Land Supply & Development Activity: Geelong Settlement Strategy

Amendment C395

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Expert Evidence Statement
Amendment C395

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CONTENTS

1.0 Summary of Findings

I have been instructed by Harwood Andrews Lawyers to assess recent residential development activity, the supply of residential land stocks and the estimated years of broadhectare land stocks across the municipal area of Geelong.

Key findings follow.

Residential building approvals in the City of Greater Geelong have illustrated a sustained increasing trend since 2009/10. In the earlier part of the decade, residential building approvals averaged around 2,000 per annum, increasing to around 2,600 per annum in the mid 2010's to a peak level of activity in the last two financial years of around 3,400.

Over the last three financial years, across the City of Greater Geelong, the average annual residential lot construction by supply type was:

- 2,366 broadhectare lots;
- 700 dispersed infill lots;
- 145 major infill lots; and
- 33 rural residential lots.

From 2006 to the present, 64% of development activity has been in Geelong, the residual (36%) in the Bellarine Peninsula.

The contribution of broad hectare development to total development activity was relatively consistent, at around 63%, up until 2016/17. From July 2017 to the September quarter 2019, the share of broadhectare development has substantially increased - to 79% of all residential development activity.

The median size of a constructed broad hectare lot has declined consistently and significantly measured over time. In 2007/08 the median size of a constructed broadhectare lot was 646 sqm. This declined to 452 sqm in 2018/19.

The median sales price of vacant house allotments in Geelong closely aligned with those in Wyndham and metropolitan Melbourne from 2002 to 2010. Post 2010 vacant lot prices across Geelong diverged from those in Wyndham and Melbourne. The discount on Melbourne costs varied from 15 to 38%. The cost differential in Geelong for vacant urban lots in 2018 was 35% compared to Wyndham and 36% for Melbourne.

As at September 2019, Geelong has a total estimated supply of approximately 83,000 lots. This is comprised of:

- 45,000 unzoned broad hectare lots (54% of supply);
- 32,000 zoned broad hectare lots (38% of supply);
- 5,300 dwellings from zoned major redevelopment sites (6% of supply); and
- 700 zoned major infill lots (1% of supply).

As at September 2019, of this stock (zoned and unzoned) of broad hectare land:

- 10,649 lots are located in the Bellarine Peninsula; and
- 66,005 lots are located in Geelong.

I have used three population based growth scenarios to assess the adequacy of broadhectare land stocks, specifically:

- Strong Growth Scenario (2% pa / 2850 dwelling pa);
- G21 Aspirational Scenario (2.5% pa /3693 dwellings pa); and
- Growth Surge Scenario (3% pa /4,577 dwellings pa).

Conclusion

It is estimated that, based on the identified supply and projected demand scenarios, there are sufficient undeveloped zoned broad hectare and major infill stocks to satisfy housing demand across the City of Greater Geelong for between **9 and 14 years**.

Unzoned broad hectare residential land stocks are sufficient to satisfy an additional **12 to 20 years** of demand.

2.0 Introduction

Spatial Economics Pty Ltd was engaged in late 2016 by the City of Greater Geelong to provide professional analysis and advice as an input to preparation of a Settlement Strategy for Geelong. I was a member of the Spatial Economics consulting team.

Through the latter half of 2016 and most of 2017 I was involved in preparing background papers on land supply and residential development activity, preparing recommendations regarding the Settlement Strategy and in presenting findings to Council staff and other stakeholders. I worked on an addendum report (updating population & development activity) and the creation of an additional growth scenario in the first half of 2018.

I have had a long history, dating back to 2004, monitoring residential land supply, demand and development activity in the City of Greater Geelong. My experience includes:

- Manager of the (State Government) Urban Development Program (DSE/DPCD), 2004 to 2008. Part of the Urban Development Program involved monitoring the supply/development of residential and industrial land for the Geelong Region (including Surf Coast);
- DPCD commissioning Spatial Economics to undertake the residential land supply assessment for Geelong/Surf Coast as an input to the Urban Development Program;
- Undertaking the residential and industrial land supply assessment for the G21 Consortium (Surf Coast, Colac-Otway, Geelong, Golden Plains & Queenscliff); and
- Commissioned by the City of Greater Geelong on a biannual basis (ongoing) to undertake the monitoring of residential land supply and development.

This witness statement reviews and reports on:

- residential land supply stocks;
- residential development activity;
- future residential development activity scenarios; and
- estimates of the current years of residential broadhectare land supply.

3.0 Methodology, Approach & Supply Definitions

The following provides a brief outline of the approach and methodologies used in the preparation of this statement.

Population Growth and Future Dwelling Requirements

Based upon the background papers prepared as part of Spatial Economics input to the Settlement Strategy *Background Paper No. 1 'Population Growth Scenarios' and based upon the analysis of growth and demand trends in Background Paper No. 3 'Population Trends and Drivers of Housing Demand and the Population Growth and Residential Development Activity Addendum'* three population growth scenarios covering the period from 2017 to 2036 have been used in assessing likely future housing demand trends and the adequacy of the City's current residential land stocks.

The population growth scenarios can be summarised as:

- Strong Growth – averaging 2.0% per annum growth;
- G21 Aspirational – averaging 2.5% growth; and
- Growth Surge – averaging 3% growth.

Supply Type and Construction Activity Definitions

For this project, three major residential land supply types were considered: *broad-hectare* (including large scale broad-hectare development areas, major infill sites and proposed future residential growth areas), *established urban area* (including major redevelopment and dispersed infill sites) and *rural residential.* The sub-categories are defined as follows:

1) Broad-hectare

Zoned Broad-hectare supply is defined as new development on 'greenfield' sites (that is sites that have not previously been used for urban development or subdivided to normal residential density). Zoned broad-hectare land has suitable land use zoning to allow normal residential density development. These sites are typically located on the fringe of the established urban area. This does not include land that is zoned Urban Growth (UGZ) without an approved Precinct Structure Plan (PSP).

Major Infill supply can often be described as remanent broad-hectare. It is defined as developments, within the established urban area, with a capacity greater than 10 lots/dwellings per site. There is often debate and "shades of grey" to the difference of major infill and broad-hectare. Often, major infill sites are in effect broad-hectare land left undeveloped as urban development proceeded on surrounding sites.

Proposed Future Residential is land identified in Council planning strategies for future residential development but where the current zoning does not permit early residential development.

2) Established Urban Area

Major Redevelopment is defined as development sites with an existing urban use that are mooted for residential redevelopment and expected to yield ten or more dwellings.

Dispersed Infill is defined as residential development projects located within the established urban area and with a dwelling yield of less than 10.

3) Rural Residential

Rural Residential is land zoned as either Low Density Rural Residential (LDRZ) or Rural Living (RLZ) zones.

Geography

The following definitions of geographic areas are adopted throughout this witness statement in reporting on our land supply assessment.

LGA: The whole area of the City of Greater Geelong

For this discussion the City of Greater Geelong area is divided into two major sub-areas for the purpose of analysis. These sub areas are the Bellarine Peninsula and Geelong.

At a sub-regional scale these two areas are further divided, where appropriate, into smaller geographic areas.

On the Bellarine Peninsula the relevant sub-areas are defined by township boundaries such as Ocean Grove, Leopold etc.

Within Geelong a number of sub-areas are defined as follows:

- the existing established urban area of Geelong – Urban Geelong;
- the Armstrong Creek Growth Area;
- the Northern Growth Area;
- the Western Growth Area; and
- Lara.

The maps at the end of this statement illustrates the areas covered by these regional and sub-regional area definitions.

Residential Lot Construction

Residential lot construction has been assessed by analysing changes to the residential cadastre within the sub-regions (and as applying to the land supply types) identified above.

The year of construction of a constructed lot is defined by the finalisation of certificate of title.

Construction activity has been assessed on an annual basis as at July of each year from 2006 to 2019. Additional analysis has been included to identify lot construction in the three months to September 2019.

Potential Lot Yields

Lot yields have been established on a parcel by parcel basis for the following land supply types: major infill, broad-hectare and potential residential (unzoned).

Typically, lot yield is sourced from completed strategic planning assessments such as precinct structure plans, structure plans and subdivision plans. Where this information is not available, the net developable area has been established, and current localised market yields applied.

Rural Residential

The number of rural residential allotments has been established via interpretation of aerial imagery and assessment of the cadastre and zoning information.

Adequacy (Years of Supply)

Once the amount of potential supply and future demand has been estimated, adequacy is described in years of supply. For example, it may be stated that there are *X* years of supply based upon growth scenario.

In assessing the number of years of broad-hectare residential land supply, only a component of the total projected demand is apportioned to estimate future demand. The remainder is apportioned (in line with recent trends) to future demand of other forms of residential supply such as dispersed infill and rural residential. That is the future demand is assumed to be met from broad-hectare land supplies is based on current markets trends (75%) and not Council's aspiration to achieve a higher level of urban consolidation. This is seen as a conservative assumption due to the likely probability of an increased share of development in the future being located in the established urban area – particularly the construction of high density/yielding projects.

The Victorian State Government uses as a measure of supply adequacy a benchmark of at least 15 years residential land supply at a whole of Local Government Area level.

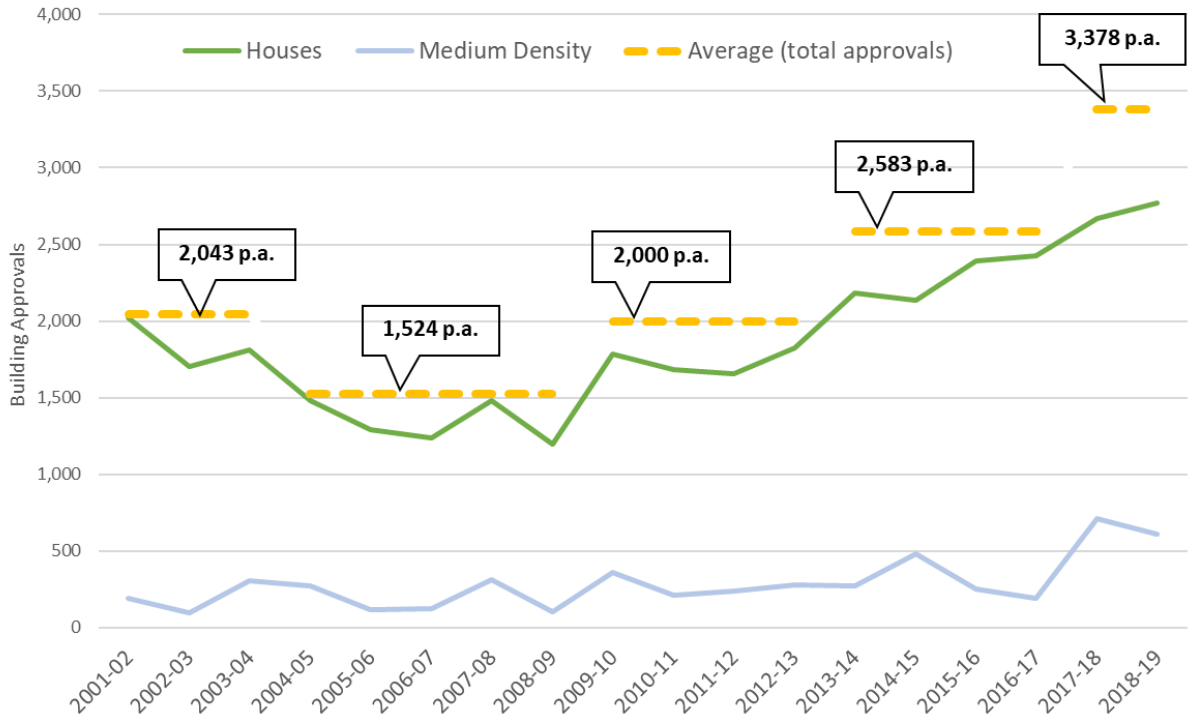
The methodology employed in assessing the adequacy/years of broadhectare land supply was developed in conjunction with UDIA (Vic) in preparation of the State Governments Urban Development Program.

4.0 The Makeup of Recent Development Activity

4.1 Residential Building Approvals

Residential building approvals in the City of Greater Geelong have illustrated a sustained increasing trend since 2009/10. In the earlier part of the decade, residential building approvals averaged around 2,000 per annum, increasing to around 2,600 per annum in the mid 2010's to a peak level of activity in the last two financial years of around 3,400.

Graph 1: Residential Building Approvals by Type – Geelong



Source: Australian Bureau of Statistics

4.2 Residential Lot Construction - Volume

Analysis has been undertaken to determine, on a lot by lot basis, the location, supply type, density and quantum of residential lot construction activity from July 2006 to September 2019. Lot construction activity has been classified into distinct supply types and or supply locations as previously defined. These include: broad-hectare, major infill, dispersed infill and rural residential.

Residential lot construction activity has mirrored in terms of volume, residential building approval activity. In the last two financial years, residential building approvals have averaged approximately 3,400 per annum compared to 3,300 residential lots constructed.

Residential lot construction was at the lowest levels of activity from 2006/07 to 2008/09 – averaging around 900 lots per annum across the municipal area of Geelong. It appears that the relatively low level of residential lot construction from 2006 to 2009 was due, at least in part, to the low stocks of zoned broad-hectare land i.e. the period immediately prior to the release of the Armstrong Creek growth area.

From 2009/10 to 2014/15 residential lot construction activity averaged around 2,000 lots per annum. From 2015/16 residential lot construction activity illustrated a sustained increasing trend in production levels, at around 3,200 per annum.

Over the last three financial years across the City of Greater Geelong, the average annual residential lot construction by supply type was:

- 2,366 broadhectare lots;
- 700 dispersed infill lots;
- 145 major infill lots; and
- 33 rural residential lots.

In the September quarter 2019, nearly 800 lots were constructed.

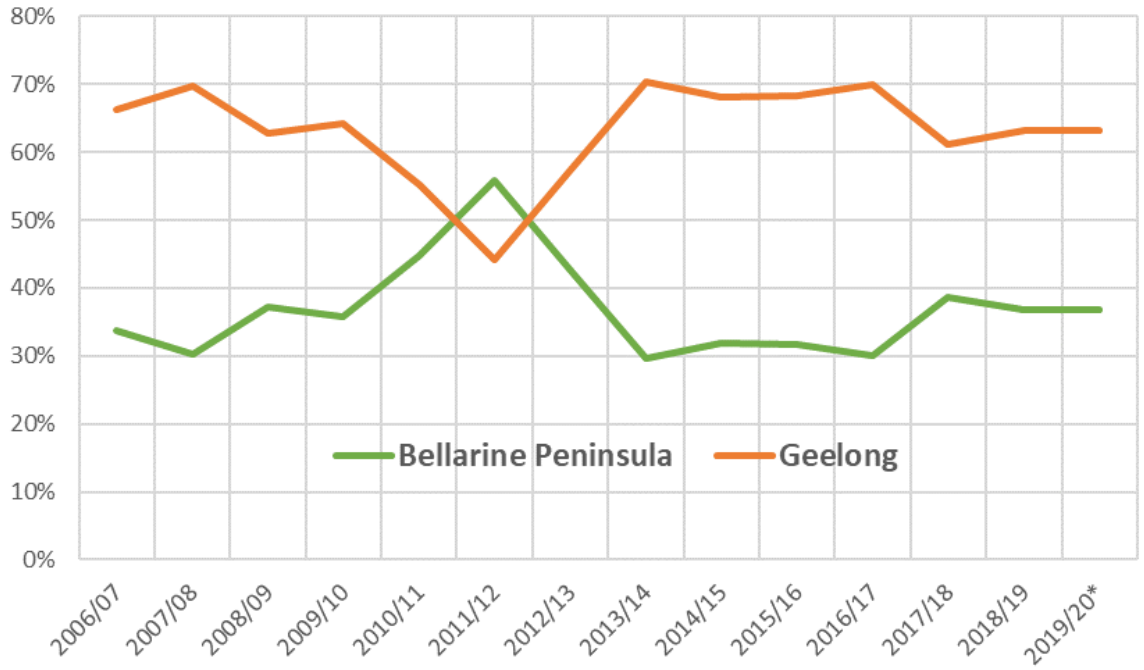
4.3 Residential Lot construction - Location

Analysis has been undertaken to determine the location of residential lot construction over-time. Typically, the majority of residential development activity has been located in Geelong. Since 2006 to the present, 64% of development activity has been in Geelong, the residual (36%) in the Bellarine Peninsula.

In the last three financial years, the share trend is relatively consistent at 37% of development activity being located in the Bellarine Peninsula.

In 2011/12, the quantum of residential development activity in the Bellarine Peninsula briefly surpassed Geelong with 56% of development activity. This was primarily due to a lack of zoned undeveloped broad hectare land stocks in Geelong at the time.

Graph 2: Share of Residential Lot Construction by Region



Source: Spatial Economics

Over the last three financial years, 65% of all residential development activity or approximately 2,100 lots per annum was located within Lara (213 lots), the established areas of urban Geelong (890 lots) and Armstrong Creek (1,000 lots).

In comparison activity in the major settlements on the Bellarine Peninsula was:

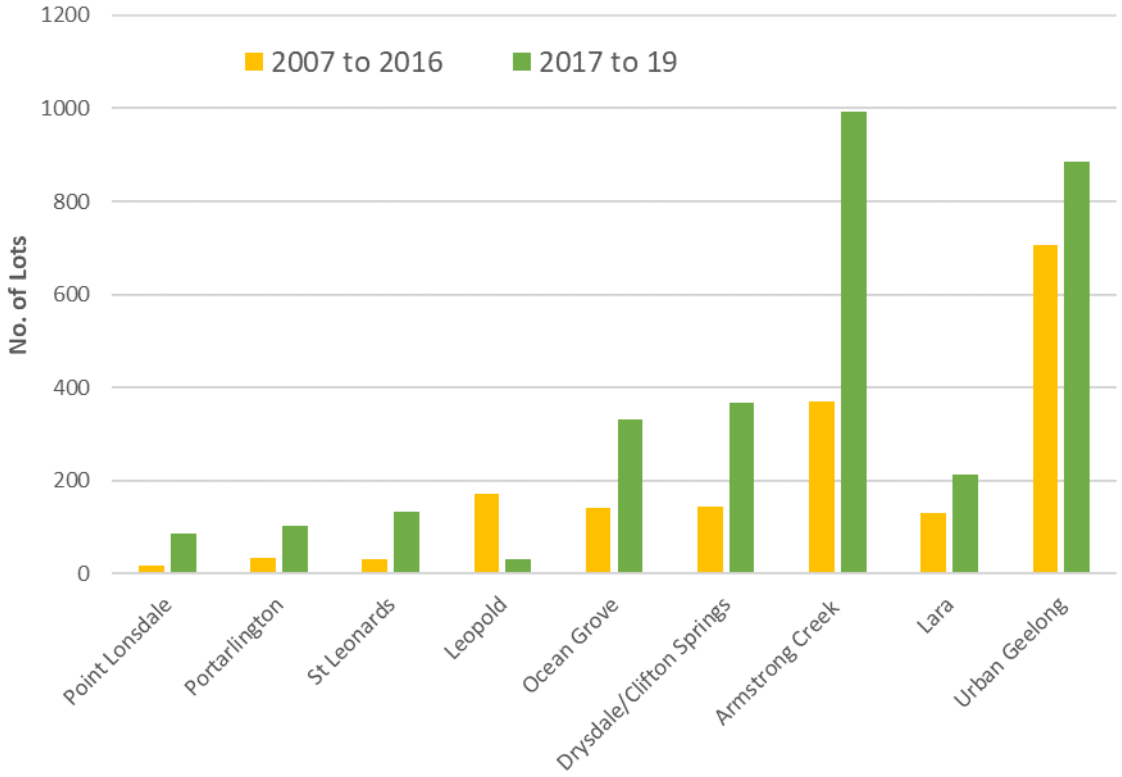
- Drysdale Clifton Springs – 370 lots per annum;
- Ocean Grove – 330 lots per annum;
- St Leonards – 130 lots per annum;
- Portarlington – 100 lots per annum; and
- Point Lonsdale – 90 lots per annum.

Apart from Leopold, all townships/sub-regions across the municipal area of Geelong over the last three financial years have shown strong growth in the volume of residential development activity - in line with the overall increase in growth across the municipality.

From 2007 to 2016, residential development activity in Leopold averaged 173 lots per annum, declining to around 30 lots per annum over the last three financial years. This is primarily due to the relative depletion of zoned broad hectare land stocks in this locality.

It is noted that there are smaller amounts of lot construction activity in the settlements including Wallington, Indented Heads and Barwon Heads. These settlements have not been shown on Graph 3 given their low construction activity.

Graph 3: Average Annual Residential Lot Construction Activity by Location



Source: Spatial Economics

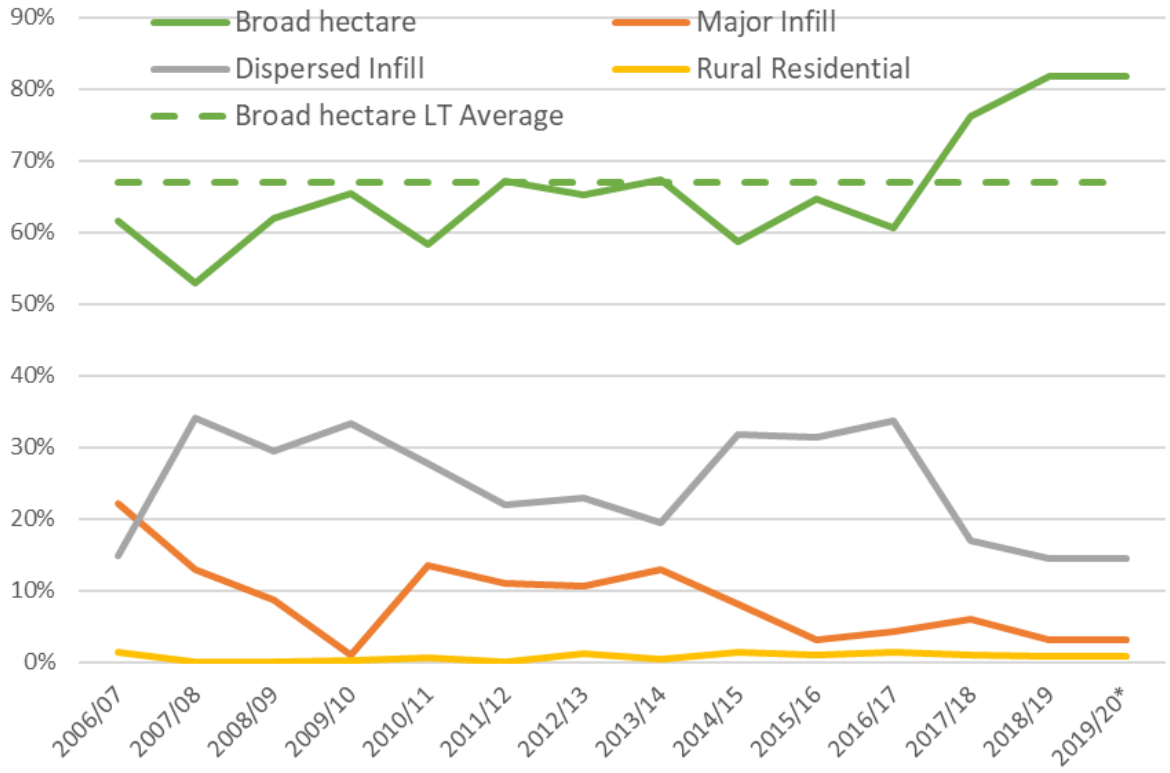
4.4 Residential Lot construction – by Supply Type

From 2006/07 to the September quarter 2019, residential development activity comprised:

- 67% broad hectare development;
- 25% dispersed infill;
- 7% major infill; and
- 1% rural residential.

Broad-hectare. In terms of broad hectare development, up until 2016/17 its' contribution to total development activity was relatively consistent at around 63%. From July 2017 to the September quarter 2019, the share of broad-hectare development has substantially increased to 79% of all residential development activity. This is in the context of substantial increased volumes of total development activity over this period.

Graph 4: Share of Residential Development Activity by Supply Type, City of Greater Geelong



Source: Spatial Economics
* September Quarter 2019 (3 months)

As outlined in the Settlement Strategy Background Report: *Land Supply and Housing Affordability, Discussion Paper No.6*, it is expected that any significant short-term increase in housing demand will typically be satisfied by the residential broad hectare industry.

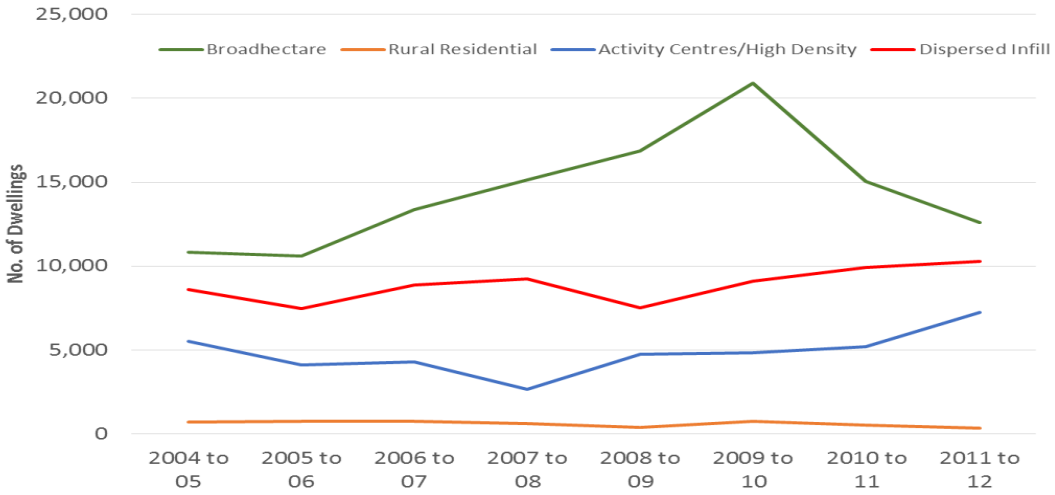
The following is an extract from the background paper regarding rapid short-term increases in housing demand and likely supply responses.

> *"…….. role of appropriately planned broad-hectare land stocks in enabling a relatively rapid industry response to unexpected upturns in housing demand (sometimes known as the 'surge tank' effect).*
>
> *The surge tank effect reflects the fact that, when faced with a relatively rapid and unexpected increase in housing demand, the development industry is usually able to increase supply quicker in well planned broad-hectare growth areas than in established areas of cities and towns. The result is often a, relatively short term, spike in 'broad-hectare' lot (and housing) production followed by a gradual return to a more normal broad-hectare share of total development.*

The effect of this short term upturn in broad-hectare supply is to mitigate, but not completely eliminate, the price spike that would accompanies such an increase in demand.

This is illustrated by the experience of Melbourne in the first decade of this century (as illustrated by the following graph).

Net Dwelling Change by Supply Type, 2004 to 2012 – metropolitan Melbourne



Source: *Spatial Economics, Housing Development Data.*

In summary from 2005-06 to 2009-10, the expressed demand (net dwelling construction) across metropolitan Melbourne increased rapidly from 22,900 dwellings to 35,600 dwellings (a 55% increase). Whereas dwelling construction within the established urban areas remained constant at around 12,500 dwellings per annum 'broad-hectare' dwelling construction increased by 97%, increasing from approximately 10,600 dwellings to 21,000 dwellings over the period.

The ability of well-planned broad-hectare growth areas to play this 'surge tank' role is not surprising given that in Melbourne's (and in future Geelong's) growth areas an agreed strategic planning framework is in place. Where an agreed Framework Plan and Precinct Structure Plans (PSP's) are in place it is relatively simple and quick for developers to obtain approvals for new or expanded development projects provided that the development is consistent with the relevant PSP.

In addition, in growth areas developers often have control over larger land parcels, have agreed servicing strategies with public utilities and are better able to accelerate design and development as needed to meet demand.

By comparison, in established areas, developers usually face more complex and time consuming processes in consolidating sites, agreeing a strategic planning approach/development scale and form with Councils, negotiating service availability and seeking final development approvals. The established area supply comes from two sources - the dispersed infill market - typically characterised by small scale developers with inherent limitations on their ability to finance and manage significant increases in development scale, and the market for larger, higher density projects. While the latter is characterised by larger scale developers with substantially greater project management

resources its ability to respond quickly to demand surges tends to be limited due to complex planning approval processes and the need to negotiate larger scale financing arrangements.

In summary an ample stock of pre-planned broad-hectare residential land can play a critical role in moderating the impact on prices of unexpected increases in housing demand. Maintaining an adequate supply 'cushion' of pre-planned broad-hectare residential land should therefore be a central element in any strategy to address housing affordability."

As argued in the above that the residential broad hectare land development industry has the greatest capability to respond to the sudden increase in housing demand across Geelong. As will be outlined later, the response from industry was the provision of both diverse and affordable land products.

Major infill lot construction activity in Geelong has traditionally provided broad hectare style land/housing products. Historically, major infill sites in Geelong could typically be described as remnant broad hectare sites. Major infill development in Geelong is declining, from the peak of 22% of activity in 2006/07 to a current low of 3%. It is expected that a significant proportion of the historic/current demand for major infill development will transfer to the broad hectare market.

Dispersed Infill lot construction activity as measured from July 2006 to September 2019 across the municipal area of Geelong has averaged 520 lots per annum. Over the last five and a quarter years the average has increased to 700 lots. This represents 24% of all residential lot construction activity.

Dispersed infill lot construction is widely spread across the established urban areas in both Geelong and the Bellarine.

Rural Residential lot construction across the municipal area of Geelong is limited. Between July 2006 and September 2019, it averaged 17 lots per annum – or 1% of total residential lot construction activity.

4.5 Broad-hectare Lot construction – Density & Size Distribution

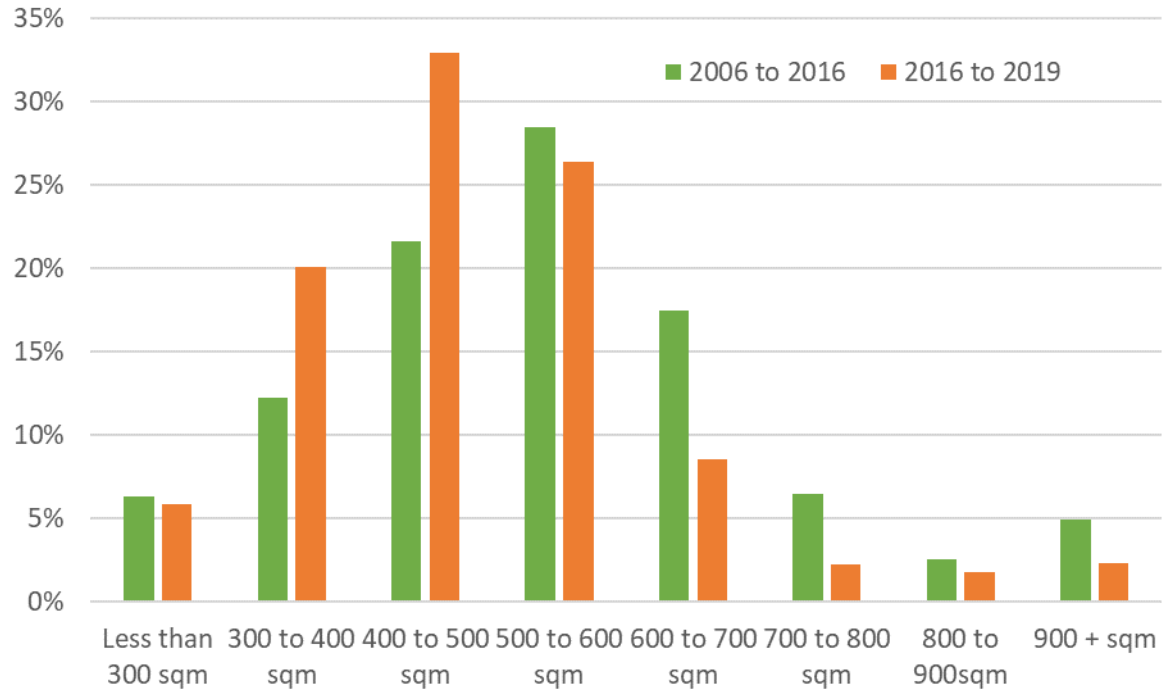
The median size of a constructed broad hectare lot has declined consistently and significantly over time. In 2007/08 the median size of a constructed broad-hectare lot was 646 sqm, declining to 452 sqm in 2018/19.

This decline in average lot size somewhat masks the significant lot size compositional change. The graph below illustrates the size distribution of broad hectare lot construction.

While broad-hectare lot production activity across the City of Greater Geelong has traditionally produced a diverse range of lot sizes, this diversity is narrowing.

Over the last three year financial years, broad-hectare lot construction has become increasingly uniform with a substantial increase in the proportion of lots sized between 300 and 500 sqm. Lots in this size range increased from 34% to 53%. In addition, there has been a marked decline (from 31% to 15%) in the proportion of lots above 600 sqm constructed over the last three years.

Graph 5: Broad hectare Lot Construction – Lot Size Profile, City of Greater Geelong



Source: Spatial Economics

4.6 Sales Values – Vacant Residential Lots

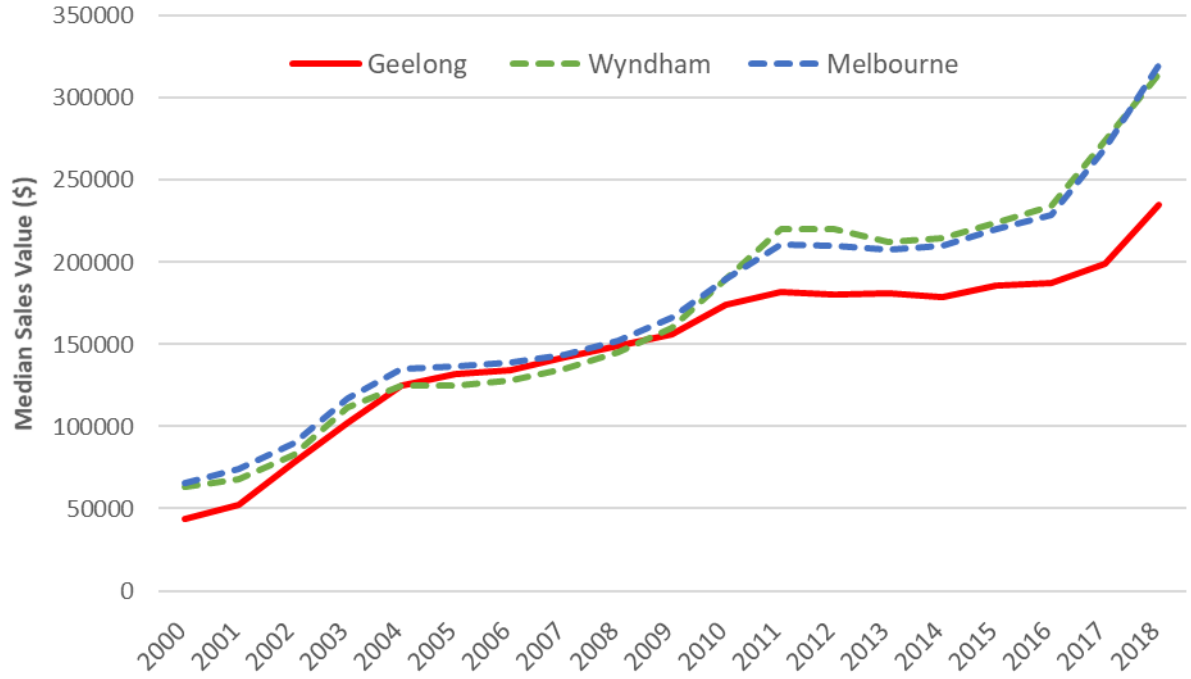
In 2018, the median price for a vacant house lot in Geelong was $235,000 (significantly lower than the Melbourne broad hectare median of $320,000 and the Wyndham medium price at $315,000). From 2011 to 2018 vacant lot prices across Geelong increased by 3.7% per annum (compared to Melbourne at 6.1% and Wyndham 5.3% per annum).

The trend of growth in the price of vacant residential allotments has been partly offset through the production of smaller allotments.

The median sales price of vacant house allotments in Geelong closely aligned with those in Wyndham and metropolitan Melbourne from 2002 to 2010. Post 2010 the vacant lot prices across Geelong diverged from those to Melbourne and Wyndham resulting in a 15 to 38% discount on Melbourne prices. The price discount in Geelong for vacant urban lots in 2018 was 35% compared to Wyndham and 36% for Melbourne.

This divergence in median sales values coincides with the commencement of release of lots within the Armstrong Creek Growth Area and illustrates the importance of an adequate land supply in constraining residential land prices.

Graph 6: Median Residential Vacant Land Sales Value (house lots)



Source: Department of Environment, Land, Water & Planning. 2019, A Guide to Property Values.

5.0 Future Residential Land Supply

This section of the statement details the stock (measured in terms of potential lots) of residential land across the municipal area of Geelong as at September 2019.

The residential lot stock/supply is presented at a municipal, sub-regional and township level. Residential land supply is further analysed by supply type/location, namely:

- Broad-hectare land (zoned and unzoned);
- Major Infill sites; and
- Major redevelopment sites.

The following information has been sourced and subsequently up-dated from the Settlement Strategy background paper, specifically, the *Residential Land Supply and Development Discussion Paper – No.5, June 2017*.

The base land supply data sourced from the *Residential Land Supply and Development Discussion Paper – No.5 was* compiled from a number of consultations with key representatives from the City of Greater Geelong, Barwon Water, UDIA (Vic) - Geelong Chapter, and individual land development companies. The following land supply data has been updated to account for:

- re-zonings;
- lot construction activity (from December 2016 to September 2019);
- up-dated/revised structure plans; and
- up-dated/revised dwelling estimates for the Northern and Western Growth Areas (supplied by Council).

Table 1 details the residential land supply, measured in lot capacity, by supply type across the City of Greater Geelong as at September 2019. In total there is an estimated supply of approximately 83,000 lots. This is comprised of:

- 45,000 unzoned broad-hectare lots (54% of supply);
- 32,000 zoned broad-hectare lots (38% of supply);
- 5,300 dwellings from zoned major redevelopment sites (6% of supply); and
- 700 zoned major infill lots (1% of supply).

Table 1: Residential Lot Potential Estimates by Supply Type, September 2019

Region/Sub-region/township	Zoned Broad hectare (lots)	Zoned Major Infill (lots)	Zoned Major Redevelopment (dwellings)	Unzoned Broad hectare (lots)	Total (lots)
Bellarine Peninsula	**7,398**	**31**		**3,251**	**10,680**
Barwon Heads	28				**28**
Connewarre	16				**16**
Drysdale/Clifton Springs	1,023	10		2,320	**3,353**
Indented Heads	137				**137**
Leopold	463	21		931	**1,415**
Ocean Grove	2,813				**2,813**
Point Lonsdale	640				**640**
Portarlington	459				**459**
St Leonards	1,819				**1,819**
Geelong	**24,212**	**642**	**5,333**	**41,793**	**71,980**
Armstrong Creek Growth Area	16,227			850	**17,077**
Lara	4,904			715	**5,619**
Northern Growth Area				17,074	**17,074**
Urban Geelong	3,081	642	5,333	200	**9,256**
Western Growth Area				22,954	**22,954**
City of Greater Geelong	**31,610**	**673**	**5,333**	**45,044**	**82,660**

Source: Spatial Economics

5.1 Zoned Undeveloped Broad-hectare Land Stocks

As at September 2019, it is estimated that there is a current capacity of 31,610 lots of undeveloped broad-hectare land. Of this stock, 7,400 lots are located in the Bellarine Peninsula and 24,212 lots located in Geelong.

Within the Bellarine Peninsula significant undeveloped broad-hectare supply is located in:

- Ocean Grove – 2,800 lots;
- St Leonards – 1,800 lots;
- Drysdale/Clifton Springs – 1,000 lots;
- Point Lonsdale – 640 lots;
- Leopold – 460 lots; and
- Portarlington – 460 lots.

Over the last two financial years, broad hectare lot construction has averaged approximately 1,060 per annum across the Bellarine Peninsula. In the five years prior

to 2017/18, broad-hectare lot construction across the Bellarine Peninsula averaged 550 per annum.

Within Geelong significant zoned but undeveloped broad hectare supply is located in:

- the Armstrong Creek Growth Area – 16,200 lots;
- Lara – 4,900 lots; and
- dispersed across the urban fringe of Geelong – 3,100 lots;

Over the last two financial years, broad hectare lot construction has averaged approximately 1,545 per annum across Geelong. In the five years prior to 2017/18, broad-hectare lot construction across Geelong averaged 1,020 per annum.

5.2 Unzoned Broad-hectare Land Stocks

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, precinct structure planning and/or rezoning processes are required before residential development can proceed on such sites.

There are approximately 6,000 hectares of land (with an estimated yield of 45,000 dwellings) identified for potential future broad-hectare residential development across the municipal area as at September 2019.

Further detail on this potential supply are provided below:

The Northern Growth Front

- Northern Growth Area.
    - It is generally bounded by Staceys Road to the north, Evans Road to the west and adjoining Rural Living zoned lots north of Plantation Road and west of Bacchus Marsh Road.
    - The Northern Growth Area is approximately 2,100 hectares, with an estimated dwelling capacity of 17,000.
- Two further sites have been proposed for future potential residential development (identified in the Lara Structure Plan), both of which are currently zoned Farm (FZ). These sites have a total estimated dwelling yield of 715.

The Western Growth Area

- The Western Growth Area is located west of the Geelong Ring Road and extending through parts of Batesford from the Ballarat – Geelong rail line in Bell Post Hill to the north, to the Barwon River in Fyansford, and extending to Dog Rocks/Friend in Hand Roads in the west.
- The Western Growth Area is approximately 3,200 hectares in size and has an estimated dwelling yield of 23,000.

Armstrong Creek Land Release Area

- Contains one area identified for future residential development.
    - Land located in the suburb of Marshall is zoned UGZ and requires a Precinct Structure Plan for development to proceed. It is approximately 112 hectares in size with an estimated dwelling yield of 850 dwellings.

Urban Geelong

- Contains one site (Hams Road, Waurn Ponds) with a total dwelling yield of approximately 200 dwellings.

Bellarine Peninsula

- Contains a variety of sites identified for future residential development in local structure plans and the MSS, including:
    - a total potential lot yield of 2,320 in Drysdale/Clifton Springs; and
    - a total potential lot yield of 930 in Leopold.

It is noted that the potential residential land supply area in Moolap has not been considered in this statement.

5.3 Adequacy of Broad-hectare Land Stocks – Zoned & Unzoned

This statement uses a number of alternative population growth scenarios to project potential dwelling requirements. Applying these demand growth scenarios results in a range of estimates for the remaining years of supply from Geelong's known broad-hectare/major infill residential land stocks. Three population based growth scenarios are presented –, Strong Growth (2%), G21 Aspirational (2.5%) and Growth Surge (3%).

It is assumed (based on the last 5.25 years of residential development activity) that 75% of Geelong's dwelling requirements will be met from broad-hectare and major infill residential supply sources.

For the purpose of calculating the number of years of supply remaining I have taken a deliberately conservative approach and assumed that this percentage will be not change. In practice it is likely that the percentage of dwelling stock coming from dispersed infill and higher density redevelopment sites will increase slowly as Geelong's population continues to grow. The conservative assumption we have made is considered sensible as a basis for strategic planning of future land supplies - as illustrated by the recent surge in broad hectare development construction over the last two years.

In estimating the years of remaining residential land supply only zoned and unzoned broad-hectare and major infill residential land supply types have been considered.

Table 2 summarises the estimated years of broad-hectare and major infill supply (as at September 2019) under three growth scenarios for the City of Greater Geelong.

It is estimated that, based on the identified supply and projected demand scenarios, there are sufficient undeveloped zoned broad hectare and major infill stocks to satisfy housing demand across the City of Greater Geelong for between **9 and 14 years**.

Unzoned broad-hectare residential land stocks are sufficient to satisfy an additional **12 to 20 years** of demand.

Table 2: Estimated Years of Broad hectare/Major Infill Residential Land Supply, 2019

	Growth Scenarios		
	Strong Growth	**G21 Aspirational**	**Growth Surge**
Zoned	14	11	9
Unzoned	20	15	12
Total (CoGG)	**34**	**26**	**21**

Source: Spatial Economics Pty Ltd

It was estimated in the *Residential Land Supply & Development Discussion Paper – No.5,* that in total (zoned and unzoned broad-hectare land stocks) as at December 2016 there was between 29 years supply (G21 Aspirational Scenario) and 38 years supply (Strong Growth Scenario).

Since the previous assessment date of December 2016, there has been:

- 2.75 years of construction activity;
- a significant increase in the consumption/construction of broadhectare lots;
- an increase in the assumed yields/capacity of the Northern and Western Growth Areas; and
- a number of rezonings of previously identified unzoned broadhectare sites.

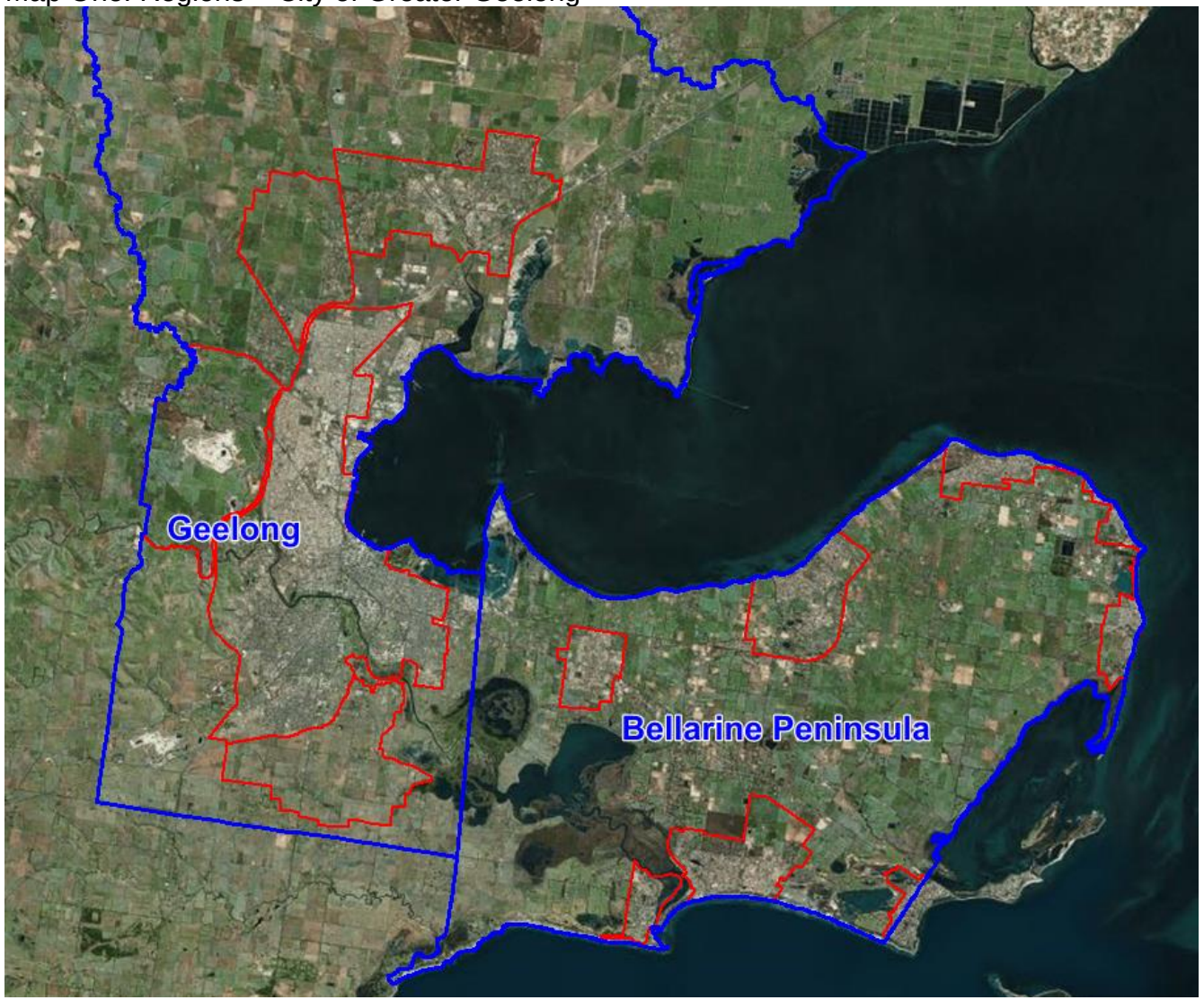
Table 2 reflects this updated information and reflects current (September 2019) estimates.

The Amendment allows for sequential preparation of Precinct Structure Plans (PSPs) for the Northern and Western Growth Areas. This, in conjunction with the regular monitoring of land supply and demand will ensure an adequate supply of residential land. Through regular land supply monitoring, PSP areas can be progressively released to meet the objective of ensuring adequate stocks of zoned residential land.

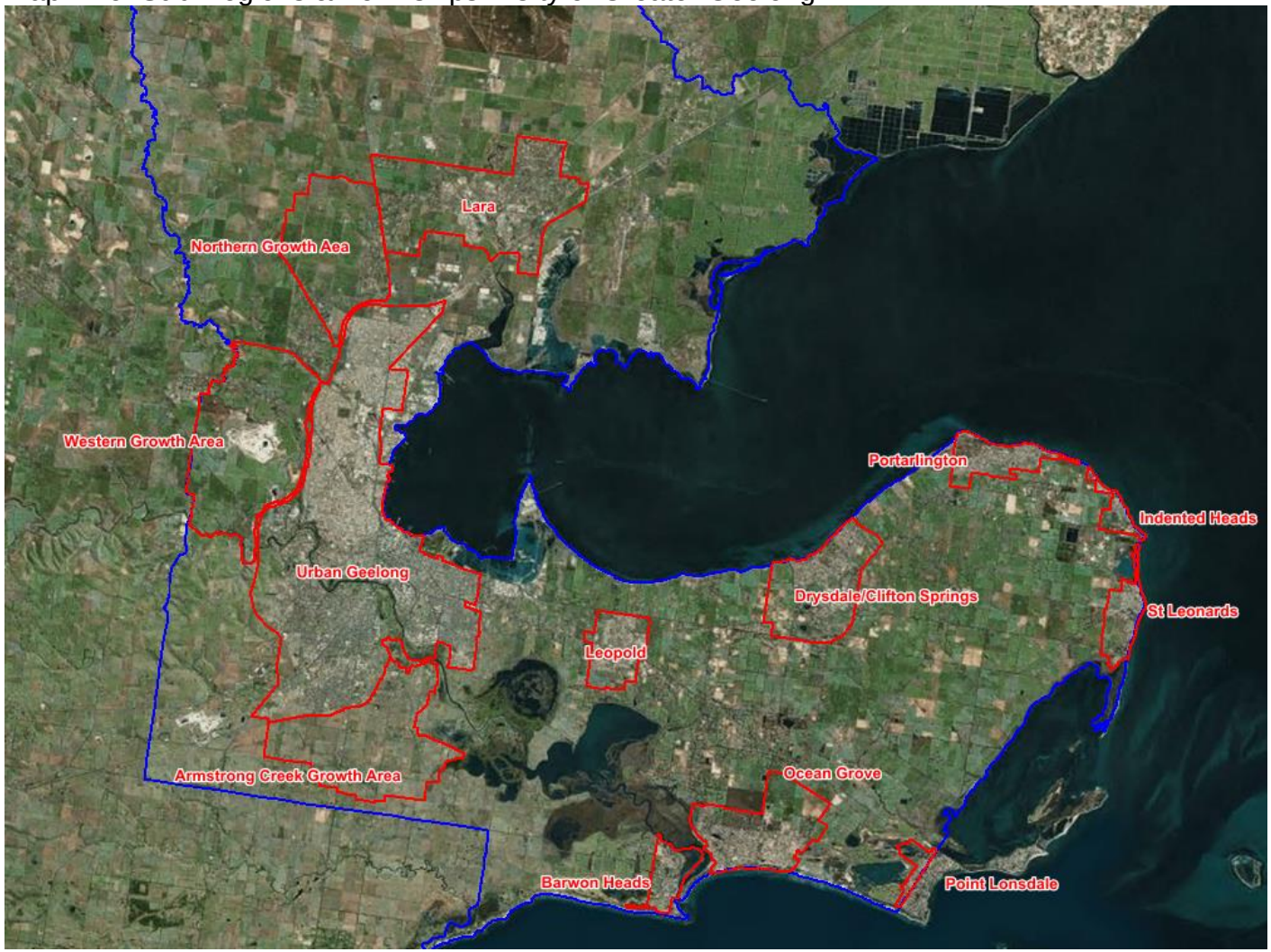
It is pragmatic from a strategic land use planning perspective to allow for a variety of future demand scenarios. In addition, as noted earlier, a conservative approach was taken to estimating both the yield from broad hectare supply areas and the share of total demand likely to be met from broad hectare sites. This will help ensure that there is not an over-estimation of land stocks and/or under-estimated future broad hectare demand.

APPENDIX A: GEOGRAPHIC BOUNDARIES

Map One: Regions – City of Greater Geelong



Map Two: Sub-Regions & Townships – City of Greater Geelong



APPENDIX B: REQUIREMENTS OF PLANNING PANELS VICTORIA – EXPERT EVIDENCE

Name:
Dale Stokes, Director Spatial Economics Pty Ltd

Address:
60 Coffeys Road, Bullengarook, Vic 3437

Qualifications:

- Bachelor of Arts (Urban Studies), Victoria Institute of Technology (1992)
- Graduate Diploma in Economics (Public Policy), Latrobe University (1995)

Experience:
I have over 20 years' experience as an urban economist and land use planner and have extensive experience in the field of land supply and demand, noting the following experience:

- manager of both the West Australian (2000 to 2002) and Victorian (2004 to 2007) State Governments' land release monitoring programs, both of which under my management achieved 'planning industry' recognition through state and national Planning Institute of Australia awards for excellence and industry acceptance through awards from the Urban Development Institute of Australia (Vic) and the Australian Property Institute.
- undertaken residential demand and supply assessments throughout Australia, ranging from:

  Capital Cities – Darwin, Perth, Adelaide, Brisbane and Melbourne;

  Remote localities/smaller centres – Tennant Creek, Alice Springs, Katherine, Kalgoorlie – Boulder, Busselton, Margaret River, Colac Otway, Bannockburn, Camperdown, Torquay- Jan Juc, Echuca, Swan Hill, Maryborough; Stawell and

  Larger regional centres/regions – G21 Region, Ballarat, Geelong, Bendigo, Mildura, Portland, Hamilton, Horsham, Latrobe Valley, Warrnambool, Shepparton, Wodonga, peri-urban municipalities of metro Melbourne.
- Director of Policy (2008) at UDIA (Vic) which allowed a further 'exposure' to the detailed issues faced by the land development industry in terms of land supply and demand.

Spatial Economics Pty Ltd specialises in land demand and supply and has undertaken numerous assessments for State and Local Government and the private sector. Specific examples include:

- Northern Grampians Shire Council - Land Supply and Housing Needs Assessment (2018)
- Surf Coast Shire Council – Residential and Industrial Land Supply Assessment (2018)
- Greater Shepparton City Council - Residential and Industrial Land Supply Assessment (2016 & 2019)
- State Government (Vic): Regional Urban Development Program (approximately 30 separate municipal residential/industrial land supply assessments) (2011 to 2013)

- Queensland State Government - Best Practice Methodology (SEQ) in assessing residential land supply capacity and associated land take-up (2018)
- DELWP - Residential Dwelling forecasts by Typology – Greater Melbourne
- City of Greater Bendigo – Residential Land Supply Assessment (2013)
- Greater Bendigo – Residential Land Supply Assessment – Villawood (2015)
- City of Wodonga – Residential and Industrial Land Supply Assessment (2015)
- Mitchel Shire, Residential and Industrial Land Supply Assessment – Kilmore (2015 & 2018)
- G21 Regional Alliance: Residential and Industrial Land Supply Assessment (2015)
- Delfin Lend Lease: A Case for Lockerbie (2009)
- Bacchus Marsh Residential Land Supply Assessment (2016, 2017 & 2019)
- Golden Plains North Small Settlements Land Supply Assessment (2016)
- Casey and Cardinia Land Supply Assessment – South East Water (2016)
- NSW State Government, Regional Land Supply and Demand Assessment (2016)
- NSW State Government, Establishment of methodology to establish residential land supply adequacy (2016)
- Small Area Dwelling Forecasts – South East Water Catchment (2014, 2016, 2019)

Areas of Expertise:
Urban and spatial economic analysis for land use planning.

Other Significant Contributors to the Report:
Jeremy Reynolds - Demographer (Spatial Economics Pty Ltd). Jeremy Reynolds has provided the dwelling growth scenarios as a major input to the Statement.

Instructions that Define the Scope of the Report:
To provide evidence on land supply and demand associated with Geelong, including outlining the basis of your involvement in the preparation of background materials to the PSA.

Expert Declaration:
I have made all inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.

Dale Stokes
Director, Spatial Economics Pty Ltd

29/10/2019