RESIDENTIAL LAND SUPPLY & DEMAND ASSESSMENT

Warrnambool City Council

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Spatial Economics

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EXECUTIVE SUMMARY

The following report is a residential land supply and demand assessment for the municipal area of Warrnambool.

The assessment includes:

- the identification of historical and current residential lot construction activity by supply type and location;
- identification of all zoned and unzoned broadhectare residential land supply stocks including estimates of lot yields on a project by project basis;
- assessment of the stock of rural residential lands;
- examination of the quantum and composition of future residential demand;
- presentation of potential future demand scenarios; and
- estimation of the years of supply of undeveloped broadhectare residential land stocks.

Historic Population Growth

Population Growth

Population growth has increased on an average annual basis of 0.7% or 235 persons per annum from 2016 to 2021. The estimated population in Warrnambool in 2021 was 35,419.

Residential Development Activity

Residential Building Approvals

As measured over the two financial years of 2019/20 and 2020/21, residential building approval activity has significantly increased across regional Victoria, increasing by 51% (from 12, 300 approvals to 18,540). In comparison, metropolitan Melbourne over the same time period increased by 3%. Warrnambool over this period illustrated significant growth in building approval activity, increasing by 96%, from 204 approvals to 399 in 2020/21.

In 2021/22 the quantum of residential building approval was more subdued compared to the previous financial year. For Victoria, building approval activity declined by 3.4%, metropolitan Melbourne increased by 2.5% and regional Victoria declined by nearly 18%.

In 2021/22 building approval activity in Warrnambool declined to 236. approvals. The current level of building approval activity is still significantly greater than recent long-term trends.

Residential Lot Construction

Over the last five years, residential lot construction has averaged 213 per annum. In 2021/22 there was a total of 290 residential lots constructed.

Of the lot construction activity measured since 2008:

- 3% was rural residential (6 lots per annum);
- 4% was aged/lifestyle lots (8 lots per annum);
- 7% was major infill (14 lots per annum);
- 14% was dispersed/minor infill (29 lots per annum); and
- 72% was broadhectare (146 lots per annum).

The median sales price of a vacant residential lot in 2021 was:

- $100,000 - Glenelg;
- $190,000 in Warrnambool;
- $190,000 in Bendigo;

- $237,750 in Ballarat;
- $310,000 in Geelong; and
- $245,000 across regional Victoria (this is heavily influenced by peri-urban municipalities and Geelong).

Examination of more recent sales data by locality illustrates significant price increases. As measured from 2021 to the March quarter 2022, the median sales price of a vacant residential allotment by locality increased by:

- 11% from $220,000 to $243,800 in Warrnambool; and
- 29% from $140,000 to $180,000 in Dennington.

Vacant residential land sales values across the municipal area of Warrnambool have comparatively only moderately increased over-time, in addition residential sales values are currently relatively affordable to both regional Victoria and other major regional centres.

Residential Land Supply

Broadhectare/Major Infill Land Stocks

In total, Warrnambool currently has capacity for the future provision of approximately 9,372 additional dwellings (including areas that are as yet not zoned for residential development purposes), on broadhectare sites.

This capacity is comprised of:

- 4,943 unzoned broadhectare lots; and
- 4,429 zoned broadhectare lots.

It was highlighted to Spatial Economics through the land development industry consultation process that both land fragmentation and significant existing uses on a number of identified zoned broadhectare sites will result in land development commercial feasibility being problematic.

Spatial Economics have estimated that these sites have an ultimate potential of 488 lots/dwellings.

It is considered that over-time, these fragmented land parcels will be developed. However, this potential has been removed when assessing the adequacy/years of land supply.

Rural Residential

Across Warrnambool there was a total stock of 634 rural residential allotments. Of this stock, 88 lots (14%) were vacant. Vacant rural residential lots as a supply type in Warrnambool is low compared to other regional municipalities in Victoria.

Projected Housing Demand

Spatial Economics have presented three projected demand scenarios based on the most recently available evidence. These demand scenarios are outlined below.

Scenario 1:- the Victorian Government's official population projections *'Victoria in Future 2019' (VIF 2019*). Dwelling requirements from 2021 to 2041 at 152 per annum or a 0.9% per annum growth rate.

Scenario 2:- Increased and sustained population growth. Dwelling requirements from 2021 to 2041 at 219 per annum or a 1.2% per annum growth rate.

Scenario 3:- Trend Housing Growth. Dwelling requirements from 2021 to 2041 at 242 per annum or a 1.4% per annum growth rate.

Adequacy of Land Stocks

Years Supply – Broadhectare

In terms of **zoned** broadhectare residential land stocks, it is estimated based on the identified supply and projected demand scenarios, there are sufficient land stocks to satisfy **23 to over 25 years** of demand across the municipal area of Warrnambool.

In addition, there are sufficient **unzoned** broadhectare residential land stocks to satisfy an additional **25 plus** years of demand for all three demand scenarios.

Recommendations

Spatial Economics recommend:

1. Recognise that uncertainty regarding future population growth rates make it prudent not to rely on a single growth forecast for the purpose of planning for future housing needs.
2. Adopt a scenario-based approach to residential planning (i.e. plan on the basis of multiple growth scenarios and have planning in place to cope with the full range of growth rates set out in these scenarios).
3. Monitor and review actual residential development trends on at least an annual basis using the methodology set out in this report.
4. Plan on the basis of maintaining at least a **15-year zoned** greenfield residential land stock. Given the recommended scenario-based approach this means putting in place forward planning to enable Council to quickly rezone land to maintain an adequate land supply even under a high growth scenario.
5. Adopt a clear strategy to achieve its goal of encouraging greater urban consolidation and housing diversity while also protecting the amenity and character.
6. Organising regular (at least annual) discussion forums with key stakeholders on housing and development needs and steps that Council can take to facilitate ongoing investment in housing and economic development.

1.0 Introduction

1.1 Context

The following report is a residential land supply and demand assessment for the municipal area of Warrnambool.

The assessment includes:

- the identification of historical and current residential lot construction activity by supply type and location;
- identification of all zoned and unzoned broadhectare residential land supply stocks including estimates of lot yields on a project by project basis;
- assessment of the stock of rural residential lands;
- examination of the quantum and composition of future residential demand;
- presentation of potential future demand scenarios; and
- estimation of the years of supply of undeveloped broadhectare residential land stocks.

The assessment provides a robust and transparent assessment of the supply and demand for residential land across Warrnambool. The assessment will facilitate informed decision making in terms of the existing and future broadhectare residential land supply requirements.

In addition, the information will be of assistance to other related planning processes such as infrastructure and service planning.

1.2 Purpose

The monitoring of land supply is a key tool to assist in the management and development of growth across the municipal area of Warrnambool. The primary purpose of monitoring residential land supply is to improve the management of urban growth by ensuring that council, public utilities, government and the development industry have access to up-to-date and accurate information on residential land availability, development trends, new growth fronts, and their implications for planning and infrastructure investment.

The following report provides accurate, consistent and updated intelligence on residential land supply, demand and consumption. This in turn assists decision-makers in:

- maintaining an adequate supply of residential land for future housing purposes;
- providing information to underpin strategic planning in urban centres;
- linking land use with infrastructure and service planning and provision;
- taking early action to address potential land supply shortfalls and infrastructure constraints; and
- contributing to the containment of public sector costs by the planned, coordinated provision of infrastructure to service the staged release of land for urban development.

2.0 Approach & Scope

The following provides a brief outline of the major methodologies and approach in the assessment of recent residential lot construction, residential land supply areas, dwelling demand scenarios and determination of assessing adequacy of residential land stocks.

The methodology that Spatial Economics has employed for this project is based on the simple premise of matching the supply type with demand. This methodology assesses recent construction and future supply using the same criteria with the supply type definitions based on outcomes and on a lot by lot basis rather than administrative boundaries.

The methodology used by Spatial Economics is consistent with other State Government methodologies around Australia, including the Victorian State Governments Regional Urban Development Program. The criteria used to define the supply types are explained below.

Future Dwelling Requirements

The following are utilised in estimating future dwelling requirements as measured from 2021 to 2041.

The Victorian State Government population and household projections undertaken by the Department of Environment, Land, Water & Planning (VIF2019).

Two alternative growth scenarios developed by Spatial Economics, specifically:

1. An assumed higher and sustained population growth of 1.0% per annum; and
2. A continued trend of recent dwelling growth as measured by the ABS Population and Housing Census from 2016 to 2021

Land Supply Type Definitions

1. ***Broadhectare*** is defined as residential development on greenfield sites (sites that have not been used previously for urban development purposes or previously subdivided for normal/urban density development) and typically located on/or near the urban fringe.
2. ***Lifestyle/Aged Care*** is from a lot/dwelling construction perspective, housing outcomes that are specifically targeted for aged persons/households. Typically (in the case for Warrnambool) these are detached dwellings within lifestyle villages.
3. ***Major Infill*** is defined by development or capacity greater than 5 lots/dwellings per site and is located within the established urban area. There is often debate and "shades of grey" to the difference of major infill and broadhectare. Often, major infill can be described as remanent broadhectare i.e. greenfield land left undeveloped and urban development subsequently surrounding the site. Major infill sites are also characterised by having had no previous urban use/activity.
4. ***Dispersed Infill*** is from a lot/dwelling construction perspective, residential development occurring within the established urban area (not on broadhectare sites) that yield less than 10 dwellings per individual construction project. Typically, it entails 'backyard' style subdivision projects.
5. ***Rural Residential*** is from a dwelling construction perspective, all activity on land zoned Rural Residential and Low Density Residential.

The images below illustrate the supply types.

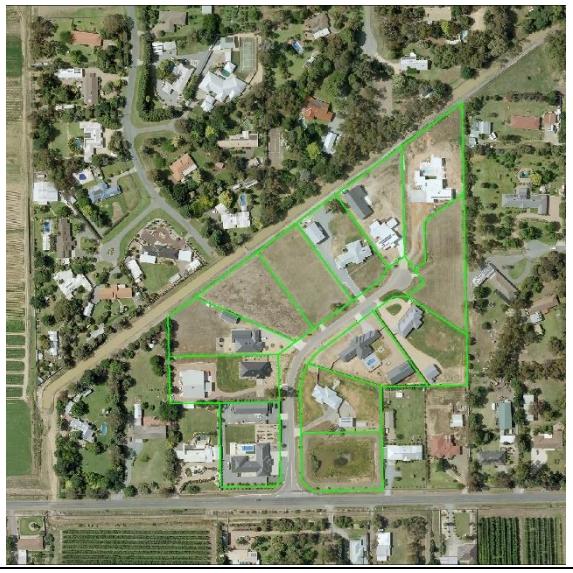
Image 1: Residential Land Supply Types

Broadhectare

Lifestyle/Aged Care

Dispersed Infill

Rural Residential



Geography

The following geographic areas are utilised for the land supply assessment and demographic analysis.

Localities: Locality boundaries are sourced from the Victorian State Government These boundaries represent the urban centre/township/locality geographic extent.

2021 ABS SA2: Australian Bureau of Statistics geographic definition that are a general-purpose medium sized area built from whole SA1s. Their aim is to represent a community that interacts together socially and economically.

Warrnambool Council is fundamentally comprised of two SA2 areas – Warrnambool South and Warrnambool North. However, there are a number SA2s that Warrnambool share with neighbouring municipality of Moyne including: Warrnambool, Warrnambool North and Moyne West.

Residential Lot Construction

Residential lot construction has been determined via the assessment of the residential cadastre and the application of this cadastre to the land supply types identified above.

A constructed lot is defined by the year of construction and the finalisation of the certificate of title.

Lot construction is only captured if it is for residential purposes.

It is noted, where new lot construction occurs (typically within mixed use type zones) and one lot results in multiple dwellings, the dwelling count is collected. Lot construction from the following assessment will largely result in one net additional dwelling.

Construction activity has been assessed on an annual financial year basis from July 2008 to July 2022.

Lot construction have been undertaken for the following supply types:

- Rural Residential;
- Dispersed Infill;
- Lifestyle villages;
- Major Infill; and
- Broadhectare.

Lot Yields

Lot yields on a site basis has been undertaken for only undeveloped broadhectare and major infill lands.

In establishing the lot yield for each individual land parcel, the following information was used: incidence and location of native vegetation, zoning, natural features such as creeks, escarpments, floodways, localised current/recent market yields, ability to be sewered, existing studies such as structure plans.

In addition to site specific issues, 'standard' land development take-outs are employed, including local and regional. The amount/proportion of such take-outs are dependent on the land parcel i.e. a 1ha site will have less take-outs than say a 50ha site. Further intelligence and verification are sourced from the local land development industry and Council officers.

Years of Supply

With the amount of supply and demand estimated, adequacy is described in years of supply. For example, it can be stated that there are X years of supply based on projected demand within a given geographic area.

In assessing the number of years of broadhectare/major infill residential land supply, only a component of the total projected demand is apportioned to estimate future demand. The remainder is apportioned for future demand of other forms of residential supply such as dispersed infill and rural residential.

3.0 Population, Household and Dwelling Growth

Key Findings

Population growth for the municipal area of Warrnambool has been steady - an average annualized growth of 0.7% from 2016 to 2021 or 235 persons per annum. In the most recent year, the rate of population growth has decreased to 0.2% per annum or just 61 persons. From 2016 to 2021, population growth within Warrnambool has been composed of:

- 225 persons via natural increase (births minus deaths)
- a loss of 185 persons from migration within Australia; and
- 899 persons from overseas migration.

In 2021, it is estimated that there were 15,099 private residential dwellings across the municipal area of Warrnambool. This represents an average annual growth in dwellings of 203, or an average annual increase of 1.4% as measured from 2016.

Regional Victoria's population growth been little affected by Covid – lower overseas gains and higher interstate losses have been cancelled out by greater net movements of people from Melbourne to Regional Victoria.

Three demand scenarios are presented to assess the adequacy of greenfield/major infill residential land stocks for the municipal area of Warrnambool, these include:

Scenario 1:- the Victorian Government's official population projections 'Victoria in Future 2019' (VIF 2019). This publication sets out population, household and dwelling growth projections to 2036 for all regions and local government areas in Victoria

These projections have been modified to account for more recent estimates of the residential population as at 2021 and extended to 2041 (maintaining demographic assumptions from 2036).

Scenario 2:- Increased and sustained population growth. This assumes a sustained population growth rate of 1.0% and core demographic assumptions such as average household size, persons in non-private dwellings and dwelling vacancy rate are sourced from the2021 Population and Housing Census; and

Scenario 3:- Trend Housing Growth. Is not a demographically driven scenario, rather it simply assumes recent (2016 to 2021) dwelling growth rate to continue. The dwelling growth rate is sourced from the 2016 and 2021 Population and Housing Census at 1.4% per annum .

The 2021 census results have only recently been released. On 26th July, 2022, the Australian Bureau of Statistics (ABS) updated its estimated resident populations (ERPs) for regions and local government areas in Australia.

The updates use the results of the 2021 census and cover each year from 2017 to 2021, thereby superseding previously published population estimates that were based on the 2016 census.

The Census, also provides an accurate estimate of the change in the number of resident households and the stock of dwellings as at 2021.

3.1 Recent Population Growth Trends

Warrnambool's growth rate has varied since the turn of the century. Population growth in Warrnambool comparatively, has been consistently steady. Since 2016 the growth rate for Victoria has slowed while Regional Victoria's has increased, mainly due to increased spill overs from Melbourne into adjacent LGAs beyond the Greater Melbourne boundary. Greater Geelong has experienced a remarkable rejuvenation attracting more migrants from overseas, interstate, other parts of Regional Victoria and, most significantly, from Melbourne, thereby pushing up Regional Victoria growth rate.

In the context of the recent regional population surge, Warrnambool has only experienced a subdued increase in population growth.

Table 1: Long Term Population Growth: Average Annual Population Growth Rates (%), 2001-2021

	2001-06	2006-11	2011-16	2016-21
Warrnambool	**1.2%**	**1.1%**	**0.9%**	**0.7%**
Warrnambool North	**1.7%**	**1.4%**	**1.5%**	**0.9%**
Warrnambool South	**0.5%**	**0.5%**	**0.0%**	**0.2%**
Campaspe	0.50%	-0.10%	0.40%	0.5%
Greater Shepparton	0.40%	1.00%	1.10%	1.0%
Greater Bendigo	1.20%	1.50%	1.90%	1.5%
Mildura	0.70%	0.50%	1.10%	0.8%
Ballarat	1.00%	1.90%	1.70%	1.9%
Greater Geelong	1.00%	1.50%	2.10%	2.5%
Regional Victoria	0.60%	1.00%	1.30%	1.5%
Greater Melbourne	1.50%	2.10%	2.50%	1.1%
Victoria	1.20%	1.80%	2.20%	1.2%
Australia	1.20%	1.80%	1.60%	1.2%

Source: ABS.net (Beta)

Table 2: Impacts of Covid? Short Term Population Growth: Average Annual Population Growth Rates (%), 2016-21

	2016-17	2017-18	2018-19	2019-20	2020-21
Warrnambool	0.8%	0.8%	0.8%	0.8%	0.2%
Warrnambool North	1.1%	1.2%	1.0%	1.0%	0.4%
Warrnambool South	0.1%	0.2%	0.2%	0.6%	-0.2%
Campaspe	0.5%	0.4%	0.5%	0.6%	0.6%
Greater Shepparton	1.3%	1.3%	1.3%	1.1%	0.2%
Greater Bendigo	1.7%	1.6%	1.7%	1.4%	1.2%
Mildura	1.4%	1.3%	1.1%	1.0%	-0.5%
Ballarat	1.9%	1.9%	2.0%	1.7%	1.8%
Greater Geelong	2.8%	2.7%	2.7%	2.2%	2.0%
Regional Victoria	1.6%	1.6%	1.6%	1.5%	1.3%
Greater Melbourne	2.2%	2.0%	1.8%	1.1%	-1.6%
Victoria	2.1%	1.9%	1.8%	1.2%	-0.9%
Australia	1.7%	1.5%	1.5%	1.2%	0.1%

Source: ABS.net (Beta)

The decrease in growth in Australia and Victoria in 2019-20 can be attributed to Covid. However, the above comparisons suggest that regional centres such as Echuca, Ballarat and Bendigo have been more resilient to the impacts of Covid compared to the average for Victoria or for Melbourne. This presumably reflects the attractiveness of regional cities for the population of Australia's capital cities during a period of Covid outbreaks and lockdowns.

Population growth for Warrnambool in 2020/21 as reported by the Australian Bureau of Statistics was subdued at 0.2%, compared to 0.8% annual growth from 2016 to 2020. However, caution is highlighted as this relatively low level of population growth is in conflict with recent strong levels of residential development activity.

In 2020/21 regional Victoria population grew at 1.3%, compared to a -1.6% decline in metropolitan Melbourne.

Population growth within the municipality of Warrnambool has consistently been concentrated within the Warrnambool North SA2. This is primarily driven by greenfield land supply opportunities. The Warrnambool South SA2 in 2020/21 experienced a marginal population decline of -0.2%.

Sources of population growth

Owing to international border closures and varied length of lockdowns in different parts of Australia, Covid has disrupted regular sources of population change. As noted above, Covid has primarily impacted on Melbourne rather than Victoria's regional centres. For several decades, overseas migration gains to Victoria have been heavily biased towards Melbourne.

Pre Covid 92% of overseas arrivals to Victoria settled in Melbourne. Closed international borders cut those gains and are therefore the main reason why Melbourne's population has declined for the first time in living memory. But longer lockdowns in Victoria compared to other states has led to Victoria losing population to other states, a reversal of trends of the last 25 years. But Melbourne's long lockdowns and changed work regimes have also led to a greater flight of people from Melbourne to regional Victoria and to fewer people such as students, job seekers and urban lifestyle seekers moving to Melbourne.

Table 3: Internal Migration, Regional Victoria, 2006-2021

Year to March qtr	Net Intrastate Migration	Net Interstate Migration	Net Internal Migration
2006-2011	5,049	-1,340	3,709
2011-2016	5,585	-22	5,563
2016-2017	8,873	1,805	10,678
2017-2018	13,824	875	14,699
2018-2019	14,211	229	14,440
2019-2020	11,186	-828	10,358
2020-2021	19,678	-5,666	14,012

Source: Provisional Regional Migration Estimates, ABS, August 2021

The result is that Regional Victoria's population growth been little affected by Covid – lower overseas gains and higher interstate losses have been cancelled out by greater net movements of people from Melbourne to Regional Victoria.

Since 2016, the ABS has published annual estimates of the components of population growth for Local Government Areas. The following table shows the balance sheets of population gains and losses for Warrnambool.

Table 4: Components of population change, Warrnambool 2016-21

	Natural Increase	Net migration within Australia	Net overseas migration	Total population growth
2016-17	86	-55	296	327
2017-18	65	-68	297	294
2018-19	74	-62	306	318
2019-20	66	63	212	341
2020-21	70	68	-53	85

Source: Provisional Regional Migration Estimates, ABS, August 2021

The position for Warrnambool is similar to that of regional Victoria. Population losses to Melbourne and other parts of Regional Victoria have been reduced, compensating for lower gains from overseas.

Table 4 highlights the dominance of overseas migration as a source of population growth. Prior to 2020/21 overseas migration was the key source of population growth, whereas internal migration from Warrnambool illustrated net population loss. This reversed in 2019, where Warrnambool gained population from internal migration within Australia.

Population changes within Warrnambool

The ABS publishes annual population estimates for SA2s which are areas defined by the ABS to assist with local planning and service delivery. There are two SA2s in Warrnambool. Their external boundaries are slightly different to the municipal boundary of Warrnambool.

As mentioned previously, the Warrnambool North SA2 is the location of the majority of the municipality's population growth, this is primarily attributed to the location of residential greenfield lands.

Table 5: Population Growth within Warrnambool: Average Annual Growth Rates

	2001-06	2006-11	2011-16	2016-21
Warrnambool North	1.67%	1.42%	1.53%	0.93%
Warrnambool South	0.45%	0.54%	0.05%	0.18%
Warrnambool LGA	**1.19%**	**1.08%**	**0.95%**	**0.68%**

Source: ABS.net (Beta)

Table 6: Population Growth within Warrnambool: Average Annual Population Growth

	2001-06	2006-11	2011-16	2016-21
Warrnambool North	295	270	313	204
Warrnambool South	57	70	6	24
Warrnambool LGA	**356**	**342**	**315**	**235**

Source: ABS.net (Beta)

The Commonwealth and State Governments' views on the impact of Covid:

In December 2020 the Commonwealth Government's Centre for Population published a preliminary view on the impacts of COVID:

> "The impact of COVID-19 is expected to be long lasting. Australia's population is expected to be smaller and older than projected prior to the onset of the pandemic.
>
> Australia's population is estimated to be around 4 per cent smaller (1.1 million fewer people) by 30 June 2031 than it would have been in the absence of COVID-19. The population will also be older as a result of reduced net overseas migration and fewer births. Despite COVID-19,

> Australia's population is still growing and is expected to reach 28 million during 2028–29, three years later than estimated in the absence of COVID-19.
>
> COVID-19 is projected to slow population growth across all geographic areas analysed, with the duration and magnitude linked to the importance of net overseas migration to different parts of the country.
>
> Capital cities are projected to bear the heaviest impacts, with total population across capital cities estimated to be around 5 per cent lower by 30 June 2031 than in the absence of COVID-19. By contrast, population outside the capital cities is estimated to be around 2 per cent smaller than it would otherwise have been.
>
> The number of people migrating interstate is projected to fall by 12 per cent in 2020–21. This would be the largest year-on-year drop in interstate migration in 40 years and would lead to the lowest rate of interstate migration as a proportion of the population on record.
>
> Melbourne is projected to overtake Sydney to become Australia's largest city in 2026–27, with a population of 6.2 million by 2030–31, compared to 6.0 million in Sydney."

In summary, Covid makes a dent in ongoing population growth from which it will take a long time to recover.

In June 2021, the Commonwealth Treasury published its update of the intergenerational report. One notable feature was the lower 40 year population growth projections. Even if, optimistically, Australia (and the World) can quickly recover from the Covid with life and the economy returning to 'pre COVID normal', that population dent will endure into the future.

In May 2021, the Victorian Treasury published its budget papers which included a four year forecast of population growth which accounted for the impact of Covid:

The Victorian Treasury's short term forecasts

Year	Forecast population growth rate, Victoria
2020/21	0%
2021/22	0.3%
2022/23	1.2%
2023/24	1.7%
2024/25	1.7%

Source: Budget Paper no. 2, page 22, Victorian Treasury, May 21

The Victorian Treasury view mirrors that of the Commonwealth Government: that Covid produces a two-three year dent in population growth. By 2023/24 Victoria population growth is forecast to return to its pre-Covid projections rate i.e. that used in *Victoria in Future 2019*.

3.2 Household and Dwelling Change

The 2016 and 2021 Australian Bureau of Statistics Population and Housing Census data was analysed for the municipal area of Warrnambool to ascertain both the change in the number of households and residential dwellings.

Households

In 2021, it is estimated that there were 13,993 households across the municipal area of Warrnambool. This represents an average annual growth in households of **271,** or an average annual increase of **2.1%** as measured from 2016**.**

Residential Dwellings

In 2021, it is estimated that there were 15,099 private residential dwellings across the municipal area of Warrnambool. This represents an average annual growth in dwellings of **203,** or an average annual increase of **1.4%** as measured from 2016**.**

There has been a significantly greater growth rate of households compared to dwellings as measured from 2016 to 2021. To accommodate the additional household growth compared to the corresponding dwelling growth, the existing stock of unoccupied dwellings was utilised.

In 2016, the dwelling vacancy rate was 12.7% (1,588 unoccupied dwellings), decreasing to an 8.9% vacancy rate in 2021 (equating to 1,230 unoccupied dwellings).

3.3 Should a single growth forecast be relied upon for longer term strategic planning?

VIF2019 are undertaken and approved by the State Government and are prepared using a well-established and accepted methodology and incorporate sound assumptions.

However, it is reasonable to question whether a single set of growth forecasts should be used in assessing medium to longer-term adequacy of residential land stocks given the inherent uncertainty surrounding future growth.

Spatial Economics believes that current best practice is to utilise a realistic range of growth scenarios when preparing medium and longer-term strategic plans. This has the advantage of recognising the inherent uncertainty involved in any medium to longer-term forecast. It also allows the strategy to be 'stress tested' and helps ensure that land use and infrastructure plans have the flexibility to cope with unexpected changes in growth rates.

The inherent uncertainty associated with any medium to longer-term forecast of population growth is widely accepted.

For example, VIF2019 presents a range of growth forecasts for Victoria and, in its introduction says:

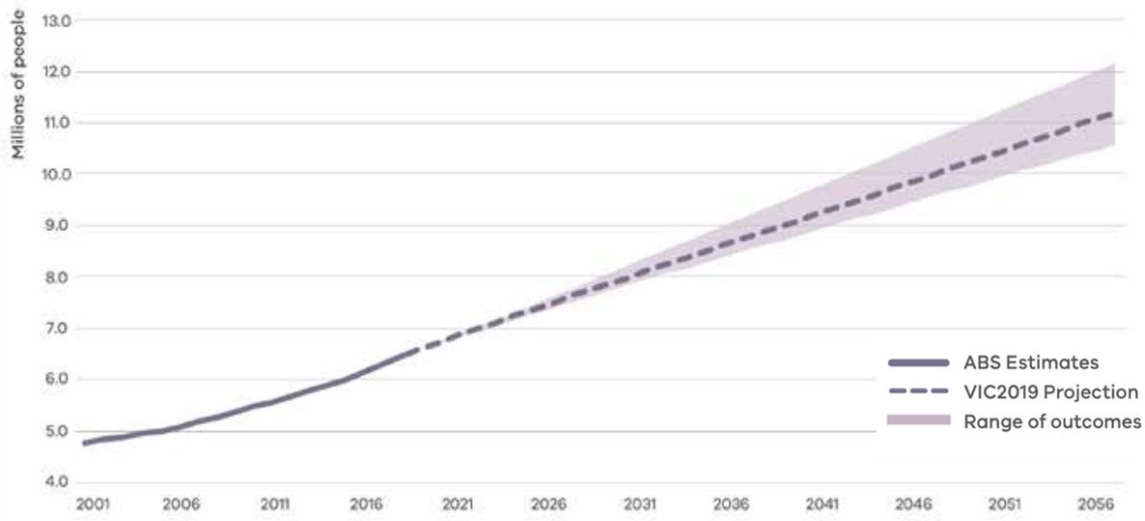
> *"Population projections are estimates of the future size, distribution and characteristics of the population. They are developed by applying mathematical models and expert knowledge of the likely population trends to the base population.*
>
> *Projections provide information about population change over space and time but they are not predictions of the future. They are not targets nor do they reflect the expected effects of current and future policies.*
>
> *The projections give an idea of what is likely to happen if current trends continue. They may indicate a need to manage change to achieve preferred outcomes or to mitigate the impacts of no-preferred outcomes"*

In relation to growth projections for Victoria as a whole VIF2019 says:

> *"Under the VIF2019 assumptions Victoria is projected to add 4.7 million people from 2018 to 2056, reaching a population of 11.2 million. This represents annual average growth of 125,000 people, at a rate of 1.5% per annum.*

Conditions and trends may change in the future, however, and if other assumptions were used, different growth levels would result. Migration levels are more sensitive to changes in policy or economic conditions than births or deaths. Graph 1 (see below) *shows population growth outcomes with different migration assumptions, illustrating average annual growth in each scenario, not the volatility of growth in individual years."*

Graph 1: Projected population, Victoria" range of outcomes



The unavoidable uncertainly associated especially with assumptions regarding the rate of net overseas migration is very clearly illustrated by the current experience with the impact of the Covid19 pandemic on migration and population growth. As a result of a drastic fall in overseas migration growth rates for Australian, Victorian and regional areas will be substantially reduced for, at least, two years.

VIF2019 does not present multiple growth scenarios for individual regions or municipal areas. This presumably reflects a judgement that to do so would be likely to lead to confusion and could result in 'projection shopping' by those seeking to advance particular points of view either in favour of or expressing concern regarding future growth.

However, the decision to present only a single set of projections in VIF2019 does not remove the uncertainty associated with regional and municipal projections. Instead it avoids addressing the issue. Indeed, the smaller the forecast area (e.g. region as against State, municipal as against region) the greater the uncertainty that is unavoidably associated with any medium or longer-term growth projection.

The question must still be addressed - how robust can we expect population projections for a regional municipality the size of Warrnambool to be?

Demographer Tom Wilson of Charles Darwin University has reviewed state government prepared population projections for sub-state regions and municipalities in Australia. He has done so with both the benefit of hindsight and with local and regional population estimates that the ABS has published since the time projections were prepared. His conclusions were as follows:

- Five year projections were better than ten year projections;
- Large area projections were a lot better than small area projections;
- While small area projections have large errors, for places of more than 100,000 people most

projections were within 5% for a ten year period;

- For areas under 10,000 people, projections were highly error prone.
- For places over 25,000 people, the correct direction of change (i.e. gain or loss) was projected in 90% of cases;
- For places under 2,000 people, 60% of projections did not project the correct direction of population change.

These findings correspond with similar research undertaken in the UK. This led Wilson to suggest a realistic 'shelf life' for projections.

Table 7: Shelf life of population projections

Place size (pop'n)	Shelf life of population projections (years)
<2,500	3
2,500 – 10,000	7
10,000 – 50,000	12
50,000 – 100,000	14
>100,000	15

Source: Tom Wilson, Paper presented to Australian Population Association conference, 2016

For the current purpose the key point is that longer term projections are inherently problematic and this needs to be taken into account in sound strategic planning.

Spatial Economics has therefore chosen to utilise a range of growth forecasts in assessing the adequacy of residential land supplies in Warrnambool.

3.3.1 Demographic Projections

Three demand scenarios are presented to assess the adequacy of greenfield/major infill residential land stocks for the municipal area of Warrnambool, these include:

1. **Scenario 1:-** the Victorian Government's official population projections *'Victoria in Future 2019' (VIF 2019*). This publication sets out population, household and dwelling growth projections to 2036 for all regions and local government areas in Victoria

   These projections have been modified to account for more recent estimates of the residential population as at 2021 and extended to 2041 (maintaining demographic assumptions from 2036).

2. **Scenario 2**:- Increased and sustained population growth. This assumes a sustained population growth rate of 1.0% and core demographic assumptions such as average household size, persons in non-private dwellings and dwelling vacancy rate are sourced from the2021 Population and Housing Census.

3. **Scenario 3:-** Trend Housing Growth. Is not a demographically driven scenario, rather it simply assumes recent (2016 to 2021) dwelling growth rate to continue. The dwelling growth rate is sourced from the 2016 and 2021 Population and Housing Census of 1.4% per annum .

In summary of the three growth scenarios from 2021 to 2041:

Scenario 1

- Total population growth of 5,558 or 278 persons per annum (0.7% growth rate)
- Total dwelling growth of 3,049 or 152 dwellings per annum (0.9% growth rate)

Scenario 2

- Total population growth of 7,799 or 390 persons per annum (1.0% growth rate)
- Total dwelling growth of 4,376 or 219 dwellings per annum (1.2% growth rate)

Scenario 3

- Total dwelling growth of 4,835 or 242 dwellings per annum (1.4% growth rate)

Over the five years from 2016 to 2021, the change in the residential dwelling stock in Warrnambool was **203 per annum**, population growth has averaged **235 per annum**.

Key Issues

Whilst Warrnambool experienced steady population growth in the last decade. As will be illustrated later, the quantum of recent residential development activity is strong.

This illustrates the importance of regular monitoring of a variety of demand indicators and the planning for a range of growth scenarios.

4.0 Recent Residential Development Activity

Key Findings

The Building Approval statistics collected by the ABS for Victoria for the financial year 2020/2021 reveal several interesting trends brought on by the Covid19 pandemic. For Victoria, building approvals have increased from 60,000 to 67,600 over the year to July 2021, a substantial increase of 12.7%.

As measured over the two financial years of 2019/20 and 2020/21, residential building approval activity has significantly increased across regional Victoria, increasing by 51% (from 12, 300 approvals to 18,540). In comparison, metropolitan Melbourne over the same time period increased by 3%. Warrnambool over this period illustrated significant growth in building approval activity, increasing by 96%, from 204 approvals to 399 in 2020/21.

In 2021/22 the quantum of residential building approval was more subdued compared to the previous financial year. For Victoria, building approval activity declined by 3.4%, metropolitan Melbourne increased by 2.5% and regional Victoria declined by nearly 18%.

The vast majority of regional municipalities experienced declines in the quantum of residential building approval activity compared to the historic peaks in 2020/21.

In 2021/22 building approval activity in Warrnambool declined to 236. approvals. The current level of building approval activity is still significantly greater than recent long-term trends.

Over the last five years, residential lot construction has averaged 213 per annum. In 2021/22 there was a total of 290 residential lots constructed.

Of the lot construction activity measured since 2008:

- 3% was rural residential (6 lots per annum);
- 4% was aged/lifestyle lots (8 lots per annum);
- 7% was major infill (14 lots per annum);
- 14% was dispersed/minor infill (29 lots per annum); and
- 72% was broadhectare (146 lots per annum).

Of the broadhectare lot construction activity since 2008:

- 4% were compact (sized less than 300 sqm);
- 15% were suburban (sized 300 to 500 sqm);
- 71% were large suburban (500 to 1,000 sqm); and
- 10% were low density suburban (over 1,000 sqm).

Vacant Residential Lot Sales Activity

The median sales price of a vacant residential lot in 2021 was:

The median sales price of a vacant residential lot in 2021 was:

- $100,000 - Glenelg;
- $190,000 in Warrnambool;
- $190,000 in Bendigo;
- $237,750 in Ballarat;
- $310,000 in Geelong; and
- $245,000 across regional Victoria (this is heavily influenced by peri-urban municipalities and Geelong).

Examination of more recent sales data by locality illustrates significant price increases. As measured from 2021 to the March quarter 2022, the median sales price of a vacant residential allotment by locality increased by:

- 11% from $220,000 to $243,800 in Warrnambool; and
- 29% from $140,000 to $180,000 in Dennington.

Vacant residential land sales values across the municipal area of Warrnambool have comparatively only moderately increased over-time. In addition, residential sales values are currently relatively affordable to both regional Victoria and other major regional centres.

Section 4.0 of this report details the recent activity of residential lot construction and dwelling approvals across the municipal area of Warrnambool. Residential lot construction activity is detailed from July 2008 to July 2022.

This section of the report details residential lot construction by location, supply type, achieved densities, project size/yield and sales pricing of constructed residential lots.

Where appropriate, comparisons to other regional Victorian jurisdictions are included.

4.1. Residential Building Approvals

Building Approval Activity in Context

The Building Approval statistics collected by the ABS for Victoria for the financial year 2020/2021 reveal several interesting trends brought on by the Covid19 pandemic. For Victoria, building approvals have increased from 60,000 to 67,600 over the year to July 2021, a substantial increase of 12.7%.

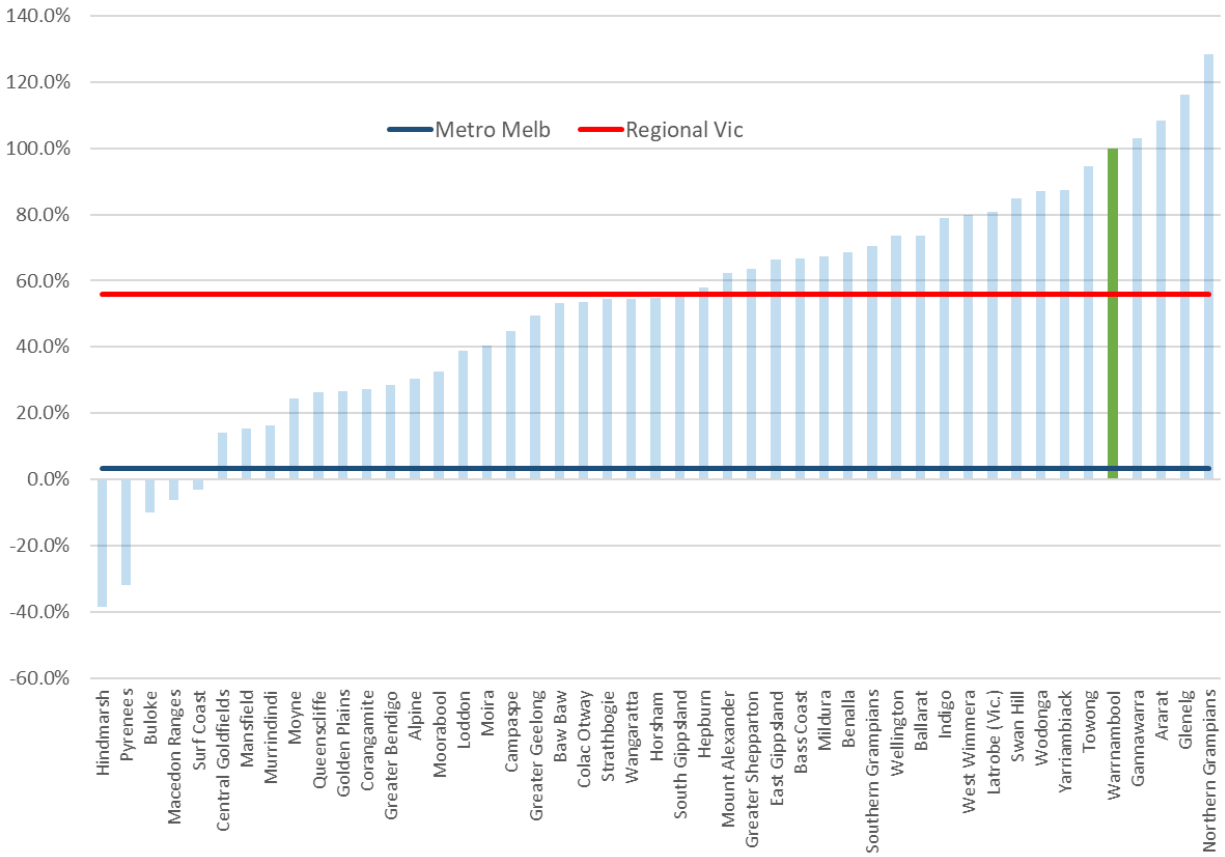
As measured over the two financial years, residential building approval activity has significantly increased across regional Victoria, increasing by 51% (from 12, 300 approvals to 18,540). In comparison, metropolitan Melbourne over the same time period increased by 3%.

As a share of total activity, regional Victoria has jumped from 20% of all new dwellings to 28% in one year. The share going to regional Victoria peaked around 2006 and declined until around 2017. The share for regional Victoria had been rising in the last few years in part because of the rise of Geelong before the spike brought on by the pandemic

Residential building approval has significantly increased across virtually all regional municipalities.

Warrnambool has illustrated significant growth in building approval activity, increasing by 96%, from 204 approvals to 399 in 2020/21.

Graph 2: Percentage Change in Residential Building Approval Activity by Regional Municipal Areas, 2019/20 to 2020/21



Source: Australian Bureau of Statistics

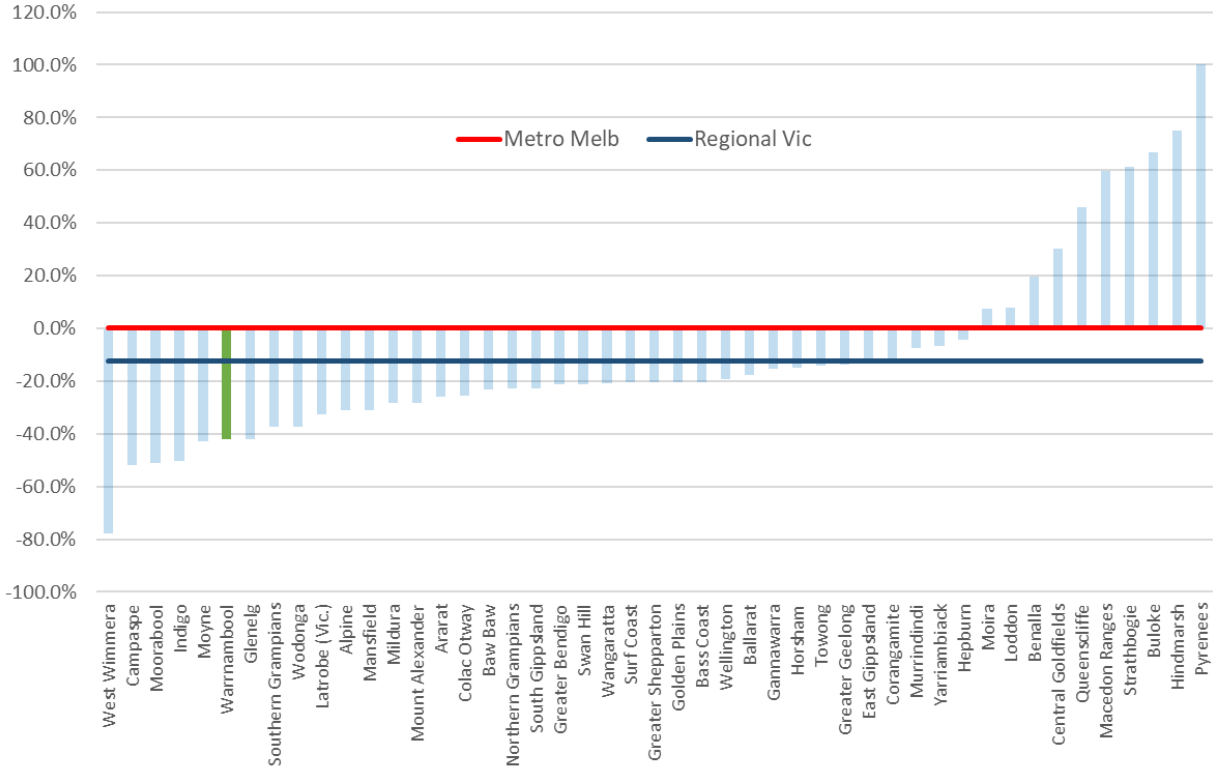
The large increase in demand for housing across regional Victoria has put significant pressure on local economies to be able to deliver the housing stock. The sharp hike in residential building activity has put additional pressures on supply chains, sourcing labour and associated civil works requirements.

The pandemic and the subsequent work from home phenomenon is having significant impacts on the residential construction industry. With presales in greenfield estates extending out further than ever before, sometimes into multiple years' worth of supply, there will be a backlog of construction requirements.

In 2021/22 the quantum of residential building approval was more subdued compared to the previous financial year. For Victoria, building approval activity declined by 3.4%, metropolitan Melbourne increased by 2.5% and regional Victoria declined by nearly 18%.

The vast majority of regional municipalities experienced declines in the quantum of residential building approval activity compared to the historic peaks in 2020/21.

Graph 3: Percentage Change in Residential Building Approval Activity by Regional Municipal Areas, 2020/21 to 2021/22



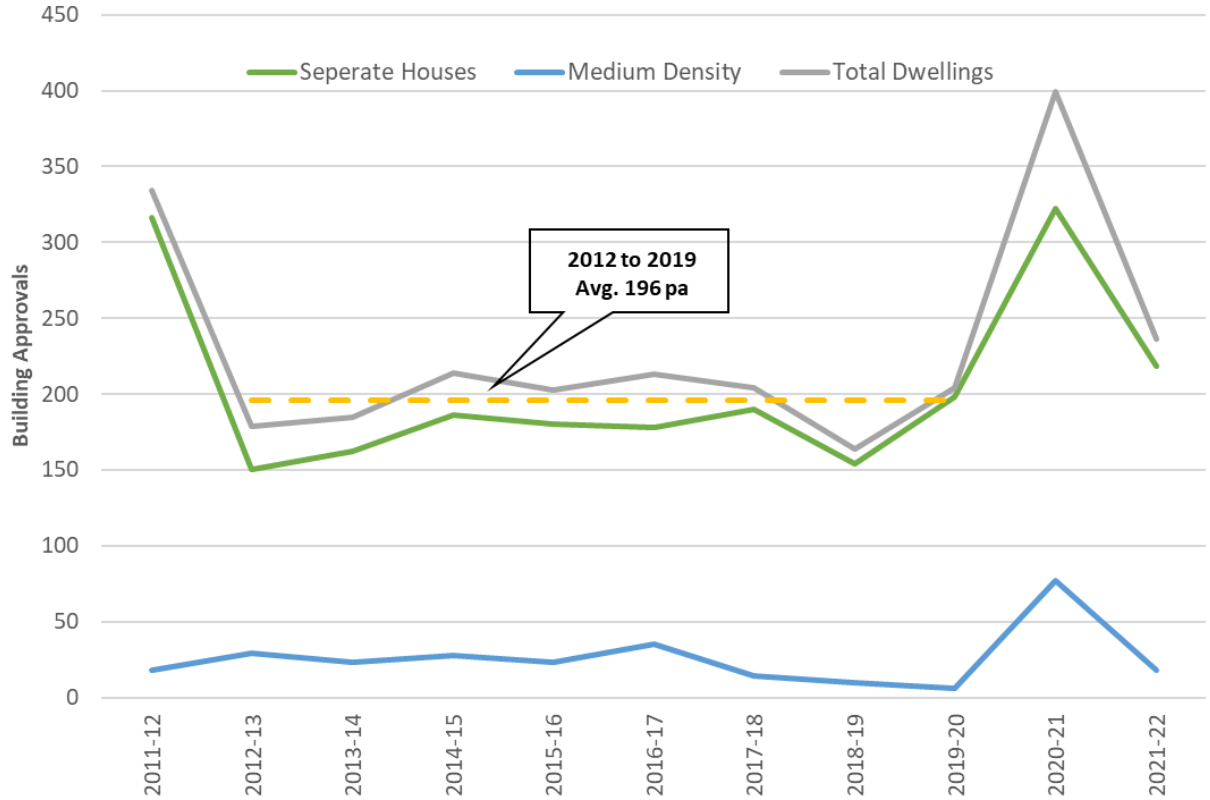
Source: Australian Bureau of Statistics

4.1.1 Residential Building Approvals - Warrnambool

As measured from 2011/12 to 2021/22, residential building approvals within the Warrnambool City Council averaged 230 per annum. Of which, 88% were for separate dwellings whilst 12% were for medium density housing, which is typical for a 'larger' regional municipality.

In 2011/12 there was a historic high of 334 residential dwelling approvals. Over the next right years, approval activity was relatively consistent – averaging around 196 per annum. In 2020/21 a new peak of approval activity was achieved at nearly 400 approvals, declining the following year to 236. approvals. The current level of building approval activity is still significantly greater than recent long-term trends.

Graph 4: Residential Building Approvals by Type – Warrnambool, 2011 to 2022



Source: Australian Bureau of Statistics

4.2 Residential Lot Construction

Analysis has been undertaken to determine, on a lot by lot basis, the location, supply type and quantum of residential lot construction across the municipal area of Warrnambool by financial year from 2008 to 2022. Lot construction activity has been classified into distinct supply types and/or supply locations.

Over the last five years, residential lot construction has averaged 213 per annum. In 2021/22 there was a total of 290 residential lots constructed.

Lot construction activity measured on an annual basis is significantly more cyclical then compared to building approval activity. However, the underlying trend has been relatively consistent. Since 2008, residential lot construction activity has averaged just over 200 lots per annum.

Of the lot construction activity measured since 2008:

- 3% was rural residential (6 lots per annum);
- 4% was aged/lifestyle lots (8 lots per annum);
- 7% was major infill (14 lots per annum);
- 14% was dispersed/minor infill (29 lots per annum); and
- 72% was broadhectare (146 lots per annum).

4.3 Location of Residential Development Activity

Residential lot construction activity as measured over the last five financial years was primarily concentrated within the locality of Warrnambool, at 93% of all lot construction activity or 198 lots per annum. The remaining significant lot construction activity was located at Dennington (6% of activity) with 13 lots constructed per annum.

There was minimal lot construction activity within the localities of Allansford and Woodford.

4.4 Lot Construction by Supply Type

Broadhectare residential lot construction has been and is currently the dominant form of residential development activity. Since 2008, this form of development activity has averaged 72% of the total.

As will be detailed later in the report, it is not expected that the reliance of broadhectare development activity will change in the short to medium term.

Dispersed infill development has consistently delivered approximately 14% of all lot construction activity (until recent years due to a surge in broadhectare activity). This is an important supply source, as will be detailed later it provides:

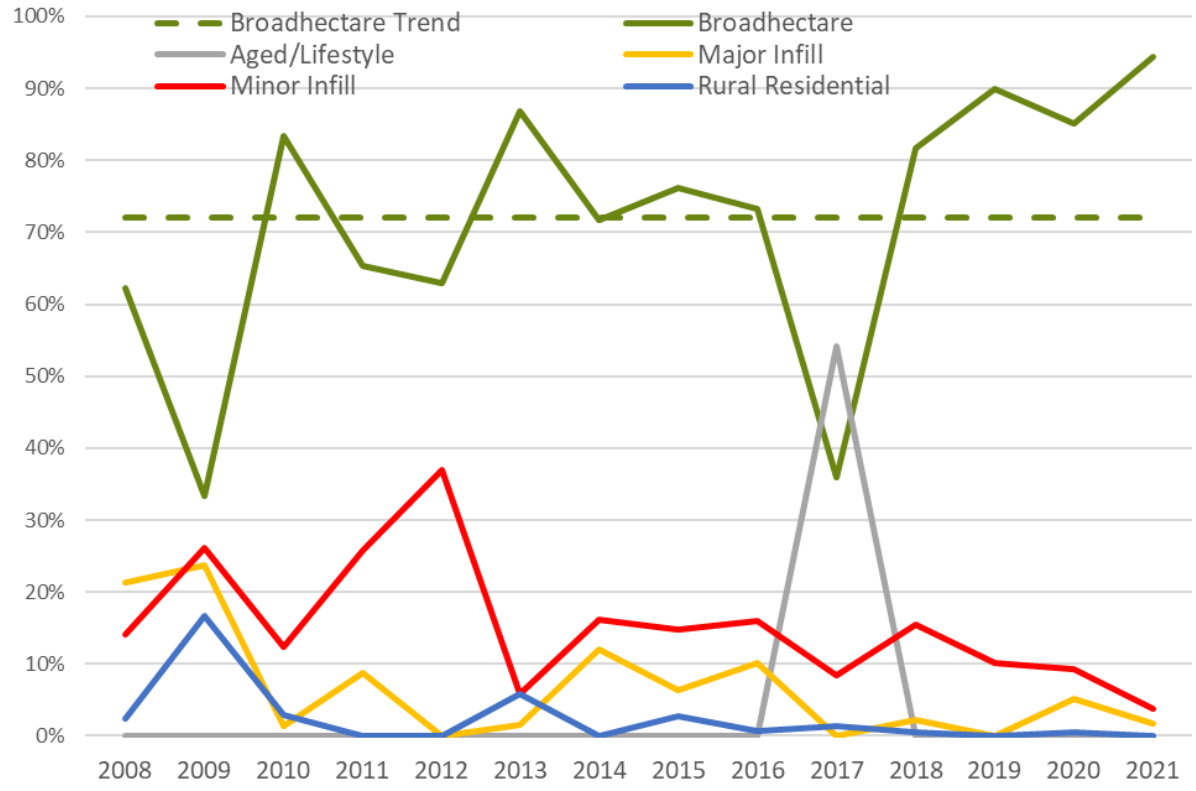
- a wide range of residential land products;
- a major land supply source within the smaller townships;
- distributed widely across the established urban area; and
- contributes to urban containment/development of under-utilised land parcels.

In addition, dispersed infill development across the Warrnambool municipality is not simply developing '*low hanging fruit*'. Infill development is characterised by a wide range of yields, densities and project sizes. Dispersed infill development is currently a valuable and strategically important supply source, this as a supply source will become increasingly important over-time.

The contribution of rural residential lot construction activity is more sporadic. In Warrnambool it is a minor residential supply source – contributing typically around 3% of all lot construction.

Graph 5 below illustrates the continued dominance of broadhectare lot construction activity.

Graph 5: Share of Residential Development Activity by Supply Type – Warrnambool City Council



Source: Spatial Economics Pty Ltd

4.5 Dispersed/Minor Infill Lot Construction

The following provides an overview of the development outcomes of dispersed infill development activity across the municipal area of Warrnambool. Dispersed infill activity is a significant supply source across the municipality, accounting for 14% of lot construction activity since 2008. It is important to understand the characteristics of dispersed infill development, so land use planning policy can further enhance development outcomes and optimize this as a supply source in the future.

4.5.1 Dispersed/Minor Infill Supply – Achieved Densities

Dispersed infill lot construction activity across Warrnambool City Council is achieving both 1) a wide range of densities and 2) a high proportion of medium density land products.

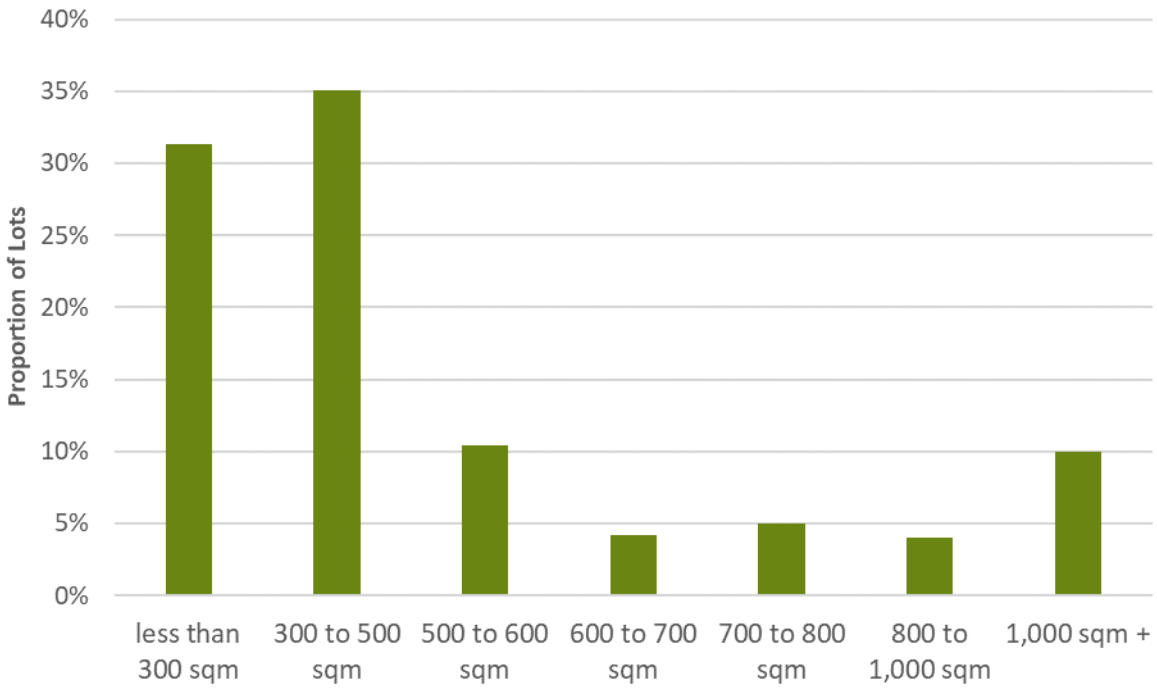
The experience in Geelong, Ballarat, Bendigo, Torquay, Bacchus Marsh and Melbourne suggests that as the supply of larger parent lots decreases, and land prices continue to rise in the established urban area, the development industry will find it profitable to re-subdivide smaller parent lots.

The size distribution of newly constructed minor infill lots is shown in the graph below.

Since 2008, 66% of all dispersed infill subdivision activity resulted in lots sized less than 500 sqm. A significant proportion (10%) were larger lots i.e. sized over 1,000 sqm. The larger dispersed infill lots were typically located in Allansford and has significant land development constraints i.e. slope

The graph below illustrates the lot size range for constructed dispersed infill lots across the municipal area of Warrnambool.

Graph 6: Dispersed Infill - Achieved Lot Size Cohorts, 2008 to 2021



Source: Spatial Economics Pty Ltd

The median size of a constructed dispersed infill lot is approximately 378 sqm, this has varied over-time, however, in recent years there is a distinct trend of increasing achieved densities.

In summary, dispersed infill lot construction across Warrnambool is characterised by medium density outcomes and a diverse range of larger lot sizes.

4.5.2 Dispersed/Minor Infill Supply – Parent Lot Size

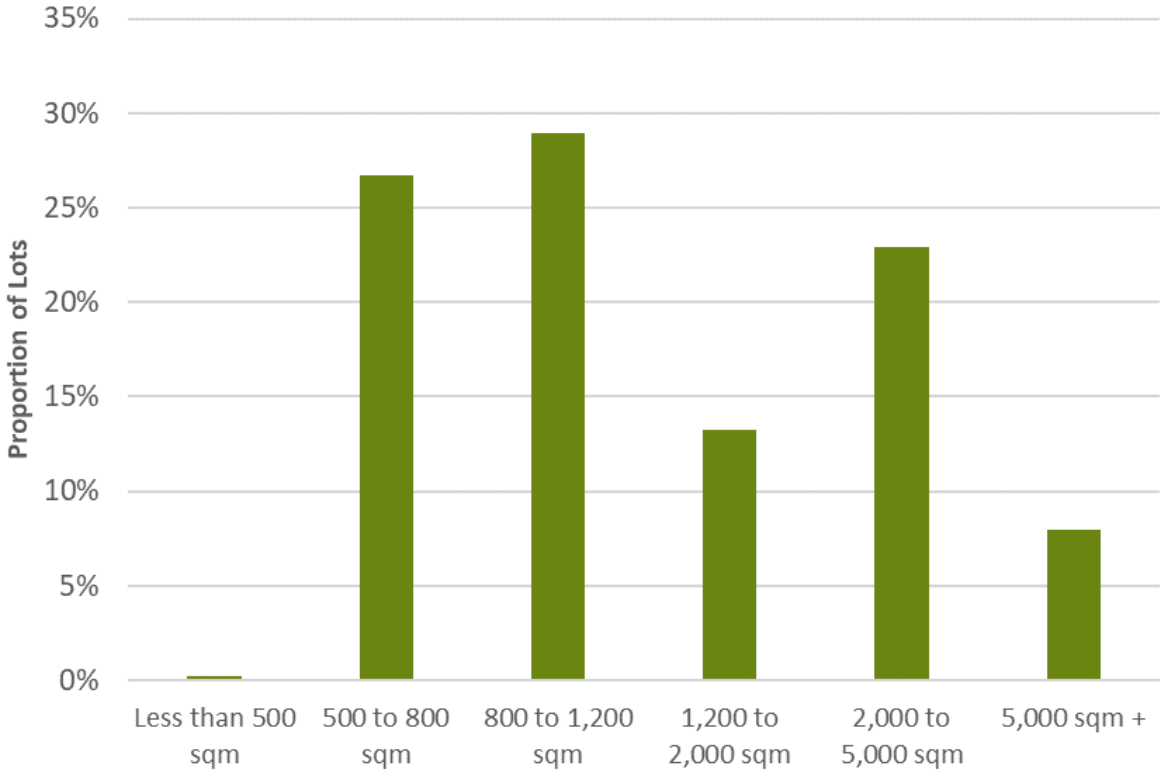
Dispersed residential infill development across Warrnambool is primarily sourced from 'moderately' sized 'parent' lots, whether vacant or with an existing dwelling. The graph below illustrates the 'parent' lot size distribution for dispersed infill projects.

Of particular strategic importance is the significant volume of dispersed infill projects sourced from parent lots sized from 500 to 1,200 sqm. Approximately 56% of all dispersed infill lots were sourced from parent lots sized from **500 to 1,200 sqm**.

This reliance on relatively smaller parent lot sizes (particularly within the established urban area of Warrnambool) illustrates the significant latent supply potential. There is not a significant reliance on 'larger' sized parent lots as a supply source for dispersed infill residential projects i.e. sized above 2,000 sqm.

Note: - parent lot size refers to the size of the allotment prior to subdivision.

Graph 7: Parent Lot Size of Dispersed Infill Projects (Warrnambool), 2008 to 2021



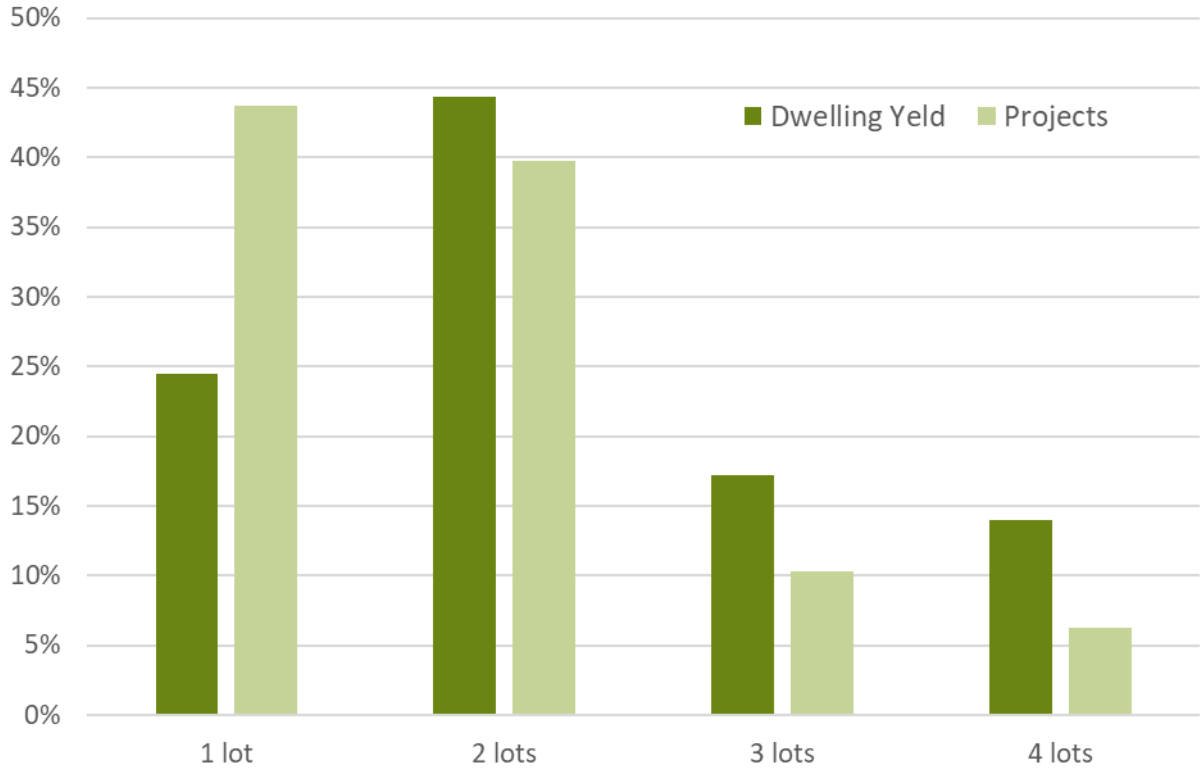
Source: Spatial Economics Pty Ltd

4.5.3 Dispersed/Minor Infill Supply – Project Size and Yield

In addition to the 1) diverse lot sizes delivered and 2) significant proportion of medium density lot size outcomes from dispersed infill development – dispersed infill development projects have relatively 'significant' **net** lot yields (in the context of a municipality with the dominant form of land supply sourced from greenfield land). This form of development can be categorised as typically suburban backyard subdivision projects undertaken by the cottage building industry.

Of the dispersed infill lots constructed 76% yielded two or more net lots/dwellings, 14% of lot construction activity was within projects yielding four dwellings.

Graph 8: Dispersed Infill Development – Lot Yield & Project Size Distribution, 2008 to 2021



Source: Spatial Economics Pty Ltd

Image 2: Dispersed Infill Lot Construction Examples – Warrnambool

1 project – 4 net lots constructed (

1 project – 2 net lots constructed

1 project – 1 net lot, backyard subdivision

3 projects – 5 net lots, backyard subdivision

4.6 Broadhectare Lot Construction

As previously outlined, broadhectare lot construction activity has averaged 166 lots per annum over the last five years. In 2020/21 there was 182 broadhectare lots constructed, increasing to 274 in 2021/22. Broadhectare lot construction in Warrnambool is characterised by 'lumpy' levels of construction volumes.

For example, in 2015/16 there was 285 broadhectare lots constructed, declining to 101 in the following year.

As outlined previously broadhectare lot construction represents approximately 72% of all residential lot construction activity across the municipality since 2008. Spatial Economics based on 1) the existing composition of demand and 2) the existing and planned composition of residential land stocks, consider that the contribution of broadhectare development will remain at these levels for the medium to longer term.

4.6.1 Broadhectare Lot Construction – Diversity

Lots constructed from broadhectare supply sources across Warrnambool are typically larger in size when compared to other larger regional Victorian urban centres. Graph 9 below illustrates the diversity of broadhectare lot construction.

Of the broadhectare lot construction activity since 2008:

- 4% were compact (sized less than 300 sqm);
- 15% were suburban (sized 300 to 500 sqm);
- 71% were large suburban (500 to 1,000 sqm); and
- 10% were low density suburban (over 1,000 sqm).

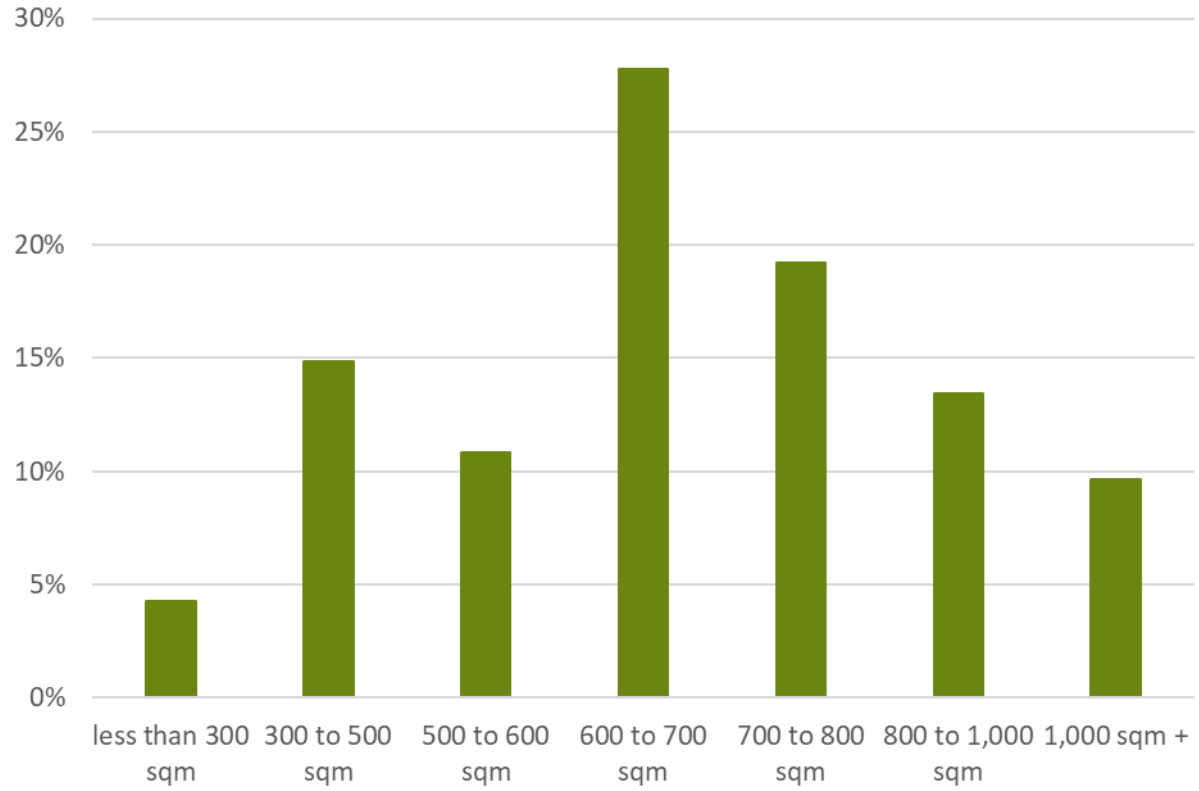
The construction of larger lots has been a response by the development industry to consumer preferences. Through consultation with the local land development industry, it was consistently stated that there was "*minimal consumer demand for smaller lots sized below 300 sqm*."

Graphs 9 and 10 below illustrate both the median size and diversity of broadhectare residential lot construction. The median lot size of constructed broadhectare lots has remained relatively consistent over-time, typically around 670 sqm.

Across the majority of major urban centres in Victoria, the median lot size of constructed broadhectare lots is: a) rapidly declining; and b) significantly lower than compared to Warrnambool. The increasing densities of constructed broadhectare lots in other major urban centres is largely driven by affordability/consumer pricing points and to a lesser degree changing demographic characteristics.

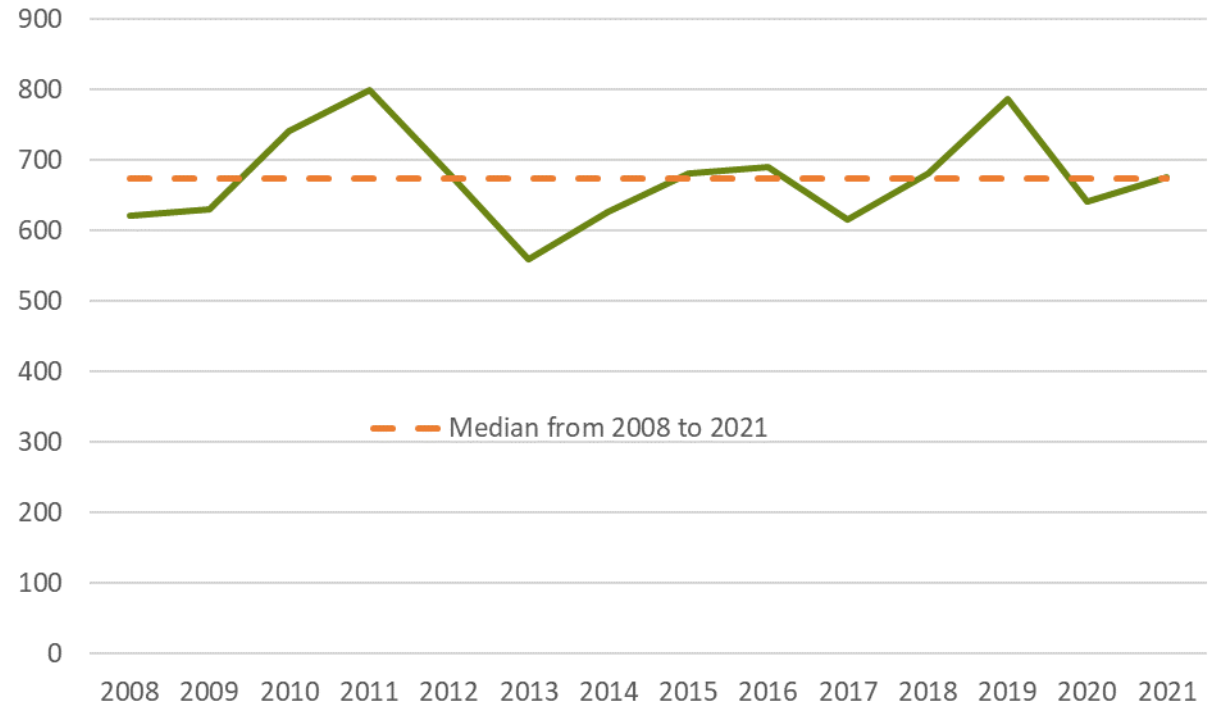
Across Warrnambool however, broadhectare lot construction has maintained relative and absolute levels of broadhectare land affordability. This is in the context of providing consumers their preferred land product (larger lots) and providing small lot products within the established urban area (outlined previously), to respond to the demands of the changing demographic composition.

Graph 9: Broadhectare Lot Construction Size Distribution – Warrnambool



Source: Spatial Economics Pty Ltd

Graph 10: Median Lot Size (sqm) – Broadhectare Lot Construction, Warrnambool



Source: Spatial Economics Pty Ltd

4.7 Major infill

Major infill lot/dwelling construction in Warrnambool can essentially be described, both historically and currently as largely remnant broadhectare development . It comprises development projects, within the established urban area, with a capacity greater than 5 lots/dwellings. This is steadily depleting as a land supply source in Warrnambool. In the future, major infill projects will likely involve primarily the redevelopment of under-utilised industrial/commercial or other sites.

Over the last 5 years major infill projects have represented only 2% of all lot construction (7 lots per annum).

Historically major infill projects produced lots of similar size to those in broadhectare developments. More recently this pattern has changed with most major infill development being characterised by relatively higher-density outcomes (a median lot/dwelling density of 320 sqm for major infill compared to nearly 680 sqm for broadhectare over the last 5 years).

4.8 Aged/Lifestyle Living

Aged/Lifestyle living represents a small and niche residential land/housing product within Warrnambool. In 2017/18 there were 115 aged/lifestyle lots/houses constructed in Warrnambool. Spatial Economics perceive that this will be a growing market in the medium term.

4.9 Rural Residential Lot Construction

Rural residential lot construction activity since 2008 has represented just 3% of all lot construction activity across the municipal area – or 5.5 lots per annum. In the last five years, there was five rural residential lots constructed.

Of the total rural residential lot construction activity as measured from 2008, 35% was zoned Low Density (LDRZ), the remaining zoned Rural Living (RLZ).

From 2008, there was a total production of rural residential lots by locality of:

- Woodford – 42 lots;
- Allansford – 24 lots;
- Bushfield – 6 lots; and
- Warrnambool – 5 lots

The typical constructed lot size was around 4,000 sqm for lots zoned LDRZ and 8,300 sqm for lots zoned RLZ.

There is an emerging trend across a number of regional Victorian municipalities of the provision of smaller and serviced (hydraulics – water & waste water) low density residential allotments. The size of these lots tends to be from 2,000 to 3,000 sqm. Spatial Economics perceive that there is a significant opportunity for the supply of this form of rural residential land across Warrnambool.

4.9.1 Rural Residential Dwelling Construction

Spatial Economics have analysed aerial imagery data to establish on a parcel by parcel basis the location and quantum of new dwelling construction from 2015 to 2021 for rural residential zone types.

Typically, residential subdivision activity is a robust indicator of residential development activity. However, if there are residential land shortages an imbalance may result i.e. dwelling construction being greater than subdivision activity.

The assessment specifically examined dwelling construction on land zoned rural residential (LDRZ and RLZ)

Over the six-year period from 2015 to 2021, there were a total of 53 residential dwellings constructed on rural residential lands, compared to a total of six rural residential lots constructed. Over the

longer-term (since 2008) to 2022, there has been 5.5 rural residential lots constructed on an average annual basis.

Typically, dwelling construction on rural residential lands were on parcels sized around one hectare, irrespective of the zone type.

4.10 Vacant Residential Lot Sales Pricing

The sales value of vacant residential lots is a prime outcome indicator of the 'state of the land supply' market. It is a simple measure that captures both supply and demand dynamics.

As measured over the longer term from 2010 to 2021 the median sales price of vacant residential lots has increased on an average annual bass by 3.5% in Warrnambool, compared to 2.3% in Glenelg, 6.3% in Bendigo, 6.7% in Ballarat and 6.5% across regional Victoria. This illustrates for Warrnambool that sufficient residential land was released relative to demand levels.

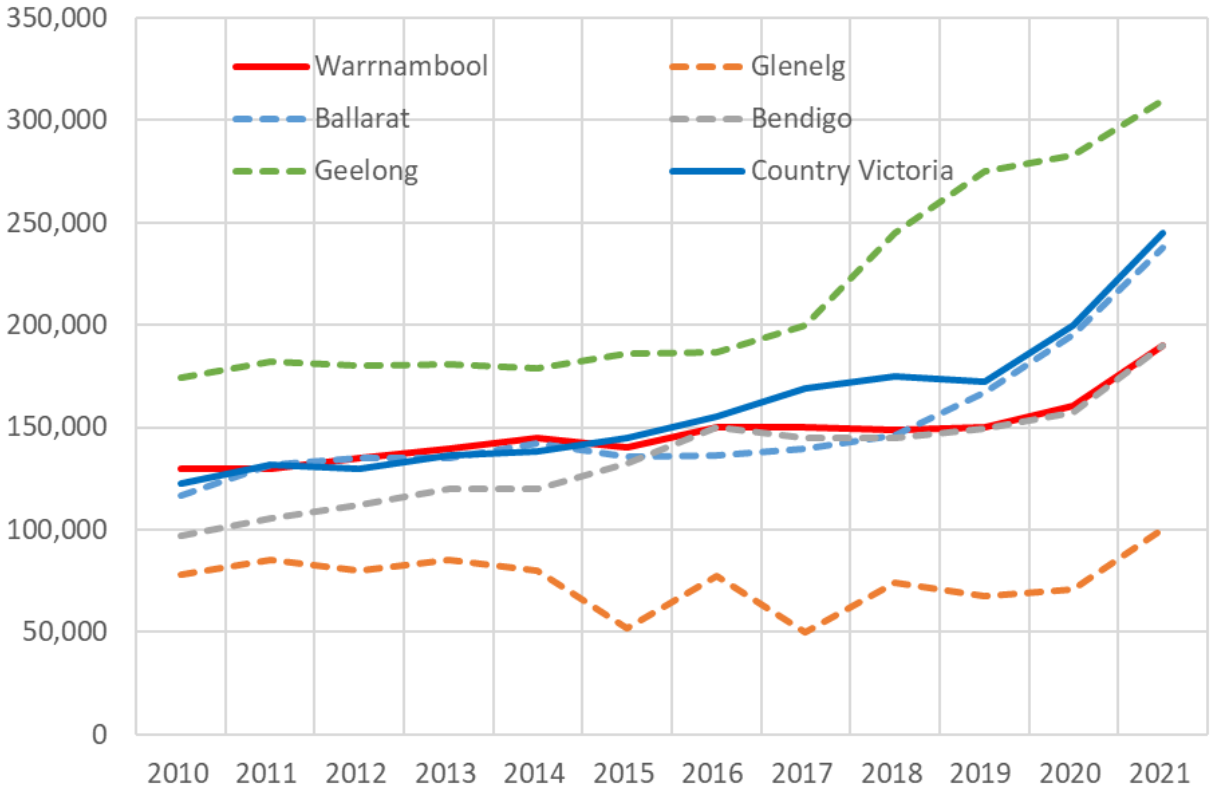
However, over the last three years as measured from 2019 the median sales price of vacant residential lot has increased significantly. In 2019, the median sales price was $150,000, increasing to $190,000 in 2021 – an average annual increase of 12.5%. However, relatively, Warrnambool over this time period experienced less of an increase compared to other jurisdictions – Glenelg – 21.7%, Ballarat – 19.3% and regional Victoria, 19.3%.

The median sales price of a vacant residential lot in 2021 was:

- $100,000 - Glenelg;
- $190,000 in Warrnambool;
- $190,000 in Bendigo;
- $237,750 in Ballarat;
- $310,000 in Geelong; and
- $245,000 across regional Victoria (this is heavily influenced by peri-urban municipalities and Geelong).

Vacant residential land sales values across the municipal area of Warrnambool have relatively only moderately increased over-time. In addition, residential sales values are currently relatively affordable to both regional Victoria and other major regional centres.

Graph 11: Median Sales Values – Vacant residential lots, 2010-2021 – Warrnambool Vs Selected Jurisdictions



Source: Valuer General Victoria

Examination of more recent sales data by locality illustrates significant price increases. As measured from 2021 to the March quarter 2022, the median sales price of a vacant residential allotment by locality increased by:

- 11% from $220,000 to $243,800 in Warrnambool; and
- 29% from $140,000 to $180,000 in Dennington.

Key Issues

As measured through residential lot construction and building approval activity, since 2020/21 there has been a significant increase in the demand levels for housing in Warrnambool. This illustrates the need to plan for differing growth scenarios. Projecting future growth is an extremely difficult task.

To deal with this kind of uncertainty it is best to 'lean' on the side of assuming stronger growth overall and in any given market segment. That is to ensure that (within reason) there is scope to meet any unexpected upturn in demand. Secondly, to plan for a diversity of supply types and locations. Planning that locks in controls based on one set of demand projections is likely to make it very difficult for the market to adjust supply to cater for unexpected changes in housing demand.

Recent lot construction reveals the dominance of broadhectare lot construction compared to dispersed infill. There is ample latent supply that would readily support an increased share of dispersed infill development activity.

In the short to medium term, with an increase in housing demand levels, only the broadhectare land development industry has the 'ready' capacity of responding by increasing production.

A prime outcome indicator of an imbalance of supply and demand is the rapid increase in sales values. Vacant residential lot sales pricing across the municipality has not experienced comparative excessive sales price increases.

5.0 Residential Land Supply

Key Findings

As at July 2022, there was a residential lot capacity within zoned broadhectare and major infill sites of approximately 4,429 across the municipal area of Warrnambool. Of this zoned lot potential, 93% (4,101 lots) is defined as broadhectare and the remainder defined as major infill.

In addition, there are approximately 482 hectares of land (with an estimated yield of nearly 5,000 dwellings) identified for potential future broadhectare residential development across the municipal area.

Across Warrnambool there was a total stock of 634 rural residential allotments. Of this stock, 88 lots (14%) were vacant. Vacant rural residential lots as a supply type in Warrnambool is low compared to other regional municipalities in Victoria.

Rural residential lot stock is relatively evenly spread across the localities within the municipality. The total rural residential lot stock by locality includes:

- Warrnambool – 225 lots, of which 27 are vacant (12% lot vacancy rate);
- Woodford – 178 lots, of which 51 are vacant (29% lot vacancy rate);
- Bushfield – 153 lots, of which 9 are vacant (6% lot vacancy rate); and
- Allansford – 78 lots, of which 1 are vacant (1% lot vacancy rate).

There are no identified future (unzoned) rural residential land stocks across the municipal area of Warrnambool.

Section 5.0 of the report details the stock (measured in lots) of broadhectare/major infill residential land supply across the municipal area of Warrnambool as at July 2022.

In addition, it provides an overview of current rural residential land stocks.

5.1 Stock of Zoned Broadhectare

As at July 2022, there was a residential lot capacity within zoned broadhectare and major infill sites of approximately 4,429 across the municipal area of Warrnambool. Of this zoned lot potential, 93% (4,101 lots) is defined as broadhectare and the remainder defined as major infill.

Over 70% of the zoned broadhectare/major infill land stocks are located within the locality of Warrnambool. Whilst there is nearly a 1,200 lot capacity in Dennington and a lot capacity of 70 in Allansford.

Maps 1 to 12 illustrates the location/distribution of undeveloped residential broadhectare/major infill land stocks across the municipal area (zoned and unzoned).

Table 8 identifies the lot yield of zoned and unzoned broadhectare/major infill land stocks by urban locality.

Table 8: Estimated Broadhectare/Major Infill Lot Capacity, 2022

Locality/LGA	Lot/Dwelling Capacity				
	Broadhectare (zoned)	Major Infill zoned)	Total Zoned Supply	Potential Residential (unzoned)	Total Lots
Allansford	54	17	**71**	143	**214**
Dennington	1164	30	**1194**	0	**1194**
Warrnambool	2883	281	**3164**	4800	**7964**
Warrnambool LGA	**4101**	**328**	**4429**	**4943**	**9372**

Source: Spatial Economics Pty Ltd

Land Fragmentation and Existing Uses

It was highlighted to Spatial Economics through the land development industry consultation process that both land fragmentation and significant existing uses on a number of identified zoned broadhectare sites will result in land development commercial feasibility being problematic.

Spatial Economics have estimated that these sites have an ultimate potential of 488 lots/dwellings.

It is considered that over-time, these fragmented land parcels will be developed.

Short Term Development Activity Outlook

Recent and current residential development activity in Warrnambool has been strong.

Based on the land development industry feedback, current levels of activity are likely to remain strong, at least within the short-term.

Currently, zoned broadhectare/major infill lands with preliminary subdivision approval are at historic highs. As at June 2022, there were 280 broadhectare/major infill lots with preliminary subdivision approval.

Based solely on industry feedback, a total of nearly **1,300** broadhectare/major infill lots are anticipated to be constructed over the next two years.

Spatial Economics do not expect this quantum of residential lot construction activity to be achieved. However, it does indicate high levels of current market buoyancy, which is supported by high current levels of residential pre-sales (which has been independently verified by Spatial Economics).

5.2 Stock of Un-Zoned Broadhectare Land

Analysis has been undertaken in conjunction with Council planning officers to identify the location and expected lot yield of currently unzoned residential land stocks. Sites for future residential development are identified within various Council strategy planning documents. Structure planning, and rezoning processes are required before residential development can proceed on such sites.

There are approximately 482 hectares of land (with an estimated yield of nearly 5,000 dwellings) identified for potential future broadhectare residential development across the municipal area. The vast majority of this identified land is located in the locality of Warrnambool and there are relatively minor stock levels in Allansford.

5.4 Rural Residential Land Stocks

The stock of both occupied and vacant rural residential allotments have been determined on a lot by lot basis as at February 2021 (based on the availability of small area aerial imagery). Occupied is defined as having evidence of a 'habitable' dwelling, commercial use, or other significant capital-intensive land use. Vacant is defined as having no evidence of a significant capital-intensive use (as verified via the interpretation of aerial imagery).

Across Warrnambool there was a total stock of 634 rural residential allotments. Of this stock, 88 lots (14%) were vacant. Vacant rural residential lots as a supply type in Warrnambool is low compared to other regional municipalities in Victoria.

Rural residential lot stock is relatively evenly spread across the localities within the municipality. The total rural residential lot stock by locality includes:

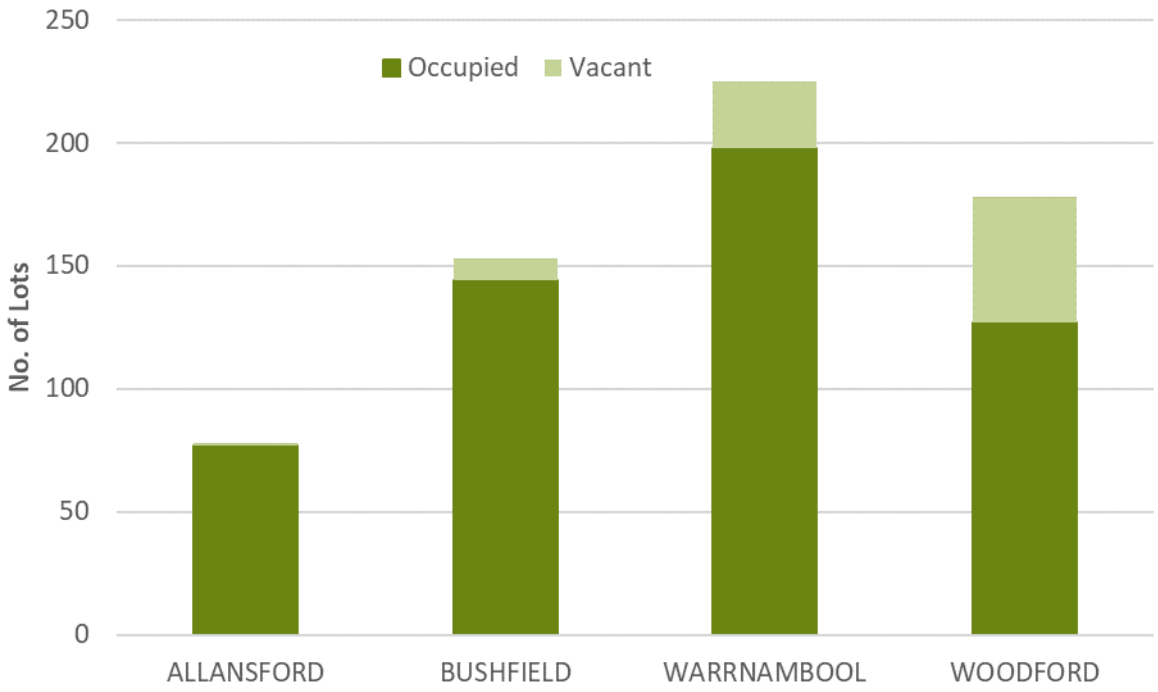
- Warrnambool – 225 lots, of which 27 are vacant (12% lot vacancy rate);
- Woodford – 178 lots, of which 51 are vacant (29% lot vacancy rate);
- Bushfield – 153 lots, of which 9 are vacant (6% lot vacancy rate); and
- Allansford – 78 lots, of which 1 are vacant (1% lot vacancy rate).

Graph 12 summarises the stock (lots) of both occupied and vacant rural residential allotments by locality.

There is approximately 219 hectares of vacant rural residential land across the municipality. Of this vacant lot stock, 28 hectares is zoned Low Density Residential (LDRZ), the remaining 191 hectares is zoned Rural Living (RLZ).

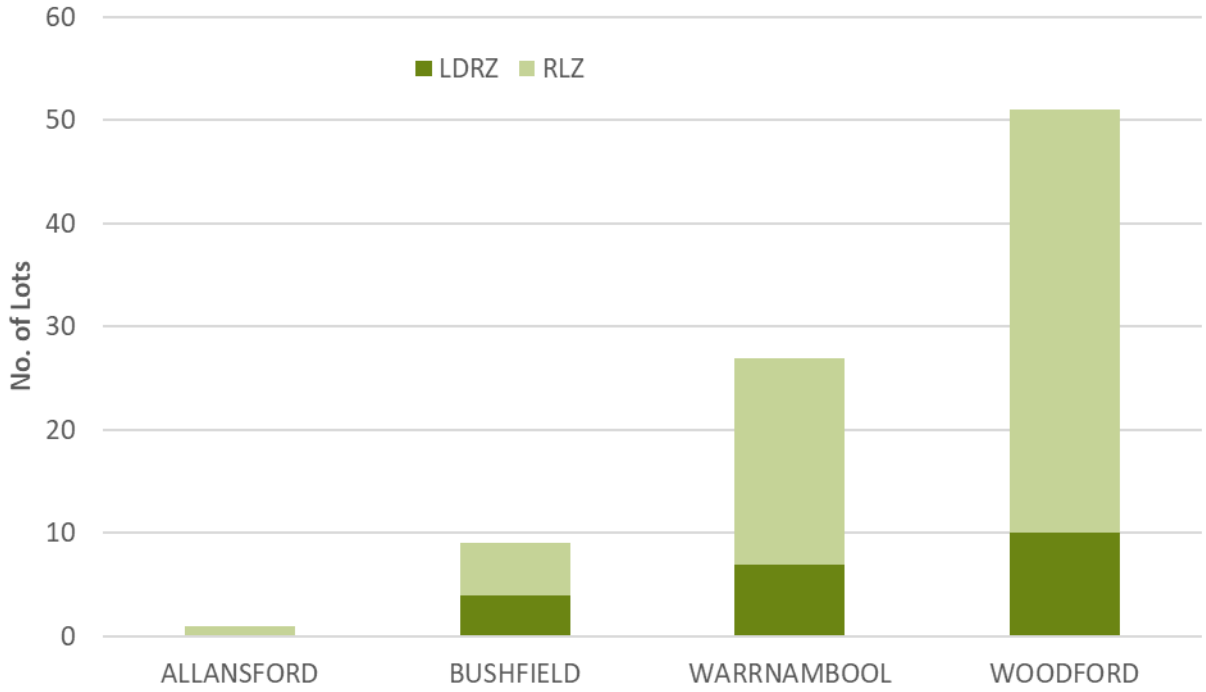
Graph 14 illustrates the size distribution of all existing rural residential allotments (occupied and vacant).

Graph 12: Stock of Rural Residential Allotments, 2021



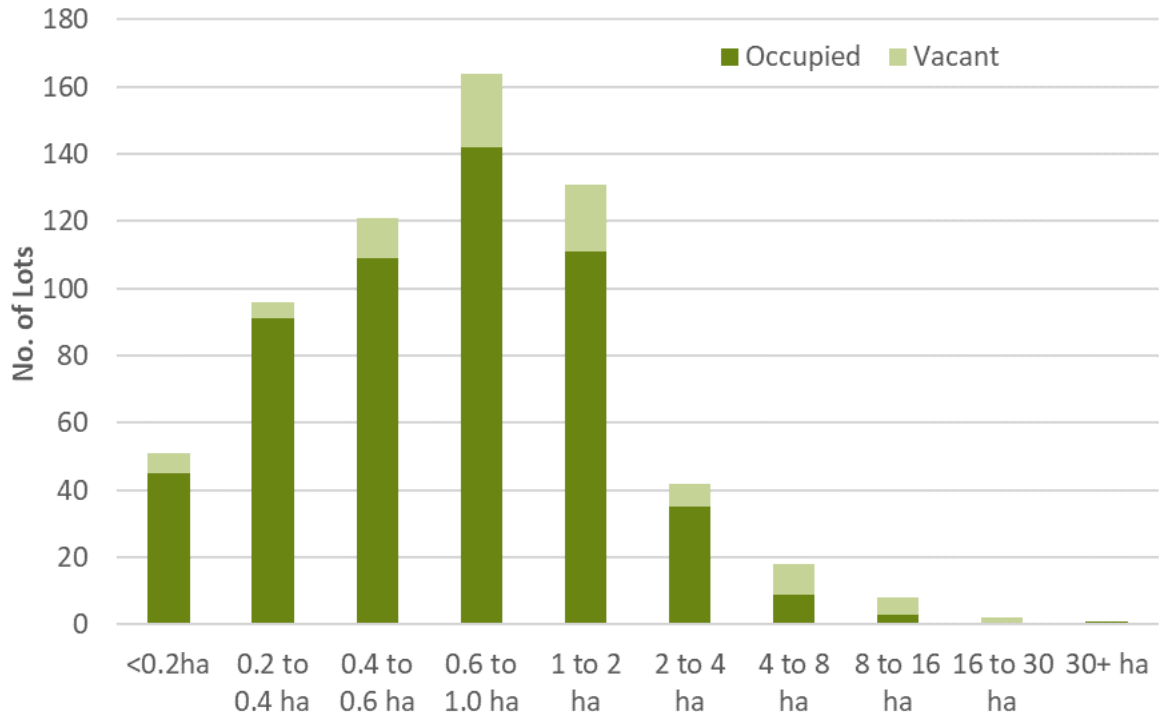
Source: Spatial Economics Pty Ltd

Graph 13: Stock of Vacant Rural Residential Allotments, 2021



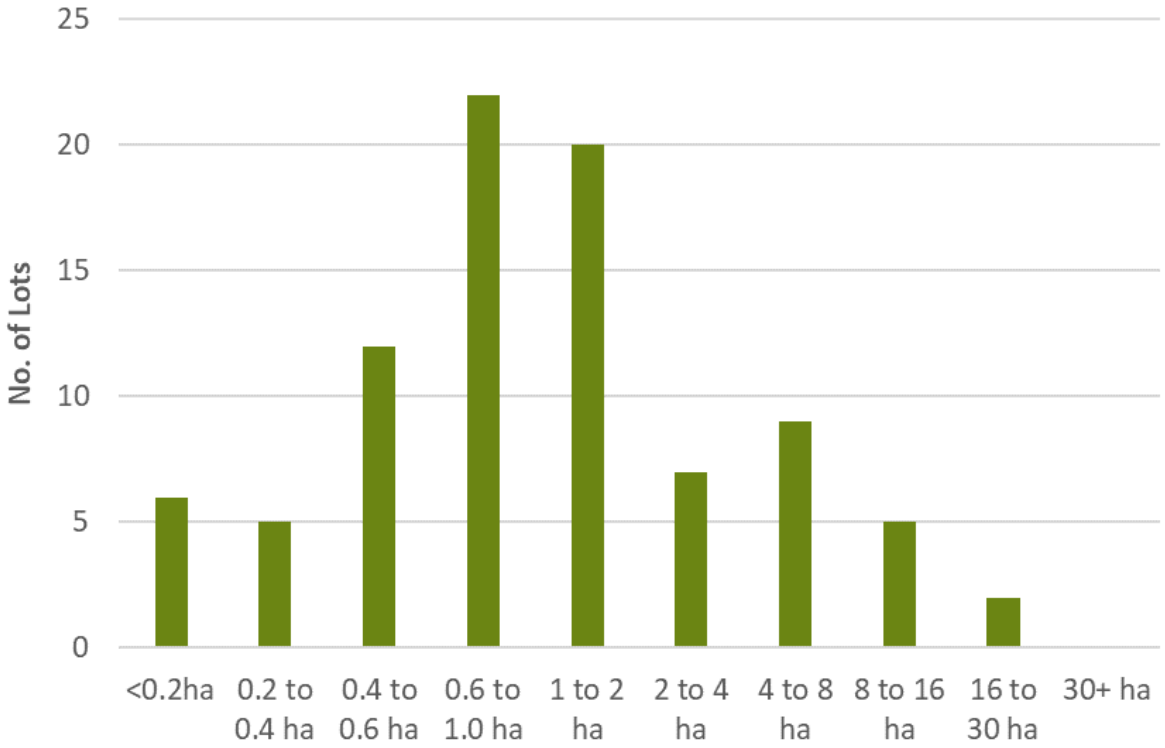
Source: Spatial Economics Pty Ltd

Graph 14: Stock of Rural Residential' Allotments by Lot Size Cohort (occupied & vacant), 2021



Source: Spatial Economics Pty Ltd

Graph 15: Stock of Rural Residential' Allotments by Lot Size Cohort (vacant), 2021



Source: Spatial Economics Pty Ltd

Approximately 68% of the rural residential lot stock (both occupied and vacant) is less than one hectare in size. Only 5% of the rural residential lot stock (or 29 lots) is sized greater than four hectares. The low stock levels of larger rural residential allotments are a supply constraint for significant future feasible re-subdivision.

5.3.2 Future (Unzoned) Rural Residential Land Stocks

There are no identified future (unzoned) rural residential land stocks across the municipal area of Warrnambool.

Key Issues

The estimated lot/dwelling capacity of existing zoned broadhectare land supply sites are essentially based on recent trends, planning permits, land owner/developer estimates and short to medium terms market expectations. Over the last ten years, the median constructed broadhectare lot size within the growth areas of metropolitan Melbourne, Greater Geelong, Ballarat, Bendigo and smaller urban centres such as Torquay, Bacchus Marsh has dramatically declined. However, within Warrnambool, the median constructed broadhectare lot size has remained relatively consistent and comparatively larger.

This is a direct response from the development industry to provide land products based on consumer preference.

The estimated lot yields for the identified broadhectare/major infill sites reflect the current achieved densities. Based on industry feedback there is minimal demand for smaller/compact allotments (outside of the lifestyle villages) and the consumer preference for larger allotments is likely to continue into the foreseeable future.

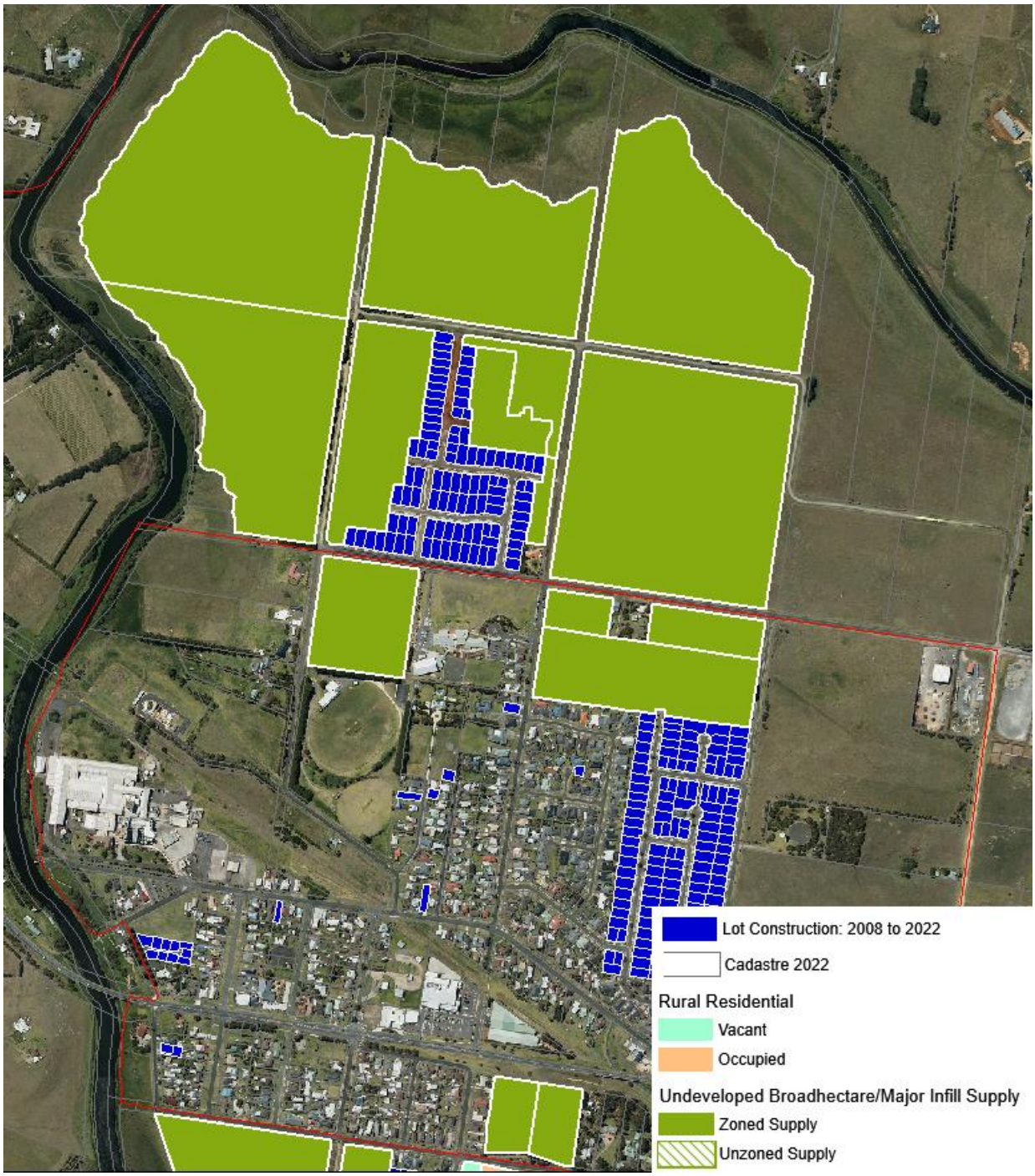
Spatial Economics consider this a likely outcome if the development industry can maintain the current level of affordability/price points for larger allotments. If additional cost pressures emerge, this may result in smaller allotments to maintain similar pricing structures.

Retirement living is on the increase reflecting changing demographics and preferences. Future broadhectare areas will need to accommodate this type of development.

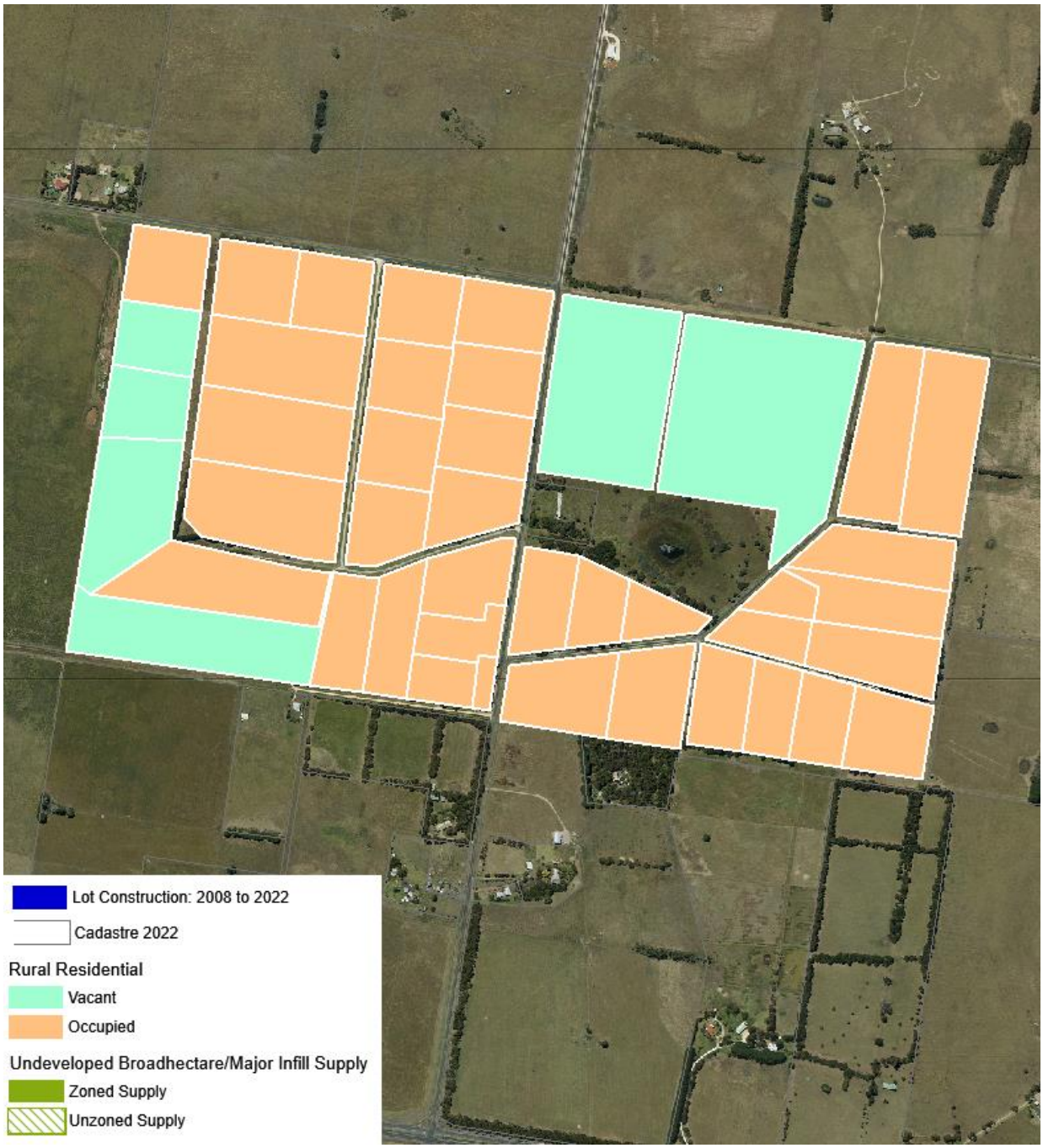
Although not assessed within this study, it is observed (through considerable experience), there is a high capacity for dispersed infill redevelopment. This means that there are readily alternative residential land supply stocks outside of undeveloped broadhectare estates - therefore a feasible opportunity to decrease the reliance on broadhectare land.

There is underlying demand for rural residential land products. There are currently limited zoned rural residential land stocks.

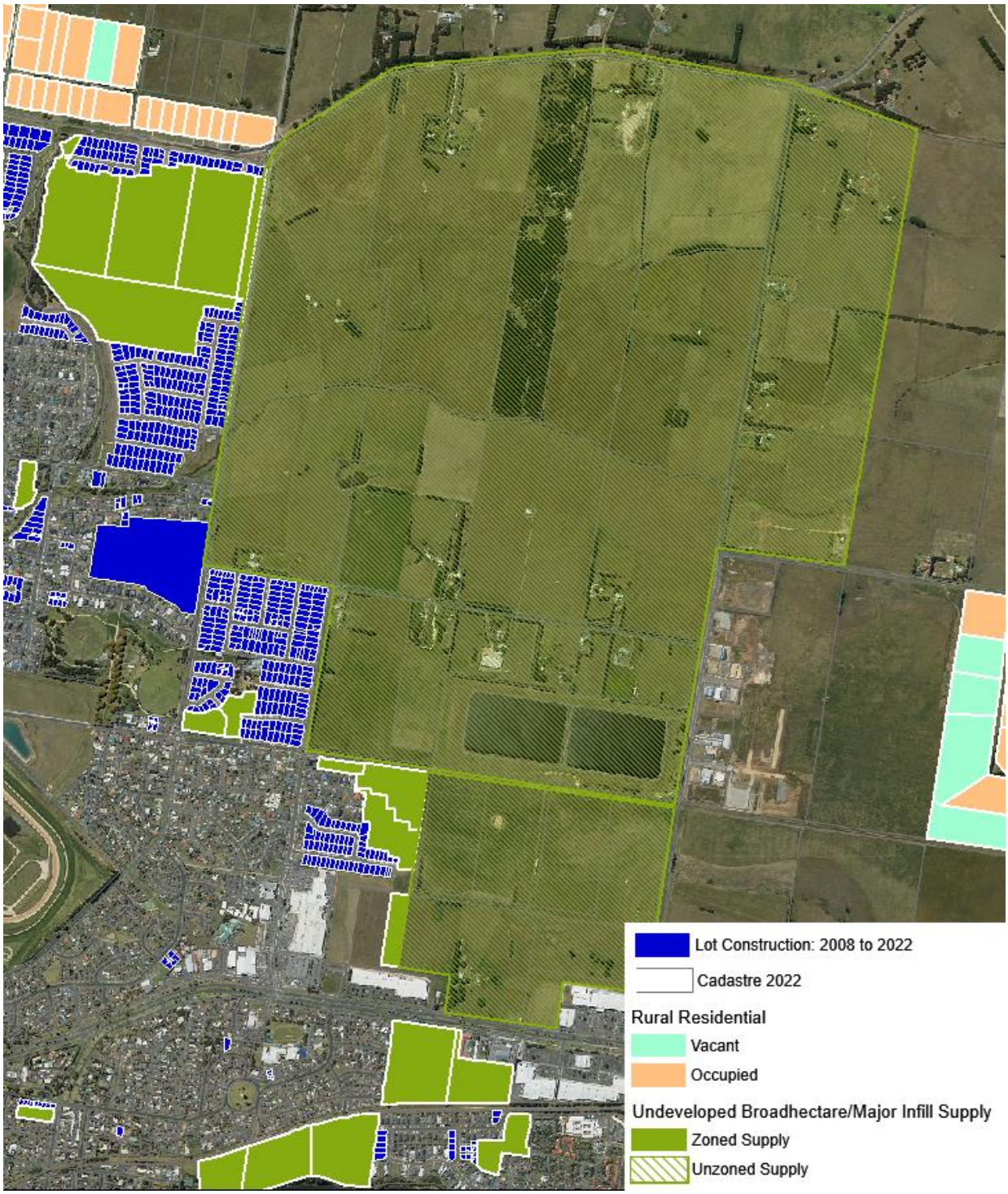
Map 1: Residential Land Supply– Dennington



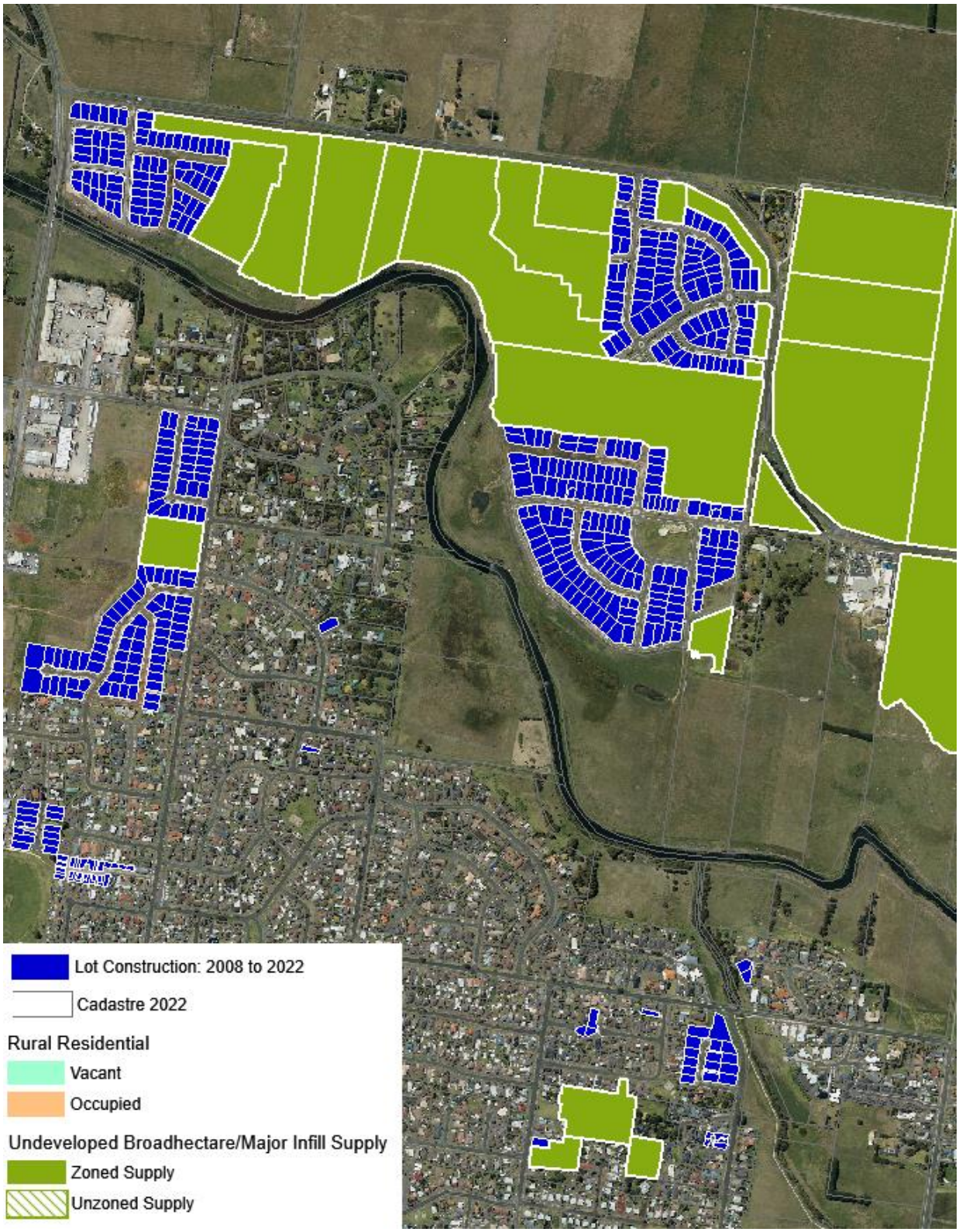
Map 2: Residential Land Supply– East Warrnambool (rural residential)



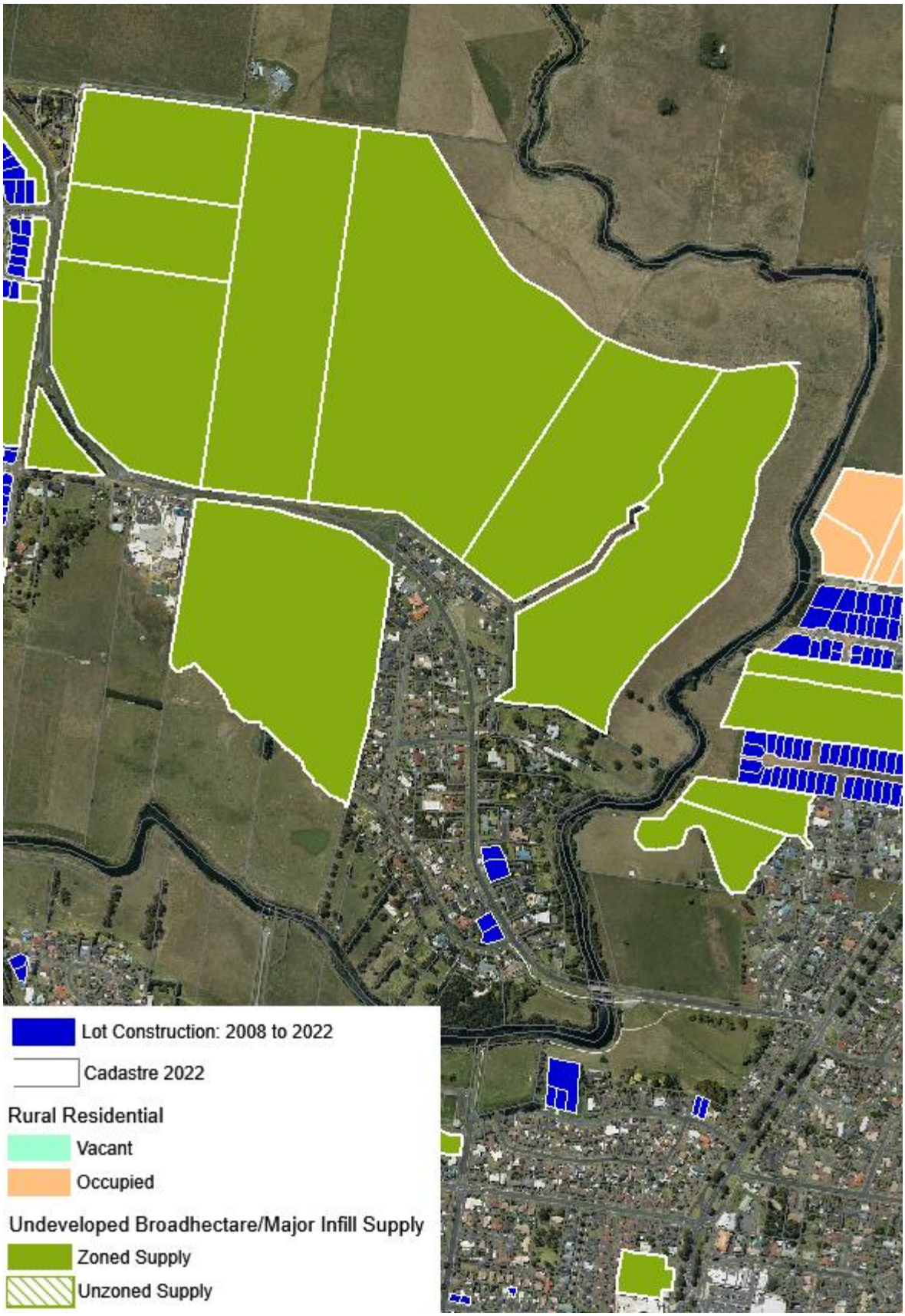
Map 3: Residential Land Supply– East Warrnambool



Map 4: Residential Land Supply– North Warrnambool (a)

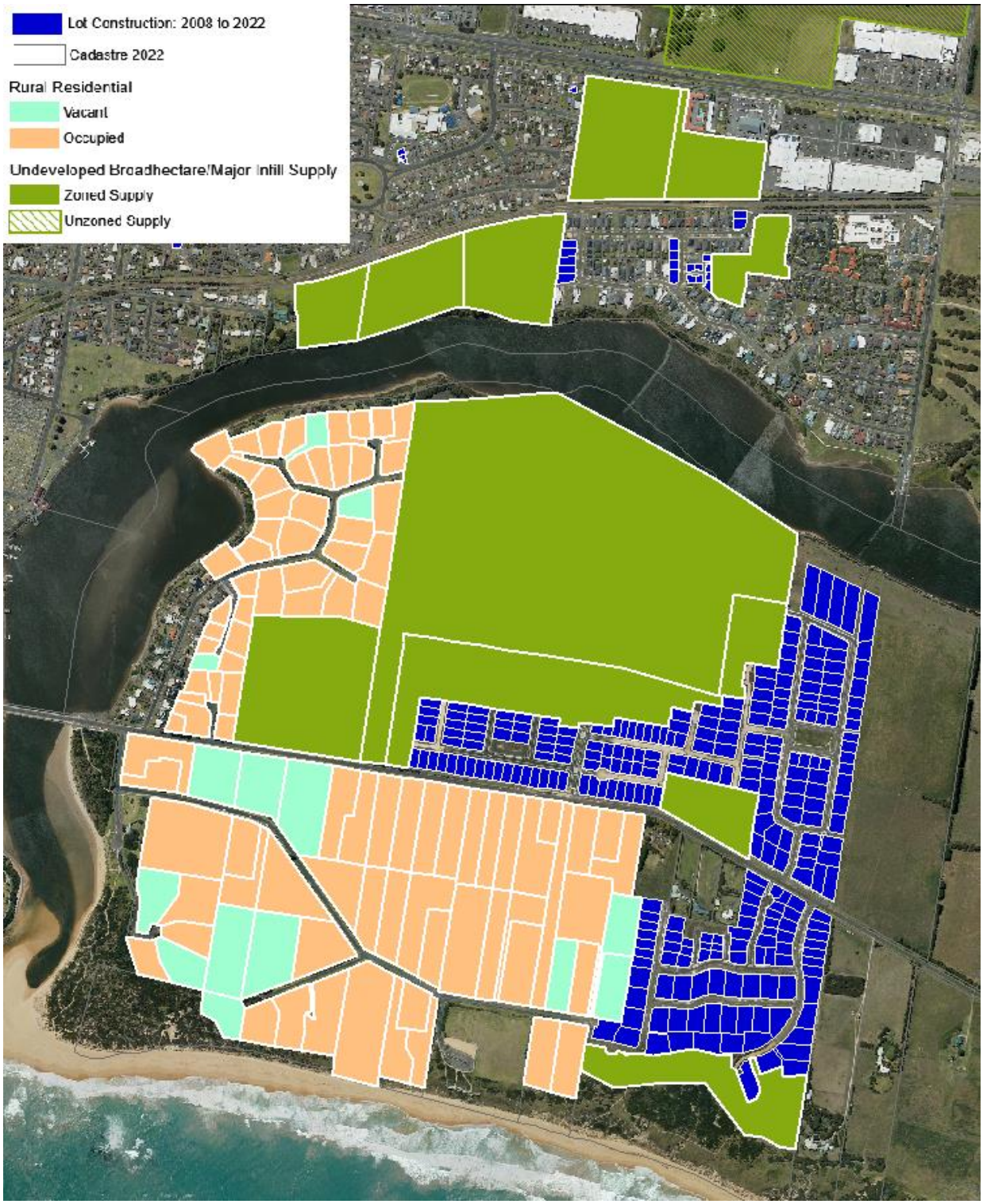


Map 5: Residential Land Supply– North Warrnambool (b)

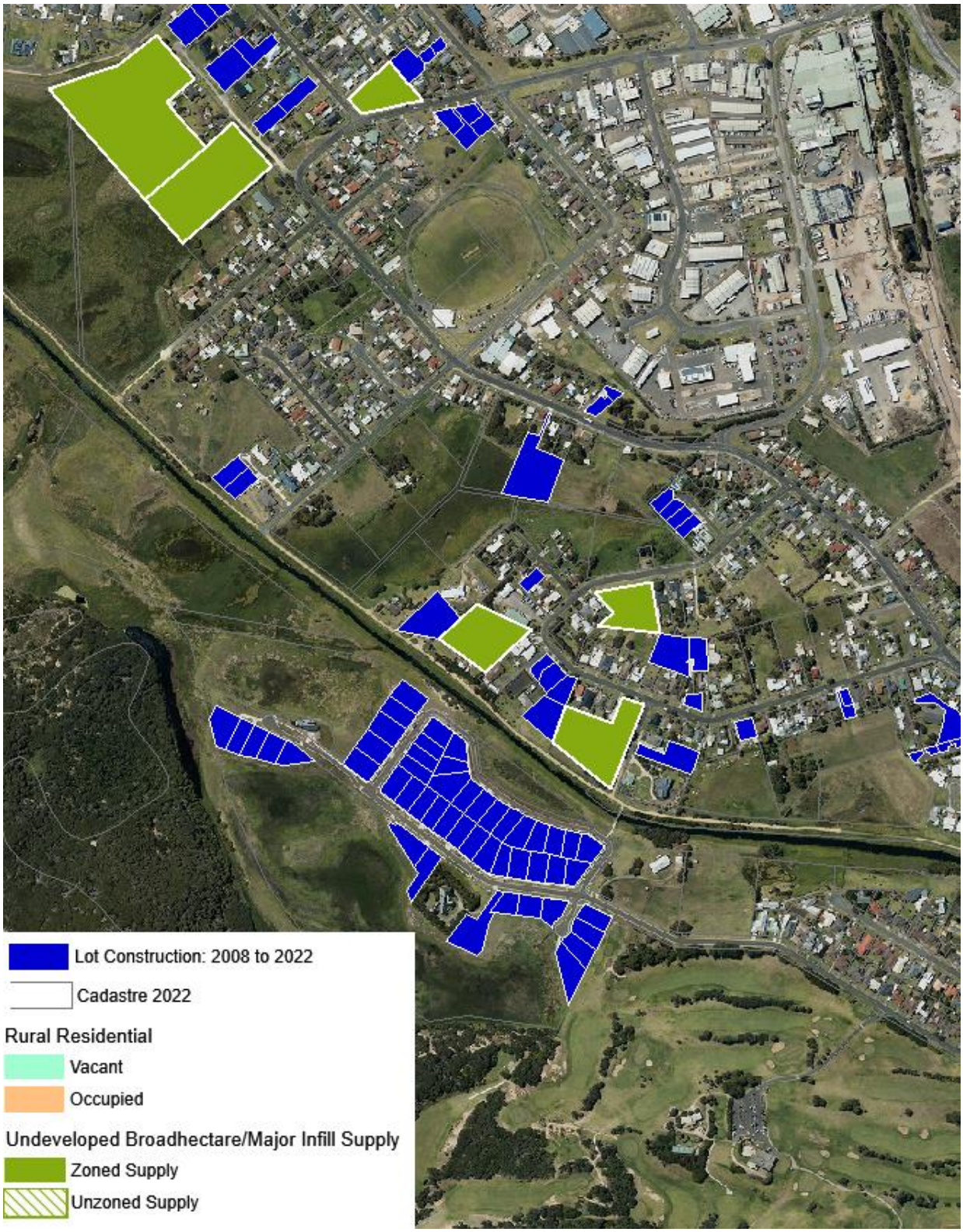


Map 6: Residential Land Supply– North Warrnambool (c)

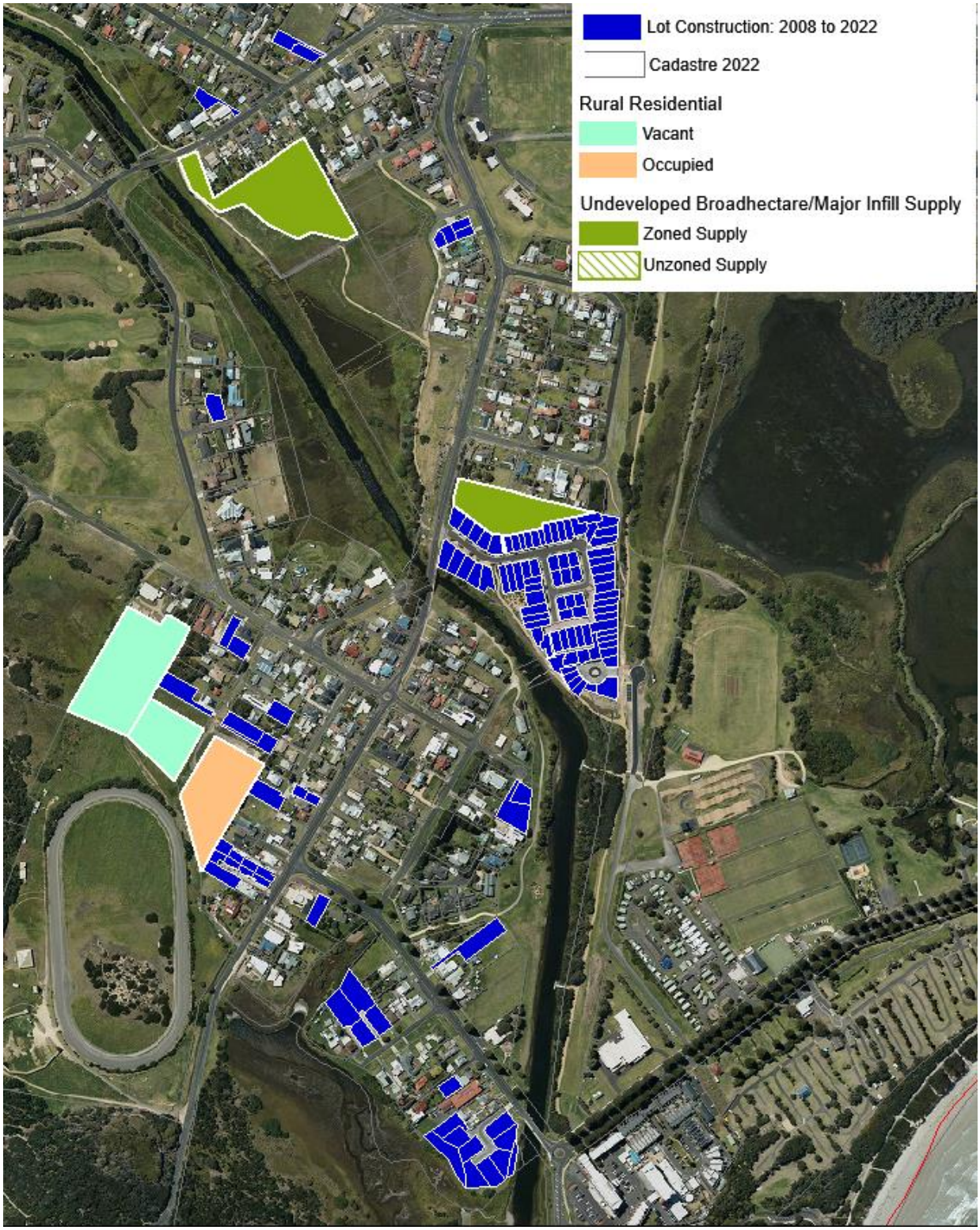
Map 7: Residential Land Supply– South East Warrnambool



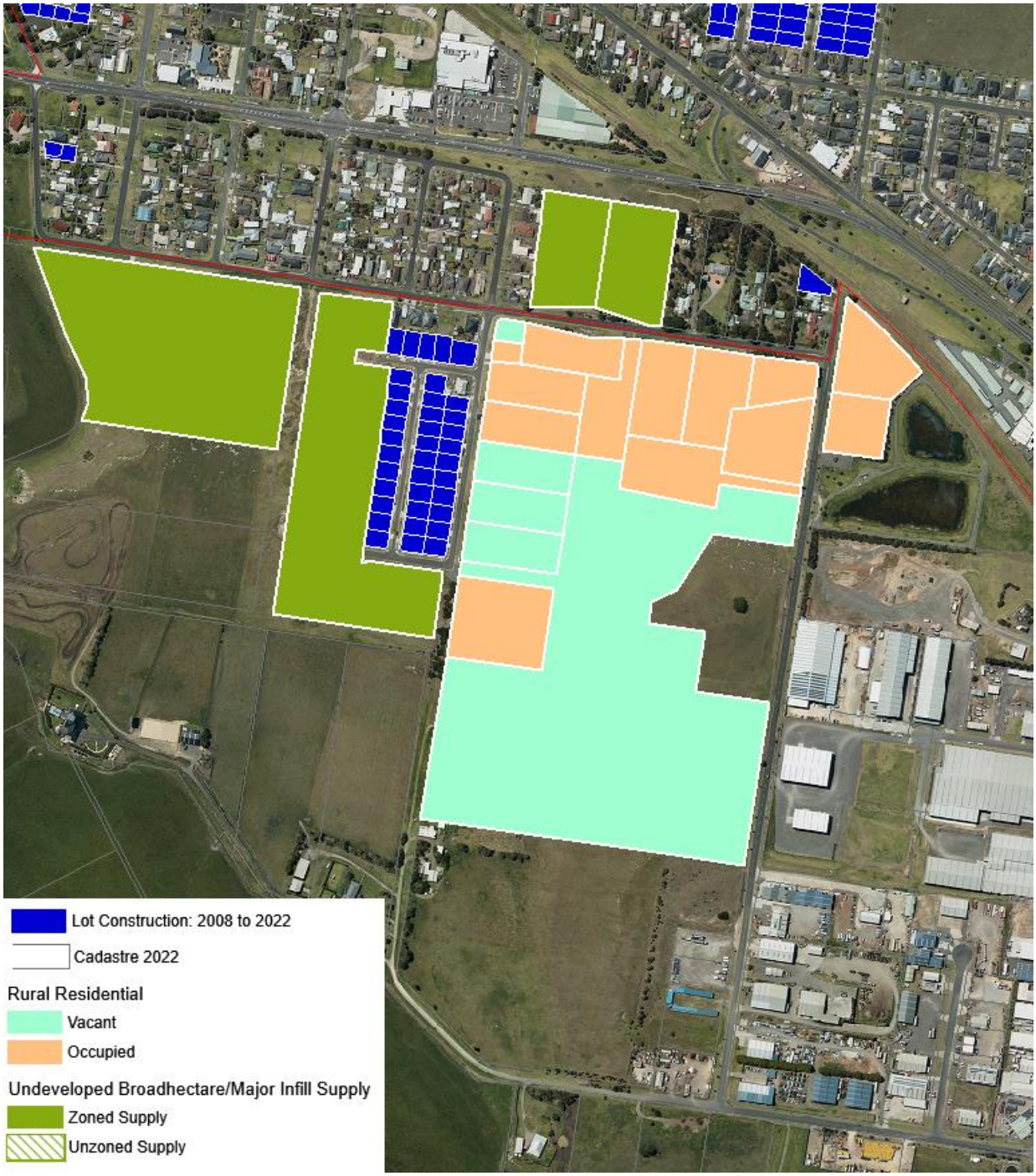
Map 8: Residential Land Supply– South Warrnambool (a)



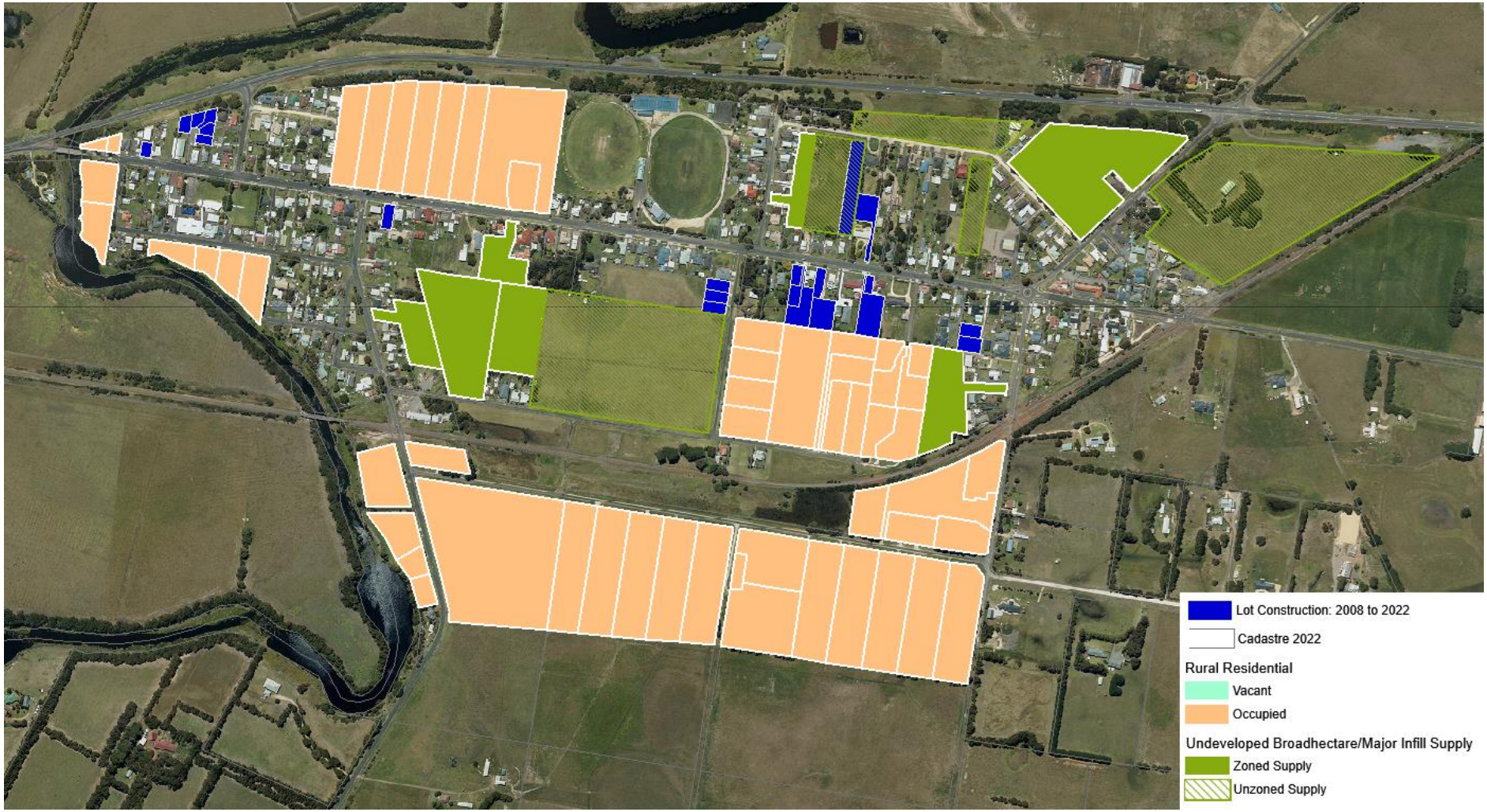
Map 9: Residential Land Supply– South Warrnambool (b)



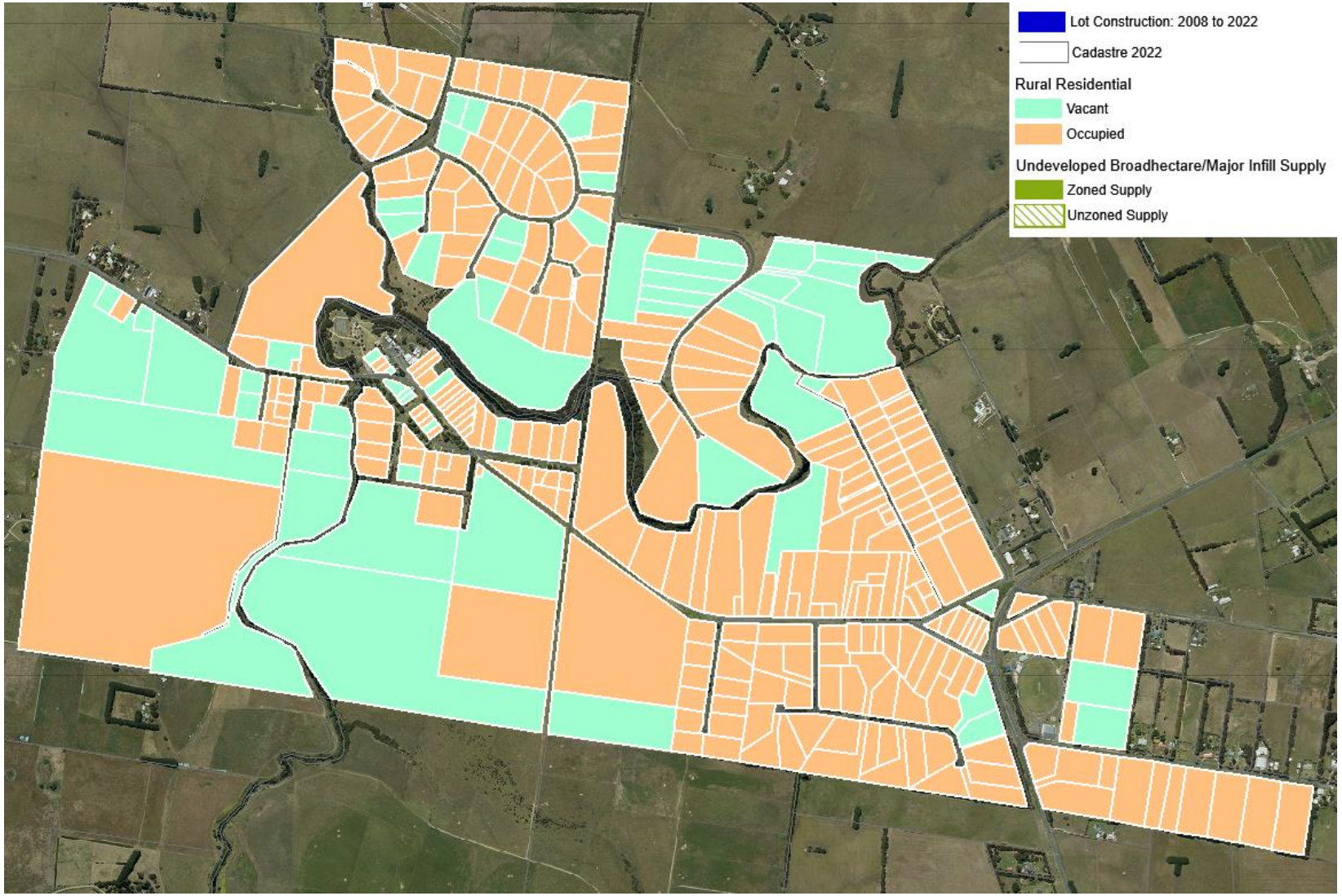
Map 10: Residential Land Supply– South Dennington



Map 11: Residential Land Supply– Allansford



Map 12: Residential Land Supply– Woodford/Bushfield



7.0 Adequacy of Land Stocks

Key Findings

In terms of zoned broadhectare/major infill residential land stocks, it is estimated based on the identified supply and projected demand scenarios, there are sufficient land stocks to satisfy between **21 to 23 years of demand** across the Warrnambool municipal area.

In addition, there are sufficient unzoned broadhectare residential land stocks to satisfy an additional **25 years + of demand.**

With the amount of supply and demand estimated, it is possible to describe the results in years of supply (a simple and understandable measure). For example, it can be stated that there are X years of supply based on projected demand within a given housing market and by supply type.

This succinct way of describing adequacy is standard across most State Governments in Australia and incorporates a wealth of information into a single figure. A series of adequacy numbers can be provided to reflect differing demand scenarios.

It is also possible to describe adequacy in a qualitative sense but with both the private and public sector familiar to this methodology, it seems appropriate to adopt the above approach.

Years of supply can also be linked to trigger points relating to the need for additional land and more importantly triggering specific strategic land use planning responses. The adequacy of broadhectare/major infill residential land supply sources is calculated as a residual taking into account the state of the other supply types.

Analysis has been undertaken to estimate the years of broadhectare residential land stocks for the municipal area of Warrnambool – this is outlined below.

7.1 Years of Supply – Warrnambool

Three future demand scenarios are used and assessed against the identified stock of undeveloped residential broadhectare land. The demand scenarios are detailed in a previous section of the report. In summary these include:

1. **Scenario 1:-** the Victorian Government's official population projections *'Victoria in Future 2019' (VIF 2019*). Dwelling requirements from 2021 to 2041 at 152 per annum or a 0.9% per annum growth rate.
2. **Scenario 2**:- Increased and sustained population growth. Dwelling requirements from 2021 to 2041 at 219 per annum or a 1.2% per annum growth rate.
3. **Scenario 3:-** Trend Housing Growth. Dwelling requirements from 2021 to 2041 at 242 per annum or a 1.4% per annum growth rate.

The share of broadhectare/major infill lot construction activity is assumed at 79%.

The benchmarks above are assumed constant over-time and is seen as a conservative assumption.

Undeveloped broadhectare sites that have been identified as either fragmented or with a significant existing use have been excluded from the years of supply estimate, again, this is seen as a conservative assumption.

Table 9 summarise the estimated years of broadhectare/major infill residential supply by demand scenario as at July 2022.

In terms of **zoned** broadhectare residential land stocks, it is estimated based on the identified supply and projected demand scenarios, there are sufficient land stocks to satisfy **23 to over 25 years** of demand across the municipal area of Warrnambool.

In addition, there are sufficient **unzoned** broadhectare residential land stocks to satisfy an additional **25 plus** years of demand for all three demand scenarios.

Table 9: Estimated Years of Broadhectare/Major Infill Residential Land Supply – Warrnambool City Council, 2022

	Zoned	Potential Residential (unzoned)	Total
Scenario 1 (VIF2019)	25+	25+	25+
Scenario 2 (Sustained population growth)	21	25+	25+
Scenario 3 (Recent Trend – Dwelling growth)	23	25+	25+

Source: Spatial Economics Pty Ltd

The years of supply is not only dependent on the projected number of dwellings in total, the share of total dwellings within broadhectare/major infill supply areas but also the timely realisation of the identified supply opportunities. Therefore, caution is highlighted in the interpretation of the years of broadhectare land supply, as a major assumption is that the identified supply is realised in a development timing setting.

7.2 Interpretation of the 'Adequacy' Benchmarks

Clause 11.02-1S of the State Planning Policy Framework includes under 'Strategies' the 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. Residential land supply will be considered on a municipal basis, rather than a town-by-town basis."*

The relevant objective is at 11.02-1S Supply of urban land:

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

It is important to highlight a number of potential interpretations and considerations of the above clauses within the State Planning Framework:

- The framework cites at least a 15-year supply of land to meet expected demand, this benchmark is a **minimum supply target**.
- The above benchmark was originally developed as a simple, relatively transparent indicator to ensure sufficient broadhectare land within the growth areas of metropolitan Melbourne – representing three business cycles. Other factors were examined within the context of this benchmark, including, but not limited to the level of industry competition, the composition of undeveloped land stocks and practicality/likelihood of identified supply being available for development to meet projected demand in the short, medium and longer term.
- The benchmark was seen as guide to decision making to determine the quantum, location and timing of the need to identify additional land stocks and start timely planning for additional supply.

The State Planning Framework identifies in the context of urban land supply the need to ensure a sufficient supply of residential land. The use of the 15-year minimum land supply benchmark is a guiding tool to measure the sufficiency of land supply.

It is observed that the current outcomes of residential development in Warrnambool is resulting in competitive outcomes, specifically: 1) diverse land products; 2) diverse locations of development; 3) affordable land prices; and 4) meeting underlying household demand.

7.3 Recommendations

The following provide a series of recommendations regarding residential land supply at a municipal level.

Primarily the recommendations are premised on the existing and likely future land supply and demand environment. However, recommendations are also based on the following principles:

- provision of diverse residential supply opportunities; and
- facilitating a competitive land supply market.

Municipal Wide Recommendations

1. Recognise that uncertainty regarding future population growth rates make it prudent not to rely on a single growth forecast for the purpose of planning for future housing needs.
2. Adopt a scenario-based approach to residential planning (i.e. plan on the basis of multiple growth scenarios and have planning in place to cope with the full range of growth rates set out in these scenarios).
3. Monitor and review actual residential development trends on at least an annual basis using the methodology set out in this report.
4. Plan on the basis of maintaining at least a **15-year zoned** greenfield residential land stock. Given the recommended scenario-based approach this means putting in place forward planning to enable Council to quickly rezone land to maintain an adequate land supply even under a high growth scenario.
5. Adopt a clear strategy to achieve its goal of encouraging greater urban consolidation and housing diversity while also protecting the amenity and character.
6. Organising regular (at least annual) discussion forums with key stakeholders on housing and development needs and steps that Council can take to facilitate ongoing investment in housing and economic development.

Key Issues

Clause 11.02-1S of the State Planning Policy Framework includes under 'Strategies' the 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. Residential land supply will be considered on a municipal basis, rather than a town-by-town basis."

The broadhectare residential supply assessment (the method employed replicates the current State Governments methodology), illustrates that there is between 21 to 23 years zoned broadhectare land stocks.

A further 25+ years of unzoned broadhectare land stocks are also identified, well over 25 years broadhectare land supply stocks (zoned and unzoned).

Clearly, there are ample broadhectare residential land stocks to meet the requirements of Clause 11.02S of the State Planning Policy Framework.

There are limited rural residential land opportunities in Warrnambool, policy considerations regarding the increased provision of rural residential lands to increase the diversity of land/housing products in the municipality could be examined.