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Housing Capacity & Supply Analysis

City of Greater Bendigo

OCTOBER 2022

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GLOSSARY

Housing Capacity

Housing Capacity represents a theoretical basis that enables an understanding of the physical extent to which residential development could occur. It refers to the general, aggregate number of dwellings estimated to be able to be developed in a specified geographic area under current planning controls on land that is considered available for further residential development.

Identifying *Housing Capacity* is first determined by establishing the number of lots that meet the relevant planning criterion within a specified geography. This is followed by the application of an estimated potential dwelling yield using relevant development typologies.

The process to identify *Housing Capacity* does not consider property market factors, the potential for project profitability/risk, site-specific constraints (e.g. contamination, serviceability, access, etc), or the willingness of landowners to sell their properties or broader economic considerations.

Housing Capacity is different from housing supply which refers to the quantity of housing available to the market. While it is imperative for an area to have *Housing Capacity* to enable new housing to be delivered, it does not represent supply, nor guarantee that supply will be delivered.

The definition of housing capacity applied, together with the recognition that the aggregate capacity identified is theoretical and doesn't account for market conditions and development feasibility considerations, represents a realistic and informed understanding. It also sets an important context for future, related housing work.

Identifying Housing Capacity is a process whereby Council seeks to understand its ability to accommodate population growth over at least 15 years as it is obliged to do by the Planning Policy Framework.

Statistical Area 2 (SA2s)

Statistical Areas Level 2 (SA2s) are Australian Bureau of Statistics defined geographies areas which generally define medium-sized general-purpose areas. Their purpose is to represent a community that interacts together socially and economically. SA2s generally have a population between 3,000 and 25,000 with an average of about 10,000 people. SA2s in remote and regional areas generally have smaller populations than those in urban areas.

Infill Area

Infill Area refers to the geographic area comprising Greater Bendigo's established suburbs, which effectively forms Bendigo's urban area (see Figure 16). Suburbs included within the *Infill Area* are listed below. The Statistical Area 2 (SA2) in which each suburb is located has also been identified as there are a number of Australian Bureau of Statistics (ABS) datasets used in this report that only apply at the SA2 level.

The *Infill Area* applies to the following:

Table 1: Infill Area

Infill Area	SA2
North Bendigo, Long Gully, Bendigo, West Bendigo	Bendigo
Jackass Flat, California Gully, Eaglehawk, Myers Flat	California Gully-Eaglehawk
White Hills, Ascot, Epsom	White Hills-Ascot
East Bendigo, Kennington, Strathdale	East Bendigo-Kennington
Flora Hill, Spring Gully, Quarry Hill	Flora Hill-Spring Gully

SOURCE – ABS Census

Growth Area(s)

Growth Area(s) refers to the geographic area comprising Greater Bendigo's greenfield areas (see Figure 16).

The Statistical Area 2 (SA2) in which each greenfield is located has also been identified as there are a number of Australian Bureau of Statistics (ABS) datasets used in this report that only apply at the SA2 level.

As referenced throughout the report, *Growth Areas* include two categories: Growth Area (Greenfield) and Growth Area (Infill).

Growth Area (Greenfield) refers to vacant residential zoned land greater one hectare while Growth Area (Infill) refers to the already established residential areas within the Growth Area.

Table 2: Growth Areas (greenfield & infill)

Growth Area	SA2
Maiden Gully	Maiden Gully
Strathfieldsaye	Strathfieldsaye
Huntly/Bagshot	White Hills–Ascot (Huntly/Bagshot)
Marong	Bendigo Surrounds-South

SOURCE – ABS Census

Township(s)

Township(s) refer to the geographic area comprising Greater Bendigo's townships. (see Figure 16). The Statistical Area 2 (SA2) in which each town is located has also been identified as there are a number of Australian Bureau of Statistics (ABS) datasets used in this report that only apply at the SA2 level.

The areas within the *Township(s)* are outlined in the following table:

Table 3: Townships

Growth Area	SA2
Elmore, Goornong	Bendigo Surrounds-North
Heathcote, Axedale, Argyle	Heathcote

SOURCE – ABS Census

Separate Houses

Separate Houses refers to *detached dwellings* (as defined by the Australian Bureau of Statistics).

Medium Density

Medium Density Dwelling refers to *semi-detached, row or terrace houses, or townhouses* (as defined by the Australian Bureau of Statistics).

EXECUTIVE SUMMARY

The *Housing Capacity and Supply Analysis* is provided as part of the *Greater Bendigo Housing and Neighbourhood Character Strategy*.

The objective of the *Housing Capacity and Supply Analysis* is to understand the impact of zoning changes proposed by the *Housing and Neighbourhood Character Strategy* on the City of Greater Bendigo's ability to accommodate required future housing.

As Greater Bendigo's population grows, there will be increasing demand for dwellings to meet the needs of its future population. Identifying Housing Capacity provides a better understanding of its capability to do so and informs the development of a growth strategy to guide areas where increased housing development is preferred.

To provide context to the *Housing Capacity and Supply Analysis*, a Housing Market Analysis has been undertaken. The purpose of this is to provide insight into the performance of the local housing market by highlighting the variety of opportunities and challenges to delivering new housing in Greater Bendigo and which establish a realistic framework to inform planning policy.

In order to ensure that this analysis reflects real world conditions, it considers development limitations including bushfire and flood management, and heritage constraints. Consequently, this lessens the dwelling yield that would otherwise be achievable.

In the City of Greater Bendigo, separate houses currently represent 91.4% of total dwelling stock. Notably, between 2016 and 2021, some 4,000 additional dwellings were added to the City's total dwelling stock, the vast majority being separate houses. The proportion of separate house stock has increased from just below 90% since the 2016 census. This is due to two main factors:

1) The strong growth in house and land sales in the Growth Areas, and
2) The comparatively small increase in medium-density dwelling stock which has resulted in a proportionate decrease from 7.8% to 7.1% of the total dwelling stock.

Conversely, there have been far fewer medium-density dwellings constructed. This is due largely to the development feasibility constraints that exist in the Greater Bendigo market, but also purchaser preference, which continues to value larger dwellings on larger lots – a phenomenon that is typical in regional locations.

In seeking to understand, and adequately plan for the changing housing needs of the Greater Bendigo population, understanding long-term population forecasts and what these mean for the number and type of dwellings required, is an important strategic consideration. As its population continues to grow, and its demographic composition evolves, Greater Bendigo will nonetheless require greater supply of both separate houses, as well as a greater diversity of housing types at a variety of price points to meet purchaser need.

The number and type of households required presents significant opportunities as well as a number of challenges for the local housing market. With between 15,060 and 19,560 additional dwellings forecast to be required in the period to 2036, understanding what, where and how these will be delivered is a fundamental planning objective for Council.

The *Housing Capacity and Supply Analysis* has established that Greater Bendigo currently has the capacity to accommodate more than 50,000 new dwellings. The vast majority of this capacity exists within the Infill Area, followed by its Townships and Growth Areas (Infill). Capacity within Greater Bendigo's Growth Areas (Greenfield) is however constrained due to a diminishing supply of zoned residential land.

Table 4: Greater Bendigo Housing Capacity

Capacity	Potential Dwellings
Infill	36,348
Townships	6,696
Growth Areas (Infill)	5,898
Growth Areas (Greenfield)	1,891
Total	**50,833**

SOURCE – Quantify Strategic Insights

Three Residential Forecast Scenarios have been prepared based on an analysis of relevant factors pertaining to new residential infill development within Greater Bendigo, including physical capacity, zoning and overlay controls, property market considerations, development feasibility factors, population and demographic patterns, and estimated future dwelling demand.

Each Residential Forecast Scenario includes a dwelling forecast for the period 2021 to 2036, which allocates forecast dwellings to SA2's within either of the Infill Area, Township or Growth Area locations.

In each of the three scenarios, dwelling forecasts for both Infill and Township Areas can be comfortably achieved. Each of these areas has the potential to accommodate new housing development well beyond 2036, based on their capacity and the total dwelling forecasts for Greater Bendigo between 2021 and 2036.

Conversely, in each of the three scenarios, dwelling forecasts for Growth Areas highlight potential land supply constraints due to diminishing residential zoned land and strong demand. Based on these dynamics, an under-supply of Growth Area (greenfield) land could be expected in the next 3 to 5 years.

The supply constraints indicated in each of the scenarios are potentially more acute given that much of the existing residential zoned land identified consists of fragmented land ownership, relatively small land parcels, not in the hands of developers and won't be developed in the foreseeable future.

Table 5: City of Greater Bendigo Housing Capacity 2021 - 2036

	Current Dwellings	Forecast Dwellings (2021-2036)	Developable Lots	Housing Capacity
Infill	38,102	6,585-10,132	12,248	36,348
Growth Areas (Infill & Greenfield)	10,086	***Infill***		
		780-810	931	5,898
		Greenfield		
		6,930-7,022	37	1,891
Townships	2,963	765-1,605	1,147	6,696
Total	**51,151**	**15,060 – 19,560**	**14,363**	**50,833**

SOURCE – Quantify Strategic Insights

In seeking to plan for and manage the required number of dwellings to accommodate future population growth in Greater Bendigo, a readily available and practically developable supply of land is required. As highlighted by reference to larger regional housing markets, the potential to re-direct all future growth to Infill Areas is an otherwise impractical and unachievable objective.

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SECTION 1

HOUSING MARKET ANALYSIS

1. HOUSING MARKET CONTEXT

1.1 Introduction

This section provides an overview of the local residential market, primarily for the purposes of providing insight into the existing conditions and performance of the Greater Bendigo housing market. In doing so it provides important context for understanding Greater Bendigo's capability to deliver future housing with regards to type, location and the amount required.

An analysis of recent factors including population growth and demographic change, relevant market indicators such as development activity, dwelling approvals, median house and unit price trends and tenure has been undertaken to enable in-depth understanding of the local market. In doing so, this provides a basis to identifying the opportunities and constraints for future residential development, including the extent of anticipated demand and dwelling typologies required.

1.2 Victorian Housing Market

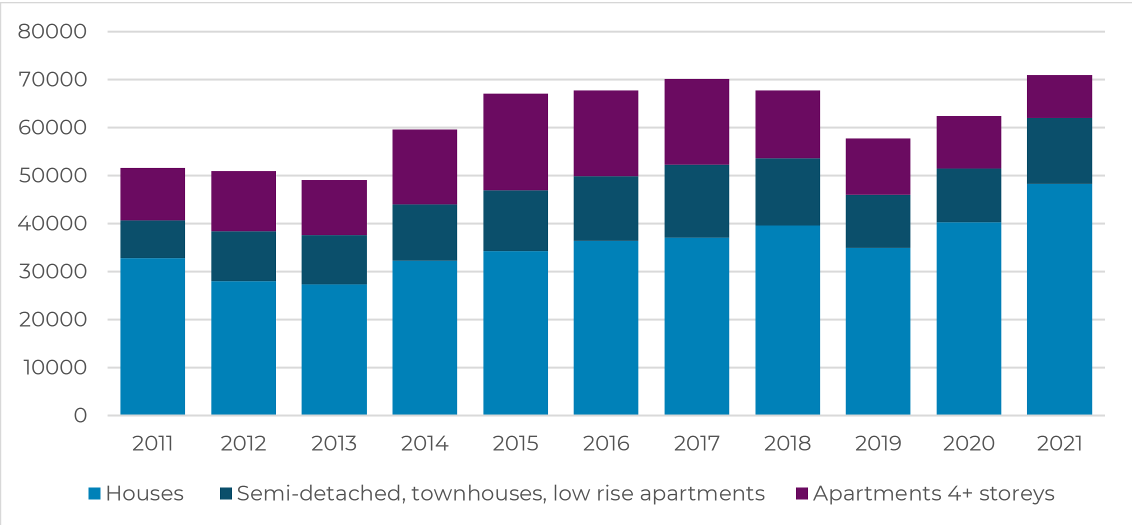
To understand the Greater Bendigo housing market, consideration for the performance of the broader Victorian market provides important relevant context.

Despite the challenges created by the onset of the Covid-19 pandemic, including significantly reduced population, Victoria had a record number of residential building approvals, with almost 71,000 new homes approved for construction in 2021. Perhaps most notably, about 48,000 (68%) of these approvals were for detached houses, the most in a calendar year on record. There were about 14,000 approvals (19%) for medium-density units and townhouses. Almost 9,000 (13%) higher-density apartments were also approved.

Following an exodus of people leaving metropolitan Melbourne, many regional locations have experienced a significant inflow of population, many of whom have expressed a preference for a separate house. This preference is reflected in record house and land sales across Victoria's major regional centres in the 2020 2021 period.

Less relevant to Greater Bendigo, but instructive from a broader market perspective, is the fact that apartment approvals have contracted to their lowest number in over a decade.

Figure 1: Victoria Dwelling Approvals 2011 - 2021



SOURCE – ABS

1.3 Regional Housing Market

Regional Victoria's population had been growing in the lead-up to 2020 but the onset of the pandemic accelerated this trend. In the 12 months to June 2021, regional Victoria's population increased by approximately 18,000.

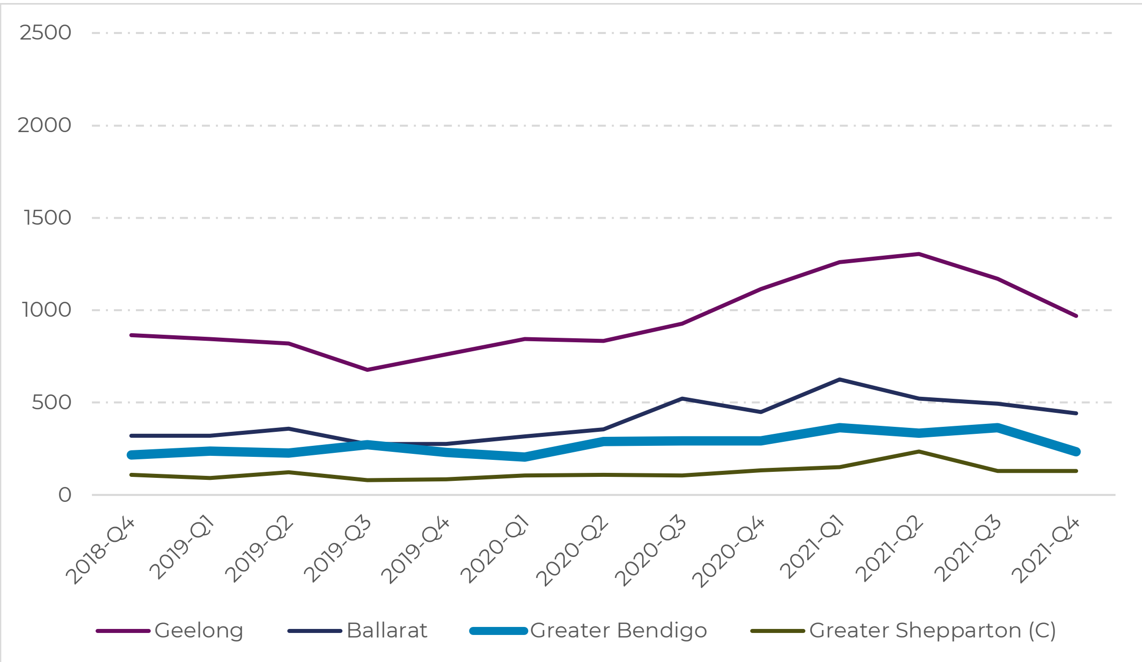
This increase in population has been accompanied by increases in the demand for housing and residential land, including in regional cities many of which saw a significant increase in residential building approvals through 2020 and 2021. As was the case with Metropolitan Melbourne, much of the increase was due to the growth in the number of detached houses, mostly occurring in new greenfield areas.

Residential building approval activity increased in Q2 2020 and continued to grow particularly in the larger regional areas until Q2 2021. Greater Geelong (LGA) has been the standout regional performer through this period, experiencing a spike in approvals to over 1,000 approvals for three consecutive quarters, peaking at just over 1,300 approvals in Q3 2021, before dropping to 967 approvals in Q4 2021.

Ballarat (LGA) followed a similar pattern to Greater Geelong, (albeit with fewer approvals), experiencing a doubling in quarterly approval figures during 2020 and 2021, when compared to the pre-covid period. By Q4 2021, approval numbers had however come back considerably. Greater Shepparton LGA also experienced a significant increase in building approvals through 2020 and 2021 increasing from an average of 95 per quarter in 2019 to an average of 162 per quarter in 2021.

At a significantly lower volume than Greater Geelong and Ballarat, Greater Bendigo also experienced an uplift in residential building approval activity through 2020 and 2021, increasing to quarterly approvals of around 350, up from 200 to 250 approvals in the pre-covid period.

Figure 2: Regional Victoria – Residential Building Approvals



SOURCE – ABS Building Approvals

1.4 Bendigo Today

1.4.1 Population

With a population now in excess of 121,400 - an increase of approximately 10,000 since 2016 - the City of Greater Bendigo is home to a growing number of people which continues to reaffirm its role as an attractive and substantial regional city.

The most populous locations are Kangaroo Flat, Strathfieldsaye, Golden Square followed by Kennington, Strathdale and Eaglehawk. Unsurprisingly, the areas which had the greatest increase in population between 2016 and 2021 were the Growth Areas of Strathfieldsaye (+1,422) followed by Huntly (+1,206). The areas with the next highest level of growth were the established suburbs of Kangaroo Flat (+934) followed by Epsom (+689) and Ascot (+603).

Experiencing an increase in population following the onset of Covid-19, Greater Bendigo is expected to continue to be an attractive location, supported by a wide range of employment opportunities, as highlighted by the fact that in May, it had a higher rate of job vacancies than any other region in the state.

1.4.2 Housing

Comprising just over 53,000 dwellings, Greater Bendigo's housing stock is vast, made up of traditional period style homes, workers cottages, inter-war housing, post-WWII dwellings, and a significant number of more recently constructed dwellings throughout its Infill and Growth Areas.
Its pattern of urban development reflects a long history of conventional, separate houses which continue to be the most sought-after dwelling type across the municipality today.

The extent to which medium-density dwellings exist throughout Greater Bendigo varies across its suburbs and townships, though in all instances, traditional single-family housing predominates.

In the City of Greater Bendigo, separate houses represent 91.4% of total dwelling stock. Between 2016 and 2021, some 4,000 additional dwellings were added to the City's total dwelling stock, the vast majority being separate houses.

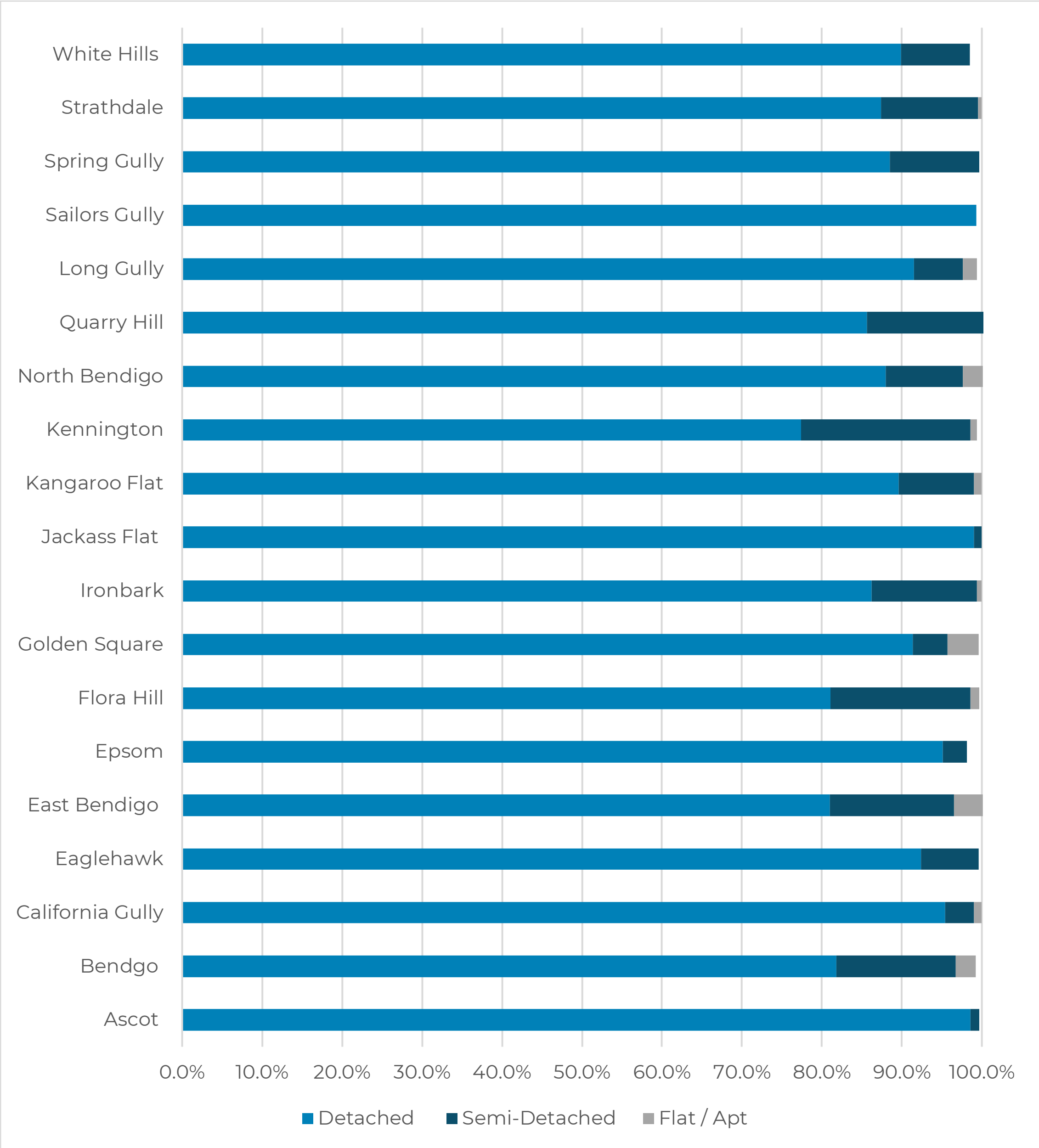
Notably, the proportion of separate houses has increased from just below 90% since the 2016 census. This is due to two main factors:

- The strong growth in house and land sales in the Growth Areas, and
- The comparatively small increase in medium-density dwelling stock which has resulted in a proportionate decrease from 7.8% to 7.1% of the total dwelling stock.

As its population continues to grow, and its demographic composition evolves, Greater Bendigo will nonetheless require greater supply of both separate houses, as well as a greater diversity of housing types at a variety of price points to meet purchaser need.

There has been an increase in separate houses in Greater Bendigo, from 89.6% of total housing stock in 1991 to 91.4% in 2021. Meanwhile, the proportion of medium-density dwelling stock has declined over the last 10 to 15 years, falling from 11.8% of total stock in 2006 to 8% in 2021. This highlights that the need to understand the factors driving the local residential market is fundamental to managing and developing an appropriate and effective housing policy.

Figure 3: Greater Bendigo – Housing Type by Infill Suburb (2021)

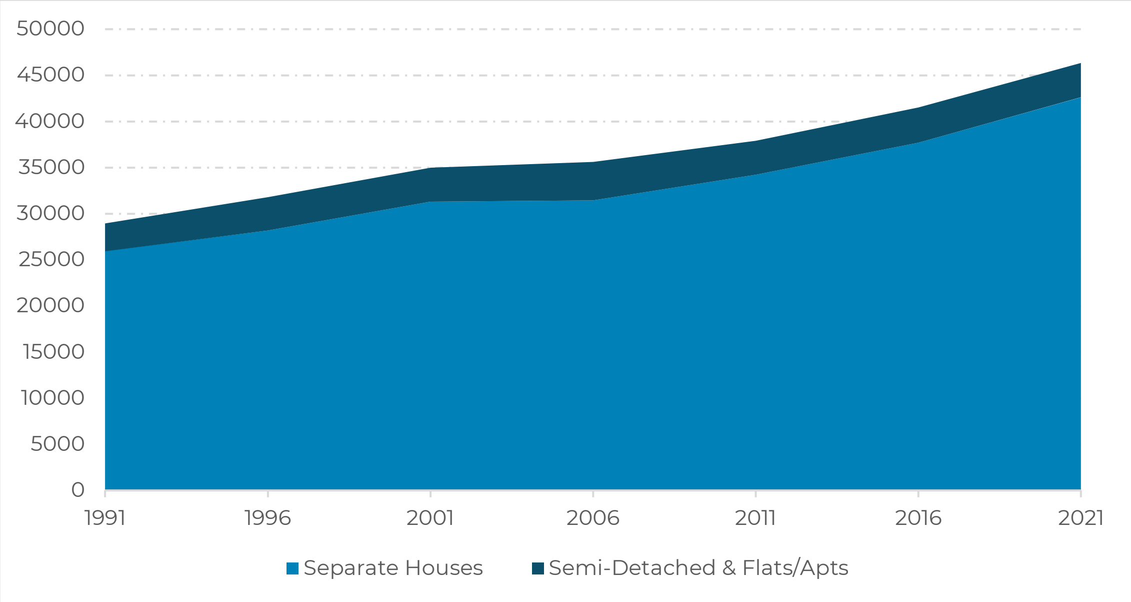


SOURCE – ABS Census

The reason for the increase in separate houses – both in number and as a percentage – in Greater Bendigo over the last three decades – is simply due to the continued growth of this housing type, recently fuelled by the onset of the pandemic which has translated into a significant increase in sales of house and land packages in Greater Bendigo's Growth Areas.

Conversely, there have been far fewer medium-density dwellings constructed, due largely to the development feasibility constraints that exist in the Greater Bendigo market, but also purchaser preference, which continues to value larger dwellings on larger lots – a phenomenon that is typical in regional locations.

Figure 4: Greater Bendigo – Composition of Total Dwelling Stock by Type (1991 – 2021)

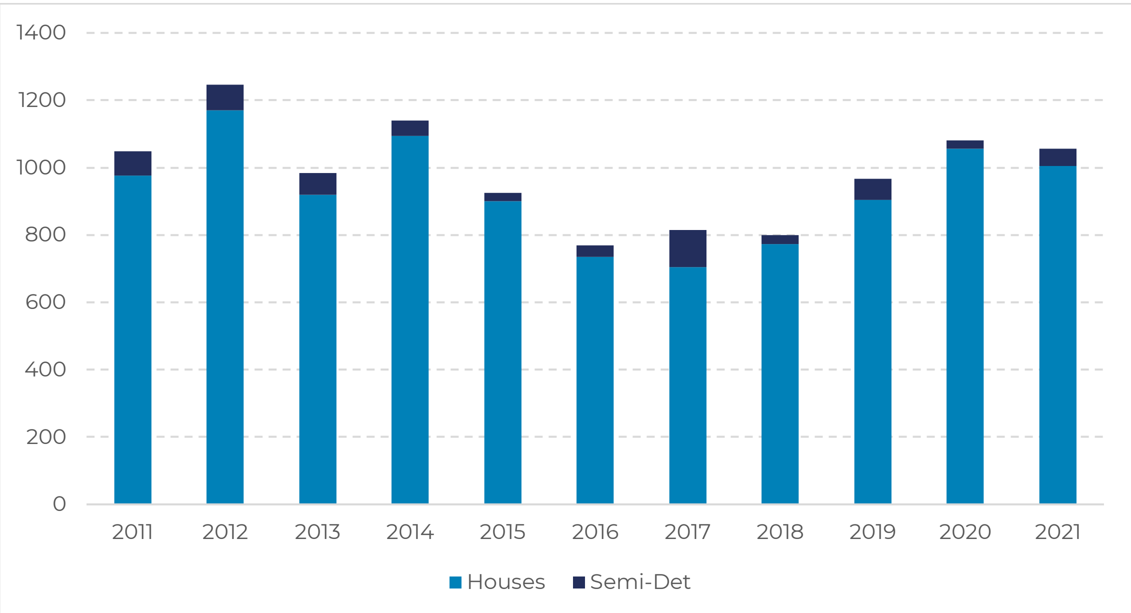


SOURCE – ABS Census

1.4.3 Residential Building Approvals by Dwelling Type (July 2011 – April 2022)

As further evidence of the predominance of separate houses in Greater Bendigo, between July 2011 and April 2022, there were 10,393 building approvals. Of these, 9,812 (94%) were for separate houses and 581 (6%) were for medium-density dwellings.

Figure 5: City of Greater Bendigo Residential Building Approvals (Houses v Semi Detached 2011-2021)



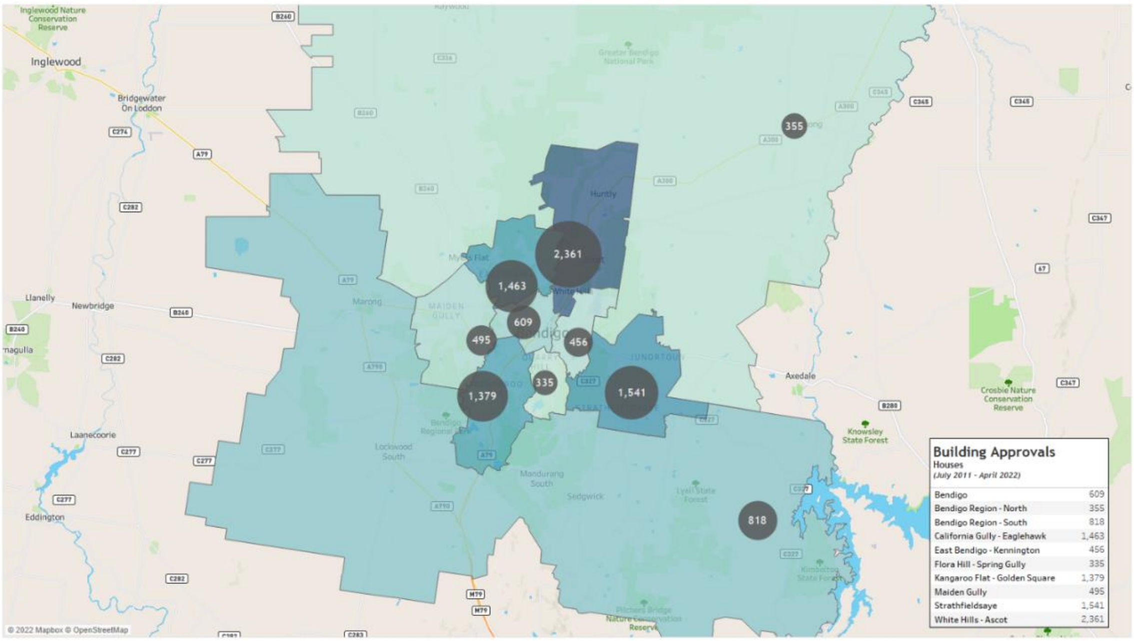
SOURCE – ABS

1.4.4 Residential Activity (Approvals) by Location July 2011 – April 2022

Residential building approval data at the SA2 level further reinforces that separate houses are the predominant dwelling type in Greater Bendigo, and that the small number of medium dwellings approved, are generally concentrated in a small number of suburbs.

Of the 9,812 (94%) house approvals between 2011 and 2022, 2,361 were in the White Hills – Ascot SA2, 1,541 in the Strathfieldsaye SA2, 1,463 in the California Gully – Eaglehawk SA2 and 1,379 in the Kangaroo Flat – Golden Square SA2.

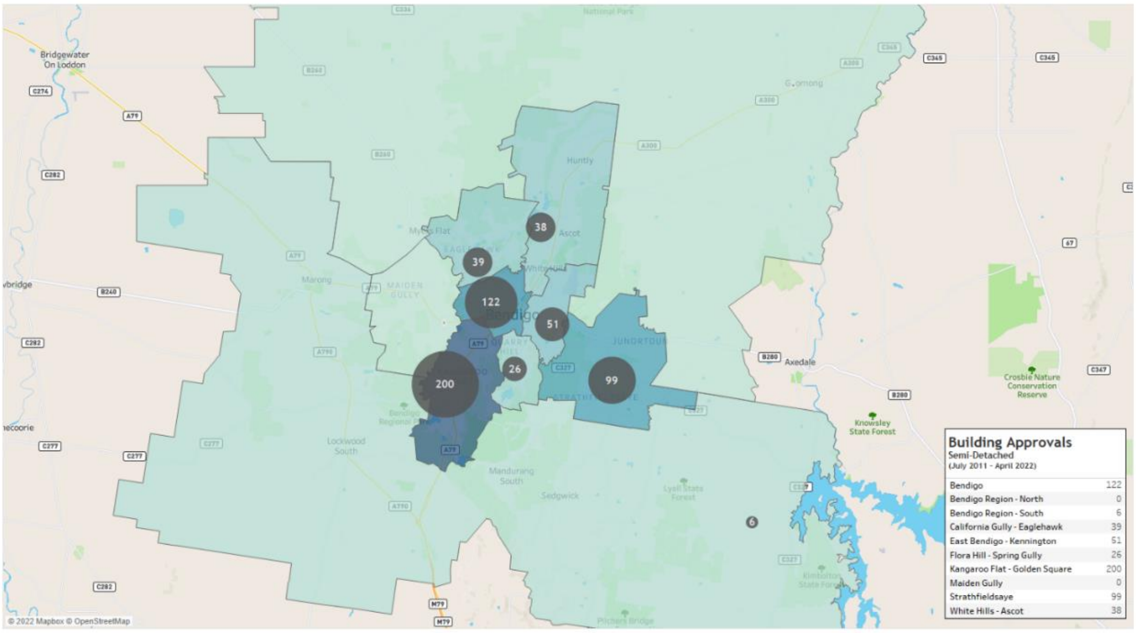
Figure 6: Residential Building Approvals – Houses (July 2011 – April 2022)



SOURCE – ABS; Quantify Strategic Insights

Of the 581 approvals for medium-density dwellings, over half were located in the SA2's of *Kangaroo Flat - Golden Square* and *Bendigo*, with the remainder dispersed across the other SA2's, including 99 at *Strathfieldsaye*.

Figure 7: Residential Building Approvals – Medium Density Dwellings (July 2011 – April 2022)



SOURCE – ABS; Quantify Strategic Insights

1.4.5 Residential Building Approvals by Lot Size Analysis (2021)

Analysis of 2021 building approval data provides insight into the number, location and type of dwellings being constructed in Greater Bendigo. Building approval data from 2021 provides a unique insight into the extent and type of residential activity occurring within a period in which significant population, housing and broader lifestyle changes were underway.

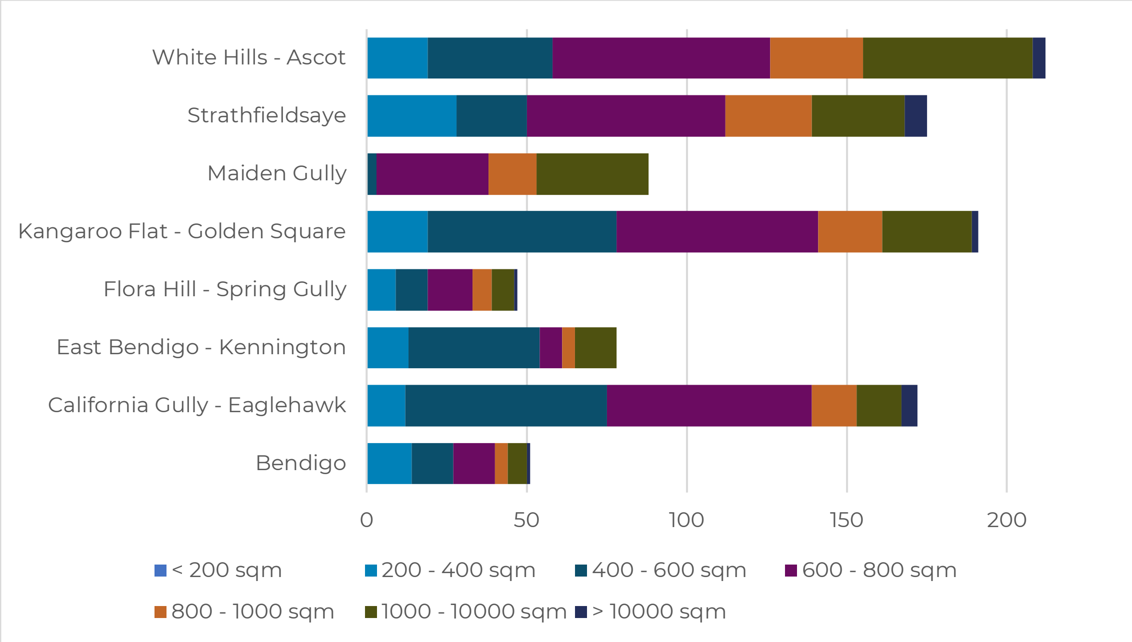
In 2021, there were a total of 1,014 building approvals in Greater Bendigo. In terms of location, White Hills – Ascot had more approvals than any other SA2 with 212. This was followed by the Kangaroo Flat – Golden Square SA2 with 191, the Strathfieldsaye SA2 with 175, and the California Gully – Eaglehawk SA2 with 172.

Of all approvals, 64% or 650, were on lots of at least 600 sq.m. The most popular lot size was 600- 800 sq.m. with 32.1% or 326 of all approvals. These were dispersed across both Growth Areas and Infill areas alike. Notably, 364 (35%) were on lots of between 200 sq.m. and 600 sq.m.

The second highest number of approvals were for lots ranging in size between 400 sq.m. and 600 sq.m. with 250, or 24.7%. The vast majority of these were in the Infill Areas, in particular the California Gully – Eaglehawk SA2 (63), Kangaroo Flat – Golden Square SA2 (59), and East Bendigo-Kennington SA2 (41).

There was a notable 114 approvals on lots sized between 200 sq.m. and 400 sq.m. (11.2%). The highest number of these were in the Strathfieldsaye SA2 (28) followed by White Hills – Ascot SA2 and Kangaroo Flat- Golden Square SA2 with 19 each.

Figure 8: Residential Building Approvals by Lot Size (2021)



SOURCE – Land and Housing Supply Indicators, 2022 | Australian Bureau of Statistics (abs.gov.au)

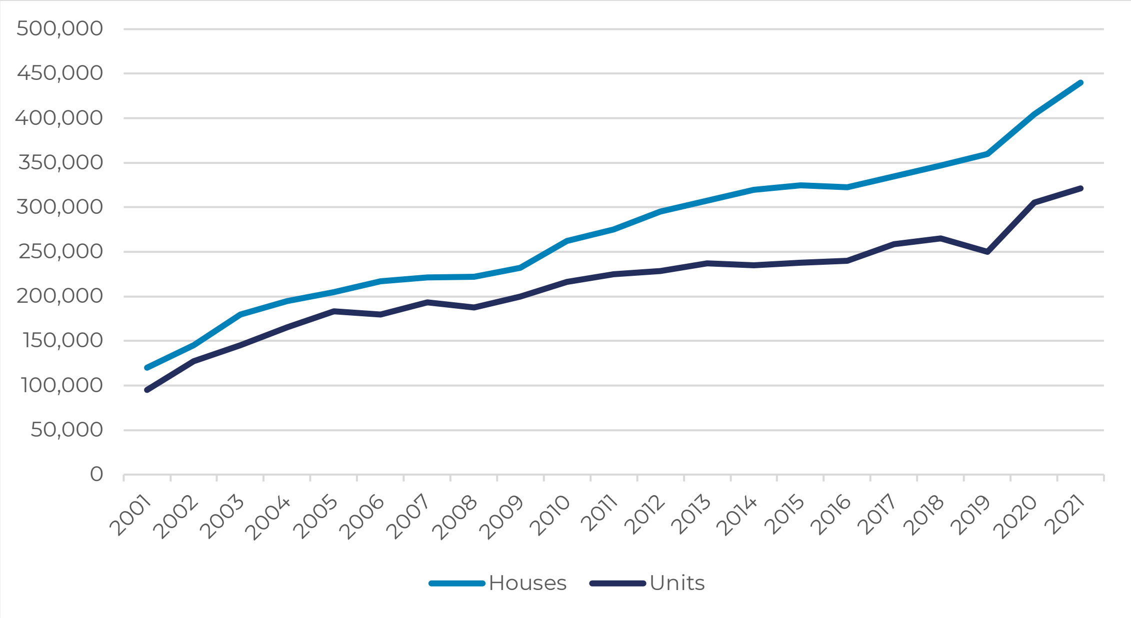
1.4.6 House Prices – Greater Bendigo LGA

Median and unit house prices in Greater Bendigo have experienced consistent, positive price growth over the last two decades (see Figure 9). Over this time, the difference in median price between houses and units has continued to widen, with the difference now wider than at any point in the past 20 years.

This is not a pattern unique to Greater Bendigo, but one which is reflective of the premium afforded to separate houses, particularly in regional Victoria which is an expanding market where significant numbers of new houses are being built and very little medium and higher density stock is being developed.

The median price for houses and to a lesser degree units, has recently spiked in Greater Bendigo. This is due largely to the impact of the Covid-19 pandemic which generated a widespread outflow of people from metropolitan Melbourne to Victoria's regions, including Greater Bendigo, which translated into stronger demand and price increases for housing.

Figure 9: Greater Bendigo Median Price – Houses V Units



SOURCE – Office of Valuer General – Guide to Property Values 2020

Median house prices across Greater Bendigo's established suburbs experienced strong growth between Q4 2020 and Q4 2021, with increases of $50,000 to $150,000 typical. A number of suburbs such as Ascot, Bendigo, Ironbark, Spring Gully and Strathdale all pushed beyond the $600,000 median price threshold for the first time.

Table 6: Infill Area – Median House Prices (Q4 2020 – Q4 2021)

	Oct-Dec 2020	Jan-Mar 2021	Apr-Jun 2021	Jul-Aug 2021	Oct-Dec 2021
Ascot	$472,500	$435,300	$545,000	$550,000	$660,000
Bendigo	$557,500	$610,000	$575,500	$562,500	$630,000
California Gully	$330,000	$369,500	$397,500	$430,000	$452,000
Eaglehawk	$367,500	$394,000	$438,000	$474,000	$470,000
East Bendigo	$377,500	$341,000	$590,000	$517,500	$430,000
Epsom	$460,000	$470,000	$516,000	$562,500	$580,000
Flora Hill	$422,500	$415,000	$460,000	$505,000	$552,600
Golden Square	$408,000	$457,000	$440,000	$490,000	$524,000
Ironbark	$495,000	$523,800	$472,500	$497,500	$670,000
Jackass Flat	$420,000	$447,500	$440,000	$486,000	$532,500
Junorton	$717,500	$655,000	$650,000	$697,500	$842,500
Kangaroo Flat	$405,000	$390,000	$465,000	$466,000	$507,800
Kennington	$429,000	$510,000	$480,000	$550,000	$590,000
North Bendigo	$410,000	$410,100	$470,500	$485,000	$477,800
Quarry Hill	$510,000	$482,500	$565,000	$502,500	$557,500
Long gully	$340,000	$347,500	$403,000	$399,000	$403,000
Sailors Gully	$310,000	$336,000	$379,800	$467,500	$472,600
Spring Gully	$482,500	$499,800	$490,500	$591,300	$632,500
Strathdale	$545,000	$619,000	$603,000	$642,500	$690,000
White Hills	$403,000	$385,500	$450,000	$472,500	$580,000

SOURCE – Office of Valuer General – Guide to Property Values 2020

Townships within the City of Greater Bendigo experienced strong price growth between Q4 2020 and Q4 2021, highlighted by Elmore and Heathcote, both of which saw median price increases of nearly $100,000. This increase is due to the increase in demand and sales activity as a result of the migration outflows from Melbourne.

Table 7: Townships – Median House Prices (Q4 2020 – Q4 2021)

	Oct-Dec 2020	Jan-Mar 2021	Apr-Jun 2021	Jul-Aug 2021	Oct-Dec 2021
Elmore	$223,500	$322,500	$337,000	$360,000	$312,500
Heathcote	$392,500	$375,000	$362,500	$390,000	$485,000
Axedale*	N/A				
Argyle*	N/A				
Goornong*	N/A				

SOURCE – Office of Valuer General

Quantify
Strategic Insights

As is the case within the Infill Area and Townships (as described above), median house prices in the Growth Areas also underwent a significant increase to the median price between Q4 2020 and Q4 2021 as a result of the increased demand and shift to the regions by significant numbers of Melburnians following the onset of the Covid-19 pandemic.

While Huntly and Maiden Gully saw increases of just over $100,000 during this time, Marong and Strathfieldsaye experienced increases to their respective house medians of nearly $200,000.

Table 8: Growth Areas – Median House Prices (Q4 2020 – Q4 2021)

	Oct-Dec 2020	Jan-Mar 2021	Apr-Jun 2021	Jul-Aug 2021	Oct-Dec 2021
Huntly	$435,000	$447,500	$480,000	$480,000	$542,500
Marong	$465,000	$462,500	$530,000	$605,000	$650,500
Strathfieldsaye	$532,500	$571,300	$695,000	$620,000	$710,000
Maiden Gully	$646,300	$640,000	$712,000	$760,000	$755,000

SOURCE – Office of Valuer General

Though a number of Greater Bendigo's suburbs have experienced significant price increases in the last 12 to 18 months (e.g. Ascot, Bendigo, Ironbark, etc.), it is too early to tell whether these increases will be sustained.

Rapidly changing market conditions due to challenging economic factors such as increasing interest rates and rising inflation, unpredictable population movements and cost of living pressures, are impacting the property market. Challenging market conditions are expected to prevail for at least the relative short term (1 to 2 years) which is likely to see a slowing in the recent growth of Greater Bendigo's house prices.

2. VICTORIA'S REGIONAL HOUSING MARKET: A COMPARISON

To understand the opportunities and challenges facing Greater Bendigo, it is instructive to undertake a comparative assessment of Greater Bendigo's residential market with the major regional locations of Greater Geelong and Ballarat. By undertaking a comparative assessment, a greater understanding of relevant development trends, market performance and realistic future housing opportunities for Greater Bendigo will be established.

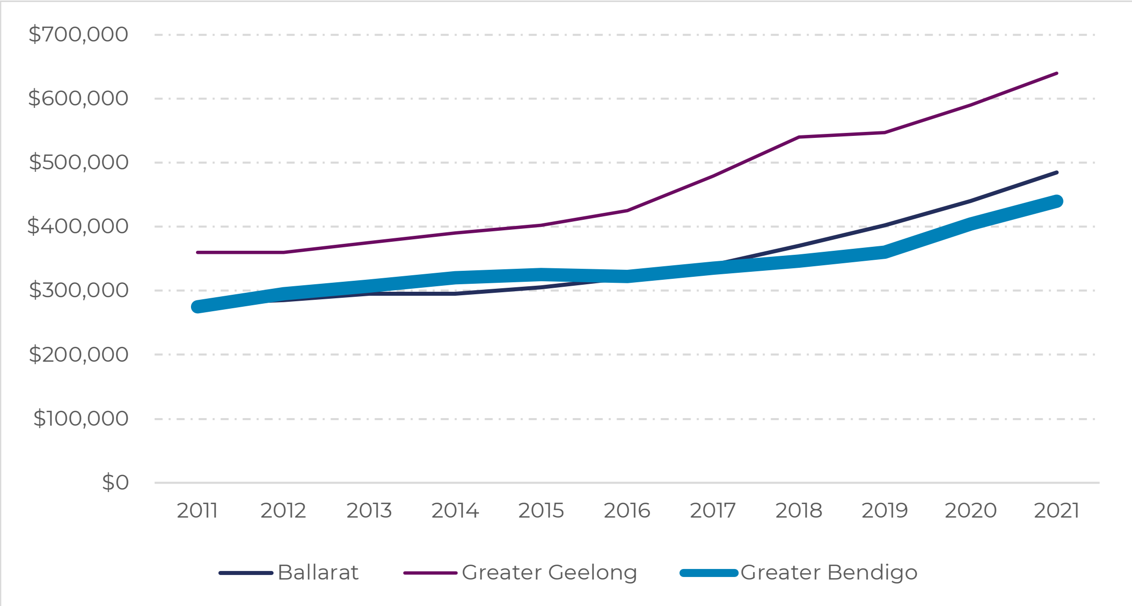
2.1 Regional Prices (Houses)

Against the Greater Melbourne median house price of $750,000, more affordable prices within regional locations have made them increasingly attractive places to live, particularly as flexible working arrangements have become normal practice for many people since March 2020.

Since 2016, but particularly since 2020, each of Greater Geelong, Ballarat and Greater Bendigo have all enjoyed strengthening price growth, in part supported by increased demand due to population outflows from Greater Melbourne into these locations following the onset of Covid-19.

At $440,000, the median house price in Greater Bendigo is significantly lower than that of Greater Geelong ($640,000), and to a lesser extent but still lower than Ballarat ($485,000), making it a more affordable, regional housing option.

Figure 10: Regional Median House Price Comparison



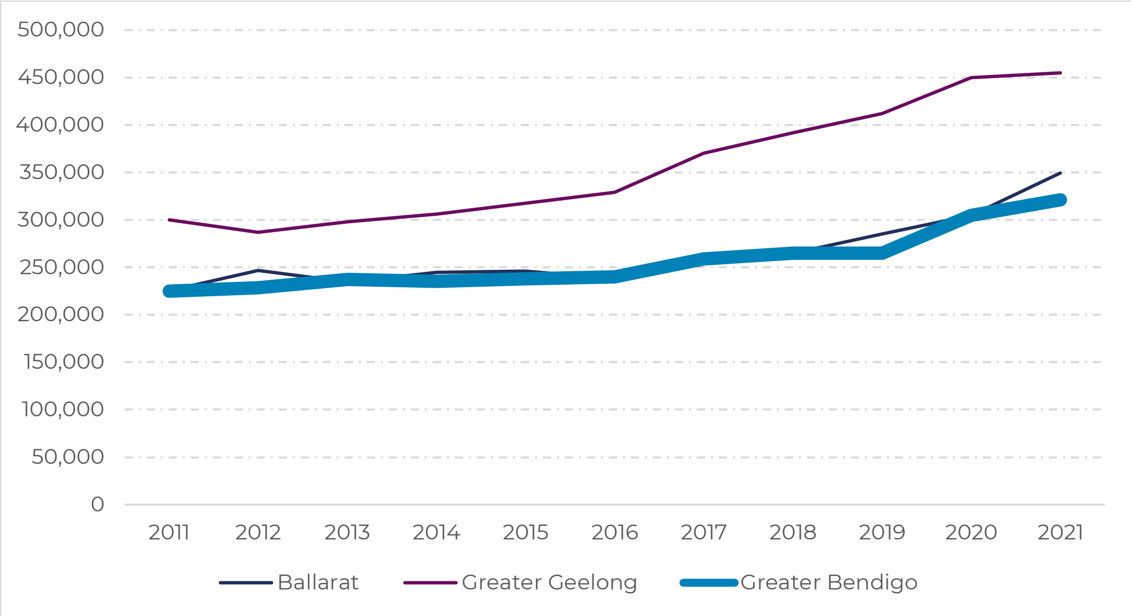
SOURCE – Office of Valuer General; Quantify Strategic Insights

2.2 Regional Prices (Units)

Following a similar pattern to the median house price, the median unit price in Greater Geelong, Ballarat and Greater Bendigo has accelerated in the last three to four years. As expected, Greater Geelong's median unit price is the highest at $455,000, followed by Ballarat at $349,500 which recently surpassed Greater Bendigo at $321,250.

It is noteworthy that the Greater Geelong median unit price has consistently remained above Greater Bendigo's median house price which reflects fundamentally different market dynamics, including the fact that the Greater Geelong market is more directly connected to the performance of metropolitan Melbourne.

Figure 11: Regional Unit Price Comparison



SOURCE – Office of Valuer General; Quantify Strategic Insights

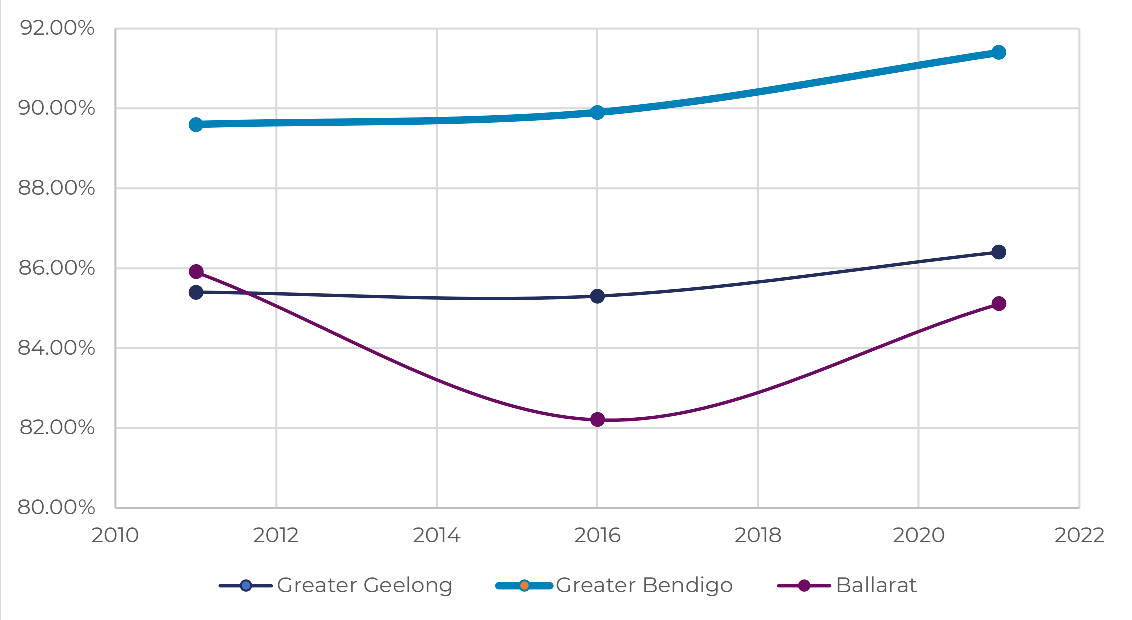
2.3 Regional Trends in Dwelling Type (2011 – 2021)

The regional locations of Greater Geelong, Ballarat and Greater Bendigo have each experienced strong population growth over the last decade, increasing more recently due to the onset of the pandemic which further ignited population shifts towards Victoria's regions.

The dwelling stock in each of the respective regions has remained very much characterised by a separate house typology. Between 2011 and 2021, the proportion of separate house stock in Ballarat decreased slightly from 85.9% to 85.1% while in Greater Geelong it increased from 85.4% to 86.4%. Most significantly, in Greater Bendigo the proportion of separate houses increased from 89.6% of total dwelling stock in 2011 to 91.4% in 2021. This can be explained by the very significant recent sales activity in each of the three regions' respective growth areas, largely fuelled by the onset of the pandemic.

The trend towards an increase in separate houses in an already predominantly separate housing market, reflects the inherent nature of these regions and the type of dwelling stock demanded by a very significant portion of buyers looking to purchase there.

Figure 12: Houses as Proportion of Total Dwelling Stock (2011 – 2021)



SOURCE – ABS Census; Quantify Strategic Insights

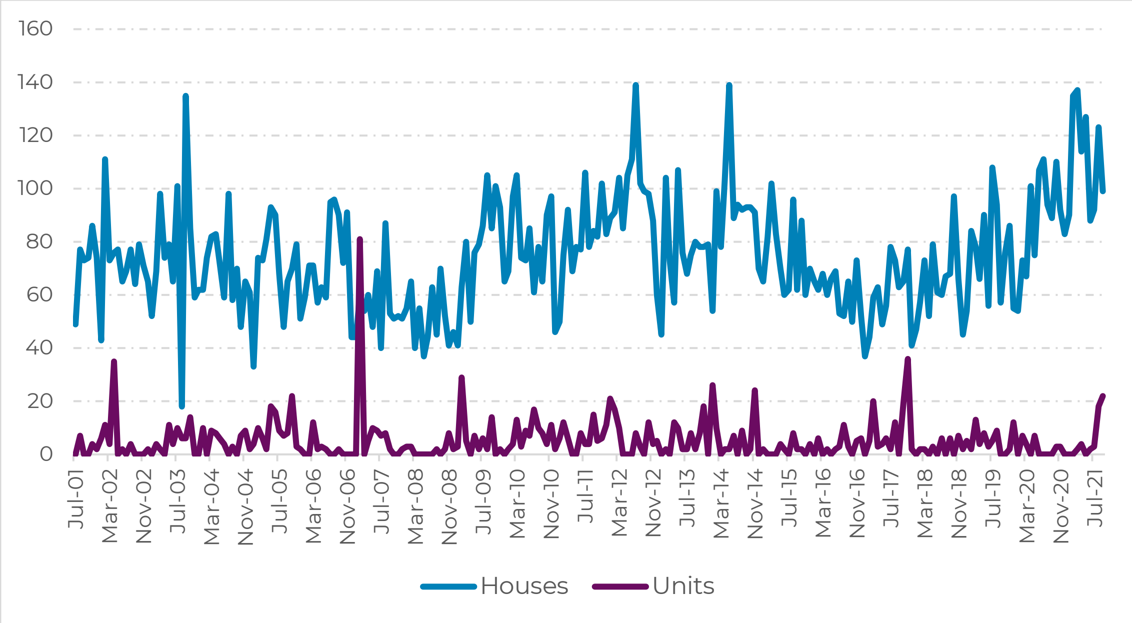
2.4 Medium Density Approvals – A Regional Comparison

In seeking to understand the unique opportunities and challenges facing future residential development in the City of Greater Bendigo, it is instructive to compare building approvals with the major, regional local government areas of Greater Geelong and Ballarat.

Between 2001 and 2021, a comparison of approval data between the regions, reveals that separate houses remain the predominant dwelling type across all three areas. Medium density approvals remain a relatively small percentage of all approvals in each region with no discernible long-term growth trajectory evident.

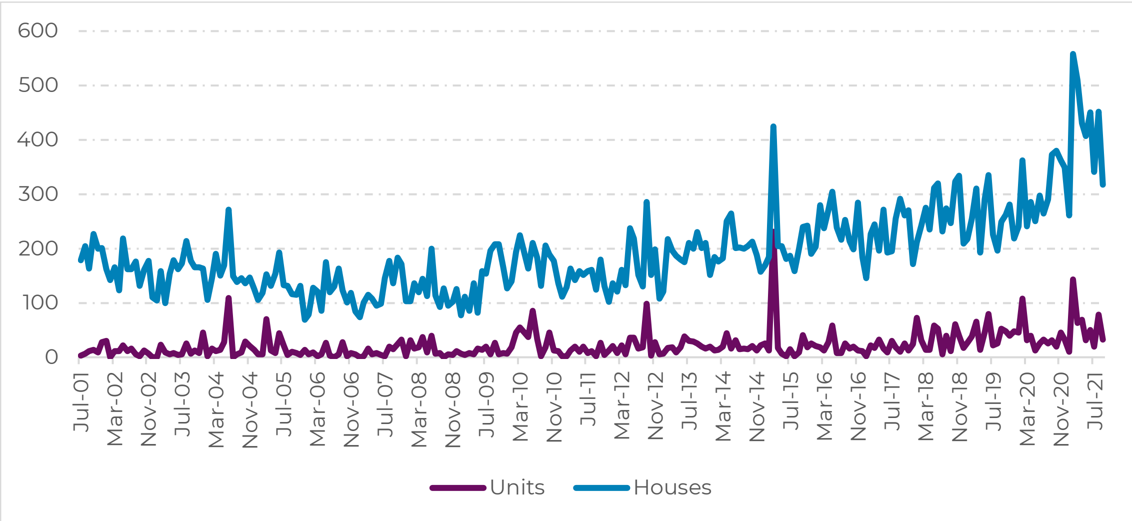
Since 2001, 13% of all approvals in Greater Geelong have been for medium-density dwellings. In Ballarat, this figure is 11% and in Greater Bendigo it is 7%. It is notable that in all three regions, there is no long-term growth in medium-density dwelling approvals which have instead remained relatively flat irrespective of the continued growth in approvals in each region.

Figure 13: City of Greater Bendigo – Residential Building Approvals (Houses V Units 2001 – 2021)



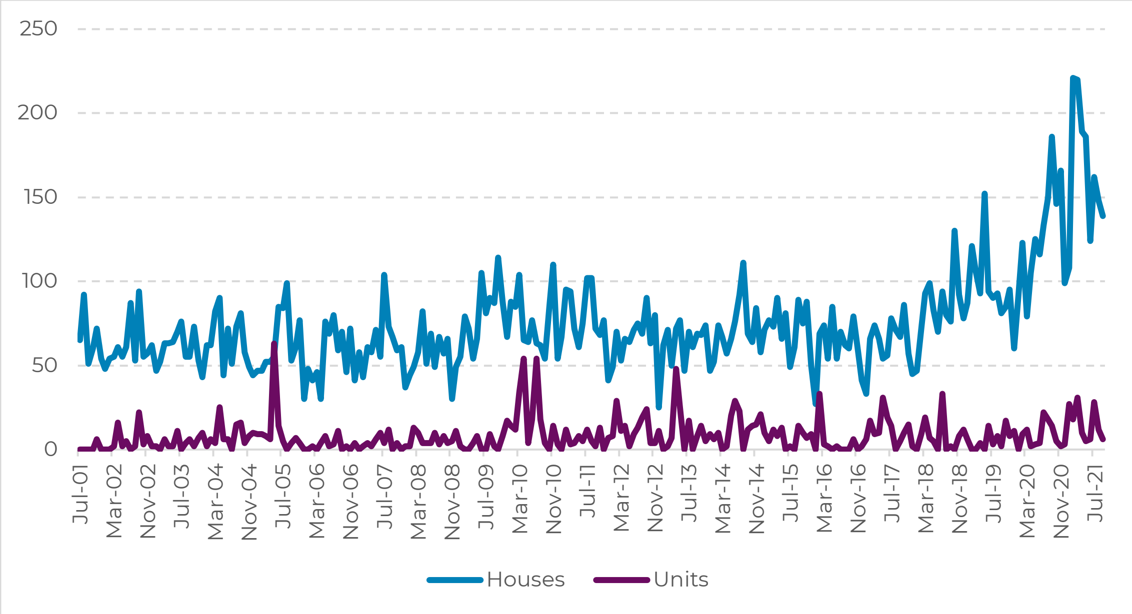
SOURCE – Office of Valuer General; Quantify Strategic Insights

Figure 14: City of Greater Geelong – Residential Building Approvals (Houses V Units 2001 – 2021)



SOURCE – Office of Valuer General; Quantify Strategic Insights

Figure 15: City of Greater Ballarat – Residential Building Approvals (Houses V Units 2001 – 2021)



SOURCE – Office of Valuer General; Quantify Strategic Insights

2.5 Housing Tenure – Regional Comparison

Analysing the variations in housing tenure across the regional locations of Greater Geelong, Ballarat and Greater Bendigo, provides valuable insight into how each of the respective residential markets have performed over the last decade, together with an understanding of current and forecast trends.

This provides perspective on the array of opportunities and challenges for Greater Bendigo in planning for and accommodating population growth and the number and types of required new housing. Reference to Greater Melbourne has also been made for relevant context (see Table 9).

Against the current, widespread phenomenon of declining home ownership, it is instructive to observe that between 2011 and 2021, Greater Bendigo maintained its proportion of dwellings 'owned outright', while Greater Melbourne, Greater Geelong and Ballarat all experienced a decrease.

Table 9: Percentage of Dwellings Owned Outright

	2011	2016	2021
Greater Melbourne	32.7%	30.4%	29.7%
Greater Bendigo	**34.7%**	**33.1%**	**34.7%**
Greater Geelong	36.2%	34.7%	34.2%
Ballarat	33.1%	32.1%	32.6%

SOURCE – ABS; Quantify Strategic Insights

In terms of the proportion of dwellings 'owned with a mortgage', all regions experienced an increase, except for Ballarat which decreased from 34.1% to 33%.

Table 10: Percentage of Dwellings Owned with Mortgage

	2011	2016	2021
Greater Melbourne	36.8%	36.0%	37.1%
Greater Bendigo	**35.5%**	**35.5%**	**35.8%**
Greater Geelong	34.4%	34.1%	34.6%
Ballarat	34.1%	33.0%	33.0%

SOURCE – ABS; Quantify Strategic Insights

Reflecting the challenges posed by continuing housing affordability issues, the percentage of households living in rented homes, has increased across all regions between 2011 and 2021. Of all regions, Greater Bendigo has had the smallest increase in dwellings being rented (0.4%), which at 26.9% is lower than Greater Geelong at 28%, Greater Melbourne (30.2%) and Ballarat, which has the highest proportion of renters with 31.6%.

Table 11: Percentage of Dwellings Rented

	2011	2016	2021
Greater Melbourne	27.2%	30.0%	30.2%
Greater Bendigo	**26.5%**	**28.0%**	**26.9%**
Greater Geelong	25.9%	27.7%	28.0%
Ballarat	29.4%	31.4%	31.6%

SOURCE – ABS; Quantify Strategic Insights

As with the other regions, median house price growth in Greater Bendigo continues to pose affordability challenges though to a lesser degree.

Over the last decade, the percentage of households that are renting in Greater Bendigo has increased marginally, while each of the other regions have seen more notable increases in the percentage of households renting.

Though some uncertainty currently surrounds the residential property market, Greater Bendigo's relative housing affordability is a feature that whilst constraining the development of a robust medium and higher density housing market, continues to be attractive for those seeking a conventional, separate house.

Table 12: Households with Mortgage Repayments greater than 30% of Household Income

	Median House Price	Mortgage Repayments > than 30% of Household Income
Greater Melbourne	$750,000	16.8%
Greater Bendigo	**$440,000**	**10.2%**
Greater Geelong	$640,000	11.9%
Ballarat	$485,000	10%

SOURCE – ABS; Office of Valuer General; Quantify Strategic Insights

3. DEVELOPMENT CONSIDERATIONS

3.1 Introduction

Housing markets are complex and the notion of housing capacity, whilst instructive for strategic planning purposes, is nonetheless a theoretical one that simply identifies aggregate housing capacity based on potential development outcomes conferred on existing residential zoned land by the Greater Bendigo Planning Scheme.

Beyond this, there are an array of variables that directly impact the delivery of new housing which need to be considered. These include:

- Population and demographic change
- Market conditions
- Land supply and availability; and
- Development feasibility.

3.2 Population and Demographic Change

The extent of demand for housing within a given location is heavily dependent on population and demographic dynamics. As recently evidenced, increased population growth in Greater Bendigo has underpinned significant residential development and sales activity. It is however important to note that this is not guaranteed to continue to the same degree in coming years.

In an area such as Greater Bendigo, where internal migration - particularly from surrounding regional and rural areas is a significant component of population growth - the factors that drive migration are sensitive to change. Changes in house prices and the extent of employment opportunities on offer can directly impact the attractiveness of Greater Bendigo and therefore the rate of population growth at any point in time.

The other factor as it relates to the uncertainty of population forecasting is the assumption that the volume of new housing required to accommodate it can be delivered. For example, market conditions, a lack of available residential land and development feasibility constraints can all significantly impede the development of future housing.

3.3 Market Conditions

The ability to house additional population in a timely manner and in sufficient quantities in Greater Bendigo will be directly influenced by broader, market conditions. Presently, economic factors are threatening property markets on a variety of fronts. Rising interest rates, increasing inflation, stricter lending conditions, government debt, rapidly diminishing consumer confidence, combined with an uncertain geo-political environment all point to a challenging period ahead.

Rising interest rates can have a major impact on the property market, both for buyers and sellers. For homeowners who need to take out a mortgage to purchase a property, the increased interest rate will result in higher borrowing costs and reduced borrowing capacity. The Reserve Bank of Australia's decision to increase interest rates three times in as many months is widely seen as a reaction to the booming property market, as first-time buyers and those with variable-rate mortgages are feeling the full effects.

The extent to which these factors impact the local property market are yet to be fully understood however the dynamics of the economic environment are such that any lack of confidence will see a slowing of the property market.

3.4 Greenfield Land Supply & Availability

In those locations designated to accommodate future population growth within its greenfield areas, having the requisite amount of developable, residential zoned land is necessary to enable the timely delivery of new housing. Without the required amount of suitably zoned greenfield land available, the development process slows, or ceases altogether, impacting the rate of population growth otherwise forecast.

Having an adequate supply of residential land is a fundamental requirement to achieving several housing related state and local planning policies as expressed in the Greater Bendigo Planning Scheme.

Notwithstanding the importance of meeting the broader community need for housing without an adequate supply of residential land the ability to provide both housing affordability and greater housing choice including type tenure and price is significantly reduced.

The significance of having adequate land supply to achieve a range of planning benefits including housing the community, is highlighted in the state and local planning policy of the Greater Bendigo Planning Scheme.

Clause 11.02-1S Supply of Urban Land requires that Councils need to:

> *"Plan to accommodate projected population growth over at least a 15-year period and provide clear direction on locations where growth should occur".*

In seeking to respond to changing growth needs, greenfield land needs to be managed to ensure an adequate supply is provided in those locations where growth has been directed. The objective of Clause 11.02-1S Supply of Urban land, is as follows:

> *"To ensure a sufficient supply of land is available for residential, commercial, retail, industrial, recreational, institutional and other community uses".*

Strategies to achieve this include:

> *"Ensure that sufficient land is available to meet forecast demand".*

> *"Plan to accommodate projected population growth over at least 15 years and provide clear direction on locations where growth should occur. Residential land supply will be considered on a municipal basis rather than a town by town basis".*

Planning for urban growth should consider:

- Opportunities for the consolidation, redevelopment and intensification of existing urban areas.
- Neighbourhood character and landscape considerations.
- The limits of land capability and natural hazards and environmental quality.
- Service limitations and the costs of providing infrastructure.

By understanding housing capacity, including how many additional dwellings can be built in Greater Bendigo, Council will be able to:

- Understand the impacts of projected growth on capacity over the next 15 years;
- Enable planning for urban and population growth in the context of any identified capacity constraints.

3.5 Development Feasibility Considerations

Residential development must ultimately be a profitable exercise to ensure that developers see the benefit in developing residential projects. In Greater Bendigo, there are a number of constraints to achieving profitable medium and higher-density residential projects, hence why such projects represent such a small portion of its residential market.

For a project to be financially feasible, a minimum price threshold above and beyond the total project cost, needs to be achieved. For a project to be considered feasible, a Return on Investment of 15% to 20% is required, given the level of risk involved. When the return on investment falls below this, there is a considerably higher risk that the developer will lose money as there is an insufficient margin to accommodate a change in project costs, timelines and/or market conditions.

Where a project's Return on Investment looks marginal, or worse, the ability to obtain construction finance becomes extremely difficult and adds another hurdle to delivering medium to higher density projects.

Across much of Greater Bendigo, the prices required to support the viability of new medium-density dwellings are generally above what the market would be willing to accept. Where the median price for detached housing is below or similar to that of a new townhouse in the same location, purchasers typically express a preference for the detached house option.

Throughout the vast majority of suburbs and towns within Greater Bendigo, the respective median house price is well below what the price of a new townhouse would be. Until this price differential narrows and/or the median detached house price achieves a certain threshold below which alternate dwelling types become a viable option for purchasers, new medium-density dwellings will remain scarce. This simple fact explains in part, the limited number of new medium-density projects delivered in Greater Bendigo, as well as other regional locations.

In an already marginal medium to higher density market, a significant factor for residential developers contemplating future projects is the issue of land contamination. As it stands, uncertainty regarding the extent of contamination on any given site, together with an ambiguous regulatory assessment process, the potential cost of dealing with contamination on a planned project could unquestionably be a 'deal-breaker'.

Typically, developers are evaluating multiple, potential projects at any point in time, with the aim to establish a preferred project which is generally determined by that with the lowest risk and greatest profitability. In this context, a potential project on a contaminated site would be eliminated quickly.

Greater Bendigo's medium-density housing market is very much in its infancy. Though there is evidence of a small number of contemporary townhouse projects having been developed these are concentrated in higher-value suburbs and remain a niche product for a small segment of the market. From this perspective, consideration may need to be given to the prospect that the emerging segments of market demand will not be developed for the foreseeable future.

SECTION 2

HOUSING CAPACITY & SUPPLY ANALYSIS

4. OVERVIEW

The objective of the *Housing Capacity and Supply Analysis* is to identify the potential for the City of Greater Bendigo to accommodate and support future development as promoted by the *Managed Growth Strategy* and Council's broader planning policy framework.

Housing capacity in the City of Greater Bendigo has been assessed based on an analysis of relevant factors pertaining to new residential development including physical capacity, zoning and overlay controls, property market considerations, development feasibility factors, and population and demographic patterns.

In establishing the housing capacity, a number of key tasks have been undertaken. These are outlined as follows.

- Identification of potential, additional existing housing capacity across Infill, Township and Growth Areas.
- A review of historic and forecast population growth and demographic trends.
- An analysis of recent and historic patterns of residential development (including typology and location).
- A comparative assessment of regional housing markets.

The *Housing Capacity and Supply Analysis* has established that Greater Bendigo currently has the capacity to accommodate in excess of 50,000 new dwellings.

To understand the extent to which existing, identified capacity can accommodate future growth, three Residential Forecast Scenarios (the 'Scenarios') have been prepared. These forecast that between 15,060 and 19,560 additional dwellings will be required in the City of Greater Bendigo in the period to 2036.

Each Residential Forecast Scenario includes a dwelling forecast for the period 2021 to 2036, which allocates forecast dwellings to either the Infill, Township or Growth Area (greenfield or infill) locations (by SA2).

In assessing existing capacity against the Residential Forecast Scenarios, it has been established that there is ample capacity within each of the Infill, Township and Growth Areas (infill) areas to accommodate future residential growth well beyond 30 years.

Conversely, Greater Bendigo's Growth Areas (greenfield) are becoming increasingly constrained due to a diminishing rate of zoned residential land, exacerbated by strong, recent demand. As outlined in the following section, Greater Bendigo has an estimated 3 to 5 years supply of zoned Growth Area (greenfield) land.

The Growth Area (greenfield) supply constraints are however, potentially more acute than indicated given that much of the existing residential zoned land supply is fragmented, consists of relatively small land parcels, and is not held by developers. It is therefore uncertain to what degree if, and how much of this will be developed the foreseeable future.

5. INTRODUCTION

The *Housing Capacity and Supply Analysis* has been provided as part of the Greater Bendigo Housing and Neighbourhood Character Strategy.

5.1 What is Housing Capacity?

The objective of the *Housing Capacity and Supply Analysis* is to identify the potential for the City of Greater Bendigo to accommodate and support future development as promoted by the *Managed Growth Strategy* and Council's broader planning policy framework.

As Greater Bendigo grows, there will be increasing demand for dwellings to meet the needs of its future population. Identifying housing capacity enables a better understanding of its capability to do so and informs the development of a growth strategy to guide areas where future housing development can be provided.

Establishing housing capacity requires the identification of developable land and applying development yield assumptions to it to determine an aggregate number of dwellings that could be accommodated. This concept is acknowledged as providing a sound theoretical basis from which further detailed strategic work and policies can be prepared, and one that multiple Victorian councils have applied as part of broader housing studies.

Understanding housing capacity is important in determining whether forecast population growth can be accommodated. For example, if an area is constrained by a lack of capacity to provide new dwellings, then this will naturally place a ceiling on population growth. Conversely, the capacity to supply dwellings at a greater rate than what has been provided historically may attract population from a neighbouring or nearby location where supply is constrained.

The *Housing Capacity & Supply Analysis* provides an important knowledge base and level of understanding relating to Greater Bendigo's ability to accommodate future, additional dwellings.

The *Housing Capacity & Supply Analysis* has been undertaken with the aim to inform the key recommendations of the *Housing and Neighbourhood Character Strategy*, including the process to identify the three residential change areas (i.e. *Minimal Change, Incremental Change and Substantial Change* areas).

5.2 Purpose

The primary purpose of the *Housing Capacity & Supply Analysis* is to:

- Understand the capacity of Greater Bendigo for further residential development.
- Provide an evidence base to inform the development of *Housing & Neighbourhood Character Strategy*.

To achieve this, the *Housing Capacity & Supply Analysis*:

- Identifies the amount of land in the City of Greater Bendigo with capacity for further residential development (Available Residential Land).
- Assesses the capacity of Available Residential Land for increased residential development, particularly in the context of housing demand and supply forecasts.

Housing capacity is based on an analysis of relevant factors pertaining to new residential development within Greater Bendigo, including physical capacity, zoning and overlay controls, property market considerations, development feasibility factors, and population and demographic patterns.

Having established housing capacity, three Residential Forecast Scenarios have been prepared as a means to understand where, and to what extent, there is the capacity to accommodate future housing development. Importantly, the Residential Forecast Scenarios enable an understanding of those areas where there is insufficient capacity to accommodate the housing required.

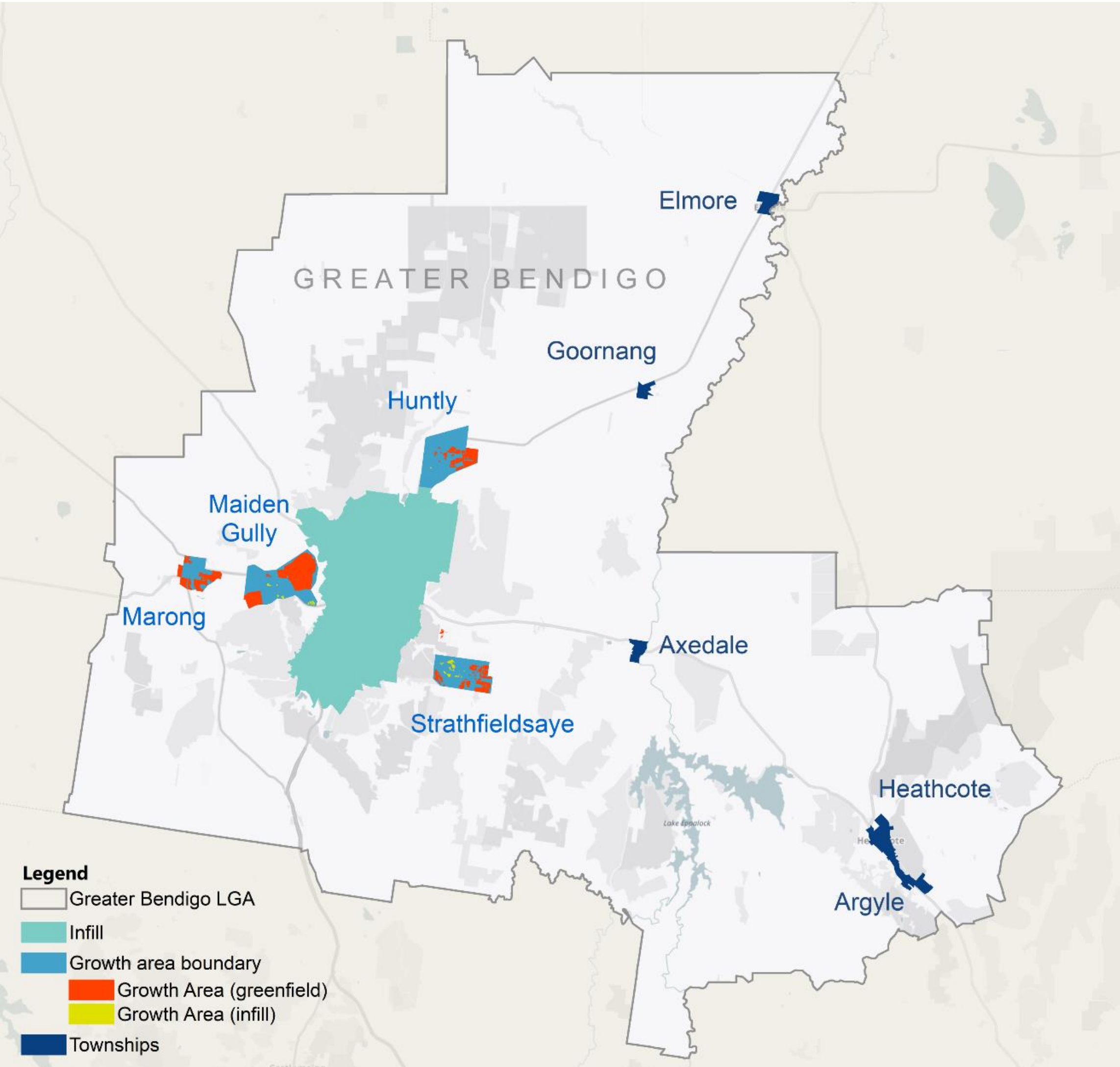
5.3 Study Area

The study area for the housing capacity assessment has been established across three distinct, geographic segments of Greater Bendigo based on the project brief.

These are as follows:

- Infill
- Growth Areas (greenfield & infill)
- Townships.

Figure 16: Housing Capacity Study Area



SOURCE – Quantify Strategic Insights

5.4 Methodology

In establishing the housing capacity, a number of key tasks have been undertaken. These are outlined as follows.

- Identification of potential, additional existing housing capacity across Infill, Township and Growth Areas.
- A review of historic and forecast population growth and demographic trends.
- An analysis of recent and historic patterns of residential development (including typology and location).
- A comparative assessment of regional housing markets.
- Preparation of Residential Forecast Scenarios.

Where assumptions are required to be applied, it is prudent for these to be conservative. Understanding the minimum, rather than the maximum capacity of land that can be developed is essentially the purpose of a capacity study, which ultimately is about understanding the potential to accommodate growth.

In identifying developable lots, a range of factors has been considered. Given the underlying different characteristics of land available for development in Growth Areas compared to Infill Area and Township locations, the methodology applied to establish capacity in each varies accordingly.

It is important to note that a conservative approach has been employed in the application of various criterion. This is to ensure that the ultimate aggregate housing capacity identified reflects a minimum, rather than maximum capability to accommodate future housing needs. This enables better understanding of whether capacity is likely to be constrained in the foreseeable future.

The methodology applied to establish housing capacity across the City of Greater Bendigo is outlined in the following diagram and described below.

Figure 17: Establishing Housing Capacity

5.4.1 Infill & Township Areas

The number of developable lots, or land identified as being available to accommodate future, additional residential development in Infill and Township areas, has been established based on the following criterion.

- The lot must be zoned Residential (GRZ, RGZ or NRZ), or Township Zone.
- A ‘developable’ lot is that which contains a single, separate house or vacant lot (i.e. has not been subdivided and/or redeveloped with two or more dwellings).
- Lots less than 600 sq.m. have been excluded as developable (though this is a relatively conservative lot size threshold with local evidence that redevelopment does occur on lots smaller than this).
- Lots that have more than 10% of their total area affected by the Bushfire Management Overlay (BMO) or the Land Subject to Inundation Overlay (LSIO) have been excluded.
- Lots affected by the Heritage Overlay (HO) have been excluded.

To inform the calculation of potential housing capacity in the Infill Area or Townships, an analysis of recent development patterns has been undertaken. The purpose of this analysis has been to identify the development yields achieved on recently redeveloped sites.
In estimating development yield, a variety of data sources have been assessed including ABS Building Approval data and Council planning information, to identify recent

development patterns - including the density and typology of residential development occurring by lot size and zone.

A review of development patterns and trends across Greater Bendigo provides an understanding of the volume and type of new dwellings currently being developed and sold across the municipality.

In understanding development patterns and trends, informed development yield estimates were able to be applied in assessing physical capacity on identified developable lots and importantly, if and where forecast future growth, can be accommodated.

Conservative development yields have been applied to the respective lot size ranges.

Table 13: Development Yield by Lot Size

Lot Size Range (sq.m.)	Dwelling Yield
600 – 800	2
801 – 1,000	3
1,001 – 1,500	4
1,501 - 2000	6
2,001 – 5,000	8
5,001 – 10,000	12
10,000 +	20

5.4.2 Establishing Growth Area Capacity

Growth Areas include both greenfield and infill Areas.

Growth Area (greenfield) refers to the following:

- Vacant lots which are zoned Residential or Township.
- Are greater than 1 hectare in area.
- Located within a Council designated Growth Area (Strathfieldsaye, Marong, Maiden Gully and Huntly).
- Has less than 10% of its total site area affected by the Bushfire Management Overlay (BMO) or Land Subject to Inundation Overlay (LSIO).
- A yield of 10-12 dwellings per/ha has been applied (as per the UDP).

Only greenfield land that is already zoned for residential development has been considered as genuine supply. Though the Urban Development Program (UDP) definition of supply includes both zoned and unzoned land as greenfield supply, this is considered to present an unrealistic perspective and potentially misrepresent the current state of the Greater Bendigo housing market.

Though identified for potential future development, land that is yet to be zoned for residential development, with little understanding as to the level of commitment, including the related process and timing as to how this will occur, is perhaps best considered to be 'potential', rather than actual supply.

Additionally, zoned residential land, where more than 10% of its total area is affected by the Bushfire Management Overlay (BMO) and/or the Land Subject to Inundation Overlay (LSIO), has been excluded from the Growth Area capacity.

Table 14: Growth Area (greenfield) Supply Comparison

	UDP (Zoned)	Housing Capacity & Supply Analysis
Number of Zoned Properties	89	37
Total Zoned Hectares	505	172
Total Dwelling Yield	5106	1891

SOURCE – UDP; Quantify Strategic Insights

The definition of Growth Area (infill) is the same as that applied to the Infill and Township areas whereby it refers to the already established residential areas comprising conventional residential or township zoned lots that are either vacant or containing one dwelling only.

5.4.3 Aggregate Housing Capacity

Based on the methodology outlined, the City of Greater Bendigo has the potential to accommodate in excess of 50,000 new dwellings dispersed across its Infill, Township and Growth Areas. The potential future dwelling capacity of each of these areas is summarised in the following table.

Table 15: Housing Capacity by Area

Capacity	Potential Dwellings
Infill	36,472
Townships	6,696
Growth Areas (infill)	5,898
Growth Areas (greenfield)	1,891
Total	**50,957**

SOURCE – UDP; Quantify Strategic Insights

5.4.4 Infill Area – Housing Capacity

Assessment of the Infill Areas identified a total of 12,248 developable lots, able to accommodate in excess of 36,400 potential additional dwellings.

Table 16: Infill Area – Housing Capacity

Developable Lots	Potential Dwellings
12,248	**36,472**

SOURCE – Quantify Strategic Insights

Of the housing capacity identified within the Infill Area:

- There is capacity for in excess of 36,400 dwellings;
- 53% are 600-800 sq.m.;
- Just over 13,000 dwellings are identified on lots of 600-800 sq.m., with nearly 9,000 additional dwellings estimated on 800-1,000 sq.m.;
- 24%, or just over 2,900 developable lots (able to accommodate some 8,730 potential dwellings) are 800-1,000 sq.m.;
- Kangaroo Flat has the highest number of developable lots in the Infill Area with 1,857 lots identified able to accommodate just over 4,900 dwellings. This is followed by Golden Square with 1,548 lots able to accommodate almost 5,000 dwellings.

Table 17: Infill Area - Housing Capacity

Suburb	Developable Lots	Potential Dwellings
Ascot	347	1353
Bendigo	257	708
California Gully	866	2554
Eaglehawk	705	2344
East Bendigo	350	1219
Epsom	823	2248
Flora Hill	574	1554
Golden Square	1548	4991
Ironbark	69	212
Jackass Flat	232	598
Kangaroo Flat	1857	4931
Kennington	1280	3853
Long Gully	609	1748
North Bendigo	595	1824
Quarry Hill	127	379
Sailors Gully	26	124
Spring Gully	176	463
Strathdale	1363	4040
West Bendigo	27	86
White Hills	417	1243
Total	**12,248**	**36,472**

SOURCE – Quantify Strategic Insights

A full breakdown of the number of Infill Area lots and potential additional dwellings is provided in Appendix A.

5.4.5 Townships – Housing Capacity

Assessment of the Township areas identified a total of 1,147 developable lots, able to accommodate almost 6,700 potential additional dwellings.

Table 18: Townships – Housing Capacity

Developable Lots	Potential Dwellings
1,147	**6,696**

SOURCE – UDP; Quantify Strategic Insights

With in excess of 400 developable lots, Heathcote has capacity for 2,200 additional dwellings based on 429 developable lots, followed by Elmore with 391 developable lots that have potential for over 2,000 dwellings.

Table 19: Housing Capacity by Township

Township	Developable Lots	Potential Dwellings
Argyle	56	396
Axedale	132	950
Heathcote	429	2222
Elmore	391	2016
Goornang	139	1112
Total	**1,147**	**6,696**

SOURCE – Quantify Strategic Insights

A full breakdown of the number of Township lots and potential additional dwellings is provided in Appendix A.

5.4.6 Growth Areas (greenfield) Capacity

Assessment of the Growth Areas (greenfield) identified potential for 1891 additional dwellings on 172 hectares of developable land.

A consequence of excluding land that has more than 10% of its total area affected by the Bushfire Management Overlay, is that Maiden Gully is deemed to have zero residential zoned, greenfield supply.

For the purposes of the Growth Areas (greenfield) capacity analysis, Huntly includes the adjoining area of Bagshot.

Table 20: Growth Area (greenfield) Capacity

	UDP		Housing Capacity & Supply Analysis	
Growth Area (Greenfield)	**Hectares**	**Lot Yield**	**Hectares**	**Lot Yield**
Huntly (inc Bagshot)	158	1,737	114	1,254
Maiden Gully	188	1,936	0	0
Marong	19	211	19	211
Strathfieldsaye	140	1,286	39	426
Total	**505**	**5,170**	**172**	**1,891**

SOURCE – UDP 2021; Quantify Strategic Insights

5.4.7 Growth Areas (infill) Capacity

Within the Growth Area (infill) an additional 5,898 dwellings could be accommodated on 931 developable lots. Of these, 2,902 are in Maiden Gully and 2,152 in Strathfieldsaye.

Table 21: Housing Capacity by Growth Area (Infill)

Developable Lots	Potential Dwellings
931	**5,898**

SOURCE – Quantify Strategic Insights

Table 22: Housing Capacity by Growth Area (infill)

Township	Developable Lots	Potential Dwellings
Huntly	114	844
Maiden Gully	450	2902
Strathfieldsaye	367	2152
Total	**931**	**5,898**

SOURCE – Quantify Strategic Insights

6. RESIDENTIAL FORECAST SCENARIOS

In accordance with the objective of the *Housing Capacity & Supply Analysis,* the purpose of preparing Residential Forecast Scenarios is to assist in understanding whether the existing identified housing capacity of the City of Greater Bendigo can accommodate future demand over the coming years.

6.1 Methodology

Based on forecast demand, three Residential Forecast Scenarios (the 'Scenarios') have been prepared with the objective to provide an understanding of Greater Bendigo's capacity to accommodate forecast housing growth.

Forecast demand has been established drawing on State Government population and dwelling forecasts and recent, residential development activity. This provides a practical and robust basis upon which the Scenarios have been prepared.

Specifically, the Scenarios have been prepared using VIF 2019 dwelling forecasts and 2020/21 building approval data, which represented an unprecedented level of activity prompted by the onset of the COID-19 pandemic and an increase in regional migration.

Applied to the Infill, Growth Area (Greenfield & Infill) and Township geographies, as well as at the respective SA2 level within each, the Scenarios represent a low, medium, and high level of residential activity over the 2021 – 2036 period.

6.1.1 Growth Areas (Greenfield & Infill)

Each Scenario allocates a significant proportion of forecast dwellings to designated Growth Areas, that is, those areas designated for future growth by the City of Greater Bendigo. These are Strathfieldsaye, Marong, Maiden Gully and Huntly.

For the purposes of preparing the Scenarios, the total dwellings forecast in Growth Areas have been geographically allocated, based on historic dwelling approvals, Census data, and anticipated growth rates, between the greenfield and infill areas. Based on this, forecast residential development for the Growth Areas has been allocated as follows:

- Growth Area (greenfield) – 90%
- Growth Area (infill) - 10%

6.1.2 White Hills – Ascot SA2 Forecast Dwelling Distribution

As The White Hills – Ascot SA2 includes infill areas (White Hills, Ascot and Epsom) as well as a designated Growth Area (Huntly), both VIF 2019 dwelling forecasts and building approval data has been disaggregated for the purposes of preparing the Scenarios.

This has been done following an assessment of residential development activity in each suburb within the SA2 (i.e. White Hills, Ascot, Epsom and Huntly) using 2016 and 2021 Census data, to inform the distribution of forecast dwellings in each Scenario.

Based on this, forecast residential development for the White Hills – Ascot SA2 has been allocated in the Scenarios as follows:

- White Hills – Ascot SA2 (Growth Area) – 60%
- White Hills – Ascot SA2 (Infill) – 40%

6.1.3 Forecasting Infill Development

The proportion of infill development forecast within each Scenario increases in accordance with the overall volume of dwellings forecast.

This is due to the fact that dwelling approval data from 2012-2021, indicates that approvals for infill development peaked in those years when total dwelling approvals also peaked. Conversely, approvals for infill development decreased significantly when total dwelling approvals fell.

Table 23: Residential Forecast Scenario Areas

SA2	Includes
INFILL	
Bendigo	North Bendigo, Long Gully, Bendigo, West Bendigo
California Gully-Eaglehawk	Jackass Flat, California Gully, Eaglehawk, Myers Flat
White Hills-Ascot	White Hills, Ascot, Epsom
East Bendigo-Kennington	East Bendigo, Kennington, Strathdale
Flora Hill-Spring Gully	Flora Hill, Spring Gully, Quarry Hill
GROWTH AREAS (GREENFIELD & INFILL)	
Maiden Gully	Maiden Gully
Strathfieldsaye	Strathfieldsaye, Junorton
White Hills–Ascot (Huntly)	Huntly
Bendigo Surrounds-South	Marong, Lockwood South, Mandurang South, Sedgwick
TOWNSHIPS	
Bendigo Surrounds-North	Elmore, Goornong,
Heathcote	Heathcote, Axedale, Argyle

6.1.4 Residential Forecast Scenarios

Each of the three Residential Forecast Scenarios adopts a different level of demand between 2021 to 2036.

The three Scenarios are:

- Scenario 1 – Base Case Forecast
- Scenario 2 – Mid Range Forecast
- Scenario 3 – Upper Range Forecast

These are described as follows.

Scenario 1 -Base Case Forecast

Scenario 1 – Base Case Forecast adopts the dwelling forecast identified in Victoria in Future (VIF) 2019.

VIF 2019 identifies the need for an additional **15,070 dwellings** over the period 2021 – 2036. This requires an **annual average of 1,004 new dwellings**. Of this, 43.7% is to be distributed to the Infill area and 46% to Growth Area (greenfield). The remaining 10.3% is distributed across the Townships (5.1%) and Growth Areas (Infill) with 5.2%.

Scenario 2 - Mid Range Forecast

Scenario 2 - Mid-Range Forecast, assumes a level of demand that represents the mid-between the Scenarios 1 and 3. Over the period 2021 – 2036, Scenario 2 forecasts the need for an additional **17,025 new dwellings** at an **annual average of 1,135 new dwellings**.

Of this, 47.7% is to be distributed to the Infill area and 41% to Growth Area (greenfield). The remaining 11.3% is distributed across the Townships (6.6%) and Growth Areas (infill) with 4.7%.

Scenario 3 - Upper Range Forecast

Scenario 3 - Upper Range Forecast is based on the 2020/21 building approvals, which over the 2021 – 2036 period, requires an additional **19,560 dwellings**, at an **annual average of 1,304 new dwellings.**

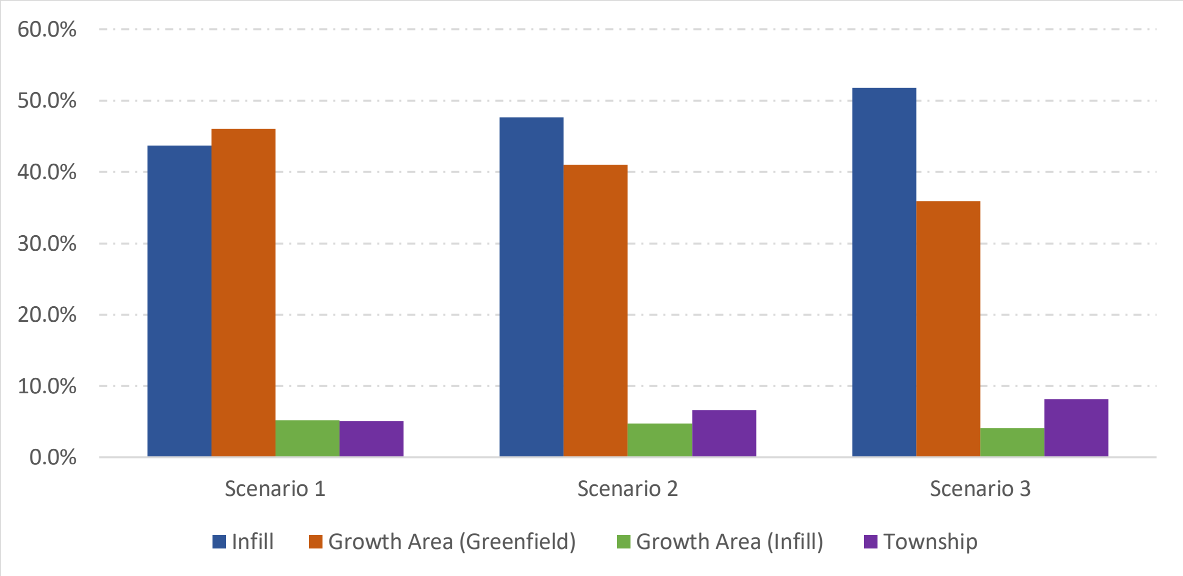
Of this, 51.8% is to be distributed to the Infill area and 35.9% to Growth Areas (greenfield). The remaining 12.3% is distributed across the Townships (8.2%) and Growth Areas (infill) with 4.1%.

Table 24: Forecast Dwellings by Scenario

Scenario 1 *VIF 2019 Dwelling Forecasts*	**Scenario 2** *Mid-point of Scenario 1 & 3*	**Scenario 3** *2020/21 Dwelling Approval Rate*
15,060	**17,025**	**19,560**

It should be noted that the three scenarios have been developed to illustrate potential variation in supply outcomes. They do not necessarily reflect current or future practice or policy of the City of Greater Bendigo.

Figure 18: Residential Forecast Scenarios by Area (2021 – 2036)



SOURCE – Quantify Strategic Insights

Table 25: Residential Forecast Scenarios by Area by SA2 (2021 – 2036)

	Scenario 1		Scenario 2		Scenario 3	
INFILL						
Bendigo	57	5.7%	61	5.4%	63	5.0%
California Gully - Eaglehawk	95	9.5%	126	11.1%	162	12.8%
East Bendigo - Kennington	25	2.5%	49	4.3%	79	6.2%
Flora Hill - Spring Gully	49	4.9%	54	4.8%	60	4.7%
Kangaroo Flat - Golden Square	129	12.8%	161	14.2%	201	15.8%
White Hills - Ascot (Infill)	84	8.4%	90	7.9%	93	7.3%
Sub-Total	***439***	***43.7%***	***541***	***47.7%***	***658***	***51.8%***
GROWTH AREA (Greenfield)						
White Hills - Ascot (Growth Area)	112	11.2%	121	10.7%	126	9.9%
Maiden Gully	105	10.5%	95	8.4%	80	6.3%
Strathfieldsaye	179	17.8%	174	15.3%	164	12.9%
Bendigo Region - South	66	6.6%	75	6.6%	86	6.8%
Sub-Total	***462***	***46.0%***	***465***	***41.0%***	***456***	***35.9%***
GROWTH AREA (Infill)						
White Hills - Ascot (Growth Area)	13	1.3%	14	1.2%	14	1.1%
Maiden Gully	12	1.2%	11	1.0%	9	0.7%
Strathfieldsaye	20	2.0%	20	1.8%	19	1.5%
Bendigo Region - South	7	0.7%	9	0.8%	10	0.8%
Sub-Total	***52***	***5.2%***	***54***	***4.8%***	***52***	***4.1%***
TOWNSHIP						
Heathcote	34	3.4%	41	3.6%	51	4.0%
Bendigo Region - North	17	1.7%	34	3.0%	53	4.2%
Sub-Total	***51***	***5.1%***	***75***	***6.6%***	***104***	***8.2%***
Total Annual Dwelling Forecast	**1,004**	**100.0%**	**1135**	**100.0%**	**1270**	**100.0%**

SOURCE – Quantify Strategic Insights

6.1.5 Medium Density Dwelling Forecasts

Within each of the Scenarios, a proportion of the total dwellings forecast has been assumed to be medium density.

The proportion of medium density dwellings forecast is based on the average percentage of medium density approvals provided in each SA2 between 2012 and 2021.

The total percentage of new medium-density dwellings forecast to be provided between 2021 and 2036, ranges between 5.5% and 6%. This translates to an additional 830 to 1,160 new medium density dwellings in the City of Greater Bendigo.

6.2 Forecast Dwellings & Housing Capacity

Housing capacity figures for each SA2 have been considered against each Residential Forecast Scenario for the purposes of establishing if and where capacity constraints may exist in accommodating residential growth.

As outlined, both the Infill Area, Townships, and Growth Area (infill) have substantial capacity to accommodate future housing, well beyond 2036. Notably, all Growth Areas (greenfield) have insufficient capacity to accommodate the dwelling growth forecast to 2036.

Those SA2s identified to have a lack of capacity to accommodate the dwellings forecast, or which are at risk of not being able to accommodate forecast dwellings have been highlighted in the respective tables (as follows).

Scenario 1 – Base Case
Residential Forecast by Area (2021 – 2036)

SCENARIO 1 (BASE CASE)	2021-2036				Housing Capacity	
INFILL	**Forecast Dwellings**	**% of Total Dwellings**	**% Medium Density**	**Medium Density No's**	**Developable Lots**	**Potential Dwellings**
California Gully - Eaglehawk	1,425	9.5%	2.7%	38	1829	5496
East Bendigo - Kennington	375	2.5%	11.8%	44	2993	9112
Flora Hill - Spring Gully	735	4.9%	6.2%	46	877	2396
Kangaroo Flat - Golden Square	1,935	12.8%	14.7%	284	3405	9922
Bendigo	855	5.7%	19.2%	164	1557	4578
White Hills - Ascot (White Hills, Ascot, Epsom)	1,260	8.3%	1.6%	20	1587	4844
Sub-Total	**6,585**	**43.7%**	**4%**	**596**	**12,248**	**36,348**
TOWNSHIPS	**Forecast Dwellings**	**% of Total Dwellings**	**% Medium Density**	**Medium Density No's**	**Developable Lots**	**Potential Dwellings**
Bendigo Surrounds - North	255	1.7%	0.5%	2	627	3568
Heathcote	510	3.4%	1%	5	520	3128
Sub-Total	**765**	**5.1%**	**0.04%**	**7**	**1,147**	**6,696**
GROWTH AREAS (INFILL)	**Forecast Dwellings**	**% of Total Dwellings**	**% Medium Density**	**Medium Density No's**	**Developable Lots**	**Potential Dwellings**
White Hills - Ascot (Huntly/Bagshot)	195	2.4%	1.6%	3	114	844
Maiden Gully	180	0.5%	0.0%	0	450	2902
Strathfieldsaye	300	1.6%	6%	18	367	2152
Bendigo Surrounds - South (Marong)	105	0.7%	0.8%	1	0	0
Sub-Total	**780**	**5.2%**	**0.1%**	**22**	**931**	**5,898**
GROWTH AREAS (GREENFIELD)	**Forecast Dwellings**	**% of Total Dwellings**	**% Medium Density**	**Medium Density No's**	**Hectares**	**Potential Dwellings**
White Hills - Ascot (Huntly/Bagshot)	1,680	11%	1.6%	27	115	1254
Maiden Gully	1,575	10.5%	0.0%	0	0	0
Strathfieldsaye	2,685	18%	6%	161	38	426
Bendigo Surrounds - South (Marong)	990	6.5%	0.8%	8	19	211
Sub-Total	**6,930**	**46%**	**1.4%**	**206**	**172**	**1,891**
					Indicative Greenfield Supply Estimate - 3 to 5 Years	
TOTAL	**15,060**	**100%**	**5.5%**	**831**		**50,833**

Note: SA2 medium density dwelling percentages represent the number of medium density dwellings forecast per SA2 divided by the total number of dwellings forecast for the respective SA2. The percentage of medium density dwellings shown in each 'Sub-Total' row represents forecast medium density dwellings as a percentage of total dwellings forecast under this scenario (i.e. 15,060). The percentage of medium density dwellings shown in the 'Total' row represent the total percentage of medium density dwellings forecast against the total number of dwellings forecast.

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Scenario 2 – Mid Range
Residential Forecast by Area (2021 – 2036)

SCENARIO 2	2021-2036				Housing Capacity	
INFILL	**Forecast Dwellings**	**% of Total Dwellings**	**% Medium Density**	**Medium Density No's**	**Developable Lots**	**Potential Dwellings**
California Gully – Eaglehawk	1,890	11%	2.7%	51	1829	5496
East Bendigo - Kennington	735	4.3%	11.8%	87	2993	9112
Flora Hill - Spring Gully	810	4.8%	6.2%	50	877	2396
Kangaroo Flat - Golden Square	2,415	14.2%	14.7%	355	3405	9922
Bendigo	915	5.4%	19.2%	176	1557	4578
White Hills - Ascot (White Hills, Ascot, Epsom)	1,350	8%	1.6%	22	1587	4844
Sub-Total	**8,120**	**47.7%**	**4.3%**	**741**	**12,248**	**36,348**
TOWNSHIPS	**Forecast Dwellings**	**% of Total Dwellings**	**% Medium Density**	**Medium Density No's**	**Developable Lots**	**Potential Dwellings**
Bendigo Surrounds - North	510	3%	0.5%	3	627	3568
Heathcote	615	3.6%	1%	6	520	3128
Sub-Total	**1,123**	**6.6%**	**0.05%**	**9**	**1,147**	**6,696**
GROWTH AREAS (INFILL)	**Forecast Dwellings**	**% of Total Dwellings**	**% Medium Density**	**Medium Density No's**	**Developable Lots**	**Potential Dwellings**
White Hills - Ascot (White Hills, Ascot, Epsom)	210	2.1%	1.6%	3	114	844
Maiden Gully	165	0.5%	0.0%	0	450	2902
Strathfieldsaye	300	1.4%	6%	18	367	2152
Bendigo Surrounds - South (Marong)	135	0.7%	0.8%	1	0	0
Sub-Total	**810**	**4.7%**	**0.12p%**	**22**	**931**	**5,898**
GROWTH AREAS (GREENFIELD)	**Forecast Dwellings**	**% of Total Dwellings**	**% Medium Density**	**Medium Density No's**	**Hectares**	**Potential Dwellings**
White Hills - Ascot (Huntly/Bagshot)	1,820	10.7%	1.6%	29	115	1254
Maiden Gully	1,425	8.4%	0.0%	0	0	0
Strathfieldsaye	2,610	15.3%	6%	157	38	426
Bendigo Surrounds - South (Marong)	1,125	6.6%	0.8%	9	19	211
Sub-Total	**6,980**	**41%**	**1.1%**	**195**	**172**	**1,891**
					Indicative Greenfield Supply Estimate - 3 to 5 Years	
TOTAL	**17,025**	**100%**	**5.7%**	**967**		**50,833**

Note: SA2 medium density dwelling percentages represent the number of medium density dwellings forecast per SA2 divided by the total number of dwellings forecast for the respective SA2. The percentage of medium density dwellings shown in each 'Sub-Total' row represents forecast medium density dwellings as a percentage of total dwellings forecast under this scenario (i.e. 17,025). The percentage of medium density dwellings shown in the 'Total' row represent the total percentage of medium density dwellings forecast against the total number of dwellings forecast.

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Scenario 3 – Upper Range
Residential Forecast by Area (2021 – 2036)

SCENARIO 3	2021-2036				Housing Capacity	
INFILL	**Forecast Dwellings**	**% of Total Dwellings**	**% Medium Density**	**Medium Density No's**	**Developable Lots**	**Potential Dwellings**
California Gully – Eaglehawk	2,503	12.8%	2.7%	68	1829	5496
East Bendigo - Kennington	1,213	6.2%	11.8%	143	2993	9112
Flora Hill - Spring Gully	920	4.7%	6.2%	57	877	2396
Kangaroo Flat - Golden Square	3,090	15.8%	14.7%	454	3405	9922
Bendigo	978	5%	19.2%	188	1557	4578
White Hills - Ascot (White Hills, Ascot, Epsom)	1,428	7.3%	1.6%	23	1587	4844
Sub-Total	**10,132**	**51.8%**	**4.8%**	**933**	**12,248**	**36,348**
TOWNSHIPS	**Forecast Dwellings**	**% of Total Dwellings**	**% Medium Density**	**Medium Density No's**	**Developable Lots**	**Potential Dwellings**
Bendigo Surrounds - North	795	4.2%	0.5%	4	627	3568
Heathcote	765	4%	1%	8	520	3128
Sub-Total	**1,605**	**8.2%**	**0.06%**	**12**	**1,147**	**6,696**
GROWTH AREAS (INFILL)	**Forecast Dwellings**	**% of Total Dwellings**	**% Medium Density**	**Medium Density No's**	**Developable Lots**	**Potential Dwellings**
White Hills - Ascot (Huntly/Bagshot)	210	1.1%	1.6%	3	114	844
Maiden Gully	135	0.7%	0.0%	0	450	2902
Strathfieldsaye	285	1.5%	6%	17	367	2152
Bendigo Surrounds - South (Marong)	150	0.8%	0.8%	2	0	0
Sub-Total	**801**	**4.1%**	**0.1%**	**22**	**931**	**5,898**
GROWTH AREAS (GREENFIELD)	**Forecast Dwellings**	**% of Total Dwellings**	**% Medium Density**	**Medium Density No's**	**Hectares**	**Potential Dwellings**
White Hills - Ascot (Huntly/ inc. Bagshot)	1,890	9.9%	1.6%	30	115	1254
Maiden Gully	1,200	6.3%	0.0%	0	0	0
Strathfieldsaye	2,460	12.9%	6%	148	38	426
Bendigo Surrounds - South (Marong)	1,290	6.8%	0.8%	10	19	211
Sub-Total	**7,022**	**35.9%**	**1%**	**188**	**172**	**1,891**
						Indicative Greenfield Supply Estimate - 3 to 5 Years
TOTAL	**19,560**	**100%**	**5.9%**	**1,155**		**50,833**

Note: SA2 medium density dwelling percentages represent the number of medium density dwellings forecast per SA2 divided by the total number of dwellings forecast for the respective SA2. The percentage of medium density dwellings shown in each 'Sub-Total' row represents forecast medium density dwellings as a percentage of total dwellings forecast under this scenario (i.e. 19,560). The percentage of medium density dwellings shown in the 'Total' row represent the total percentage of medium density dwellings forecast against the total number of dwellings forecast.

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7. CONCLUSION

The forecast number of dwellings in Greater Bendigo to 2036, presents significant opportunities, as well as a number of challenges for the local housing market. With an additional 15,000 to 19,600 dwellings forecast to be required to 2036, understanding what, where, and how these will be delivered is a fundamental planning objective for the City of Greater Bendigo.

The *Housing Capacity and Supply Analysis* has established that Greater Bendigo currently has the capacity to accommodate in excess of 50,000 new dwellings. Most of this exists within the Greater Bendigo Infill Area, followed by its Townships and Growth Areas (infill). Conversely, Greater Bendigo's Growth Areas (greenfield) are becoming increasingly constrained due to a diminishing rate of zoned residential land, exacerbated by strong, recent demand.

The percentage of Greater Bendigo's total dwelling stock that is medium density remains relatively low at just 7.1%. Over the next 15 years, the number of medium-density dwellings in Greater Bendigo is however expected to increase, driven by changing demographics, affordability pressures, and development feasibility considerations. Compared to the growth in separate houses, fewer medium-density dwellings will mean that the proportion of medium-density dwellings as a percentage of total dwelling stock can be expected to remain relatively low.

The extent to which there is insufficient capacity in Growth Areas (greenfield) in Greater Bendigo varies depending on the method used to calculate supply.

For the purposes of the *Housing Capacity & Supply Analysis,* Growth Area (greenfield) capacity was established excluding those properties of which more than 10% was affected by the Bushfire Management or Land Subject to Inundation Overlays.

Whereas the UDP identified 89 properties equating to 505 hectares and 5,170 lots in the Growth Areas (greenfield), the *Housing Capacity & Supply Analysis* identified 37 properties equating to 172 hectares with potential for 1891 lots.

Table 25: City of Greater Bendigo Housing Capacity 2021 - 2036

	Current Dwellings	Forecast Dwellings (2021-2036)	Developable Lots	Housing Capacity
Infill	38,102	6,585-10,132	12,248	36,348
Growth Areas (Infill & Greenfield)	10,086	***Infill***		
		780-810	931	5,898
		Greenfield		
		6,930-7,022	37	1,891
Townships	2,963	765-1,605	1,147	6,696
Total	**51,151**	**15,060 – 19,560**	**14,363**	**50,833**

SOURCE – Quantify Strategic Insights

In each of the three Scenarios, dwelling forecasts for Growth Areas (greenfield) highlight potential land supply constraints. This is due to diminishing residential zoned land and continued, strong demand. Based on these dynamics, and the supply of residentially zoned land identified, Greater Bendigo currently has an estimated 3 to 5 years of zoned Growth Area (greenfield) land supply.

The Growth Area (greenfield) supply constraints are, however, potentially more acute than indicated given that much of the existing residential zoned land identified is fragmented land ownership, relatively small lot parcels, is not held by developers and will not be developed in the foreseeable future. It would therefore be instructive for Council to prepare a robust analysis of all designated residential zoned land within its Growth Areas to establish the status of its greenfield land supply before developing a formal policy position in relation to its Growth Areas.

The development of a local housing market that includes a variety of dwelling typologies and price points to suit a range of purchaser needs, requires a robust and flourishing development sector that supports all forms of residential development.

In part due to the onset of Covid-19, Greater Bendigo is forecast to continue to experience significant population growth. Embracing this, by enabling the efficient production of new residential development, will support Greater Bendigo's evolution, including its residential housing market, by capitalising on the unique opportunities before it.

MANAGING HOUSING SUPPLY

Managing housing supply is a complex issue that requires strong partnerships between local government, industry, infrastructure providers and state agencies to ensure diverse and affordable housing is available for those who wish to live in Greater Bendigo.

To enable planning policy objectives to be met, regular monitoring of Growth Area (Greenfield) land that provides an understanding of the capacity, take-up, and the realistic availability of planned dwelling supply is recommended.

Annual monitoring and reporting of the region's land supply and development activity, together with updated dwelling forecasts would provide an evidence base that can be utilised to inform decision making, particularly in times of uncertainty.

Having a rigorous framework and evidence base is vital to being able to monitor the dynamic nature of land supply and development activity across the City of Greater Bendigo. This will enable provision of the right infrastructure, housing and jobs in the right location in the years ahead and for current and future generations.

APPENDIX A

Infill Areas – Housing Capacity

	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield		
	600-800	**2**	**800-1000**	**3**	**1000-1500**	**4**	**1500-2000**	**6**	**2000-5000**	**8**	**5000-10000**	**12**	**10000+**	**20**	**Grand Total**	
Ascot	179	358	43	129	22	88	35	210	64	512	3	36	1	20	347	1353
Bendigo	145	290	58	174	46	184	4	24	3	24	1	12		0	257	708
California Gully	458	916	182	546	175	700	24	144	23	184	2	24	2	40	866	2554
Eaglehawk	264	528	180	540	193	772	36	216	26	208	5	60	1	20	705	2344
East Bendigo	150	300	67	201	84	336	21	126	24	192	2	24	2	40	350	1219
Epsom	548	1096	192	576	27	108	20	120	29	232	3	36	4	80	823	2248
Flora Hill	375	750	120	360	44	176	18	108	13	104	3	36	1	20	574	1554
Golden Square	**685**	**1370**	**457**	**1371**	**263**	**1052**	**59**	**354**	59	472	16	192	9	180	1548	4991
Ironbark	29	58	16	48	20	80	3	18	1	8		0		0	69	212
Jackass Flat	183	366	30	90	6	24	3	18	7	56	2	24	1	20	232	598
Kangaroo Flat	**1195**	**2390**	**401**	**1203**	187	748	27	162	36	288	10	120	1	20	1857	4931
Kennington	625	1250	289	867	**291**	**1164**	46	276	21	168	4	48	4	80	1280	3853
Long Gully	346	692	128	384	104	416	18	108	8	64	2	24	3	60	609	1748
North Bendigo	286	572	148	444	113	452	26	156	18	144	3	36	1	20	595	1824
Quarry Hill	67	134	25	75	26	104	5	30	3	24	1	12		0	127	379
Sailors Gully	2	4	8	24	10	40	2	12	3	24		0	1	20	26	124
Spring Gully	108	216	45	135	18	72	2	12	2	16	1	12		0	176	463
Strathdale	**605**	**1210**	**428**	**1284**	**258**	**1032**	41	246	28	224	2	24	1	20	1363	4040
West Bendigo	12	24	6	18	5	20	4	24	0	0		0		0	27	86
White Hills	254	508	87	261	35	140	13	78	22	176	5	60	1	20	417	1243
Grand Total	**6516**	**13032**	**2910**	**8730**	**1927**	**7708**	**407**	**2442**	**390**	**3120**	**65**	**780**	**33**	**660**	**12248**	**36472**
	53%	**36%**	**24%**	**24%**	**16%**	**21%**	**3%**	**7%**	**3%**	**9%**	**1%**	**2%**	**0%**	**2%**	**100%**	**100%**

Township Areas – Housing Capacity

	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield		
	600-800	2	800-1000	3	1000-1500	4	1500-2000	6	2000-5000	8	5000-10000	12	10000+	20	Grand Total	
Argyle	4	8	8	24	9	36	4	24	25	200	2	24	4	80	56	396
Axedale	7	14	14	42	23	92	25	150	42	336	13	156	8	160	132	950
Heathcote	55	110	78	234	134	536	51	306	92	736	10	120	9	180	429	2222
Elmore	27	54	86	258	147	588	40	240	74	592	7	84	10	200	391	2016
Goornang	1	2	12	36	7	28	29	174	74	592	5	60	11	220	139	1112
Total	**0**	**188**	**198**	**594**	**320**	**1280**	**149**	**894**	**307**	**2456**	**37**	**444**	**42**	**840**	**1147**	**6696**

Growth Areas – Housing Capacity (Greenfield)

Growth Area	Ha	Zone	Lots
Huntly (including Bagshot)	3.68	GRZ	40
	4.04	GRZ	44
	2.13	GRZ	23
	8.09	GRZ	89
	3.25	GRZ	36
	1.35	GRZ	15
	1.00	GRZ	11
	1.88	GRZ	21
	1.3	GRZ	15
	7.6	GRZ	84
	7.6	GRZ	84
	11.3	GRZ	124
	12.6	GRZ	138
	10.3	GRZ	113
	11.8	GRZ	130
	12.2	GRZ	134
	13.9	GRZ	153
Total	110.36		1254

Growth Area	Ha	Zone	Lots
Marong	3.98	TZ	44
	5.56	TZ	61
	5.87	TZ	65
	3.69	TZ	41
Total	**19.10**		**211**

Growth Area	Ha	Zone	Lots
Strathfieldsaye	3.06	GRZ	34
	3.00	GRZ	33
	2.03	GRZ	22
	1.03	GRZ	11
	2.54	GRZ	28
	2.17	GRZ	24
	4.02	GRZ	44
	1.99	GRZ	22
	2.05	GRZ	23
	2.13	GRZ	23
	3.44	GRZ	38
	2.62	GRZ	29
	2.13	GRZ	23
	2.87	GRZ	32
	2.01	GRZ	22
	1.61	GRZ	18
TOTAL	38.72		426

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Growth Areas – Housing Capacity (Infill)

	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield	Size (sq.m.)	Est. Yield		
	600-800	**2**	**800-1000**	**3**	**1000-1500**	**4**	**1500-2000**	**6**	**2000-5000**	**8**	**5000-10000**	**12**	**10000+**	**20**	**Grand Total**	
Huntly			0		21	84	18	108	62	496	13	156	N/A		114	844
Maiden Gully			0		157	628	87	522	180	1440	26	312	N/A		450	2902
Strathfieldsaye	0		0		198	792	34	204	116	928	19	228	N/A		367	2152
Total					**376**	**1504**	**139**	**834**	**358**	**2864**	**58**	**696**	**N/A**	**N/A**	**931**	**5898**

**N/A connotes that lots of 10,000 sq.m + size are excluded from the Growth Area (infill) definition. They are instead included within the Growth Area (greenfield) definition.*

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About Quantify Strategic Insights

Quantify is one of Australia's leading professional service firms.