

Urban Development Program

Greater Bendigo 2017



Planning Groups

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Summary of findings

Recent Activity

- As measured from July 2000 to July 2016 residential building approval activity within Greater Bendigo LGA has averaged 923 per annum. The vast majority of building approvals (93%) during that period have been separate houses.
- Between 2011 and 2016, there was an average of around 780 residential lots constructed annually. The majority (76%) were broadhectare/major infill lots, with the remaining 24% through minor infill construction.
- Minor infill lot construction activity (defined as residential development projects yielding less than 10 lots) as measured from July 2011 to December 2016 across Greater Bendigo averaged 188 lots per annum; which represents 24% of all residential lot construction activity across the municipality. This compares to around 350 lots per year the previous 5 years, or around 39% of all residential lot construction.
- On average, there were nearly 600 lots constructed per annum across the Greater Bendigo on broadhectare and major infill sites from July 2011 to December 2016. This represents 76% of all residential lot construction activity across the municipality.

Residential Land Supply

- As at December 2016 there was an estimated residential lot supply for broadhectare/major infill land of approximately 19,703. This is comprised of: 13,566 zoned major lots (66% of supply) and 6,972 designated future residential lots (34% of supply).
- There are an additional 2,289 additional vacant lots/minor infill sites (of less than 1 hectare) across the municipality.

Projected Demand and Years of Supply

- Victoria in Future 2016 (VIF 2016) is the Victorian Government's official population and household projections. VIF 2016 projections indicate that from 2016 to 2051, there is an estimated annual average increase of 1,120 dwellings per year for Greater Bendigo.
- In the assessment of adequacy or establishing the estimated years of broadhectare/major infill residential land supply, the demand component for the above supply types are estimated via the assessment of historical construction patterns together with Victoria in Future 2016 projections.
- Based on three different demand scenarios (low, medium and high) for housing on broadhectare/major infill land, there is between 17 and 25 plus years of zoned residential land supply, and in excess of 25 years of total supply (zoned and unzoned) for each of the scenarios.

1 Introduction

The Urban Development Program was set up in 2003 to assist in managing the growth and development of metropolitan Melbourne and the Geelong region, and help ensure the continued sustainable growth of these areas in order to maintain their high levels of liveability. Between 2009 and 2013, the UDP was expanded across regional Victoria; and residential and industrial land supply assessments were completed for each of Victoria's nineteen Regional Cities, as well as Melbourne's peri-urban municipalities which are experiencing growth pressures.

The purpose of this report is provide updated information for the City of Greater Bendigo, in support of the Plan Greater Bendigo initiative. Plan Greater Bendigo is aimed to provide initiatives in support of sustainable population and economic growth into the future. One of the key initiatives of the strategy is planning for future housing growth across the municipality, and to ensure that there are opportunities for housing development into the future in support of this growth.

The primary purpose of the Urban Development Program is to improve the management of urban growth by ensuring that government, councils, public utilities and the development industry have access to up-to-date and accurate information on residential and industrial land availability, development trends, new growth fronts, infill opportunities and their implications for planning and infrastructure investment.

To achieve the primary purpose the Urban Development Program provides accurate, consistent and updated intelligence on residential and industrial land supply, demand and consumption. This in turn assists decision-makers in:

- maintaining an adequate supply of residential and industrial land for future housing and employment 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.

The information contained and reported within the Urban Development Program enables early action to be taken in areas where land shortfalls have been identified.

This report outlines the main findings of the 2016 program. Comprehensive data and maps are also available at www.planning.vic.gov.au and www.bendigo.vic.gov.au.

2 Approach and Methodology

For the purpose of this report, an assessment has been undertaken for residential land supply and consumption across the City of Greater Bendigo. This includes:

- the identification of historical and current residential land supply by supply type;
- identification of all zoned major land stocks including estimates of lot yields on a project by project basis;
- identification of all future (potential) unzoned major land stocks including estimates of lot yields on a project by project basis;
- estimates of major residential land activity by timing;
- identification of all zoned minor lot stocks by lot size;
- assessment of estimated future demand scenario for residential land;
- estimated number of years of supply for major zoned and future land stocks.

The assessment only applies to land zoned General Residential Zone, Township Zone or Mixed Use Zone (where there is a residential component); as well as land identified by the City of Greater Bendigo for future residential development where a rezoning is required. The assessment does not include low density or rural living zoned land.

Estimating future land requirements

The Population and Household Projections to 2051 for Victoria and its regions, released by the Department of Environment, Land, Water & Planning and outlined in Victoria in Future 2016, are used by the Urban Development Program as the basis for determining projected demand for residential allotments on major development sites.

Residential Land

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

Minor Infill: Undeveloped land within the existing urban area, zoned for residential development, and parent lot or existing lot less than 1 hectare. A minor infill supply area is defined as no habitable dwelling or significant existing use on the parcel.

Broadhectare/ Major Infill: Undeveloped land generally located on the urban fringe, zoned for residential development (no previous urban development activity), and the parent lot greater than 1 hectare; as well as undeveloped land or sites identified for redevelopment within the existing urban area, zoned for residential development, and parent lot or existing lot greater than 1 hectare. These are normally remnant greenfield sites now surrounded by urban development.

Future Residential: Land identified by council for future residential development and current zoning not supportive of residential development. Land which has an 'Urban Growth Zone' applied, and a precinct structure plan has not yet been approved, would also fall into this category.

Residential Lot Construction

As part of the assessment of broadhectare/major infill land stocks within Greater Bendigo, aerial imagery, planning zones and cadastral data are the primary datasets for assessing the development status of land parcels. This is supported by feedback from consultations between state government and local council representatives.

'Constructed' is where the land has been assessed as being subdivided, the roads have been sealed, kerb and channelling completed, driveways in place and some houses may be under construction on these lots. A separate

title on these lots may or may not have been issued at the time of assessment.

‘Under construction’ is where the image shows the land is being developed (or subdivided) but is not yet at the constructed stage. The earth has been (or is being) turned and the roads, driveways, kerb and channelling are under construction.

‘Undeveloped’ is where aerial imagery shows no evidence of works having started on the land, which is further validated by consultations and workshops. The land forms the stocks of current supply of broadhectare residential land.

Construction activity is assessed annually as at July of each year; however for the purpose of this report, the current assessment is as at December 2016.

Lot Yields

Lot yields have been established on a parcel by parcel basis for both broadhectare/major infill and future residential land.

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, old mineshafts, escarpments, floodways, localised current/recent market yields, existing studies such as structure plans, municipal strategic statements etc.

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 site of the land parcel i.e. a 1ha site will have less take-outs than say a 50ha site. This approach has been utilised by both the residential and industrial land supply assessments since 2004 in the metropolitan Urban Development Program.

Further local feedback and verification is sourced from council planning officers.

A small number of broadhectare/major infill have been allocated a zero lot yield as they were assessed as being unlikely to be developed over the next 15 years due to issues such as significant owner fragmentation on relatively small parcels of land. The reason for this is not to overestimate land supply based on current conditions.

Development Timing

Staging for lot construction or development timing has been established for four broad time periods, namely:

- 1 to 2 years (2016–2018);
- 3 to 5 years (2019–2021);
- 6 to 10 years (2022–2026);
- 11 years or more (2027 and beyond); and,
- No timing.

Note that these timings are estimates based on previous development patterns, ownership, and possible developer intentions; and further verified by council officers.

Land identified for development over the next 2 years is available for residential purposes, and the required permits to subdivide the land generally exist and are being implemented.

Land parcels identified for development in 3 to 5 years are zoned for residential purposes, or may have rezonings finalised or approaching finalisation. They may also have permits to subdivide the land. Some degree of confidence can be applied to the timing and staging of these developments.

Confidence about lot yields and staging declines for developments proposed beyond 5 years as it is industry practice to regard developments beyond this period with less certainty in terms of exact staging, timing and yields.

A no timing category has been established for potential residential development sites that are within low demand areas (generally small outlying settlements). These sites typically in addition are allocated a zero potential lot yield. They are identified as potential and are measured by area.

Where land has been identified as ‘Future Residential’ there are no associated timings, as these cannot be confidently applied until such time the land is zoned to allow residential development to occur. Similarly, land which is within an Urban Growth Zone, where a precinct structure plan has not been approved, falls into a similar category. At such time a precinct structure plan has been prepared and approved, potential timings of residential development associated to these areas can be applied with a higher degree of confidence.

It should also be noted that timing of lot construction is cyclical, and highly dependent

on underlying demand, economic cycles and industry capacity. This can mean that stated development intentions will vary from on-the-ground construction activity over time and by location. However, it is more generally accurate in terms of the general direction and level of growth.

Development timings have only been established for both zoned major infill land supply stocks and broadhectare land.

Years of supply for residential land

A key purpose of the Urban Development Program is to identify if adequate supplies of broadhectare residential land are available to meet projected dwelling requirements within each growth area as well as metropolitan Melbourne as a whole. Sufficient stock of residential land is required to maintain an ongoing supply to the market and to contribute to:

- a level of competition in the land development market in assisting to avoid upward pressure on land prices and housing affordability; and
- sufficient lead times for planning and service provision agencies to undertake appropriate strategic and infrastructure planning activities.

For the purpose of reporting on the years of supply of residential stocks, the Urban Development Program assesses the existing stock of zoned broadhectare/major infill land, relative to projected demand.

Demand levels for residential lots for the 2016 Urban Development Program for Greater Bendigo are derived from Victoria in Future 2016, which provides population and household projections from 2011 to 2051.

3 Recent Activity

Section 3 of the report details the recent activity of residential lot construction and dwelling approvals achieved across Greater Bendigo in recent years. Residential lot construction activity is detailed from July 2006 to December 2016 and is presented at a suburb, Statistical Area (SA2) and LGA level. Residential lot construction is further analysed by supply type and location.

Residential Building Approvals

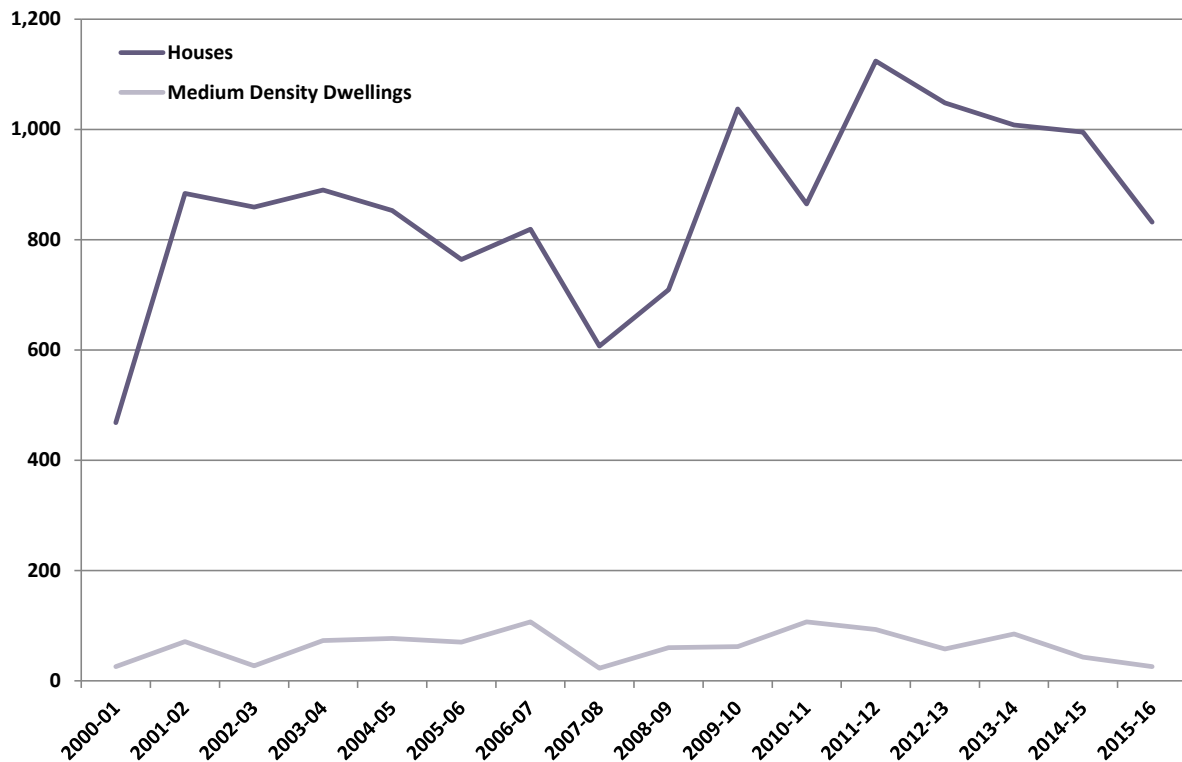
As measured from July 2000 to July 2016 residential building approval activity within Greater Bendigo LGA has averaged 923 per annum, the amount of building approval

activity as measured on an annual basis has varied significantly during this period. Approvals peaked at 1,217 in 2011-12 and troughed at 494 in 2000-01. In 2015-16, there was a total of 858 residential dwelling approvals.

Figure 1 illustrates the amount of building approval activity by dwelling type on a quarterly basis for the Greater Bendigo.

The vast majority of building approvals (93%) since July 2000 have been separate houses, with the remainder being medium density style dwellings, such as units and townhouses.

Figure 1: Number of Residential Building Approvals, 2000-01 to 2015-16



Source: Australian Bureau of Statistics, Catalogue No.8731.0

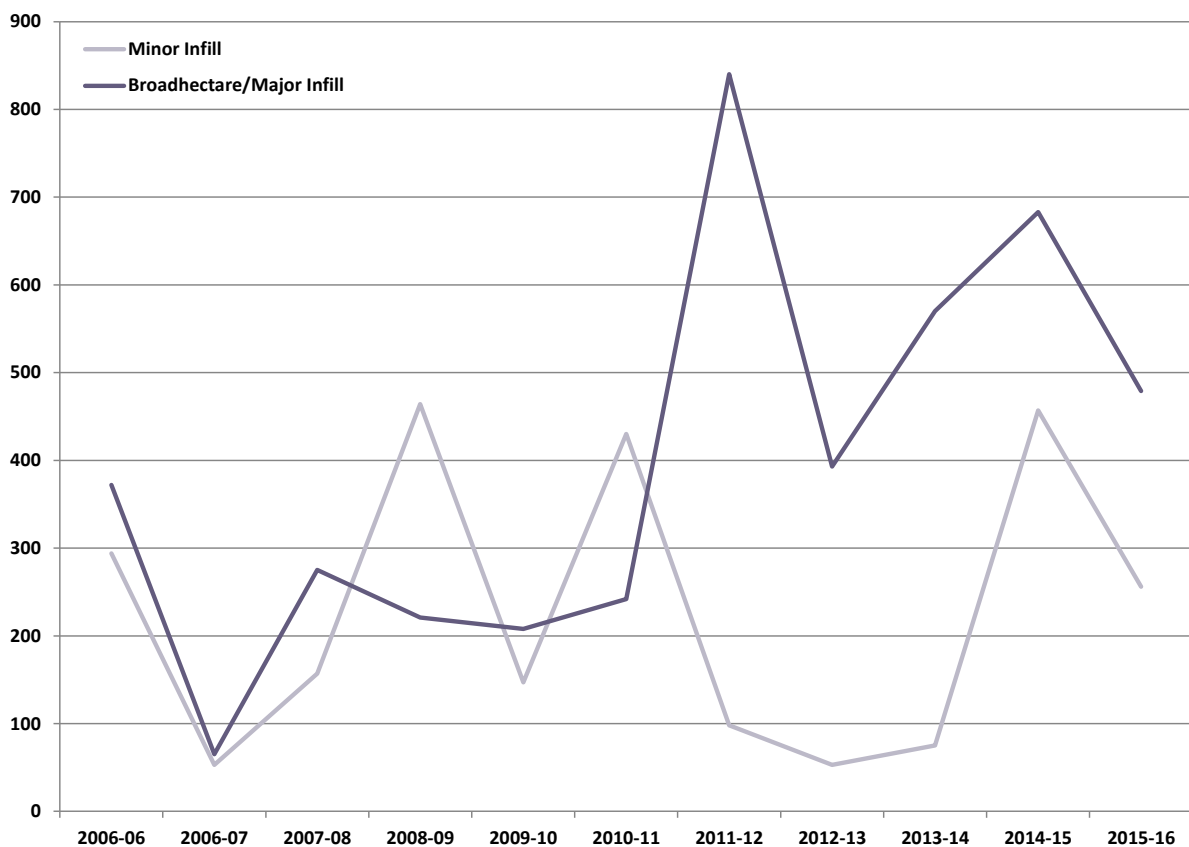
Residential Lot Construction

Analysis has been undertaken to determine on a lot by lot basis the location and amount of residential lot construction activity over the past five years. Lot construction activity has been classified into distinct supply types and or supply locations as defined above.

Figure 2 summarises the amount of residential lot construction by supply type for Greater

Bendigo. Between 2011 and 2016, there was an average of around 780 residential lots constructed annually. The majority (76%) were broadhectare/major infill lots, with the remaining 24% through minor infill construction; although the following graph shows that a decade ago, there was a fairly even share of minor infill lots being constructed as broadhectare/major infill lots.

Figure 2: Number of Residential Lots Constructed by Supply Type, 2006 to 2016



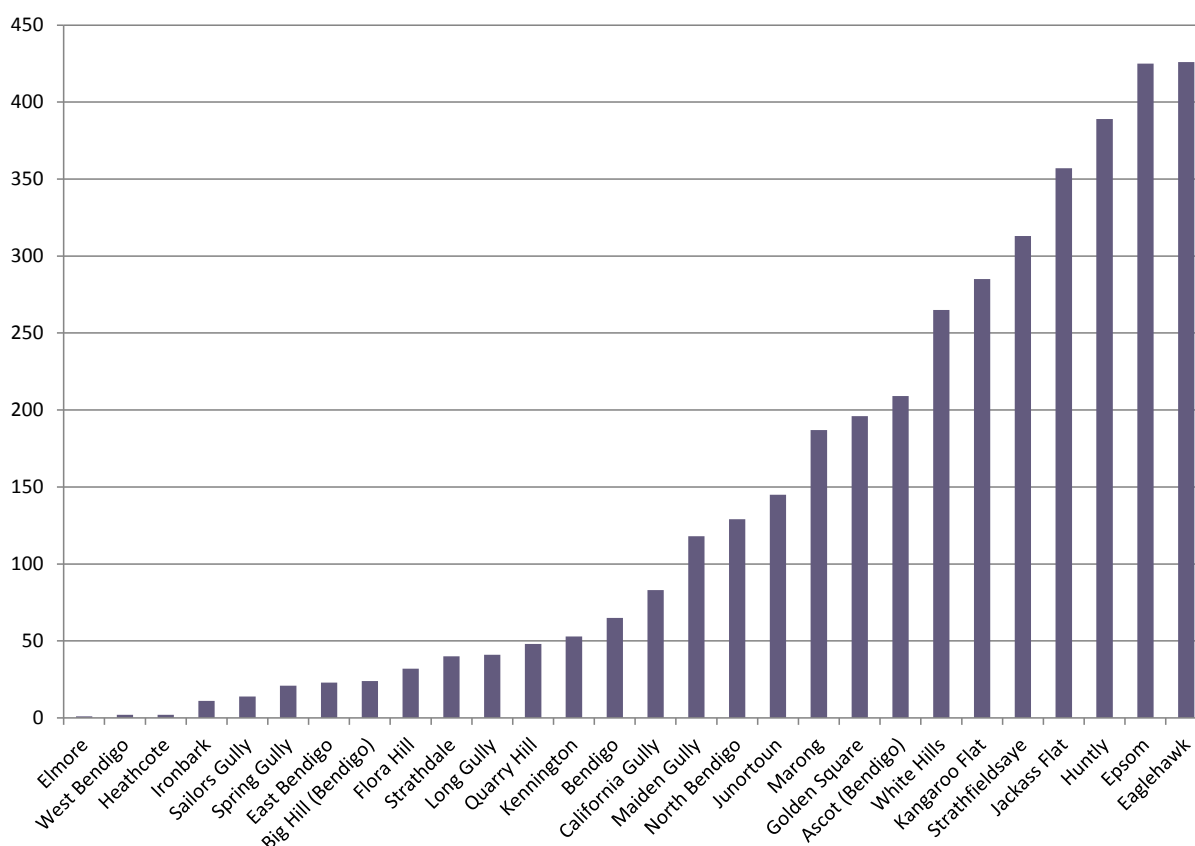
Source: Department of Environment, Land, Water & Planning, City of Greater Bendigo, Spatial Economics Pty Ltd

In comparison to the annual volume of residential building approvals, residential lot construction also varies considerably. Residential lot construction over the past five years was the lowest in 2012-13 at 446 lots, and 'peaked' in 2014-15 at 1,140 lots. Residential dwelling approvals over the past five years have averaged around 1,060 dwellings per year, as compared to 780 lots constructed. The difference between these would be due to the construction of dwellings

on existing vacant lot stocks, as well as the construction of dwellings on low density and rural living land.

Figure 3 illustrates the distribution of residential lot construction (both broadhectare/major infill lots and minor infill) by small area (suburb) over the past five years. It largely illustrates that during this period, small areas with volumes of broadhectare of major infill land have had the highest rates of recent lot construction

Figure 3: Number of Residential Lots by Small Area (Suburb), 2011 to 2016



Source: Department of Environment, Land, Water & Planning, City of Greater Bendigo, Spatial Economics Pty Ltd

Minor Infill Lot Construction

Minor infill lot construction activity (defined as residential development projects yielding less than 10 lots) as measured from July 2011 to December 2016 across Greater Bendigo averaged 188 lots per annum; which represents 24% of all residential lot construction activity across the municipality. This compares to around 350 lots per year the previous 5 years, or around 39% of all residential lot construction.

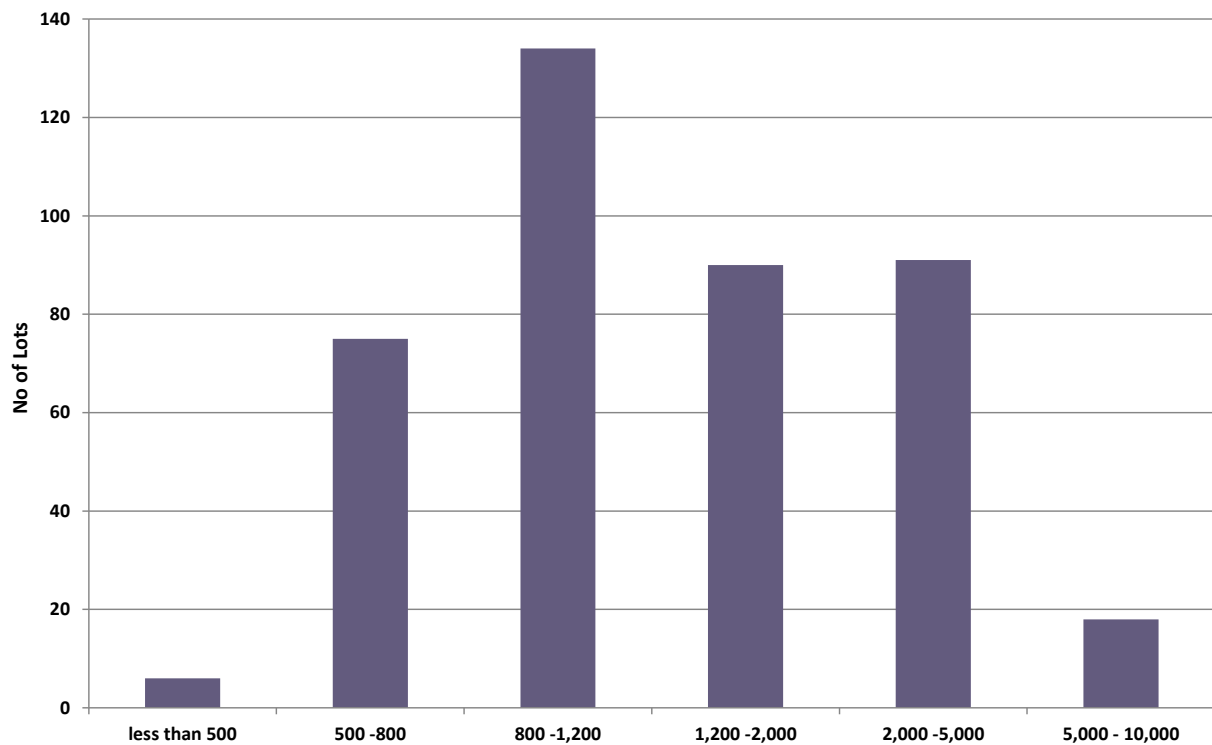
Minor lot construction activity was primarily located in the small areas, or suburbs, of:

- Golden Square (26 lots per annum);
- Eaglehawk (21 lots per annum);
- Kangaroo Flat (20 lots per annum); and,
- Bendigo (13 lots per annum).

As measured annually from July 2011 to December 2016, the amount of minor infill lot construction activity has varied significantly. In 2014-15 there were 457 minor infill lots constructed, decreasing to 53 in 2012-13. From July 2011 to December 2016 there were around 940 minor residential lots constructed in total.

Of the 940 minor infill lots constructed within the Greater Bendigo urban area during the past five years, around a half were constructed on 'parent' lots sized less than 1,200sqm, and only 20% (81 lots) on 'parent lots sized less than 800sqm. There were around 360 lots constructed (38% of total minor infill lots) on parent lots sized from 2,000 to 10,000sqm. Figure 4 summarises the volume of minor lot construction by 'parent' lot size cohorts.

Figure 4: Parent Lot Size of Minor Infill Lot Subdivision, 2011 to 2016



Source: Department of Environment, Land, Water & Planning, City of Greater Bendigo, Spatial Economics Pty Ltd

Broadhectare/Major Lot Construction

On average, there were nearly 600 lots constructed per annum across the Greater Bendigo on broadhectare and major infill sites from July 2011 to December 2016. Major lot construction is defined as residential development projects yielding on sites of 1 hectare or above. This represents 76% of all residential lot construction activity across the municipality.

As measured annually from July 2011, the amount of major lot construction activity has varied significantly. In 2012-13 there were approximately 400 major lots constructed as compared to a peak of 840 lots constructed in 2011-12.

4 Residential Land Supply

Section 4 of this report details the stock (measured in lots) of residential land across Greater Bendigo as at December 2016. Residential lot stock/supply is presented at small area (suburb), sub-regional (ABS Statistical Area 2) and at an LGA level. Residential lot construction is further analysed by supply type/location, namely:

- Vacant/Minor Infill lot stock - (sized less than 1 hectare);
- Minor - (parent lot size less than 1 hectare or project yielding less than 10 lots);
- Major zoned - (parent lot size less than 1 hectare or project yielding less than 10 lots); and
- Future/unzoned – (land identified by the City of Greater Bendigo for future residential development and current zoning is not supportive of 'normal' residential development).

For major land supply areas, estimates of potential lot construction timing have been determined. This refers to the likely timing of lot construction rather than dwelling construction. Note that these timings are indicative only to highlight new and existing growth fronts, rather than being prescriptive.

Table 1 details the residential land supply, measured in lots, by supply type across Greater Bendigo as at December 2016. In total there is an estimated residential lot supply for broadhectate/major infill land of approximately 19,703. This is comprised of:

- 13,566 zoned major lots (66% of supply);
- 6,972 designated future residential lots (34% of supply).

There are an additional 2,289 additional vacant lots/minor infill sites (of less than 1 hectare) across the municipality.

Each of the supply types are further detailed below, including the location of all 'normal' recent residential lot construction activity. Maps indicating supply areas for Greater Bendigo are also available on the webpage.

Table 1: Residential Lot/Dwelling Potential by Supply Type, December 2016

SA2 Name	Suburb	Major Zoned Supply (lot potential)	Future Residential (unzoned)	Total Lots
Bendigo	BENDIGO	200	0	200
	IRONBARK	0	0	0
	NORTH BENDIGO	334	0	334
	WEST BENDIGO	0	0	0
		534	0	534
Bendigo Region - North	BAGSHOT	1,640	0	1,640
	RAYWOOD	21	0	21
		1,661	0	1,661
Bendigo Region - South	MARONG	395	1,810	2,205
		395	1,810	2,205
California Gully - Eaglehawk	CALIFORNIA GULLY	18	0	18
	EAGLEHAWK	268	1,000	1,268
	EPSOM	162	0	162
	JACKASS FLAT	727	0	727
	SAILORS GULLY	816	0	816
		1,991	1,000	2,991
East Bendigo - Kennington	EAST BENDIGO	104	0	104
	KENNINGTON	22	0	22
	STRATHDALE	14	38	52
		140	38	178
Flora Hill - Spring Gully	FLORA HILL	248	0	248
	QUARRY HILL	73	0	73
	SPRING GULLY	86	0	86
		407	0	407
Heathcote	ARGYLE	8	0	8
	HEATHCOTE	300	0	300
		308	0	308
Kangaroo Flat - Golden Square	GOLDEN SQUARE	1,085	0	1,085
	KANGAROO FLAT	637	0	637
		1,722	0	1,722
Maiden Gully	MAIDEN GULLY	1,882	3,012	4,894
		1,882	3,012	4,894
Strathfieldsaye	JUNORTOUN	169	0	169
	STRATHFIELDSAYE	2,288	1,038	3,326
		2,457	1,038	3,495
White Hills - Ascot	ASCOT (BENDIGO)	237	0	237
	EPSOM	157	74	231
	HUNTLY	1,587	0	1,587
	WHITE HILLS	88	0	88
		2,069	74	2,143
Bendigo LGA		13,566	6,972	20,538

Source: Department of Environment, Land, Water & Planning, City of Greater Bendigo

Vacant Lot/Minor Infill Supply

A detailed assessment utilising aerial imagery and cadastre was used to undertake an assessment of vacant residential land as at December 2016. This is defined as 'vacant lots/minor infill' sites less than 1 hectare in size, and has no existing residential dwelling/or existing use, and is zoned General Residential Zone, Township Zone or Mixed Use Zone (with a residential component).

The size of the individual allotment influences the capacity of the number of dwellings it can potentially accommodate through further subdivision, and figure 3 indicates that smaller parent lots of less than 500 square metres have less capacity for further subdivision than larger ones of 1,200 square metres or more.

This report does not provide an assessment of the capacity of these sites in terms of estimated lots/dwellings, rather than provide an assessment of the number and distribution of lots by size and location. For example, a 2,000sqm site may be further subdivided into four 500sqm lots, or may be developed for units of a greater number.

As at December 2016, there was a total residential stock of 2,289 vacant lots/minor infill sites. The size and distribution of these are illustrated in Table 2.

The suburbs with relatively high numbers of vacant lots/minor infill sites tend to be the location of broadhectare/major infill development; which include:

- Epsom – 192 lots;
- Marong – 183 lots;
- Kangaroo Flat – 170 lots;
- Golden Square – 158 lots; and,
- Huntly – 131 lots.

Many of these lots are less than 800 square metres with limited capacity to further subdivide.

Table 2: Size and Location of Vacant Lots/Minor Infill Sites, December 2016

SA2 Name	Suburb	less than 500	500 - 800	800 - 1,200	1,200 - 2,000	2,000 - 5,000	5,000 +	Total
Bendigo	BENDIGO	23	22	11	1	0	0	57
	IRONBARK	5	6	1	0	1	0	13
	LONG GULLY	19	11	9	6	5	3	53
	NORTH BENDIGO	12	13	8	5	8	3	49
	WEST BENDIGO	4	4	4	4	2	0	18
		63	56	33	16	16	6	190
Bendigo Region - North	BAGSHOT	0	0	0	0	0	0	0
	ELMORE	0	0	0	0	0	0	0
	RAYWOOD	0	0	0	0	0	0	0
		0	0	0	0	0	6	0
Bendigo Region - South	MARONG	5	150	15	4	9	0	183
		5	150	15	4	9	6	183
California Gully - Eaglehawk	CALIFORNIA GULLY	8	17	11	5	6	3	50
	EAGLEHAWK	57	45	23	12	10	4	151
	EPSOM	0	0	0	0	0	0	0
	JACKASS FLAT	0	99	4	1	0	2	106
	NORTH BENDIGO	0	0	1	0	0	0	1
	SAILORS GULLY	2	0	10	4	2	3	21
	WOODVALE	0	1	0	0	0	0	1
		67	162	49	22	18	12	330
East Bendigo - Kennington	EAST BENDIGO	19	10	6	4	2	0	41
	KENNINGTON	29	17	15	4	4	1	70
	STRATHDALE	31	22	36	9	3	0	101
	WHITE HILLS	6	1	0	0	0	2	9
		85	50	57	17	9	3	221
Flora Hill - Spring Gully	FLORA HILL	11	4	4	4	4	0	27
	QUARRY HILL	5	4	4	4	2	0	19
	SPRING GULLY	7	6	12	13	4	4	46
		23	14	20	21	10	4	92
Heathcote	ARGYLE	0	2	7	0	0	0	9
	AXEDALE	0	2	2	3	12	2	21
	HEATHCOTE	8	15	19	0	0	0	42
		8	19	28	3	12	10	72
Kangaroo Flat - Golden Square	BIG HILL (BENDIGO)	0	8	5	5	0	0	18
	GOLDEN GULLY	0	1	1	1	2	0	5
	GOLDEN SQUARE	27	54	33	13	25	6	158
	KANGAROO FLAT	27	62	43	15	16	7	170
		54	125	82	34	43	13	351
Maiden Gully	MAIDEN GULLY	1	23	5	16	21	4	70
		1	23	5	16	21	4	70
Strathfieldsaye	JUNORTOUN	4	28	23	5	2	1	63
	STRATHFIELDSAYE	7	177	46	11	17	12	270
		11	205	69	16	19	13	333
White Hills - Ascot	ASCOT (BENDIGO)	1	16	9	7	3	0	36
	EPSOM	69	85	18	11	6	3	192
	HUNTLY	30	85	3	2	9	2	131
	WHITE HILLS	32	32	9	5	9	1	88
		132	218	39	25	27	6	447
Bendigo LGA		449	1,022	397	174	184	83	2,289

Source: Department of Environment, Land, Water & Planning, City of Greater Bendigo

Broadhectare/Major Infill Supply

As at December 2016, there was a total capacity of approximately 13,580 lots on residential zoned broadhectare/major infill land. Table 3 indicates the estimated lot yield and potential timing of these land stocks across the municipality.

The development fronts within the suburbs of Bagshot, Golden Square, Huntly, Maiden Gully, Sailors Gully and Strathfieldsaye account for nearly 70% of all zoned residential broadhectare/major infill land supply across the municipality.

Future Residential Land Supply

Analysis has been undertaken in conjunction with municipal planning officers to identify the location and associated lot yield of future residential land stocks. Future residential land stocks are identified by the City of Greater Bendigo, and contained within various municipal planning policy and strategy planning documents.

Future residential land stocks are not zoned to support immediate 'normal' residential development, and rezoning and structure planning processes are required before conventional residential development proceeds.

Within the City of Greater Bendigo, there is an estimated potential of 6,972 lots within future residential areas. Of this lot potential:

- 3,000 lots are located in the Maiden Gully growth front;
- 1,800 lots are located in the Marong growth front;
- 1,000 lots are located in the Strathfieldsaye front; and,
- 1,000 lots are located in the Eaglehawk growth front.

Table 3: Potential Lot Construction Activity – December 2016

Suburb	1-2 years	3-5 years	6-10 years	11+ years	No Timing	Total Lots
ARGYLE	0	0	0	8	0	8
ASCOT (BENDIGO)	116	102	19	0	0	237
BAGSHOT	0	0	552	1,088	0	1,640
BENDIGO	0	0	200	0	0	200
CALIFORNIA GULLY	0	18	211	0	0	229
EAGLEHAWK	0	18	0	39	0	57
EAST BENDIGO	0	0	104	0	0	104
EPSOM	25	53	84	0	0	162
EPSOM	0	157	0	0	0	157
FLORA HILL	0	48	200	0	0	248
GOLDEN SQUARE	80	239	446	0	320	1,085
HEATHCOTE	0	0	0	260	40	300
HUNTLY	37	698	852	0	0	1,587
IRONBARK	0	0	0	0	0	0
JACKASS FLAT	228	211	288	0	0	727
JUNORTOUN	169	0	0	0	0	169
KANGAROO FLAT	233	259	94	0	51	637
KENNINGTON	14	0	0	22	0	36
MAIDEN GULLY	91	40	401	0	1,350	1,882
MARONG	82	60	253	0	0	395
NORTH BENDIGO	0	29	0	0	305	334
QUARRY HILL	0	52	21	0	0	73
RAYWOOD	0	0	21	0	0	21
SAILORS GULLY	0	0	0	27	789	816
SPRING GULLY	56	0	30	0	0	86
STRATHDALE	0	0	0	0	0	0
STRATHFIELDSAYE	237	405	805	240	601	2,288
WEST BENDIGO	0	0	0	0	0	0
WHITE HILLS	37	51	0	0	0	88
Greater Bendigo	1,405	2,440	4,581	1,684	3,456	13,566

Source: Department of Environment, Land, Water & Planning, City of Greater Bendigo

5 Projected Demand and Years of Supply

This report incorporates the most recently available demand figures to project dwelling requirements and future adequacy of residential land. These figures currently use the Victoria in Future 2016 projections as the basis for demand, which are updated in line with state population and household projections.

Victoria in Future 2016 is the Victorian Government's official population and household projections. Information is provided for state-wide, regional and metropolitan areas as well as local government areas. Victoria in Future 2016 reflects 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.

Victoria in Future 2016 projections cover the period 2011 to 2051 for the state, regional Victoria and Melbourne; for 2011 to 2051 for the Statistical Areas in regional Victoria; and for 2011 to 2031 for local government areas and 'small areas'.

Overall, regional Victoria is projected to grow by around 537,000 people in the next 30 years. Much of this growth is projected to come from net migration from Melbourne. Strong population growth can be expected in:

- regional centres, which have diverse employment opportunities and services;
- coastal areas, which are popular locations for sea-changers such as young families and retirees; and,
- tree change and other 'lifestyle' locations such as rural areas around Melbourne and the regional centres as well as the Alpine areas and the Murray River.

Projected dwelling requirements sourced from the VIF 2012 projections indicated that the period from 2012 to 2016, it was estimated that there was an average annual demand for 947 residential dwellings across the municipality. Over the same period, residential lot construction averaged 780 per annum and residential building approvals 1,060; indicating higher levels of residential activity than was anticipated back in 2012.

Victoria in Future 2016 projections indicate that from 2016 to 2051, there is an estimated

annual average increase of 1,120 dwellings per year for Greater Bendigo.

Years of supply for residential land

Analysis has been undertaken to estimate the years of major residential land supply for the City of Greater Bendigo. In estimating the years of residential land supply only major and future residential land supply types are considered. In the assessment of adequacy or establishing the estimated years of supply, the demand component for the above supply types are estimated via the assessment of historical construction patterns together with Victoria in Future 2016 projections.

Three scenarios are employed to estimate future demand for residential dwellings:

- Victorian Government Population and Household Projections – VIF 2016 with previous trends of residential land consumption;
- Victorian Government Population and Household Projections – VIF 2016 with current trends of residential land consumption; and,
- Victorian Government Population and Household Projections – VIF 2016 with projected trends of residential land consumption.

Over the past five years, there has been a larger share of residential lot construction (56%) on broadacre/major infill land as a total for dwellings approved across the municipality, as compared to the previous 5 years (28%). On average, over the past 10 years, 43% of total residential construction was on broadacre/infill lots.

The first scenario (low) assumes the trends over the past 10 years to continue, with 43% of projected dwellings to be on broadacre/major infill lots. The second scenario (medium) assumes the shift to broadacre/major infill land based on current trends, with 56% of projected dwellings to be on broadacre/major infill lots. The third scenario (high) assumes a further shift to broadacre/major infill land into the future based on past and current trends, with 69% of projected dwellings to be on broadacre/major infill lots.

Table 4 summarises the estimated years of supply for each scenario for zoned broadhectare/major infill land and future (unzoned) stocks.

Years of Supply (low) - VIF 2016 with previous trends of residential land consumption.

In terms of zoned major residential land stocks it is estimated based on the identified supply and projected demand, there are sufficient land stocks to satisfy in excess of 25 years of future demand.

In terms of total residential land supply stocks (zoned and unzoned), there is sufficient land to satisfy in excess of 25 years of projected demand.

Years of Supply (medium) - VIF 2016 with current trends of residential land consumption.

In terms of zoned major residential land stocks it is estimated based on the identified supply and projected demand, there are sufficient land stocks to satisfy 22-23 years of future demand.

In terms of total residential land supply stocks (zoned and unzoned), there is sufficient land to satisfy in excess of 25 years of projected demand.

Years of Supply (high) - VIF 2016 with projected trends of residential land consumption.

In terms of zoned major residential land stocks it is estimated based on the identified supply and projected demand, there are sufficient land stocks to satisfy 17-18 years of future demand.

In terms of total residential land supply stocks (zoned and unzoned), there is sufficient land to satisfy in excess of 25 years of projected demand.

Table 4: Estimated Years of Major Residential Land Stocks - Greater Bendigo, December 2016

	Zoned	Total
Scenario 1 (43% share of growth)	25+ years	25+ years
Scenario 2 (56% share of growth)	22-23 years	25+ years
Scenario 3 (69% share of growth)	17-18 years	25+ years

Source: Department of Environment, Land, Water & Planning, City of Greater Bendigo

6 Tables

Table 5: Minor Infill Construction, 2011 to 2016

SA2 Name	Suburb	2011-12	2012-13	2013-14	2014-15	2015-16	Ave 2012 to 2016
Bendigo	BENDIGO	7	1	2	40	15	13
	IRONBARK	0	0	2	1	8	2
	LONG GULLY	1	0	1	24	15	8
	NORTH BENDIGO	6	4	4	37	9	12
	WEST BENDIGO	1	0	0	1	0	0
		15	5	9	103	47	36
Bendigo Region - North	BAGSHOT	0	0	0	0	0	0
	ELMORE	1	0	0	0	0	0
	RAYWOOD	0	0	0	0	0	0
		1	0	0	0	0	0
Bendigo Region - South	MARONG	0	0	0	0	0	0
		0	0	0	0	0	0
California Gully - Eaglehawk	CALIFORNIA GULLY	5	8	5	15	10	9
	EAGLEHAWK	15	1	5	59	23	21
	EPSOM	0	0	0	0	0	0
	JACKASS FLAT	0	0	2	4	0	1
	SAILORS GULLY	0	0	0	9	5	3
		20	9	12	87	38	33
East Bendigo - Kennington	EAST BENDIGO	1	3	4	6	9	5
	KENNINGTON	6	2	2	27	16	11
	STRATHDALE	0	0	0	9	4	3
		7	5	6	42	29	18
Flora Hill - Spring Gully	FLORA HILL	0	7	0	19	6	6
	QUARRY HILL	1	1	0	9	3	3
	SPRING GULLY	4	0	0	9	8	4
		5	8	0	37	17	13
Heathcote	ARGYLE	0	0	0	0	0	0
	HEATHCOTE	0	2	0	0	0	0
		0	2	0	0	0	0
Kangaroo Flat - Golden Square	GOLDEN SQUARE	5	10	7	63	43	26
	KANGAROO FLAT	16	6	15	45	17	20
		21	16	22	108	60	45
Maiden Gully	MAIDEN GULLY	0	0	1	12	3	3
		0	0	1	12	3	3
Strathfieldsaye	JUNORTOUN	0	0	0	5	0	1
	STRATHFIELDSAYE	10	2	4	32	1	10
		10	2	4	37	1	11
White Hills - Ascot	ASCOT (BENDIGO)	8	3	5	7	17	8
	EPSOM	2	0	7	11	19	8
	HUNTLY	7	1	0	3	0	2
	WHITE HILLS	2	2	9	10	25	10
		19	6	21	31	61	28
Bendigo LGA		98	53	75	457	256	188

Source: Department of Environment, Land, Water & Planning, City of Greater Bendigo

Table 6: Broadhectare/Major Infill Construction, 2011 to 2016

SA2 Name	Suburb	2011-12	2012-13	2013-14	2014-15	2015-16	Under Construction	Ave 2012 to 2016*
Bendigo	BENDIGO	0	0	0	0	0	0	0
	IRONBARK	0	0	0	0	0	0	0
	LONG GULLY	0	0	0	0	0	0	0
	NORTH BENDIGO	0	0	0	69	0	0	14
	WEST BENDIGO	0	0	0	0	0	0	0
		0	0	0	69	0	0	14
Bendigo Region - North	BAGSHOT	0	0	0	0	0	0	0
	ELMORE	0	0	0	0	0	0	0
	RAYWOOD	0	0	0	0	0	0	0
		0	0	0	0	0	0	0
Bendigo Region - South	MARONG	22	49	56	60	0	0	37
		22	49	56	60	0	0	37
California Gully - Eaglehawk	CALIFORNIA GULLY	0	40	0	0	0	0	8
	EAGLEHAWK	255	0	0	50	18	147	65
	EPSOM	0	0	0	0	0	0	0
	JACKASS FLAT	23	70	144	9	105	0	70
	SAILORS GULLY							0
		278	110	144	59	123	147	143
East Bendigo - Kennington	EAST BENDIGO	0	0	0	0	0	0	0
	KENNINGTON	0	0	0	0	0	0	0
	STRATHDALE	13	14	0	0	0	0	5
		13	14	0	0	0	0	5
Flora Hill - Spring Gully	FLORA HILL	0	0	0	0	0	0	0
	QUARRY HILL	0	0	34	0	0	0	7
	SPRING GULLY	0	0	0	0	0	0	0
		0	0	34	0	0	0	7
Heathcote	ARGYLE	0	0	0	0	0	0	0
	HEATHCOTE	0	0	0	0	0	0	0
		0	0	0	0	0	0	0
Kangaroo Flat - Golden Square	BIG HILL (BENDIGO)	0	0	24	0	0	0	5
	GOLDEN SQUARE	0	18	0	50	0	0	14
	KANGAROO FLAT	75	27	71	13	0	61	37
		75	45	95	63	0	61	56
Maiden Gully	MAIDEN GULLY	14	37	15	36	0	0	20
		14	37	15	36	0	0	20
Strathfieldsaye	JUNORTOUN	60	0	32	15	33	21	28
	STRATHFIELDSAYE	0	31	71	82	80	193	53
		60	31	103	97	113	214	81
White Hills - Ascot	ASCOT (BENDIGO)	169	0	0	0	0	0	34
	EPSOM	160	53	0	50	123	40	77
	HUNTLY	0	54	31	211	82	130	76
	WHITE HILLS	49	0	92	38	38	43	43
		378	107	123	299	243	213	230
Bendigo LGA		840	393	570	683	479	635	593

* does not include land 'under construction'

Source: Department of Environment, Land, Water & Planning, City of Greater Bendigo

Table 7: Broadhectare/Major Infill Supply by Timing, December 2016

SA2 Name	Suburb	1-2 years	3-5 years	6-10 years	11+ years	No Timing	Total Lots
Bendigo	BENDIGO	0	0	200	0	0	200
	IRONBARK	0	0	0	0	0	0
	NORTH BENDIGO	0	29	0	0	305	334
	WEST BENDIGO	0	0	0	0	0	0
		0	29	200	0	305	534
Bendigo Region - North	BAGSHOT	0	0	552	1,088	0	1,640
	RAYWOOD	0	0	21	0	0	21
		0	0	573	1,088	0	1,661
Bendigo Region - South	MARONG	82	60	253	0	0	395
		82	60	253	0	0	395
California Gully - Eaglehawk	CALIFORNIA GULLY	0	18	211	0	0	229
	EAGLEHAWK	0	18	0	39	0	57
	EPSOM	25	53	84	0	0	162
	JACKASS FLAT	228	211	288	0	0	727
	SAILORS GULLY	0	0	0	27	789	816
		253	300	583	66	789	1,991
East Bendigo - Kennington	EAST BENDIGO	0	0	104	0	0	104
	KENNINGTON	14	0	0	22	0	36
	STRATHDALE	0	0	0	0	0	0
		14	0	104	22	0	140
Flora Hill - Spring Gully	FLORA HILL	0	48	200	0	0	248
	QUARRY HILL	0	52	21	0	0	73
	SPRING GULLY	56	0	30	0	0	86
		56	100	251	0	0	407
Heathcote	ARGYLE	0	0	0	8	0	8
	HEATHCOTE	0	0	0	260	40	300
		0	0	0	268	40	308
Kangaroo Flat - Golden Square	GOLDEN SQUARE	80	239	446	0	320	1,085
	KANGAROO FLAT	233	259	94	0	51	637
		313	498	540	0	371	1,722
Maiden Gully	MAIDEN GULLY	91	40	401	0	1,350	1,882
		91	40	401	0	1,350	1,882
Strathfieldsaye	JUNORTOUN	169	0	0	0	0	169
	STRATHFIELDSAYE	237	405	805	240	601	2,288
		406	405	805	240	601	2,457
White Hills - Ascot	ASCOT (BENDIGO)	116	102	19	0	0	237
	EPSOM	0	157	0	0	0	157
	HUNTLY	37	698	852	0	0	1,587
	WHITE HILLS	37	51	0	0	0	88
		190	1,008	871	0	0	2,069
Bendigo LGA		1,405	2,440	4,581	1,684	3,456	13,566

Source: Department of Environment, Land, Water & Planning, City of Greater Bendigo

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