimated as 14% to 86%.

The charts below show how the shift in the mix of new dwellings occurs in each scenario. In the '50:50 policy aspiration' scenario, the mix in dwelling supply by locations transitions from the current share of greenfield development to a higher share of development in established areas over the 20 year period. This would result in a 50:50 split of all growth that occurs between 2021 to 2041. In the moderate scenario, the mix in dwelling supply by location moves towards a 50:50 split in the final 5 year period. This would result in a 45:55 split (established areas vs greenfield areas) of all growth over the 20 years.

FIGURE 17: DWELLING PREFERENCE SCENARIOS (S1), ESTABLISHED VS GREENFIELD, 2021 TO 2041
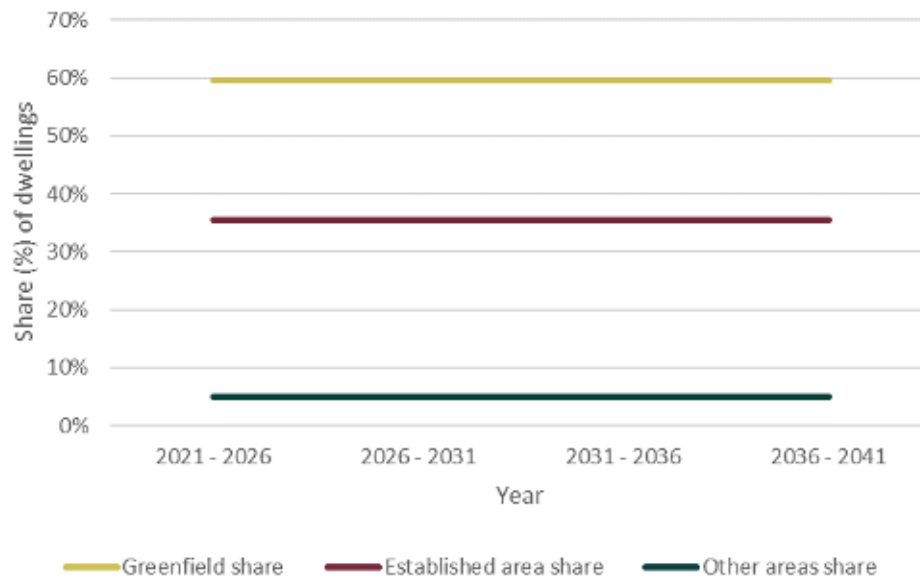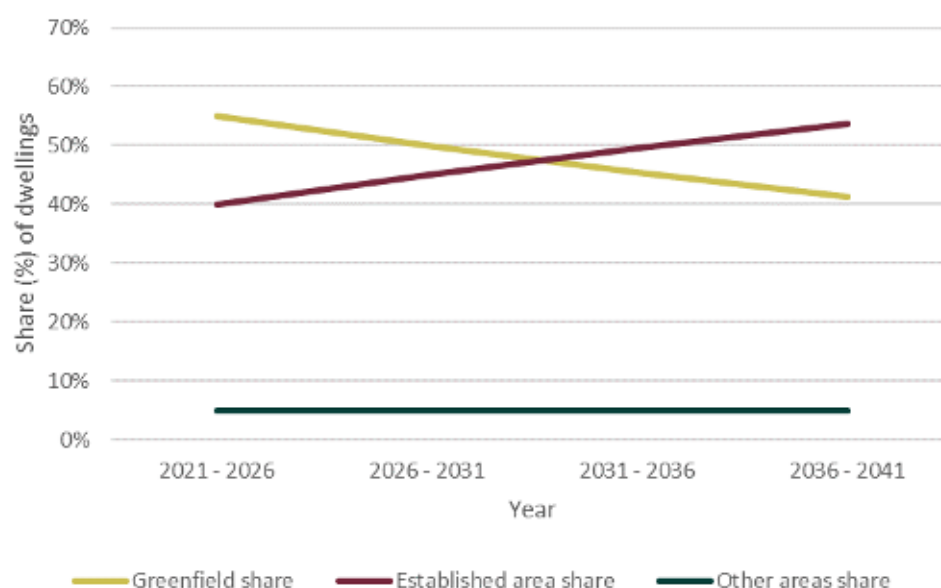

Source: SGS Economics and Planning (2023)

FIGURE 18: DWELLING PREFERENCE SCENARIOS (S2), ESTABLISHED VS GREENFIELD, 2021 TO 2041
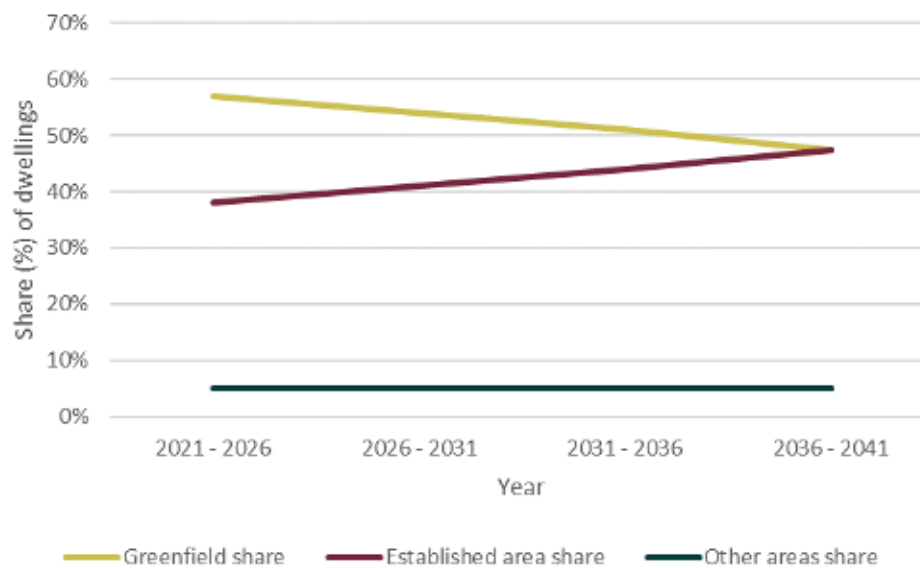
Source: SGS Economics and Planning (2023)

FIGURE 19: DWELLING PREFERENCE SCENARIOS (S3), ESTABLISHED VS GREENFIELD, 2021 TO 2041

Source: SGS Economics and Planning (2023)

The alternative dwelling preferences scenarios by location type and dwelling type are summarised in Table 23. These scenarios have only been applied to the high dwelling growth scenario. The logic here is that by looking that the high growth scenario provides the extreme cases of either a high number of established area/non-separate dwellings (i.e. high growth combined Council's policy aspiration for a 50:50 split) or a high number of greenfield/separate dwellings (i.e. high growth combined with the business as usual locational preferences).

TABLE 23: DWELLING PREFERENCES, S1 (EXISTING PREFERENCES FOR ESTABLISHED VS GREENFIELD), ADDITIONAL DWELLINGS, 2021 TO 2041

DWELLING TYPE	ESTABLISHED	GREENFIELD	OTHER	TOTAL	SHARE
Separate house	4,429	17,017	1,379	22,825	79%
Other dwelling types	5,851	216	69	6,136	21%
Total	10,280	17,233	1,448	28,961	100%
Share	35%	60%	5%	100%	-
Greenfield/established split*	37%	63%	-	-	-

Source: SGS Economics and Planning (2021)
Note: *Excludes 'Other' dwellings.

TABLE 24: DWELLING PREFERENCES, S2 (INCREASE IN PREFERENCE FOR ESTABLISHED AREA LOCATIONS), ADDITIONAL DWELLINGS, 2021 TO 2041

DWELLING TYPE	ESTABLISHED	GREENFIELD	OTHER	TOTAL	SHARE
Separate house	4,429	14,892	1,379	20,700	71%
Other dwelling types	8,003	189	69	8,261	29%
Total	12,432	15,081	1,448	28,961	100%
Share	43%	52%	5%	100%	-
Greenfield/established split*	45%	55%	-	-	-

Source: SGS Economics and Planning (2021)
Note: *Excludes 'Other' dwellings.

TABLE 25: DWELLING PREFERENCES, S3 (50:50 POLICY ASPIRATION), ADDITIONAL DWELLINGS, 2021 TO 2041

DWELLING TYPE	ESTABLISHED	GREENFIELD	OTHER	TOTAL	SHARE
Separate house	4,429	13,584	1,379	19,392	67%
Other dwelling types	9,327	172	69	9,569	33%
Total	13,757	13,757	1,448	28,961	100%
Share	48%	48%	5%	100%	-
Greenfield/established split*	50%	50%	-	-	-

Source: SGS Economics and Planning (2021)
Note: *Excludes 'Other' dwellings.

6.5   Alternative dwellings type forecasts

In order to translate locational preferences into dwelling preference, ABS data on dwelling types was used to understand growth in dwellings by type, in established and greenfield locations. The dwelling type classifications have been simplified to 'separate dwellings' and 'not separate dwellings' – a catch all for all non-separate dwelling types (i.e. attached dwellings, flats, units and apartments and 'other'). This is necessary due to inconsistencies in the dwelling type data between Census periods that appear to be particularly acute in Ballarat. These inconsistencies are likely the result of both modifications to the way that the ABS classifies dwelling type and 'human error' (inconsistencies in the way that Census collectors have classified dwelling types). The work around is to collapse all non-separate dwelling

categories together for the analysis of past trends, meaning that the forecasts of future trends are also subject to this limitation.

The three scenarios have been converted into dwelling demand by number of bedrooms, drawing on past propensities of households to occupy particular dwellings (type and size) which differ between established and greenfield areas. Under all scenarios there is a shift towards smaller dwellings compared to those supplied in the 10 years preceding the 2021 Census (2011 to 2021). However, new dwellings are still on average larger (in bedroom count) that the existing stock due to the legacy effect of smaller dwellings produced throughout Ballarat development (e.g. 2 bed houses) (refer Table 28).

TABLE 26: EXISTING DWELLING STOCK, TOTAL DWELLINGS, BY BEDROOMS, 2011 TO 2021

	STUDIO	1 BED	2 BED	3 BED	4 BED	5 BED+	TOTAL
Existing stock (2021)	92	1,788	8,224	23,886	14,340	1,873	50,204
Added 2011 to 2021	21	75	812	2,797	5,821	676	10,202

Source: ABS Census (2011 and 2021)

TABLE 27: EXISTING DWELLING STOCK, SHARE OF DWELLINGS, BY BEDROOMS, 2011 TO 2021

	STUDIO	1 BED	2 BED	3 BED	4 BED	5 BED+	TOTAL
Existing stock (2021)	0.2%	3.6%	16.4%	47.6%	28.6%	3.7%	100%
Added 2011 to 2021	0.2%	0.7%	8.0%	27.4%	57.1%	6.6%	100%

Source: ABS Census (2011 and 2021)

TABLE 28: DWELLING PREFERENCE, ALL SCENARIOS, TOTAL ADDITIONAL DWELLINGS BY NUMBER OF BEDROOMS, 2021 TO 2041

SCENARIO	STUDIO	1 BED	2 BED	3 BED	4 BED	5 BED+	TOTAL
S1: Existing preference for greenfield vs established locations	70	929	3,375	7,908	14,544	2,134	28,961
S2: Increase in preferences for established area locations	78	1,238	4,128	7,797	13,597	2,123	28,961
S3: 50:50 established vs greenfield (Councils policy aspiration)	83	1,429	4,592	7,729	13,013	2,116	28,961

Source: SGS Economics and Planning (2023)

TABLE 29: DWELLING PREFERENCE, ALL SCENARIOS, SHARE OF ADDITIONAL DWELLINGS BY NUMBER OF BEDROOMS, 2021 TO 2041

SCENARIO	STUDIO	1 BED	2 BED	3 BED	4 BED	5 BED+	TOTAL
S1: Existing preference for greenfield vs established locations	0.2%	3.2%	11.7%	27.3%	50.2%	7.4%	100%
S2: Increase in preferences for established area locations	0.3%	4.3%	14.3%	26.9%	46.9%	7.3%	100%
S3: 50:50 established vs greenfield (Councils policy aspiration)	0.3%	4.9%	15.9%	26.7%	44.9%	7.3%	100%

Source: SGS Economics and Planning (2023)

TABLE 30: DWELLING PREFERENCE, SMALLER VS LARGER DWELLINGS, EXISTING STOCK AND ALL DWELLING PREFERENCE SCENARIOS, 2021 TO 2041

	2 BED AND LESS	3 BED	4 BED+
Existing stock (2021)	20.1%	47.6%	32.3%
Added 2011 - 2021	8.9%	27.4%	63.7%
S1: Existing preference for greenfield versus established locations (2041)	15.1%	27.3%	57.6%
S2: Increase in preferences for established locations (2041)	18.8%	26.9%	54.3%
S3: 50:50 established vs greenfield (2041)	21.1%	26.7%	52.2%

Source: SGS Economics and Planning (2023)

Two alternative dwelling mix forecasts were prepared based off the high population and dwelling growth scenario. These alternative forecasts draw on a body of recent research (including a survey conducted of Ballarat residents) that demonstrates a mismatch in the housing stock available and that desired by households. This research has found that a greater number of households would choose more diverse housing forms in established areas (as opposed to greenfield areas) if this was available within the local housing market (at an affordable price)

Modelling of these preferences scenarios leveraged Council's stated policy aspiration for a 50:50 split of established area and greenfield development by 2041.

In the 'business as usual scenario' 35 per cent of net new dwellings provided in the 20 years to 2041 occur in established areas, 60 per cent in greenfield areas, and the remainder are in 'other areas' (rural or peri-urban). This scenario implies 79 per cent of new additional dwellings will be detached and 21 per cent will be other dwelling types (semi-detached, attached, apartments and other types). Just over 15 per cent of net new dwellings will be 2 bedrooms or less, 27 per cent will be 3 bed and 58 per cent will be 4 bedrooms of more.

The first alternative scenario assumes a shift in dwelling growth pattern towards more supply in established areas: 43 per cent in established areas, 52 per cent in greenfield areas, and 5 per cent in 'other areas'. This scenario implies 71 per cent of net new dwellings will be detached and 21 per cent will be all other dwelling types. Furthermore, almost 19 per cent will be 2 bedroom or less, 27 per cent will be 3 bedroom dwellings and the remaining 57 per cent will be 4 bedrooms of more.

Council's policy aspiration is to achieve a 50:50 ratio of new dwellings supplied in the 20 years to 2041. This implies that 48 per cent of dwelling supplied in established areas, 48 per cent in greenfields and 5 per cent in 'other areas'. This implies a further increase in the share of non-separate dwellings and smaller dwellings in the additional dwelling stock added to 2041: 53 per cent of dwellings will be non-detached; 20 per cent 2 bedrooms or less.

These scenarios might be used to inform the upper and lower bounds for a range of potential dwelling supply scenarios that ultimately will be influenced by a range of endogenous and exogenous factors and subject to a degree of uncertainty.

For example:

- The base case scenario requires almost 23,000 detached dwellings whereas the scenario based on Council's policy aspiration requires 19,000 detached dwellings.

- Conversely, the policy aspiration scenario implies that an additional 9,600 non-separate dwellings will be required whereas the base case scenario requires 6,100 non-separate dwelling types.

- Similarly, the base case scenario implies 17,200 greenfield dwellings are needed while the policy aspiration scenario implies 13,800 greenfield dwellings (and a commensurate shift in dwelling requirements in established areas).

- The base case scenario implies the supply of net new dwellings will require more larger dwellings (4 bedrooms of more) than the policy aspiration scenario (57.6 per cent vs 52.2 per cent). Whereas under the latter scenario almost half (48.2 per cent) of all new dwellings are 3 bedrooms or less.

7. Conclusion

Updated projections of population growth and housing demand will have important strategic implications for the City of Ballarat. Furthermore, the housing preference scenarios provided offer a glimpse at different growth pathways that could potentially take place in Ballarat in the future.

7.1 Overview

This study seeks to provide updated population and housing projections to inform the City of Ballarat's priorities and strategic planning decision making, particularly the development of the Ballarat Housing Strategy.

The COVID pandemic caused significant disruption to established housing and population trends across Australia, but particularly in Victoria where rolling lockdowns and work from home measures meant that people's needs and wants with regard to housing changed considerably.

The Victorian Government's Victoria in Future population projections (VIF19) are the state's official population projections, intended to inform strategic planning processes. However, the most recently available projection predates the onset of the pandemic and was created before the release of the 2021 Census. As such, these projections do not reflect changes in migration, living arrangements and housing markets caused by COVID-19 or the most up-to-date population data for Ballarat.

This work takes into consideration the possible long-run impacts of the COVID-19 pandemic on population trends and the local housing market. The assessment considers the implications from factors such as existing supply, housing type (such as detached houses, semi-detached houses or units/apartments) and housing size (number of bedrooms).

To restate the outline, the approach for modelling demand has taken the following steps:

- Forecast new population estimates for Ballarat.
- Modelled total demand for housing, based on the new population forecasts.
- Considered the potential impact of different dwelling type and locational preferences.
- Allocated housing demand to greenfield and established areas of Ballarat.

7.2 Implications

The analysis and forecasts in this report document a range of reasonable population and housing scenarios that should inform future strategic planning processes, namely the development of the Ballarat Housing Strategy.

It has been shown that population growth and underlying demographic shifts could result in future demand for between 22,254 and 28,961 dwellings to 2041.

Estimates of dwelling mix in the base dwelling demand scenarios reflect past trends in housing choices. However, research indicates that these revealed housing preferences may reflect constraints on housing choices in the Ballarat housing market.

Policy settings that enable and encourage the provision of a greater diversity of housing stock in Ballarat, particularly in established areas of the City, may result in demand for a greater diversity of housing stock, in terms of type and size (provided they can meet the needs of households in terms of affordability).