

Urban Development Program



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Regional
Industrial
Report

Shire of
Moorabool



Department of
Transport, Planning and
Local Infrastructure

ACKNOWLEDGEMENTS

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EXECUTIVE SUMMARY

The Urban Development Program for Regional Victoria provides an analysis of supply and demand for residential and industrial land across parts of regional Victoria. The initial municipalities covered were Ballarat, Greater Bendigo, Latrobe and Wodonga. The next round of completed land supply assessments include the municipal areas of Wangaratta, Greater Shepparton, Warrnambool, Horsham and Mildura, as well as the G21 consortium of councils. This 'round' of land supply assessments includes the following municipalities: Bass Coast, Baw Baw, Macedon Ranges, Mitchell, Moorabool, Mount Alexander, Moyne and South Gippsland.

This component provides information on industrial supply and demand for the Shire of Moorabool.

The following industrial land supply assessment was undertaken by Spatial Economics Pty Ltd and commissioned by the Department of Transport, Planning and Local Infrastructure in conjunction with Regional Development Victoria and the Shire of Moorabool.

The report draws on information and feedback obtained through a number of comprehensive consultations with key council officers and Department of Transport, Planning and Local Infrastructure regional officers undertaken through the course of the project.

SUPPLY OF INDUSTRIAL LAND

Within the Moorabool Shire there was a total of 346 hectares of zoned industrial land as at March 2012. Of this land, 239 hectares was available for industrial development. There is 175 hectares of land zoned Industrial 1 and 171 hectares is zoned Industrial 2.

The industrial land market across the municipality of Moorabool is located to the south of Bacchus Marsh in the suburb of Maddingley and to the south of Ballan. There is also a large site at Parwan, just south of the existing estates at Maddingley.

The majority of historical activity in terms of subdivision, construction and existing industrial uses are located within the urban area of Bacchus Marsh. At this stage, Ballan has had relatively little construction and subdivision activity.

In terms of the geographic spread of zoned industrial land stocks across the municipality of Moorabool there is 327 hectares of industrial land surrounding Bacchus Marsh, including Parwan. Of this, around 231 hectares (or 71%) has been identified as supply.

In Ballan there is 19.5 hectares of land with 7.9 hectares of land identified as supply. This equates to a land area vacancy rate of 40%. There are no sites identified as future industrial. Across the municipal area there is approximately 186 net developable hectares.

RECENT ACTIVITY

From 2006 to 2011 there was on an average annual basis 3.6 industrial building approvals, the vast majority of which were located within the Moorabool – Bacchus Marsh Statistical Local Area (SLA). Of these industrial building approvals, 61% (11) were for warehouse construction and the remaining 7 approvals were for factory construction. From July 2006 to March 2012, there was an estimated \$5.5 million or \$0.96 million per annum of construction value.

From July 2006 to March 2012 there were a total of 65 zoned industrial land subdivisions, with most located in Maddingley (Bacchus Marsh).

The most common subdivision was in the range 0.1 to 0.5 hectare range with 27 (42% of total lots). Of the 65 recently constructed industrial lots, 22 remain vacant as at March 2012.

CONSUMPTION

The consumption of industrial land has been determined for the period 2004 to 2012 for the Shire of Moorabool. Consumption of industrial land refers to the construction on or use of previously unutilised industrial land over time. On an average annual basis there has been 1.9 hectares per annum of industrial land consumed. The level of industrial land consumption by suburb is:

- 1.4 hectares per annum – Maddingley; and
- 0.5 hectares per annum – Ballan.

YEARS OF SUPPLY

The number of 'years of supply' is measured by dividing estimates of the net developable area by the average annual rate of industrial land consumption.

In total there is in excess of 15 years of industrial zoned land across the whole of the municipality of Moorabool.

At a SLA/suburb level the estimated years of industrial land supply based on historic consumption rates include:

- Maddingley/Parwan
 - Zoned (IN1Z and IN2Z) – 15+ years.
- Ballan
 - Zoned (IN2Z) – 15+ years.

Using sensitivity analysis to allow for increased demand for industrial land; two scenarios are given for a 25% increase and a 50% increase in historical demand.

At a total LGA level even with these increases in demand, there is still 15+ years of supply of both zoned industrial land and future unzoned land. At the suburb level there is a plentiful supply of land in Bacchus Marsh, however in Ballan with an increase of 25% in the demand for industrial land, the number of years of supply falls to 14 and with a 50% increase in demand, the number of years of supply falls to 12.

CONCLUSIONS AND CURRENT ACTIONS

In summary there is an adequate stock of zoned and unzoned industrial land stocks to meet trend and accelerated consumption rates across the Shire of Moorabool. There is sufficient industrial land in the Bacchus Marsh district with the subdivision of the industrial land at Parwan.

There is no identified shortfall of industrial land by specific lot size..

No competition or land monopoly issues have been identified that could restrict the timely and competitive release of industrial land to meet market needs.

No issues have been identified in terms of land development dependent infrastructure provision that would prevent the timely delivery of industrial land subdivision and associated industrial purpose capital construction.

The Moorabool Shire Council is currently proposing to undertake a 'Moorabool Growth Strategy', which aims to provide a vision for the type of community Moorabool Shire will be in 2041. The strategy looks at what the Shire's future population will be and what employment, services and infrastructure will be required to meet their needs so that Council can identify what growth options will meet these needs in a sustainable and cost effective manner.

The strategy will potentially incorporate an urban growth boundary into Bacchus Marsh, which may provide physical limitations for further outward growth, and may also address the provision of fully serviced industrial land to provide local employment opportunities and service local needs.

Moorabool Shire Council is also undertaking a review of the current strategic land use documents that apply to the Ballan Township in order to produce the Ballan Structure Plan. The plan seeks to guide the shape and form of the township moving into the next 20 years, and also complements the 'Moorabool Growth Strategy'.

1.0 INTRODUCTION

1.1 PURPOSE AND CONTEXT

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.

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, 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.

1.2 PROGRAM CONTEXT

During 2009-2010, the Urban Development Program was expanded across key provincial areas across regional Victoria, and is incrementally being rolled out across the State. Initially, these included the municipalities of Ballarat, Greater Bendigo, Latrobe and Wodonga. The next group of land supply assessments for completion include the municipalities of Wangaratta, Greater Shepparton, Warrnambool, Horsham and Mildura; as well as the G21 consortium of councils.

This 'round' of land supply assessments includes the following municipalities: Bass Coast, Baw Baw, Macedon Ranges, Mitchell, Moorabool, Mount Alexander, Moyne and South Gippsland.

The expanded Urban Development Program into regional Victoria will build local and regional data bases and, importantly, provide a platform for mapping and spatial analysis in each region. This will in turn allow councils and other key stakeholders in the planning and development sectors to make more informed decisions in the growth and investment of these key areas across regional Victoria.

The industrial and residential land supply assessments were undertaken by Spatial Economics Pty Ltd, and commissioned by the Department of Transport, Planning and Local Infrastructure in conjunction with the associated councils.

1.3 2012 URBAN DEVELOPMENT PROGRAM REPORTS

The 2012 Urban Development Program Reports for Bass Coast, Baw Baw, Macedon Ranges, Mitchell, Moorabool, Mount Alexander, Moyne and South Gippsland, as well as additional Regional Reports and the metropolitan Urban Development Program Annual Report, are available online at www.dpcd.vic.gov.au/urbandevelopmentprogram

Interactive online maps are also available. MapsOnline enables users to search for specific projects, generate reports and print or download maps and statistical reports. It allows users to search for specific land supply areas by region or municipality, estate name, Melway reference, street address or lot number.

To access the Regional Urban Development Program MapsOnline visit www.land.vic.gov.au/udp

For more information about the Urban Development Program, email the Department of Transport, Planning and Local Infrastructure at urbandevelopment.program@dpcd.vic.gov.au

2.0 APPROACH AND METHODOLOGY

For the purposes of the Regional Urban Development Program, land is either zoned for industrial purposes or identified for future industrial use.

Industrial land identified by the Regional Urban Development Program includes land within the Industrial 1 Zone (IN1Z), Industrial 2 Zone (IN2Z), Industrial 3 Zone (IN3Z) and Business 3 Zone (B3Z) as well as land that have been identified for future industrial development by the relevant Council.

In addition, where appropriate land zoned Special Use (SUZ) has been included i.e. the specific purpose of the zone is to recognise or provide for the use and development of land to support industrial type uses.

The IN1Z is the most commonly used industrial zone. The Industrial 2 Zone is designed for heavy industrial uses.

The IN3Z is a specialised zone that focuses on the needs of light industry, while the B3Z is aimed at facilitating the needs of industries with a high office based component.

Assessments of land supply are dependant on the availability of aerial imagery. The most current imagery available for this assessment was taken during the summer of 2009/2010.

Information is presented at both a Statistical Local Area (SLA) and suburb (Australian Bureau of Statistics definition) level. A map highlights the location of these boundaries, this is located at the end of the report.

Note that for the purposes of this report the regional component of the expanded Urban Development Program is referred to as the 'Regional Urban Development Program'.

METHODOLOGY FOR ASSESSING INDUSTRIAL LAND STOCKS

Industrial land data is collected and assessed using lot boundary, planning scheme information and aerial imagery. Additional information on the status of specific sites is gathered through stakeholder consultation, primarily discussions with relevant Council officers.

Industrial land supply and consumption data presented as part of the Regional Urban Development Program is based on aerial photography completed in 2009 and updated to March 2012 via the consultation process. Information relating to zoning, overlays and other planning matters relates to the same period.

IDENTIFYING LAND STOCK

Industrial land stock includes all zoned industrial land within the municipality as well as land that have been identified by Council for future industrial development (unzoned stock).

In determining zoned land stock, each zoned industrial land parcel is assessed as either:

- Supply – zoned industrial land classified as available for industrial development. This includes land that is vacant, disused or assigned to marginal non-industrial uses with little capital value, such as farm sheds.
- Unavailable – zoned industrial land classified as unavailable for industrial development. This includes land already occupied by industrial uses, construction sites, major infrastructure, capital intensive farming operations, established residential premises or where it is known that the owner has strong intentions not to develop the land in the medium to long term.

In instances where industrial land was in the process of being approved for rezoning to another use (for example a Business, Residential or Mixed Use Zone) and, based on Council feedback, the land is identified as unavailable.

In several instances discrete parcels of land (within one title) have been created to demonstrate a high degree of availability for development on a particular site. For example, where there is a significant area of land with a specific use operating from a small portion of the land and it is understood the balance of the land is regarded as a potential development site, the title area has been split to show the occupied and vacant components of the land. This has been undertaken where these instances have been identified by the relevant Council officer.

ASSESSING THE STOCK OF INDUSTRIAL LAND

For all industrial land, each individual parcel is recorded with its size and the applicable zone. This enables an assessment of the overall or gross stock of land either as unavailable or available as supply. Subsequently, a further assessment is conducted to determine a net measure of supply ('net developable area').

Using a net measure of industrial land supply provides a more accurate basis for determining adequacy, as it measures the likely area available for development after accounting for local roads, open space, infrastructure requirements and environmental considerations. This varies from locality to locality, depending on site and regional-specific issues.

During 2008, the (former) Department of Sustainability and Environment released maps indicating the location and extent of significant native vegetation across Victoria utilising satellite imagery. These maps were used as part of the assessment in determining the estimated net developable area.

Where native vegetation mapping indicated a classification of 'high' or 'very high' against vacant zoned land or land identified for future industrial purposes, the area impacted was removed from the gross area of land supply.

Further higher level (or regional) take outs were removed from larger key parcels of vacant zoned land or from land identified for future industrial development. This was carried out in consultation with the relevant Council.

Finally, the total area of remaining vacant land was separated into parcels of differing gradients of size to allow for local discounts (specifically for local roads and open space). This was done through both consultation and by calculating typical take out rates for such factors from recently completed development.

Discount factors (at each level) differ between municipalities depending on a variety of factors, specifically local geography.

CALCULATING CONSUMPTION

To determine consumption based trends, the Regional Urban Development Program has examined available aerial photography between specific periods. Given the limited availability of photography, for each municipality at least two prior periods (years) have been assessed using the methodology outlined above (i.e. assessing each lot as either 'unavailable or 'supply').

In comparing the extent to which consumption has occurred land has been 'back cast' against previous periods to ensure like for like areas have been compared. This has been done to ensure that the effect of the rezoning of new industrial land or the rezoning of industrial land to non-industrial uses does not distort the actual consumption that has occurred between periods.

Industrial land consumption for Moorabool was calculated from aerial imagery capture dates at 2004 and 2009. Consumption of industrial land was updated to March 2012 via the consultation process.

YEARS OF SUPPLY

The number of 'years of supply' is measured by dividing estimates of the net developable of both zoned and unzoned areas by the average annual rate of industrial land consumption.

3.0 OVERVIEW

There are over 28,100 residents living in the Moorabool Shire as of the 2011 Census.¹ Moorabool is located 45 km west of Melbourne and is a popular commuter area. There are two major towns in Moorabool, Ballan and Bacchus Marsh.

Nearly three quarters of the shire is made up of state forest, water catchments and national parks. This makes the area a popular tourist destination. There is also an important agricultural sector in the shire.

Over half the resident population work outside the shire. The main industry sectors are agriculture, retail trade, accommodation, education and health. Manufacturing is the highest employing sector in Moorabool.²

Regional Victorian cities such as Bacchus Marsh and Ballan require an adequate supply of industrial land for jobs and services, such as manufacturing, service uses, logistics and warehousing to support continued economic development. The Urban Development Program for Regional Victoria provides the State Government and other stakeholders with a strategic overview of the supply and demand of industrial land across key regional Victorian cities.

The following industrial land supply assessment for the Shire of Moorabool is presented in a number of sections. These include:

- An assessment of industrial building approval activity by location (Statistical Local Area) in terms of both volume and value. This includes the breakdown of factory and warehouse building approvals from July 2006 to March 2012;
- Presentation of all net industrial land subdivision activity by resultant lot size distribution from July 2006 to March 2012;
- A detailed presentation of existing industrial land stocks in terms of:
 - Stock by zone type
 - Future (unzoned) stock
 - Lot size configuration and area
 - Supply/unavailable stock
 - Net developable area
- Summary of industrial land consumption i.e. built form construction on vacant industrial allotments July 2006 to March 2012. This is expressed as average annual land consumption (hectares). This forms the basis of projecting future demand for industrial land and therefore the assessment of supply adequacy;
- An assessment of adequacy of industrial land supply, expressed in years of supply by zone type/future and location. This is also expressed in terms of accelerated growth assumptions of industrial land consumption. Concluding commentary regarding the adequacy of industrial stock by zone type and lot size is included;
- Concluding commentary regarding any major impediments to the supply of industrial land to the market i.e. anti-competitive behaviour, provision of land development dependent infrastructure; and
- Detailed maps of all industrial land stocks by status and zone type.

¹ Australian Bureau of Statistics

² Moorabool Shire website

4.0 BUILDING APPROVAL ACTIVITY

A variety of factors influence the level of industrial building activity. In regional locations the key factors include:

- the investment and business activity behaviour of the private sector;
- trends in the global and local economy;
- the availability of credit and borrowings for business decisions such as a decision to make a capital investment in property for a business;
- levels of land supply in the area;
- economic activity within the region; and
- the degree to which other regional centres compete for investment.

The following provides an overview of Industrial Building Approval activity within the municipal area of Moorabool from July 2006 to June 2011 for the number of industrial building approvals. The estimated value of Building Approval activity for Moorabool is from July 2006 to March 2012.

From 2006 to 2011 there was on an average annual basis 3.6 industrial building approvals, the majority of which were located within the Moorabool – Bacchus Marsh Statistical Local Area (SLA). Of these industrial building approvals, 61% (11) were for warehouse construction and the remaining 7 approvals were for factory construction. Table 1, summarises the volume of total industrial building approval activity by year and SLA.

Table 1: Total Number of Industrial Building Approvals by Year

SLA/LGA	2006-07	2007-08	2008-09	2009-10	2010-11
Moorabool (S) - Bacchus Marsh	1	5	3	2	0
Moorabool (S) - Ballan	0	0	0	1	0
Moorabool (S) - West	0	0	1	1	0
Moorabool	1	5	4	4	4

Note: From June 2010 the ABS only report industrial building approvals at an LGA level.

Source: Australian Bureau of Statistics

Table 2 summarises the estimated construction value of industrial building approvals activity from July 2006 to March 2012. In total there was an estimated total value of approximately \$5.5 million or an average of \$0.96 million per annum. Of this estimated construction value, 52% was for warehouse construction, the residual for factory construction.

Table 2: Value (\$) of all Industrial Building Approvals by Year

SLA/LGA	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12 ³
Moorabool (S) - Bacchus Marsh	400,000	1,270,000	345,000	560,000	0	0
Moorabool (S) - Ballan	0	0	0	500,000	0	0
Moorabool (S) - West	0	0	300,000	300,000	0	0
Moorabool	400,000	1,270,000	645,000	1,360,000	1,455,000	377,260

³Excludes June Quarter 2012

Note: From June 2010 the ABS only report industrial building approvals at an LGA level.

Source: Australian Bureau of Statistics

5.0 INDUSTRIAL SUBDIVISION ACTIVITY

Detailed analysis of the cadastral database across industrial zoned areas across Moorabool was undertaken to establish the location, volume and resultant lot size of industrial subdivision activity. Table 3 summarises the results of this analysis.

From July 2006 to March 2012 there were a total of 65 zoned industrial land subdivisions, with most located in Maddingley (Bacchus Marsh).

The most common subdivision was in the range 0.1 to 0.5 hectare range with 27 (42% of total lots). Of the 65 recently constructed industrial lots, 22 remain vacant as at March 2012.

Table 3: Number of Industrial Subdivisions by Lot Size, 2006 to 2012⁴

SLA/Suburb/LGA	Less than 0.1 ha	0.1 to 0.5 ha	0.5 to 1 ha	1 to 5 ha	5 to 10 ha	10+ ha	Total Lots
Moorabool (S) - Bacchus Marsh	22	27	4	6	2	1	62
Maddingley	22	27	4	6	2	1	62
Moorabool (S) - Ballan	0	0	0	3	0	0	3
Ballan	0	0	0	3	0	0	3
Moorabool (S)	22	27	4	9	2	1	65

Source: Spatial Economics Pty Ltd and (former) Department of Planning and Community Development 2012

⁴Subdivision from July 2006 to March 2012

6.0 INDUSTRIAL LAND STOCKS

The following section of the report provides an overview of:

- existing zoned industrial land stocks;
- identified future (unzoned) industrial land stocks;
- stock of available (supply) and unavailable industrial land stocks;
- lot size distribution; and
- estimated net developable area.

The industrial land market across the municipality of Moorabool is located to the south of Bacchus Marsh in the suburb of Maddingley and to the south of Ballan. There is also a large site at Parwan, just south of the existing estates at Maddingley.

The majority of historical activity in terms of subdivision, construction and existing industrial uses are located within the urban area of Bacchus Marsh. At this stage, Ballan has had relatively little construction and subdivision activity.

6.1 INDUSTRIAL LAND STOCKS - AREA

As at March 2012, there was a total of 346 hectares zoned industrial land stock, of which 239 hectares were assessed as available (supply) for industrial purpose development. This quantum of zoned industrial supply relative to unavailable industrial land stocks equates to a total land vacancy rate of 69%. Table 4 summarises the gross area of industrial land stocks by status across the municipality of Moorabool.

In terms of the geographic spread of zoned industrial land stocks across the municipality of Moorabool, there is 327 hectares of industrial land surrounding Bacchus Marsh, including Parwan. Of this land 152 hectares is zoned Industrial 2 and 175 hectares zoned Industrial 1. There is a large supply of industrial land in Bacchus Marsh with 231 hectares of land identified as supply. The land area vacancy rate in Bacchus Marsh is 71%.

In Ballan there is 19.5 hectares of land with 7.9 hectares of land identified as supply. This equates to a land area vacancy rate of 40%. All the industrial land in Ballan is zoned Industrial 2.

There are no sites identified as future industrial.

Table 4: Gross Area (hectares) of Industrial Land Stocks, 2012

SLA/Suburb/LGA	IN1Z			IN3Z			Total Zoned Stocks			SUZ	
	Unavailable	Supply	Land Area Vacancy Rate %	Unavailable	Supply	Land Area Vacancy Rate %	Unavailable	Supply	Land Area Vacancy Rate %	Unavailable	Supply
Moorabool (S) - Bacchus Marsh	0	175.2	100%	95.6	55.9	37%	95.6	231.1	71%	1,123.6	644.4
Coimadai	0	0	0%	0	0	0%	0	0	0%	2.9	172.9
Darley	0	0	0%	0	0	0%	0	0	0%	553.4	0
Maddingley	0	58.5	100%	95.6	55.9	37%	95.6	114.4	54%	330.9	299.6
Merrimu	0	0	0%	0	0	0%	0	0	0%	32.2	0
Parwan	0	116.7	100%	0	0	0%	0.0	116.7	100%	0	80.6
Rowsley	0	0	0%	0	0	0%	0	0	0%	204.2	91.5
Moorabool (S) - Ballan	0	0	0%	11.6	7.9	40%	11.6	7.9	40%	24.2	133.1
Ballan	0	0	0%	11.6	7.9	40%	11.6	7.9	40%	0	0
Korobeit	0	0	0%	0	0	0%	0	0	0%	24.2	133.1
Moorabool (S) - West	0	0	0%	0	0	0%	0	0	0%	184.2	120.5
Dunnstown	0	0	0%	0	0	0%	0	0	0%	149.0	13.7
Lal Lal	0	0	0%	0	0	0%	0	0	0%	35.2	29.3
Navigators	0	0	0%	0	0	0%	0	0	0%	0	77.5
Moorabool (S)	0	175.2	100%	107.2	63.8	37%	107.2	239	69%	1,332.0	898.1

Source: Spatial Economics Pty Ltd and (former) Department of Planning and Community Development 2012

Note: Total zoned industrial stocks exclude SUZ land.

6.2 INDUSTRIAL LAND STOCKS – LOT SIZE DISTRIBUTION

Table 5 below details the number of zoned industrial lots by selected lot size cohorts. As at March 2012, there was a total of 240 zoned industrial allotments, of which 32 lots were identified as available supply.

Of the 275 lots in Maddingley, 114 are sized below 0.1 hectare reflecting their use for industry servicing the local economy. There are seven lots greater than 5 hectares in lots in Maddingley with six of these available for industrial development.

In Ballan there are 26 lots with no lots less than 0.1 hectare. All the lots are in the range 0.1 hectare to 5 hectares in size. Of the 26 lots, seven lots have been identified as available supply.

Table 5: Number of Industrial Allotments by Lot Size Cohort, 2012

SLA/Suburb/LGA	Less than 0.1 hectares		0.1 to 0.5 hectares		0.5 to 1 hectares		1 to 5 hectares		5 to 10 hectares		10+ hectares		Total Lots	
	Unavailable	Supply	Unavailable	Supply	Unavailable	Supply	Unavailable	Supply	Unavailable	Supply	Unavailable	Supply	Unavailable	Supply
Moorabool (S) - Bacchus Marsh	107	7	69	6	7	1	5	4	0	1	1	6	189	25
Maddingley	107	7	69	6	7	1	5	4	0	1	1	5	189	24
Parwan	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Moorabool (S) - Ballan	0	0	9	2	8	1	2	4	0	0	0	0	19	7
Ballan	0	0	9	2	8	1	2	4	0	0	0	0	19	7
Moorabool (S)	107	7	78	8	15	2	7	8	0	1	1	6	208	32

Source: Spatial Economics Pty Ltd and (former) Department of Planning and Community Development 2012

6.3 SUPPLY OF INDUSTRIAL LAND

As previously outlined there was, at March 2012, 239 gross hectares of zoned industrial land supply.

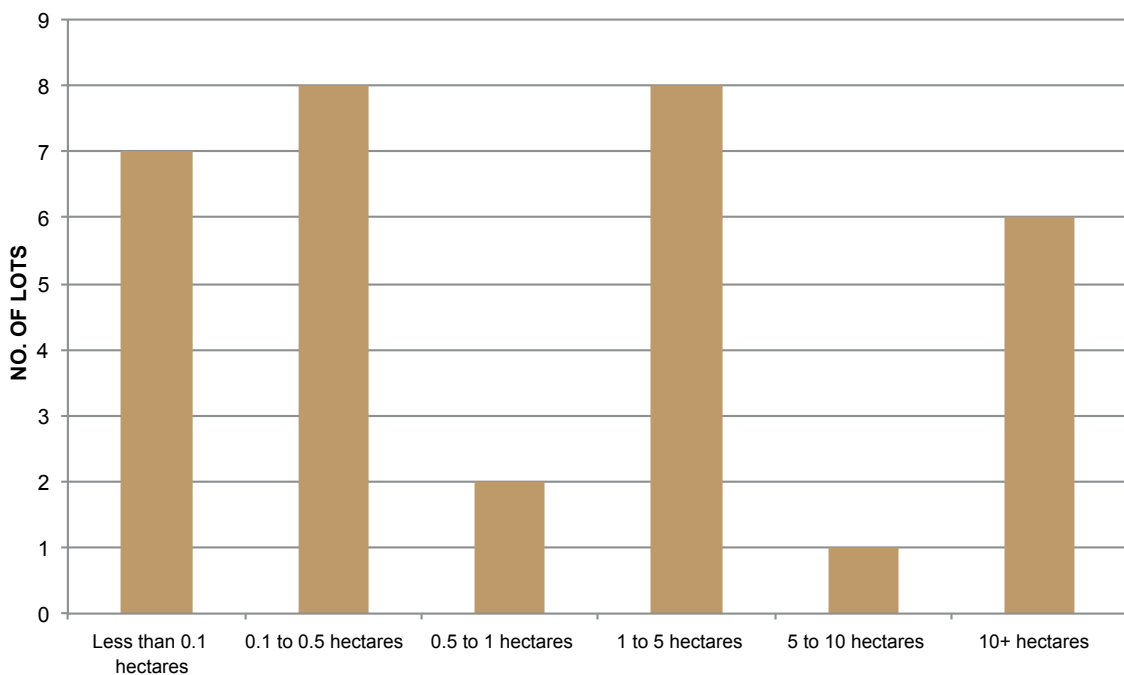
Of this identified supply, there will be a proportion of land not available for development. Such land development take-outs include, but not limited to include: local and regional roads, supporting infrastructure, open space requirements, native vegetation, excessive slope and other environmental constraints (water-ways). Land development take-outs vary by site and particularly the size of the allotment

Specific land development take-outs have been assessed on a parcel by parcel basis and results in an estimate of the net developable area i.e. the area available for actual industrial site development.

In total, for zoned industrial land supply across the municipal area, there is approximately 182 net developable hectares.

The graph below illustrates the supply of industrial allotments by selected lot size cohort. A substantial proportion (46%) of the allotments identified as supply is less than 0.5 hectares. This reflects the distribution of recent consumption, subdivision and occupied industrial lot status across the municipality. In essence, reflecting the lot size configuration of historical and existing demand.

Graph 1: Number of Industrial Lots (Supply) by Lot Size Range, 2012



Source: Spatial Economics Pty Ltd and (former) Department of Planning and Community Development 2012

From 2006 to 2011 there was on an average annual basis 3.6 industrial building approvals, of these industrial building approvals, 61% (11) were for warehouse construction and the remaining 7 approvals were for factory construction. In total there was an estimated total value of approximately \$5.5 million, of this estimated construction value, 52% was for warehouse construction.

From July 2006 to March 2012 there were a total of 65 zoned industrial land subdivisions, of the 65 recently constructed industrial lots, 22 remain vacant as at March 2012.

Given the land area vacancy rates and the volume in terms of total area of zoned industrial land supply across the Shire of Moorabool there is no identified shortfall of industrial land.

There is a significant supply of land around Bacchus Marsh. There are substantial stocks of available zoned land around Maddingley although some of this land is constrained by sections of steep land. The site at Parwan has had a development plan that divides the estate into 136 lots at an average of 0.66 hectares with a variety of lot sizes. This land will provide industrial land for Bacchus Marsh for a substantial number of years.

Ballan although smaller than Bacchus Marsh has a reasonable amount of industrial land available.

There are no identified deficiencies in the supply stock of industrial demand in terms of lot size configuration.

7.0 CONSUMPTION OF INDUSTRIAL LAND

Detailed analysis of existing and historic aerial imagery combined with zoning and cadastral information from 2004 to 2012 has been used to establish the consumption of industrial land. From 2009 to 2012, consumption of industrial land has been supplemented with 'intelligence' gathered from consultation with council and DTPLI regional officers.

Consumption of industrial land refers to the construction on or use of previously unoccupied industrial land over-time.

From this assessment the consumption of industrial land can be established by location, lot size and zoning. Consumption of industrial land is used as the primary indicator of future demand for industrial land and therefore the number of years of supply can be established.

From 2004 to 2012 on an average annual basis, 1.9 hectares per annum of industrial land has been consumed. The level of industrial land consumption by suburb is:

- 1.4 hectares per annum – Maddingley; and
- 0.5 hectares per annum – Ballan.

8.0 YEARS OF SUPPLY - INDUSTRIAL LAND

The number of 'years of supply' is measured by dividing estimates of the net developable area by the average annual rate of industrial land consumption.

Table 6 below summarises the estimated years of supply by location and supply type.

Firstly, identifying the future location and amount of consumption of industrial land is an uncertain task. Current levels of consumption are used as an indication of the adequacy of industrial land supply. However, the level and location of future consumption may change due to:

- the investment and business activity behaviour of the private sector;
- trends in the global economy;
- propensity for certain activities to agglomerate;
- directions in technology;
- population/employment trends;
- environmental impacts and adaptation; and
- social attitudes.

In total, there is in excess of 15 years industrial zoned land across the municipality of Moorabool based on the average annual rate of land consumption in the period 2004 to 2012.

Table 6: Years of Supply of Industrial Land Stocks

SLA/Suburb/LGA	Net Developable Area (hectares)			Years of Supply (years)		
	IN1Z	IN2Z	Total Zoned Area	IN1Z	IN2Z	Total Zoned Area
Moorabool (S) - Bacchus Marsh	131.4	42.3	173.7	15+	15+	15+
Coimadai	0	0	0			
Darley	0	0	0			
Maddingley	49.7	42.3	92	15+	15+	15+
Merrimu	0	0	0			
Parwan	81.7	0	81.7	15+		15+
Rowsley	0	0	0			
Moorabool (S) - Ballan	0	7.9	7.9		15+	15+
Ballan	0	7.9	7.9		15+	15+
Korobeit	0	0	0			
Moorabool (S) - West	0	0	0			
Dunnstown	0	0	0			
Lal Lal	0	0	0			
Navigators	0	0	0			
Moorabool (S)	131.4	50.2	181.6	15+	15+	15+

Source: Spatial Economics Pty Ltd and (former) Department of Planning and Community Development 2012

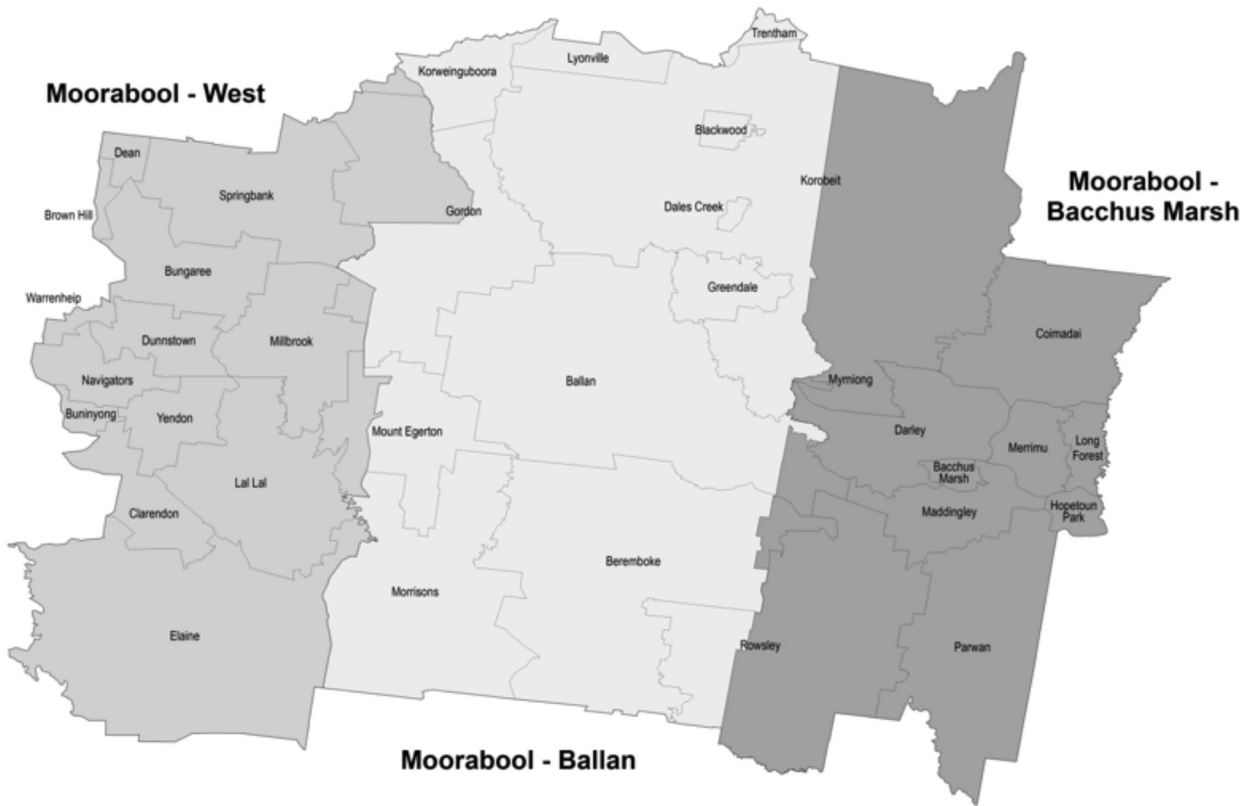
At a SLA/suburb level the estimated years of industrial land supply based on historic consumption rates include:

- Maddingley/Parwan
 - Zoned (IN1Z and IN2Z) – 15+ years.
- Ballan
 - Zoned (IN2Z) – 15+ years.

Historical industrial land consumption is a sound base to assess future consumption of industrial land consumption. However, economic/employment activity can and will invariably change. Specifically, as local resident population increase so will the requirement for additional employment land to 'service' resident population needs. In addition, there is always the likelihood of 'export' related industry development that would require additional industrial land. Due to this uncertainty relating to forecasting industrial land requirements two demand scenarios and related adequacies are presented, namely a 25% and 50% increase in the demand for industrial land.

At a total LGA level even with these increases in demand, there is still 15+ years of supply of both zoned industrial land and future unzoned land. At the suburb level there is a plentiful supply of land in Bacchus Marsh, however in Ballan with an increase of 25% in the demand for industrial land, the number of years of supply falls to 14 and with a 50% increase in demand, the number of years of supply falls to 12.

LOCATION OF SUBURBS AND STATISTICAL LOCAL AREAS – MOORABOOL



GLOSSARY OF TERMS

FUTURE INDUSTRIAL LAND

Land identified by the relevant municipal authority for future industrial development and current zoning not supportive of industrial development. Land which has an 'Urban Growth Zone' applied, and where a precinct structure plan has not yet been approved, may also fall into this category.

GROSS INDUSTRIAL LAND AREA

Measures the area of industrial land at a cadastral lot/parcel level.

LOCAL GOVERNMENT AREA (LGA)

A geographical area that is administered by a local council.

LOT (INDUSTRIAL)

Discrete area of land defined by a parcel boundary identified in the Vicmap Property Database. Each lot has an associated land title, and is either zoned for industrial purposes or identified for future industrial use.

MAPSONLINE

An interactive online program that gives users the ability to search for specific projects, generate reports, and print or download maps and statistical reports. It also allows the user to search for specific land supply areas by region or LGA, estate name, Melway reference, street address or lot number, and contains mapping and statistical information sourced through the Urban Development Program. Registered users can also make site-specific feedback on-line.

NET INDUSTRIAL LAND SUPPLY

Measures the estimated area available for industrial development after accounting for local roads, open space, infrastructure and environmental considerations.

PRECINCT STRUCTURE PLANS

In the Urban Growth Zone (UGZ), the precinct structure plan (PSP) is the key document that triggers the conversion of non-urban land into urban land. A precinct structure plan is a long-term strategic plan that describes how a precinct or a series of sites will be developed.

STATISTICAL LOCAL AREA (SLA)

A geographical area created by the Australian Bureau of Statistics for statistical purposes. Victoria is divided into 200 SLAs. SLAs may be the same as an LGA or in most cases several SLAs aggregate to form LGAs.

SUBURB (AUSTRALIAN BUREAU OF STATISTICS)

This is a census-specific area where Collection Districts are aggregated to approximate suburbs.

SUPPLY (INDUSTRIAL LAND)

Zoned industrial land classified as suitable for industrial development. This includes land that is vacant, disused or assigned to marginal non-industrial uses with little capital value, such as farm sheds or vehicle storage.

UNAVAILABLE (INDUSTRIAL LAND)

Zoned industrial land classified as unavailable for industrial development. This includes land already occupied by industrial uses, construction sites, major infrastructure, intensive farming operations, established residential premises or where ownership development intentions indicate the land will not be developed in the foreseeable future.

