RESIDENTIAL LAND SUPPLY& DEMAND ASSESSMENT: OCEAN GROVE

Amendment C346
Greater Geelong Planning Scheme

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Expert Evidence Statement
Amendment C346

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Instructed by Maddocks Lawyers

Spatial Economics

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SUMMARY OF FINDINGS

I have been instructed by Maddocks Lawyers to assess the supply and demand of residential land on the Bellarine Peninsula and in Ocean Grove.

Key findings include:

1. In the last five years, residential dwelling approval activity has averaged 173 per annum and the last three years, activity has averaged 192 per annum.
2. From July 2012 to March 2016 residential lot construction activity has averaged 209 per annum, in 2015/16 to the March quarter there were 197 lots constructed.
3. Of this lot construction activity as measured from 2012/13 to 2015/16 (period of increasing activity at an average of 209 per annum):
    a. 74% was broadhectare;
    b. 17% was dispersed infill; and
    c. 9% rural residential.
4. Since 2011 to 2015, population growth has averaged around 207 persons per annum, an average annual growth rate of 2.3%. From 2013 to 2014, population growth estimates have increased by 337 persons (2.5% growth) and 387 persons from 2014 to 2015 (2.8% growth).
5. From 2011 to 2016 actual dwelling growth was around 175 per annum. Dwelling projections undertaken by id Consulting indicate that from 2016 to 2036 there will be an average annual dwelling requirement of 102
6. Spatial Economics perceive that a future total dwelling requirement in Ocean Grove in the short to medium term (0 to 15 years) will likely average around 200 per annum.
7. Based on future demand of 200 dwellings per annum in Ocean Grove, the resultant population will be an additional 5,630 people over the next 15 years or 375 per annum.
8. As at March 2016, there was a residential lot capacity within broadhectare land supply areas in Ocean Grove of approximately 3,557 lots.

CONCLUSION

Based on two demand scenarios that assume historically high rates of housing demand of 200 and 250 dwellings per annum within Ocean Grove, there is between 19 to 24 years of currently zoned residential broadhectare land stocks in Ocean Grove.

1.0 INTRODUCTION

This report reviews and reports on:

- the existing broadhectare residential land supply stocks;
- recent residential development activity;
- forecast residential development activity; and
- estimates of the current years of residential broadhectare land supply in Ocean Grove.

Broadhectare residential land supply, demand and development activity is also presented for the Bellarine Peninsula to provide a local regional context.

2.0 APPROACH & METHODOLOGY

The following provides a brief outline of the methodologies and approach used in the assessment of recent residential lot construction, residential land supply, projections of demand and the determination of the adequacy of land stocks. In addition, key definitions of terms used within the following assessment are detailed.

The following methodology replicates the approach by the State Government in assessing the adequacy (years of supply) of broadhectare land stocks through the Urban Development Program.

2.1 Estimating future dwelling requirements

Two sources of dwelling projections are utilised. These are:

- Victoria in Future 2015 (VIF2015): Population and Household Projections, undertaken by the Department of Transport, Planning and Local Infrastructure; and
- Dwelling projections undertaken by id Consulting (id2015) for the City of Greater Geelong (updated at May 2015).

However, VIF2015 does not undertake projections at the urban settlement level i.e. Ocean Grove.

An assessment of future dwelling requirements was also undertaken based on existing levels of residential land stocks and recent activity in terms of residential subdivision activity and building approvals.

2.2 Residential Land

In the following land supply assessments residential lot construction and land supply have been designated by differing supply types, namely:

Zoned Broadhectare: Undeveloped land generally located on the urban fringe, zoned for residential development (no previous urban development activity or 'normal' density subdivision).

Potential Residential: Land identified by Council for future residential development and current zoning not supportive of 'normal' residential development. Land zoned UGZ without an approved structure plan is included within this category.

The base land supply assessment was sourced utilizing the supply areas contained in the '*Residential Land supply Monitoring Project – Geelong, June 2015*' undertaken by Spatial Economics. Spatial Economics has up-dated this information to March 2016 for the Bellarine Peninsula.

In undertaking the original (2015) supply assessment Barwon Water, Council Officers, developers, land owners and a developer forum coordinated by the UDIA (Vic) provided major input to the site specific assessments undertaken by Spatial Economics. This consultative approach ensured stakeholder input in terms of land availability, site yields and development timing.

2.3 Residential Lot Construction

Residential lot construction has been determined via the processes established within the State Government's Housing Development Data (Spatial Economics) project. It involves the extensive analysis of the 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 certificate of title.

Construction activity has been assessed on an annual basis as at July of each year from 2006 to March 2016. Lot construction has been classified into three distinct supply groups namely:

- Rural residential (subdivision on land zoned LDRZ, RLZ and SUZ8);
- Minor or dispersed infill – subdivision of land in the establish urban area and the project yields less than 10 lots/dwellings for the purpose of residential lots/dwellings; and
- Broadhectare - subdivision of land, typically on the urban fringe that has previously been undeveloped.

2.4 Lot Yields

Lot yields have been established on a parcel by parcel basis for all broadhectare and future residential land supply areas.

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, existing studies such as structure plans, planning permits and municipal strategic statements etc.

In addition to site specific issues, 'standard' land development take-outs (examples include local roads, open space, infrastructure requirements) are employed, including local and regional. The amount/proportion of such take-outs are dependent on the size of the land parcel i.e. a 1ha site will have less take-outs than a 50ha site. This approach has been utilised by the State Government's Metropolitan and Regional Urban Development Program.

2.5 Assessing adequacy

With the amount of supply and demand estimated, adequacy is described as years of supply. For example it can be stated that there are X years of supply

based on projected demand within a given urban centre or region and by supply type (i.e. zoned and unzoned). In the last decade the Victorian State Government has used a broad benchmark for land supply for residential land at a municipal level of at least 15 years.

In assessing the number of years of broadhectare and designated potential (unzoned) residential land supply, **only a component of the total projected demand is apportioned to estimate future demand.** The remainder of total projected demand is apportioned for future demand for other forms of residential supply such as minor infill and rural residential.

3.0 RESIDENTIAL DWELLING DEVELOPMENT ACTIVITY

Section 3.0 of this statement summarises for Ocean Grove:

- Residential building approval activity; and
- Residential subdivision activity.

3.1 Residential Building Approvals

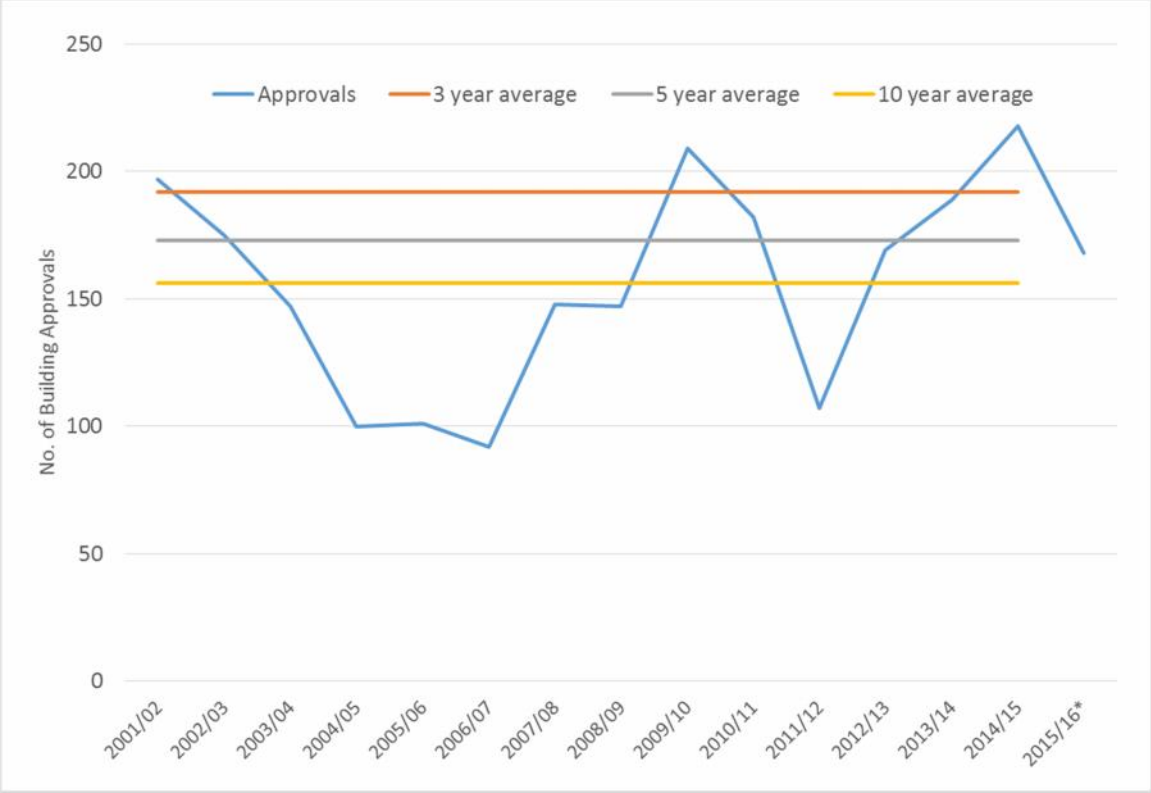
Residential dwelling approval data has been sourced from the City of Greater Geelong for Ocean Grove by financial year from 2001 to the March quarter of 2016.

As measured from 2005/06 to 2014/15, residential building approval activity within Ocean Grove has averaged 156 per annum. However, in recent years the volume of residential building approvals has increased. In the last five years, approval activity has averaged 173 per annum and in the last three years, activity has averaged 192 per annum.

In 2015/16 (to the March quarter) there has been 168 residential dwelling approvals across Ocean Grove. It could be reasonably expected that the volume of activity for the full financial year of 2015/16 will reach around 200 or more.

Graph 1 illustrates the amount of building approval activity by type for Ocean Grove.

Graph 1: Residential Building Approvals – Ocean Grove, 2001/02 to 2015/16*



Source: City of Greater Geelong
* 2015/16 is measured to the March quarter 2016

3.2 Residential Lot Construction

Analysis has been undertaken to determine, on a lot by lot basis, the location and amount of residential lot construction activity from July 2006 to March 2016. Lot construction activity has been classified into distinct supply types, namely:

- Rural residential/low density;
- Dispersed infill; and
- Broadhectare.

Residential lot construction compared to building approval activity is markedly more cyclical. From July 2006 to March 2016 residential lot construction activity has averaged 145 per annum. From July 2012 to March 2016 residential lot construction activity has averaged 209 per annum, in 2015/16 to the March quarter there were 197 lots constructed.

Lot construction activity is illustrating increasing trends in recent years in terms of the volume constructed.

Of this lot construction activity as measured from 2012/13 to 2015/16 (a period of increasing activity at an average of 209 per annum):

- 74% was broadhectare;
- 17% was dispersed infill; and
- 9% rural residential.

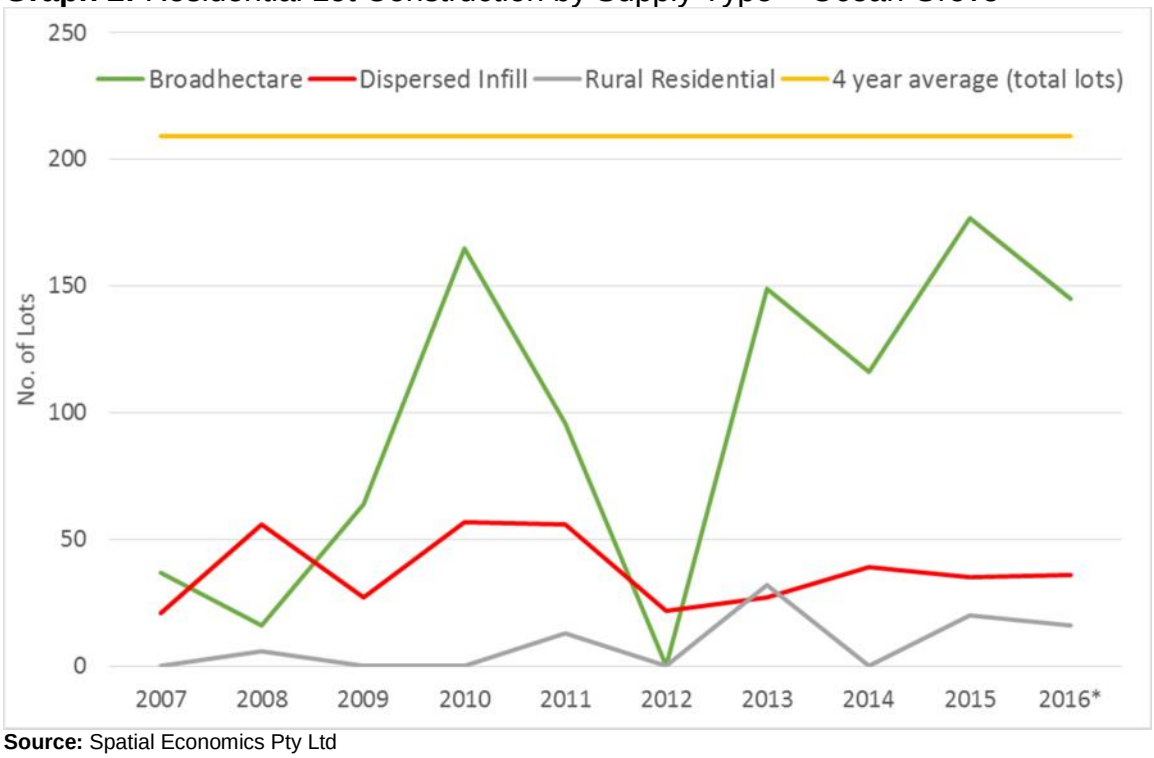
This proportional split has remained relatively consistent in terms of broadhectare lot construction activity as measured from 2012/13 to March 2016.

It is noted regarding correspondence to the City of Greater Geelong from Barwon Water (Submission no.2) dated 2/12/2014 regarding the proposed Ocean Grove Structure Plan that Barwon Water assume 30% dispersed infill in terms of total demand within Ocean Grove.

Lot construction and building approval activity closely aligns in terms of the quantum of activity.

Graph 2 summarises the volume of residential lot construction activity for Ocean Grove by supply type.

Graph 2: Residential Lot Construction by Supply Type – Ocean Grove



Source: Spatial Economics Pty Ltd

From July 2006 to March 2016 residential lot construction activity has averaged 145 per annum.

From July 2012 to March 2016 residential lot construction activity has averaged 209 per annum, in 2015/16 to the March quarter there were 197 lots constructed.

Of this lot construction activity as measured from 2012/13 to 2015/16 (a period of increasing activity at an average of 209 per annum):

- 74% broadhectare was;

- 17% was dispersed infill; and

- 9% rural residential

The quantum of residential building approvals closely aligns to lot construction activity.

4.0 POPULATION & DWELLING PROJECTIONS

Section 4.0 of this statement summarises:

- Dwelling projections for the Bellarine Peninsula, to establish macro demand projections;
- An assessment of the Estimated Resident Population for the urban centre of Ocean Grove; and
- Population and dwelling forecasts for Ocean Grove.

4.1 Dwelling Projections – Bellarine Peninsula

This report incorporates the most recently available demand figures to project dwelling requirements and future adequacy of residential land. These figures currently use Victoria in Future 2015 (VIF2015): Population and Household Projections, undertaken by the Department of Transport, Planning and Local Infrastructure and dwelling projections undertaken by id Consulting (id2015) (updated at May 2015) as the basis for projected dwelling requirements.

VIF2015 projections detail state-wide, regional and metropolitan areas as well as local government area population and small area VIF Statistical Areas, household and dwelling projections that encompass the latest available trends such as changes to levels of immigration or economic conditions, or changes to policy affecting population growth locations and levels, and subsequent demand for housing. Whereas id2015 effectively undertake population, household and dwelling projections at a local government area level.

The Residential Land supply Monitoring Project – Geelong (2015) utilised both demand projections contained in VIF2014, (these have recently been updated and are titled VIF2015) and id2015.

From a dwelling demand perspective the key differences from VIF2014 and VIF2015 in terms of forecast dwellings from 2016 to 2031 for the Bellarine Peninsula include:

- VIF 2015 forecast a slight decline in total dwelling requirements of 471, 9,756 dwellings down from 10,227;
- VIF 2015 forecast an average annual dwelling requirement of 650 compared to 681; and
- VIF 2015 forecast an average annual percentage change in dwellings of 1.6%, compared to 1.7%

For strategic land use planning purposes, the dwelling projections of VIF2014 and VIF2015 are essentially the same.

Graph 3 summarises the projected demand for residential dwellings for the Bellarine Peninsula. In addition, it highlights historic ‘actual’ residential subdivision activity.

Projected dwelling requirements sourced from VIF2015 indicate that from 2016 to 2031 there will be a total dwelling requirement of **9,756** (average annual growth

of **650** dwellings or 1.6% growth rate). For specific time cohorts, average annual dwelling requirements include:

- 2016 to 2021 – 643 (1.8%);
- 2021 to 2026 – 670 (1.7%); and
- 2026 to 2031 – 638 (1.5%).

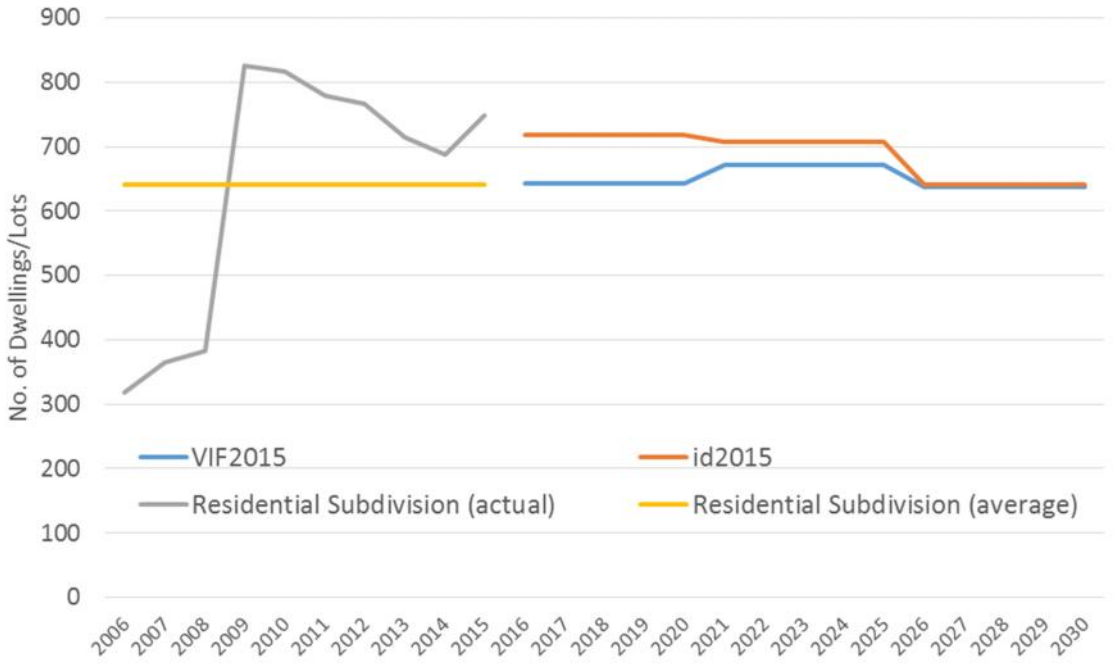
Projected dwelling requirements sourced id2015 indicate that from 2016 to 2031 there will be a total dwelling requirement of **10,327** (average annual growth of 688 dwellings or 1.7% growth rate). For specific time cohorts, average annual dwelling requirements include:

- 2016 to 2021 – 718 (1.9%);
- 2021 to 2026 – 707 (1.7%); and
- 2026 to 2031 – 640 (1.5%).

The difference between the two most current dwelling projections (VIF2015 and id2015) is minimal. Over the projection period, there is a total dwelling requirement difference of 571, effectively less than one years' worth of projected demand.

In the short term (2016 to 2021) VIF2015 forecast dwelling requirements closely reflect the average subdivision activity from 2006 to 2015, whereas id2015 closely follow subdivision activity over the last few years.

Graph 3: Historic and Projected Demand for Residential Dwellings – Bellarine Peninsula, 2006 to 2031



Source: DTPLI. Victoria in Future 2015: Population and Household Projections
Id Consulting (2015): City of Greater Geelong - Projections
Lot Construction - Spatial Economics Pty Ltd

4.2 Estimated Resident Population – Ocean Grove

The Australian Bureau of Statistics produce data that estimates the estimated resident population (ERPs) at various geographical levels.

Preliminary resident population estimates as at 30 June are normally available by April of the following year, revised estimates twelve months later and rebased and final estimates after the following Census. The most recent estimates are final for 2005 to 2011, revised for 2012 to 2014, and preliminary for 2015.

The following provides a broad method of how the ABS estimates resident population at the SA2[1] level, for example Ocean Grove – Barwon Heads. In summary of the method/data used for post census ERPs at SA2 areas is the use of dwelling approvals, Medicare enrolments and counts of people on the Australian Electoral Roll.

> *"For post-Census years, the absence of migration data at the SA2 level means that it is not possible to estimate SA2 populations by taking into account natural increase and net migration. Instead, ERP for most SA2s is calculated using a mathematical model, where relationships are established between changes in population and changes in indicator data between the two most recent Censuses for groups of SA2s. Current indicators include dwelling approvals, Medicare enrolments and counts of people on the Australian Electoral Roll. Changes in these indicators are used to estimate changes in the population of each area since the last Census. In areas where indicator data is unreliable or migration can be assumed to be insignificant, population change may be estimated by adding natural increase (births minus deaths) since the previous Census."*

The most recent ERP data at SA2 level was released on 30/03/2016 – *Regional Population Growth, Australia Catalogue No. 3218.0*, and contains population estimates for the SA2 of Ocean Grove – Barwon Heads.

The SA2 of Ocean Grove – Barwon Heads contains the localities of Ocean Grove, Barwon Heads, Marcus Hill, Wallington, Breamlea and Connewaree. Most importantly from a population growth perspective the SA2 of Ocean Grove – Barwon Heads contains recently active residential broadhectare estates within the Armstrong Creek growth area (Warralily Estate). Map 1 below illustrates the distribution of the urban areas within the Ocean Grove – Barwon Heads SA2.

Therefore, ERP estimates contained within the Ocean Grove – Barwon Heads SA2 is significantly influenced by dwelling construction activity particularly within Armstrong Creek and Ocean Grove. Map 2 illustrates the recent dwelling construction from 2013 to 2015 at Armstrong Creek that is within the Ocean Grove – Barwon Heads SA2.

Spatial Economics Pty Ltd have undertaken an analysis of the ERPs released at SA2 level for Ocean Grove – Barwon Heads using actual dwelling construction information. It is highlighted that it is an approximation and actual dwelling construction and demographic assumptions sourced from id Population Forecasts are used to distribute the ERP across the urban areas of the SA2.

[1] Statistical Area 2 (SA2). The SA2 is the lowest level of the ASGS structure for which Estimated Resident Population (ERP), Health and Vitals and other non-Census ABS data are generally available.

Table 1 summarises the ERP for the Ocean Grove – Barwon Heads SA2 and Ocean Grove

Table 1: Estimated Resident Population

	Estimated Resident Population										
	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012r**	**2013r**	**2014r**	**2015p**
Ocean Grove - Barwon Heads SA2	16728	16817	17191	17566	17946	18349	18842	19130	19600	20413	21117
Ocean Grove	11068	11136	11473	11796	12137	12452	12907	13110	13412	13749	14136
	No. Change in Estimated Resident Population										
		2005 to 06	**2006 to 07**	**2007 to 08**	**2008 to 09**	**2009 to 10**	**2010 to 11**	**2011 to 12**	**2012 to 13**	**2013 to 14**	**2014 to 15**
Ocean Grove - Barwon Heads SA2		89	374	375	380	403	493	288	470	813	704
Ocean Grove		68	337	323	341	315	455	203	303	337	387
	%. Change in Estimated Resident Population										
		2005 to 06	**2006 to 07**	**2007 to 08**	**2008 to 09**	**2009 to 10**	**2010 to 11**	**2011 to 12**	**2012 to 13**	**2013 to 14**	**2014 to 15**
Ocean Grove - Barwon Heads SA2		0.5%	2.2%	2.2%	2.2%	2.2%	2.7%	1.5%	2.5%	4.1%	3.4%
Ocean Grove		0.6%	3.0%	2.8%	2.9%	2.6%	3.7%	1.6%	2.3%	2.5%	2.8%

Source: Australian Bureau of Statistics *Regional Population Growth, Australia Catalogue No. 3218.0*,
i.d. Population Forecasts – Geelong City Council
Spatial Economics Pty Ltd – Housing Development Data, 2005 to 2015

Resident population growth within Ocean Grove has fluctuated significantly between 2005 to 2015. Since 2011 to 2015, population growth has averaged around 307 persons per annum, an average annual growth rate of 2.3%. From 2013 to 2014, population growth estimates have increased by 337 persons (2.5% growth) and 387 persons from 2014 to 2015 (2.8% growth).

The population estimates presented, strongly correlate to the population forecasts contained in the id Consulting population forecast publication undertaken for the City of Greater Geelong. However, the only difference is the use of more up-to-date dwelling construction information.

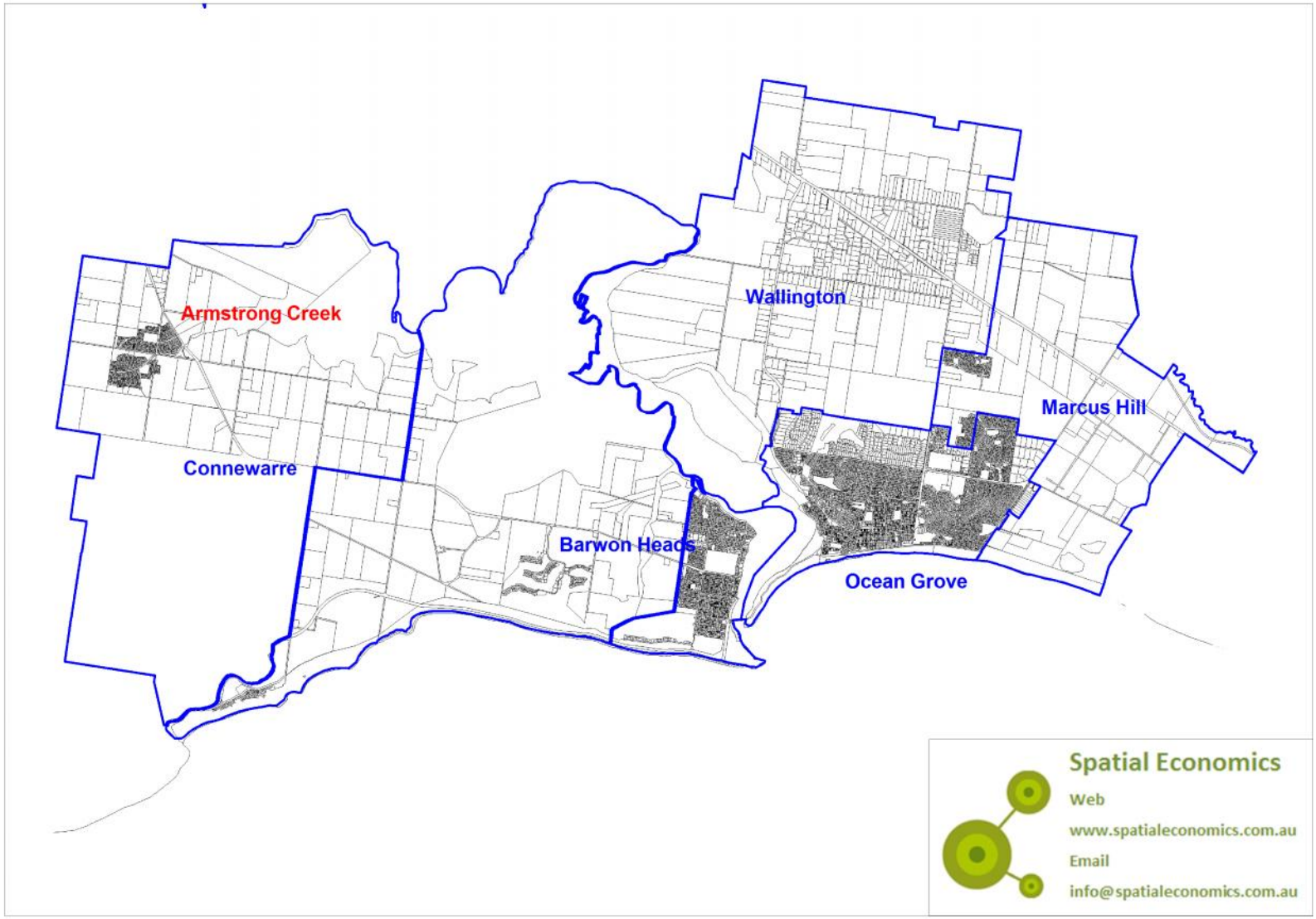
Estimated current population growth rates within Ocean Grove is strong. However, such strong growth rates are rarely sustained on a consistent basis. Nevertheless, it is highly plausible that the current quantum of growth may continue into the short to medium term. This is plausible for two key factors:

- there is currently ample land supply both broadhectare and within the established urban area within Ocean Grove; and
- sub-regional population forecasts from the State Government illustrate a relatively constant increase in population to 2031.

Similarly there is ample land supply across the Bellarine Peninsula to accommodate the projections.

Increased and or decreased population growth across the differing urban centres in the Bellarine Peninsula will largely be determined by ‘competition’ and the ability of estates to attract households based on price and product.

Map 1: Ocean Grove-Barwon Heads SA2 Context



Map 2: Housing Construction since 2013 within the Ocean Grove-Barwon Heads SA2 in Armstrong Creek

4.2.1 Dwelling Forecasts – Ocean Grove

The only published dwelling forecasts by urban areas across the Bellarine Peninsula are undertaken by id Consultants (May 2015).

The dwelling forecasts estimate that from 2016 to 2036 there will be an average annual dwelling requirement of 102, an average annual growth rate of 1.2%. Over the next five years, the average annual dwelling requirement is estimated at 115.

From 2011 to 2016 actual dwelling growth was around 175 per annum, whereas the projections undertaken by id Consulting for this time period indicate average annual dwelling growth of 137.

At a more regional level (Bellarine Peninsula) VIF2015 forecast an average annual dwelling growth rate of 1.6% or 650 dwellings per annum from 2016 to 2031.

Ultimately, the distribution of projected dwelling requirements within the urban centres across the Bellarine Peninsula will depend on residential land availability and the ability of estates to compete to attract households based on both price and product.

Based on the existing stocks and the quantum distribution of broadhectare land across the urban centres of the Bellarine Peninsula, recent residential dwelling approvals and subdivision activity, regional dwelling forecasts (Bellarine Peninsula), Spatial Economics consider the dwelling projections undertaken by id Consulting is likely to under-estimate future dwelling growth in Ocean Grove.

Consideration of these factors, I perceive that a future total dwelling requirement in Ocean Grove in the short to medium term (0 to 15 years) will likely average around 200 per annum.

4.2.2 Population Forecasts – Ocean Grove

The only published population forecasts by urban areas across the Bellarine Peninsula are undertaken by id Consultants (May 2015).

The population forecasts estimate that from 2016 to 2036 there will be an average annual population change of 144, an average annual growth rate of 0.9%. Over the next five years, the average annual population change is estimated at 174.

From 2011 to 2016 estimated actual population growth was around 300 per annum[2].

At a more regional level (Bellarine Peninsula) VIF2015 forecast an average annual population growth rate of 1.5% or 1,151 persons per annum.

[2] Spatial Economics estimates of Estimated Resident Population for Ocean Grove, see Table 1

Based on 200 net additional dwellings per annum in Ocean Grove, the resultant population will be an additional 5,630 people over the next 15 years or 375 per annum. For specific time periods:

- 2016 to 2021 the average annual growth in population is estimated to be 382;
- 2021 to 2026 – 376 person per annum; and for
- 2026 to 2031 - 368 persons per annum.

From 2016 to 2031, it is estimated that the population growth rate for Ocean Grove is 2.3% per annum, based on a 200 dwelling per annum requirement.

This estimate is based on a constant occupancy rate of 77.6% (id Consulting) and average household sizes of 2.46 to 2.37 from 2016 to 2031.

Using a higher occupancy rate for new dwellings of 86% (derived from an assumption of 90% occupancy for new broadhectare dwellings and 75% for non-broadhectare dwellings) leads to a slightly higher annual average population growth of 416 people per annum or a 2.5% per annum growth rate.

Based purely on the recent and expected dwelling construction activity, the population growth anticipated across the Bellarine Peninsula and the likelihood of increasing dwelling occupancy (assumed at 77.62 constant over forecast period) for new dwelling construction and existing holiday homes – I consider the quantum of population growth forecast by id Consulting is likely to be under-estimated.

5.0 RESIDENTIAL LAND SUPPLY

Section 5.0 of this report details the stock (measured in lots) of broadhectare land stocks (zoned and unzoned) across the Bellarine Peninsula, including Ocean Grove as at March 2016.

In addition, it details the stock of existing vacant residential lots as at March 2016 within Ocean Grove.

A broad discussion pertaining to the development capacity in terms of dispersed infill within the existing urban area of Ocean Grove is presented.

5.1 Zoned and Potential Residential (unzoned) Broadhectare Residential Land Supply – Bellarine Peninsula

As at March 2016, there was a residential lot capacity within broadhectare land supply areas across the Bellarine Peninsula of approximately 12,908 lots.

Of this identified supply 7,572 lots are zoned for 'normal density' development, the remaining 5,336 is identified for future development (unzoned for normal density residential development).

The *2015 Residential Land Supply Monitoring project – Geelong* identified a total broadhectare residential lot supply potential of 13,260 lots across the Bellarine Peninsula.

Since this assessment was undertaken at March 2015 to March 2016, a total of 591 broadhectare lots have been constructed on the identified supply and supply areas have been revised upwards of 239 lots to incorporate revised development plans/permits.

Table 2 below summarises the lot potential within broadhectare residential supply areas.

Map 3 illustrates the broadhectare residential land supply areas across the Bellarine Peninsula.

Map 3: Residential Broadhectare Areas, Bellarine Peninsula

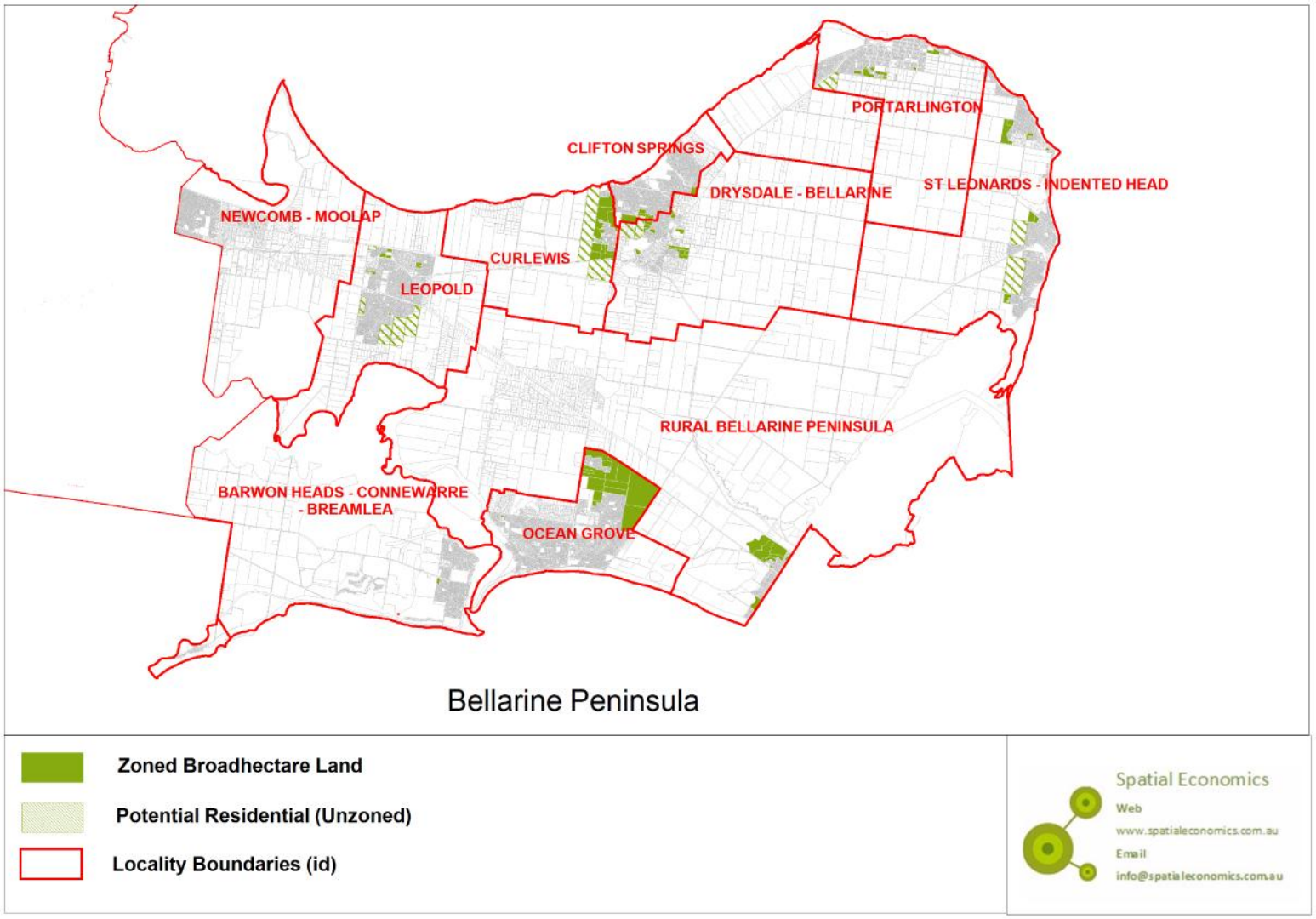


Table 2: Broadhectare Residential Land Supply (Lots), March 2016

Locality	Broadhectare Lot Supply (lots)		
	Zoned Stocks	Potential Residential (unzoned)	Total Broadhectare
CLIFTON SPRINGS/DRYSDALE	2322	2295	**4617**
INDENTED HEAD	171	0	**171**
LEOPOLD	189	1329	**1518**
OCEAN GROVE	3557	0	**3557**
POINT LONSDALE	887	0	**887**
PORTARLINGTON	306	275	**581**
ST LEONARDS	140	1437	**1577**
BELLARINE PENINSULA	**7572**	**5336**	**12908**

Source: Spatial Economics Pty Ltd

5.1.1 Broadhectare - Potential Residential Staging – Bellarine Peninsula

As stated previously there is currently (March 2016) a broadhectare lot potential (unzoned) of 5,336 across the Bellarine Peninsula. Map 4 illustrates the location of these land release areas.

Recently (September 2015), the potential residential land release area in Ocean Grove was rezoned to support 'normal density' residential development, the estimated lot yield is 472

The potential broadhectare residential land release areas are progressively in processes of being rezoned for 'normal density' residential development. By locality, the status of the release of additional zoned broadhectare land includes:

- Leopold - Total Potential Broadhectare (unzoned) lot potential – 1,329 lots.
    - **Mollers Lane** – 400 lots. Framework Plan currently being prepared. Expected amendment application by mid-2016.
    - **Ash Road East** – 400 lots. Framework Plan currently being prepared.
    - **Ash Road West** – 328 lots. Amendment C280, approved March 2016. Requires development plan to be prepared and approved.
- Portarlington - Total Potential Broadhectare (unzoned) lot potential – 275 lots.
    - Olive Grove – 275 lots. Amendment C327, not yet exhibited

Within the last year and in the next 2-3 years a total of 2,150 lots of unzoned broadhectare residential land will be rezoned for residential development purposes, representing around 28% of all Potential Residential land stocks identified within the '*Residential Land Supply Monitoring Project – Geelong (2015)*' across the Bellarine Peninsula.

5.2 Broadhectare Residential Land Supply – Ocean Grove

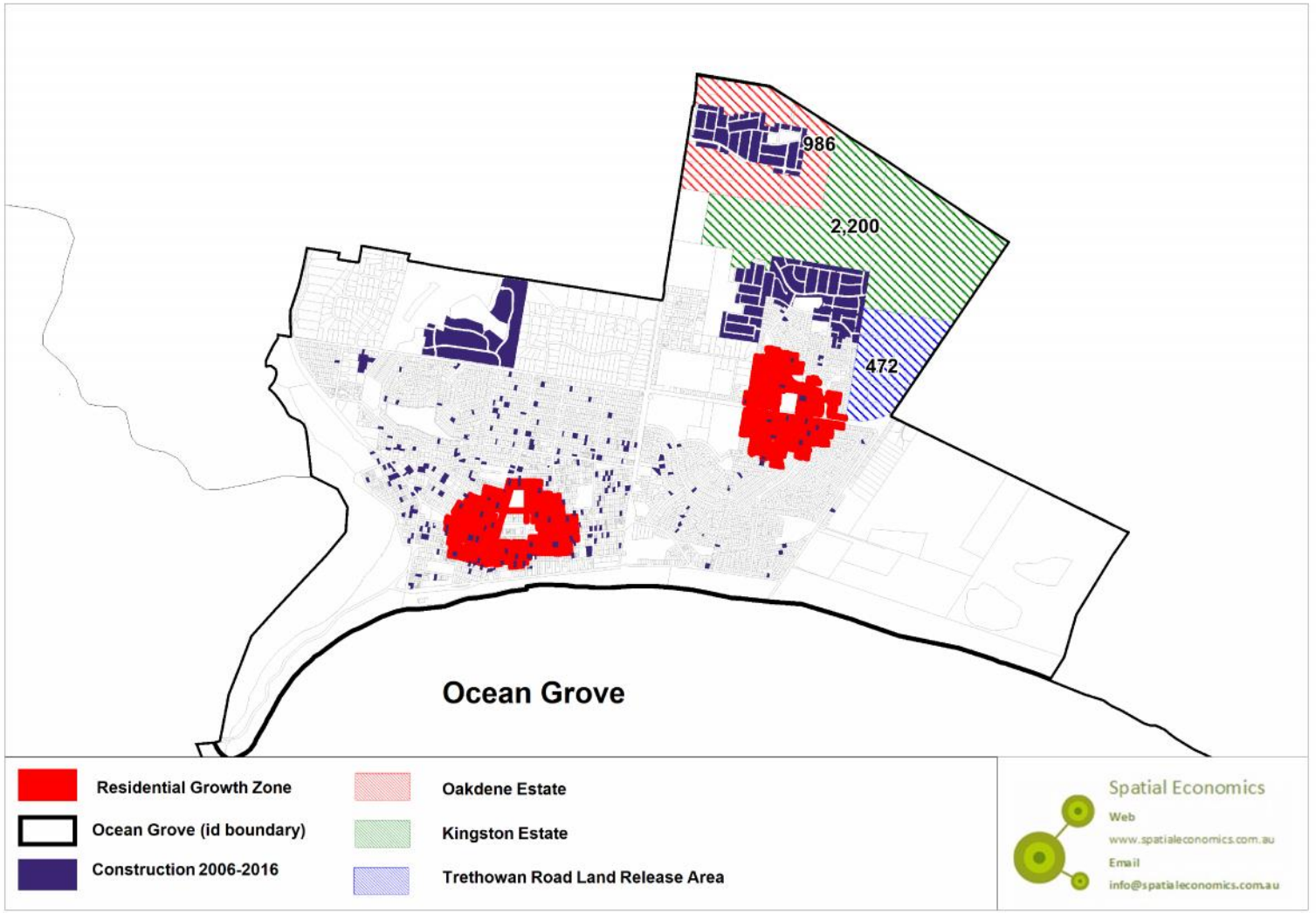
As at March 2016, there was a residential lot capacity within broadhectare land supply areas in Ocean Grove of approximately 3,557 lots.

All of the identified supply is zoned for 'normal density' development. There is no identified potential/future (unzoned) broadhectare residential land stocks

The *2015 Residential Land Supply Monitoring project – Geelong* identified a total broadhectare residential lot supply potential of 3,649 lots in Ocean Grove. This total includes lots that were designated potential residential at the time.

Since this assessment was undertaken at March 2015 to March 2016, a total of 145 broadhectare lots have been constructed on the identified supply, 472 lots have been rezoned from 'Potential Residential – Unzoned' for normal density residential development and supply areas have been revised upwards of 53 lots to incorporate revised development plans/permits.

Map 4: Residential Broadhectare Areas and Residential Growth Zone – Ocean Grove, March 2016



5.3 Minor Infill Supply (Vacant Lots) – Ocean Grove

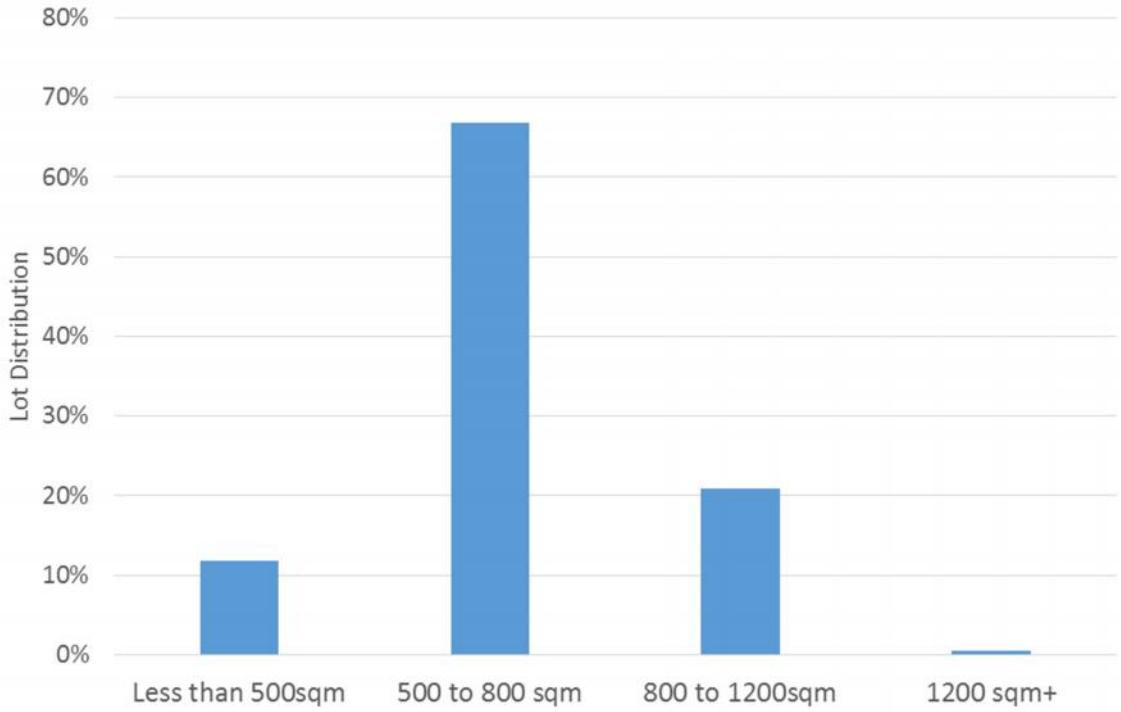
As at March 2016 there was a total of 389 vacant residential lots in Ocean Grove. Of these vacant lots 52% or 202 are broadhectare i.e. located within existing or historic (since 2006) broadhectare land developments, the residual 187 vacant lots are located within dispersed infill areas or in other words the established urban area.

The vast majority of the existing vacant broadhectare lots will equate to one single dwelling. In a minority of cases these will be re-subdivided into multiple lots.

Whereas, the dispersed infill vacant lots typically result in re-subdivision and/or multiple dwellings constructed per lot. Based on historical development trends within Ocean Grove, dispersed infill development typically yields 1.6 net additional dwellings from re-subdivision/development of vacant allotments sized greater than 500sqm.

Graph 3 below summarises the size distribution of vacant dispersed infill lots in Ocean Grove at March 2016.

Graph 3: Lot Size Distribution – Vacant Dispersed Infill Lots



Source: Spatial Economics Pty Ltd

5.4 Dispersed Infill Redevelopment – Ocean Grove

Ocean Grove has had a significant amount of dispersed infill development occurring in recent years. It has averaged around 35-40 **net** dwellings per year as lots within the established urban area are subdivided and townhouses/villas are constructed. This around 17% of all new dwellings in recent years.

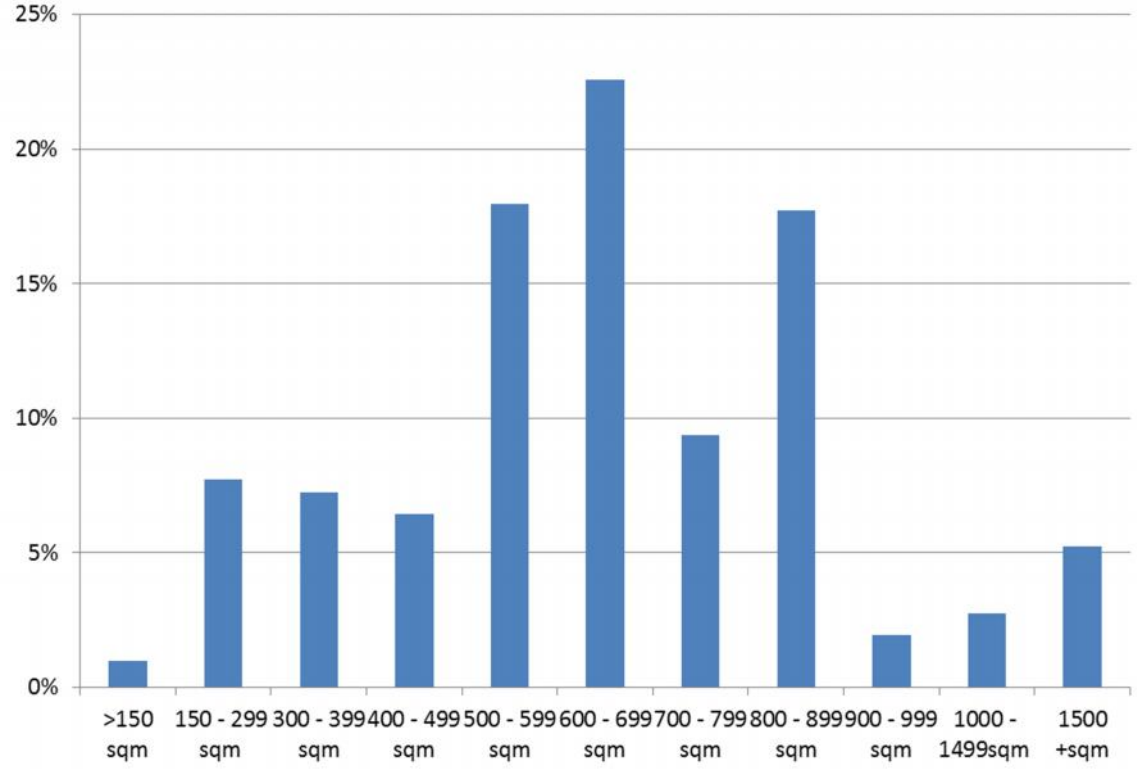
It is expected that this trend of development within the established areas of Ocean Grove will continue. There is sufficient capacity within the existing established area for continued subdivision. This is illustrated in Graph 4 that shows the distribution of the existing housing stock within the established area by lot size cohort.

It is possible to develop lots at 300sqm within the General Residential Zone (GRZ) areas. This means that is ample scope for future subdivision with 60% of lots greater than 600 sqm.

Dispersed infill capacity is further increased by the recent introduction of the Residential Growth Zone (RGZ) within the established urban area of Ocean Grove (see Map 4). This zone allows for higher density residential development up to 13.5 metres or 4 storeys and will substantially increase the residential capacity of the Ocean Grove established area. The two RGZ areas in Ocean Grove are 80 hectares in size and will provide the opportunity for apartments and relatively higher density dwelling development.

At current rates, 15 years of dispersed infill demand equates to an extra 600 dwellings within the existing established area. With the rezoning of the land around the commercial centres to RGZ and the remaining capacity zoned GRZ within the rest of Ocean Grove means that there is ample capacity for the established area to easily absorb this level of activity.

Graph 4: Size Distribution of Existing Dwellings – Established Urban Area, Ocean Grove, March 2015



Source: Spatial Economics Pty Ltd

As at March 2016, there was a residential lot capacity within broadhectare land supply areas across the Bellarine Peninsula of approximately 12,908 lots.

The 2015 Residential Land Supply Monitoring project – Geelong identified a total broadhectare residential lot supply potential of 3,649 lots in Ocean Grove. This total includes lots that were designated potential residential at the time.

Since this assessment was undertaken at March 2015 to March 2016, a total of 145 broadhectare lots have been constructed on the identified supply, 436 lots have been rezoned from 'Potential Residential – Unzoned' for normal density residential development and supply areas have been revised upwards of 53 lots to incorporate revised development plans/permits.

As at March 2016 there was a total of 389 vacant residential lots in Ocean Grove. Of these vacant lots 52% or 202 are broadhectare, the residual 187 vacant lots are located within dispersed infill areas or in other words the established urban area.

Ocean Grove has had a significant amount of dispersed infill development occurring in recent years. It has averaged around 35-40 net dwellings per year as lots within the established urban area are subdivided and townhouses/villas are constructed. This around 17% of all new dwellings in recent years.

It is expected that this trend of development within the established areas of Ocean Grove will continue. There is sufficient capacity within the existing established area for continued subdivision.

At current rates, 15 years of dispersed infill demand equates to an extra 600 dwellings within the existing established area. With the rezoning of the land around the commercial centres to RGZ and the remaining capacity zoned GRZ within the rest of Ocean Grove means that there is ample capacity for the established area to easily absorb this level of activity.

6.0 ADEQUACY OF LAND STOCKS

Analysis has been undertaken to estimate the years of broadhectare residential land supply for Ocean Grove. A number of demand scenarios are utilised to illustrate the potential range of the years of supply based on differing demand assumptions.

Two demand scenarios are presented and assessed against the identified stock of major/broadhectare land. These assumptions are based on:

1. **Scenario One – Recent 'peak activity'**: The existing share of broadhectare lot development as measured from July 2013 to March 2016 – 74%. Broadhectare land stocks measured in lots as detailed in the previous section of the statement. The future average annual dwelling requirement is assumed at is 200.

   The assumption of a constant dwelling requirement of 200 per annum in Ocean Grove is considered strong growth. However, it does reflect the current recent trends in in terms of development activity.

2. **Scenario Two – Sustained Accelerated Growth:** The existing share of broadhectare lot development as measured from July 2013 to March 2016 – 74%. Broadhectare land stocks measured in lots as detailed in the previous section of the statement. The future average annual dwelling requirement is assumed at is 250.

   The assumption of an annual dwelling requirement of 250 is considered unlikely to be achieved and or sustained on an ongoing basis. However, it does represent a high demand scenario for sensitivity testing purposes.

The adequacy assessment (methodology employed by the State Government) indicates that there is sufficient existing zoned broadhectare land stocks to satisfy:

- Scenario One – total dwelling requirement of 200 dwellings per annum (current development activity levels) equates to approximately **24 years** of residential broadhectare supply in Ocean Grove; and
- Scenario Two – total dwelling requirement of 250 dwellings per annum (accelerated development activity levels) equates to approximately **19 years** of residential broadhectare supply in Ocean Grove.

The above demand scenarios do not consider the high probability that dispersed infill development will increase its share over-time within Ocean Grove. This is likely given the introduction of the Residential Growth Zone within established urban area of Ocean Grove.

The existing stock of vacant lots have not been considered as part of the adequacy assessment. This is a conservative approach in assessing the years of supply and is the approach undertaken by the State Governments Urban Development Program.

The adequacy assessment (methodology employed by the State Government) indicates that there is sufficient existing zoned land stocks to satisfy 19 to 24 years of demand, depending on the assumed demand scenario.

The demand scenarios assume a constant proportion of broadhectare development based on recent 'peak' trends of activity. It is likely the proportion of dispersed infill activity will increase, particularly due to the introduction of around 80 hectares of land to Residential Growth within the urban area of Ocean Grove.

Appendix A: 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; and
    - Larger regional centres/regions – G21 Region (includes Surf Coast Shire), 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:

- City of Greater Bendigo – Residential Land Supply Assessment (February 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)
- G21 Regional Alliance: Residential and Industrial Land Supply Assessment (2015)
- State Government (Vic): Regional Urban Development Program (approximately 30 separate municipal residential/industrial land supply assessments) (2011 to 2013)
- Delfin Lend Lease: A Case for Lockerbie (2009)
- Bacchus Marsh Residential Land Supply Assessment (2016)
- Shepparton Residential Land Supply Assessment (2016)
- 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 (2016)

Areas of Expertise:
Urban/spatial economics in the land use planning and the development industry.

Expertise to Prepare this Report:
See expertise and experience above.

Other Significant Contributors to the Report:
N.A

Instructions that Define the Scope of the Report:
To prepare land supply and demand evidence relating to the Amendment (C346) and specifically assess:

- Provide an up-to-date lot supply report for Ocean Grove and the Bellarine Peninsula;

- Provide an overview of the methodology employed in providing an up-dated lot supply analysis;
- Prepare an expert witness report in accordance with the Planning Panels Victoria expert guidelines and particularly having regard to the lot supply figures and population growth rates employed in the Structure Plan;
- Consider the submissions to the Amendment and particular those submissions that refer to lot supply and population growth;
- Review other expert witness reports within your expertise prepared on behalf of other parties; and
- Present your evidence at the Panel Hearing on 2 May 2016.

The identity of any person who carried out tests or experiments upon which the expert has relied on and the qualifications of that person
N.A.

Facts, Matters & Assumptions Relied Upon:
I have relied on the following for my assessment:

- Australian Bureau of Statistics 2006 and 2011 Population and Housing Census;
- Australian Bureau of Statistics. Residential Building Approval Activity;
- City of Greater Geelong Planning Scheme.
- City of Greater Geelong – Building Approval data.
- City of Greater Geelong. 2007 Ocean Grove Structure Plan
- City of Greater Geelong. 2015 Ocean Grove Structure Plan
- City of Greater Geelong. Bellarine Peninsula Localised Planning Statement (2015)
- Department of Planning and Community Development, 2009. 2009 Regional Urban Development Program – Bendigo
- Department of Planning and Community Development. Victoria in Future (2012) Population Projections
- Department Transport, Planning & Local Infrastructure. Victoria in Future (2014) Population Projections
- Department of Transport, Planning and Local Infrastructure. Victoria in Future (2015) Population Projections
- G21 Regional Growth Plan (2013)
- idConsultants, 2015. Population Projections – City of Greater Geelong
- State Government Vic data cadastre (July 2006 to March 2016);
- Spatial Economics, 2015. Housing Development Data.
- Spatial Economics. 2015. Residential Land Supply Monitoring Project G21 Region – Geelong.

In undertaking this assessment site visits and surveys were undertaken to establish site specific validation of desktop analysis.

Documents Taken into Account:
See above.

Summary of Opinions:
For recent approach and methodology – refer to Section 2.0 of the report.

For recent residential dwelling development activity – refer to Section 3.0 of the report.

For population and dwelling projections – refer to Section 4.0 of the report

For residential land supply – refer to Section 5.0 of the report.

For adequacy (years of supply) by demand scenario – refer to Section 6.0 of the report.

Any provisions or opinions that are not fully researched for any reason
N.A.

Questions falling outside the expert's expertise and completeness of the report
Dale Stokes has not been instructed to answer any questions falling outside his area of expertise. The report is complete.

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

21/04/2016