

Planning For Employment and Industry in Melbourne's Growth Areas

**Growth Areas Authority
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Executive Summary

A key part of the preparation of strategic plans (Growth Corridor Plans) to guide the future development of the areas brought into Melbourne's urban growth boundary (UGB) in 2010 has been consideration of likely future requirements for business and employment development in the growth areas.

Ensuring adequate provision of industrial land for Melbourne is an especially important component of growth area planning. It is estimated that employment in manufacturing, logistics and related businesses located on industrial land will account for forty to forty five percent of total future employment in the growth areas.

In addition the growth areas are the location of close to half of Melbourne's vacant industrial land and account for a similar share of the annual take-up of industrial land across the metropolitan area. As the supply of vacant industrial land in more established suburbs declines through the take-up of land and rezoning of land for as a result of urban renewal and other processes, the growth areas contribution to meeting Melbourne's future industrial land requirements will progressively increase.

Ensuring an adequate supply of well located industrial land in the growth areas will therefore be a key element of maintaining Melbourne's competitiveness as Australia's premier manufacturing and logistics centre.

This report summarises the approach taken and conclusions reached in planning for future industrial land requirements in the growth areas.

The Growth Corridor Plans have adopted the aspirational objective of ensuring that the Growth Corridors provide sufficient areas for the future development of town centres, mixed-use areas, industrial estates and major community facilities to enable, over time, the provision of one additional job for every new dwelling constructed in the growth area. If this objective is achieved it is estimated that at least forty to forty five percent of all growth area employment will be in businesses located in industrial areas.

Three technical reports were commissioned to assist in estimating the likely future demand for industrial land in the growth areas, and to identify the critical factors that should guide the location and planning of future industrial estates,

The consultants engaged to prepare these reports were Jones Lang LaSalle, Essential Economics and Spatial Economics.

The three reports have differing scopes and were prepared using differing methodologies:

- The Jones Lang LaSalle report focussed specifically on the drivers of future demand for industrial land in the growth areas.
- The Essential Economics report examined land requirements associated with the full range of future employment types in the growth areas if the aspirational employment target is to be achieved.
- The Spatial Economics report focussed on the level of vacant industrial land stocks and recent trends in the take-up of industrial land. Unlike the other two reports its forecasts of the level and distribution of future industrial land demand were entirely trend based.

The engagement of three separate consultants was designed to ensure a good understanding of the industrial land market, to develop robust estimates of industrial land requirements in the Growth Corridor Plans.

This report summarises the main findings of the consultants work, and outlines how these have been applied within the draft Growth Corridor Plans.

Over recent years the total annual consumption of industrial land in Melbourne has averaged around 280 to 300 hectares. The remaining stock of vacant zoned industrial land within the pre-2010 urban growth boundary totalled approximately 6,800 hectares in 2009. If fully developed for industrial purposes this is sufficient to provide for about twenty years demand at recent average consumption levels.

However industrial areas currently provide for a range of non-industrial uses and not all of the current stock of vacant industrial land may eventually be developed for industrial purposes. The Growth Corridor Plans need to ensure that adequate longer-term provision is made for metropolitan industrial land demand as existing land stocks within more established suburbs are used up (whether for industry or other uses).

The Growth Corridor Plans therefore include a total provision for an *additional* 5000 hectares of industrial land, including around 800 hectares of commercial and mixed use precincts that are suitable for industrial purposes. This is sufficient to provide for around fifteen years of additional metropolitan industrial land supply, which is in addition to the existing 25-year supply of land for industrial purposes within the rest of metropolitan Melbourne.

(i.e. to ensure an adequate metropolitan supply of industrial land out until at least 2040).

The allocation of this additional stock of industrial land in the growth corridors has been influenced by the expected distribution of population and employment growth the growth corridors, analysis of the key drivers of location decisions of industrial land users prepared by Jones Lang LaSalle, and existing locations of vacant industrial land supply. This has resulted in approximately ninety percent of the proposed increase in industrial land supplies being in the western, northern

and Sunbury growth corridors.

The proposed allocation of additional industrial, mixed-use and commercial land by growth corridor is summarised below:

Corridor	Industrial (hectares)	Commercial - gross (hectares)	Land assumed industrial within Commercial Precinct* (hectares)	Mixed Use - gross (hectares)	Land assumed industrial within Mixed Use Precincts* (hectares)	Total Industrial (hectares)
West	2000	1000	500	200	50	2550
North	1700	70	35	40	10	1745
Sunbury	210	-	-	-	-	210
South-east	260	380	190	170	42.5	492
Total	4170	1450	725	410	102.5	4997

(* - The above land budget has assumed that around half of land within commercial precincts, and one quarter of land within mixed use precincts will be developed for industrial purposes).

This proposed distribution reflects both forecast demand for industrial land in each region, with major influences being the superior access of the western and northern growth corridors to the Port of Melbourne, Melbourne Airport and to interstate freeway and rail links and also the relatively greater number of years supply that already exists in the south-eastern growth corridor.

1. The Context – Planning The Extended Growth Areas

1.1 Preparation of Corridor Plans for Melbourne’s Growth Areas

Melbourne’s growth areas incorporate those parts of seven councils (Wyndham, Melton, Hume, Mitchell, Whittlesea, Casey and Cardinia) that are within Melbourne’s urban growth boundary (UGB). The UGB was extended in 2010 to incorporate an additional 43,700 hectares of which approximately 24,500 ha is potentially able to be developed for urban purposes.

At currently forecast population growth rates the expanded growth areas incorporate sufficient capacity to provide for Melbourne’s growth for up to the next thirty years

Following the 2010 extension of the UGB it is necessary to prepare Growth Corridor Plans to guide future development of the expanded growth areas. Preparation of the draft Growth Corridor Plans has involved a whole-of-government process coordinated by the Growth Areas Authority.

The Growth Corridor Plans identify:

- areas of high environmental or landscape value that should be protected from development together with any other constraints that may limit the ability of areas to be developed during the life of the Corridor Plan;
- areas suitable for urban development and the broad form of development (i.e. residential, retail/commercial, mixed use, industrial) that is appropriate for each area;
- locations that are suitable to meet the variety of business and employment needs of the growth area (town centres, commercial and mixed use areas, industrial areas); and
- the strategic transport and other infrastructure reservation required to provide for future urban development.

1.2 Population Capacity of the Expanded Growth Areas

The GAA has estimated that the expanded growth areas have the capacity to eventually accommodate a population of between 750,000 and 1,300,000 people. The actual population capacity will depend upon the final extent of the areas within the new UGB that are able to be developed for urban purposes, the amount of housing incorporated into town centres, and the average development densities achieved in residential precincts.

This scale of population growth would translate into a workforce estimated at between 280,000 and 460,000.

Planning for town centres, mixed-use precincts and industrial areas in the Growth

Corridor Plans reflects these estimates of population and workforce growth.

1.3 Business and Employment Development – A Key Focus For Corridor Plans

A key issue in preparation of the draft Growth Corridor Plans has been ensuring that sufficient provision is made for future business and employment development to provide for Melbourne's needs and to provide local employment opportunities.

The development of new urban areas on Melbourne's fringe has typically been characterised by housing and population outpacing employment growth and by local employment opportunities being substantially less diverse than those available in more established suburbs. It has often taken many years for employment opportunities in new development areas to grow and diversify to the point that they more closely match those existing in established middle-ring suburbs.

This has resulted in a need for residents in newly developed suburbs to travel relatively long distances to access jobs with a consequential increase in travel times, congestion and associated costs. A secondary effect has been to reduce opportunities for women with young families to find local employment opportunities.

For the purpose of growth area planning the GAA has therefore adopted an aspirational objective of ensuring that the Growth Corridor Plans provide sufficient opportunities to enable development of one new job for each additional household accommodated in the growth areas.

The aim is to ensure that, over time, the growth areas are able to achieve a business and jobs mix similar to that typically found in Melbourne's middle suburbs. To achieve this goal it will be necessary to make provision for a variety of employment opportunities - including new town centres to accommodate retail, services and office employment, employment in local and regional community facilities, the development of substantial new industrial estates to serve metropolitan markets, and mixed-use and service trades areas to meet localised needs.

It has to be recognised that designating land for employment purposes within the Growth Corridor Plan will not in itself ensure the provision of an appropriate level and mix of employment opportunities in each growth area. The actual level and mix of employment that develops will depend upon future decisions made by a diverse and large number of individual businesses and public sector agencies. However it is important that the Growth Corridor Plans facilitate land use opportunities for business and employment development to occur over time.

Planning for the future provision of industrial land is especially significant. Employment in manufacturing, logistics and similar businesses located in industrial areas is expected to be the largest component of the total employment mix in the growth areas, and industry has particular land use requirements.

The growth areas play a critical role in providing for metropolitan wide

requirements for land for industrial and logistics uses accounting for about half of the take-up of industrial land in Melbourne. With the ongoing diversion of industrial land in inner suburbs to higher value uses and the progressive depletion of industrial land stocks in other established areas of Melbourne, the growth areas will increasingly be the location for much of the future manufacturing and logistics investment in the metropolitan area.

It is therefore critical to ensure that the Growth Corridor Plans set aside sufficient land to provide for future industrial development needs. For the whole of metropolitan Melbourne

1.3 Planning For Industrial Land Supplies In The Growth Areas

Companies and activities locating in industrial areas (such as manufacturing and transport and logistics businesses) are expected to account for between forty and forty five percent of total employment in the growth areas. Employment densities in industrial areas are significantly lower than those in mixed-use areas and town centres. As a result relatively large areas will need to be set aside for future industrial estates.

In addition industrial areas have very particular requirements in terms of suitable landforms, road and rail access and compatibility with adjacent uses. For the major industrial areas serving metropolitan markets it is also important that they are of a sufficient scale to allow for the development, over time, of clusters of related businesses. An optimal size of at least 200 hectares has therefore been set as a desirable target for larger industrial precincts.

Specialist land use requirements for industry means that providing for future development of industrial estates has been a key issue in terms of overall growth corridor planning.

From this point of view, preparation of the Growth Corridor Plans has involved consideration of:

- the future demand for various industrial activities
- the total amount of industrial land that needs to be set aside for future manufacturing, logistics and associated uses in order to provide for both local and metropolitan wide industrial requirements;
- the appropriate distribution of this industrial land supply between individual growth areas and between larger estates serving the metropolitan industrial land market and smaller estates serving more localised service trades needs; and
- specific land use criteria, such as access, proximity to sea and air ports, infrastructure and other planning requirements for future industrial development areas.

This report summarises the approach taken and conclusions reached in planning for future industrial land requirements in the growth areas.

1.4 Specialist Investigations

As part of the process of preparing the Growth Corridor Plans a number of specialist consultant studies¹ were commissioned during 2010 in relation to aspects of planning for future employment growth, town centre development and industrial land requirements.

The key studies were:

- a report on *Activity Centre and Employment Planning* prepared by Essential Economics for the GAA.

A major focus of the Essential Economics report was a detailed assessment of requirements for future town centre development in the growth areas. The report estimated the number and size of future principal, major and neighbourhood town centres in the growth areas and the likely level of retail, offices, etc employment in each category of town centre.

Essential Economics also developed a model to estimate the required distribution of jobs between areas if the GAA's objective of providing one job for each additional household in the growth areas. This included residential precincts (home based employment and employment in local community facilities), town centres (primarily retail, office and service employment), employment in district and regional community facilities, mixed-use precincts (commercial, manufacturing and research and development employment) and industrial areas (principally manufacturing, logistics, service trades and related employment).

Based upon the estimated future household and workforce numbers in the growth areas, together with an assessment of likely employment densities in industrial areas, the model was used to calculate the minimum total area of industrial, commercial and mixed use land that should be provided in each growth corridor.

The Essential Economics report also introduced the concept of distinguishing between large (generally over 200 hectares) industrial estates serving a predominately metropolitan market and smaller (generally 20+ hectares) industrial/service trades precincts principally serving more local markets;

- a study into *The Take-Up Of Industrial Land And Future Land Requirements In Melbourne* prepared by Jones Lang LaSalle for the Department of Innovation, Industry and Regional Development.

The Jones Lang LaSalle report focussed particularly on recent trends in the use of industrial land, the expected 'drivers' of future demand for industrial land in the Melbourne region, and the optimal distribution of future industrial land between Melbourne's growth corridors. The last of these elements included consideration of the impact of proximity to the Port of

Melbourne and the airport, freeway and rail access to both metropolitan and interstate markets, and the location of the industrial workforce in influencing the location of future development of industrial land.

Having regard to these factors the report calculated estimated future industrial land requirements for the growth corridors as a whole and for each local government council in the growth areas;

- the third report was an analysis of the *Use, Zoning, Distribution And Consumption Of Industrial Land* prepared by Spatial Economics for the GAA.

The Spatial Economics report reviewed the level of existing stocks of industrial land and the rate of take-up of vacant industrial land across the metropolitan region. It also analysed the demand for industrial land in terms of industry category, industrial zone type and preferred lot sizes.

Using this analysis Spatial Economics prepared a trend based forecast of future industrial land requirements in each growth corridor.

This report also examined the range of land located within industrial precincts across metropolitan Melbourne. Notably, it found that non-industrial uses (including bulky goods retailing, service businesses, some community uses, etc) typically account for up to thirty percent of total land use within industrial zones.

This report draws together key aspects of those reports. It focuses principally on those elements of the reports that relate to the issue of planning for future industrial land supply.

2. Providing for Future Employment in the Growth Areas

Balancing Population and Employment Growth

Before discussing in detail the provision made in the Growth Corridor Plans for future development of industrial land, it is worth briefly summarising the distribution of overall employment opportunities being planned for in the growth areas.

The areas covered by the Growth Corridor Plans provide capacity for a future population of between 750,000 and 1.3 million. This equates to between 276,000 and 462,000 additional households.

As noted above the GAA has set an aspirational goal of providing opportunities for the development of one additional job for each new dwelling constructed in the growth areas. Achieving this goal will take time and needs to have regard not only to job opportunities within the growth area but also opportunities within the sub-region (i.e. within approximately 10 kilometres).

The Growth Corridor Plans therefore provide opportunities for future development of between 280,000 and 460,000 additional jobs – that is sufficient to provide opportunities to achieve the GAA’s goal of providing for development of at least one new job for each additional household in the growth areas.

The Essential Economics report suggested that in order to achieve this goal provision should be made in the Growth Corridor Plans for the following future employment distribution:

- | | |
|--|--------|
| ○ home based employment | 5-10% |
| ○ town centres (principal, major and local) employment including retail, office and service jobs | 25-30% |
| ○ employment in community facilities [including both local and regional scale community facilities and services] | 25-30% |
| ○ employment in industrial and mixed use areas | 40-45% |

Essential Economics examined existing employment patterns across established parts of metropolitan Melbourne, to determine the number, type and location of jobs created. This was done at three levels:

- Examination of ABS Census data to identify the typical extent to which people work from home
- Analysis of detailed industry data to determine employment type and broad location

- Analysis of industrial data by type, land area land use zoning, to provide an assessment of employment densities by location.

The exact mix between these employment types will vary between growth areas and will take time to evolve.

For example, employment in community facilities and services will develop in stages over many years, beginning with neighborhood scale facilities (primary schools, local health centres, local community and recreation facilities, etc) and eventually progressing to include higher order facilities (such as health and education facilities serving regional catchments, district and regional scale recreation facilities, etc).

Achieving an employment mix approximating that shown above would mean that the range of employment opportunities available in the growth areas would come to closely resemble that which already exists in Melbourne's middle suburbs.

Providing Diverse Opportunities For Employment Growth

As outlined above the planned employment opportunities will take a variety of forms. These include:

- home based employment.

A mix of activities such as people working in home offices, trades people travelling to job sites from a base at their home and possibly other small scale businesses located in residential areas;

- employment in neighbourhood, major and principal town centres.

At the level of individual residential precincts another significant source of employment will be local supermarkets, other shops, personal services and smaller scale offices based in neighbourhood town centres. The scale of employment in such centres will vary in line with the size of the precinct and also how well located they are to attract small business activity.

Major and principal town centres will accommodate a broader mix of activities and collectively account for a significant percentage of total future employment in the growth areas.

Major town centres will serve sub-regional catchments incorporating a number of residential precincts that in total will vary in size from 20,000 to 60,000 people. They will provide a similar but lesser range of facilities and services than the principal town centres. A number of additional major town centres are proposed in each of the Growth Corridor Plans.

Principal town centres will serve a catchment in the order of 100,000 people or more. They will accommodate activities that serve broader regional needs including specialty retail facilities serving regional

catchments, higher order business services, They will be located on those parts of the public transport network that have the highest capacity and level of service.

One new principle town centre is proposed in each of the Melbourne North and Melbourne West Growth Corridor Plans. No new principle town centres are proposed in the Melbourne South East and Sunbury Growth Corridor Plans.

- employment in community facilities and services.

Employment in local child care centres, government and non-government primary and secondary schools, local doctors offices and medical centres, and other local community and recreation facilities will be among the earliest sources of employment in new suburbs.

Over time, district and regional-scale community, health education and recreation facilities will also develop, eventually becoming an important part of the mix of employment opportunities in the growth areas.

- employment in industrial and mixed use areas.

The Growth Corridor Plans make provision for a variety of options for development of employment in large and smaller industrial areas and mixed use precincts.

Mixed-use employment areas will provide for a mix of uses that may include components of office or research and development activities associated with manufacturing activities. They may also contain other uses that have relatively high employment densities but require larger sites and are therefore are not suitable for location within town centres. Where possible mixed-use areas will be located adjacent to Principle town centres or along major public transport routes.

Industrial estates provide for industrial, logistics and service trades uses that require larger and less expensive sites. In strategic planning for future development of the growth areas provision has been made for two types of industrial precinct.

The larger (typically at least 200 + hectares and in some cases substantially more) industrial estates have been located to have very good freeway and arterial road access and are designed to provide for the industrial land requirements of firms that serve metropolitan wide, national or international markets.

Smaller (typically around 20 hectare) service trades areas will be designed to provide for the needs of smaller business serving more local markets.

The larger industrial areas are identified in the draft Growth Corridor

Plans. The smaller local industrial/service trades areas will be identified through the subsequent precinct structure planning process.

The Allocation Of Land For Industrial and Mixed Use Precincts

As outlined above employment in industrial and mixed-use areas is expected to be the most significant component of total employment in the growth areas – accounting for up to 45% of total employment. This equates to a total of between 110,000 and 210,000 jobs in industrial and mixed-use areas by the time that the expanded growth areas are fully developed.

The draft Growth Corridor Plans identify sufficient areas for development of future industrial and mixed use employment areas to accommodate this scale of employment growth.

In addition to up to 4,800 hectares of industrial land and 1,700 hectares of mixed-use land already identified in areas within the pre-2010 UGB, the Growth Corridor Plans provide for development of up to 5000 hectares of industrial land, including 800 hectares of industrial land within commercial and mixed-use precincts in the areas brought into the UGB in 2010.

3. An Overview of Trends in Industrial Land Use And Land Stocks in Melbourne

The Changing Nature Of Industrial Land Use

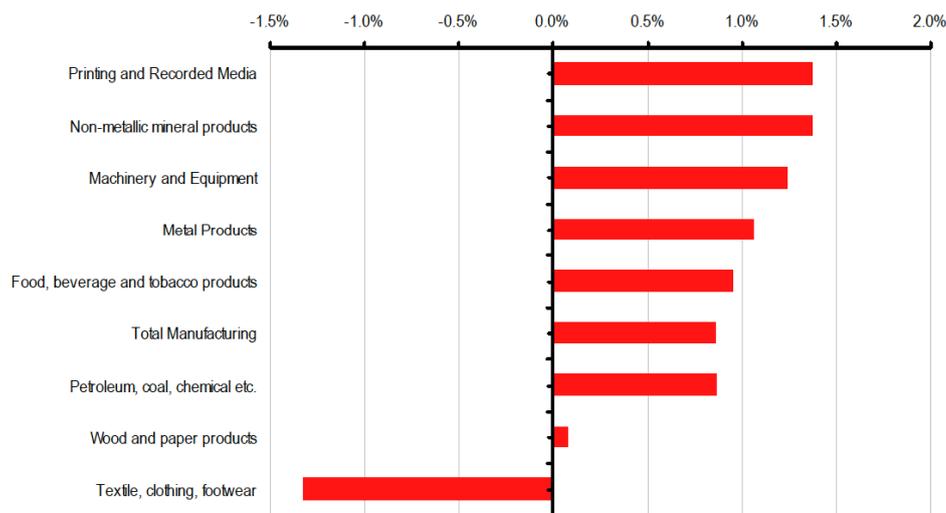
The industrial landscape of Melbourne, and indeed Australia, has changed markedly over the past 25 years.

Central to these changes has been a change in the composition of the manufacturing sector and a reduction in its share of Australia's GDP from approximately 20% to less than 10%. The value of output from the manufacturing sector has however continued to grow but at a slower rate when compared to the services and mining sectors.

The opening up of the Australian economy to increased international competition has affected different sub-sectors of manufacturing industry to differing extents. This is illustrated in the following graph from the Jones Lang LaSalle report:

Figure 4.1.6: Australian industrial production by manufacturing industry sub-sector, five year annual average growth, 1980–2009

source: Jones Lang LaSalle Strategic Consulting, ABS



Typically companies have responded to increased domestic and foreign competition by seeking to increase efficiency, operate in less expensive locations, become more capital intensive and shift towards higher value-added products. They have also often moved to outsource non-core functions. Often this has involved moving production offshore and importing products that are either already assembled or require only light assembly.

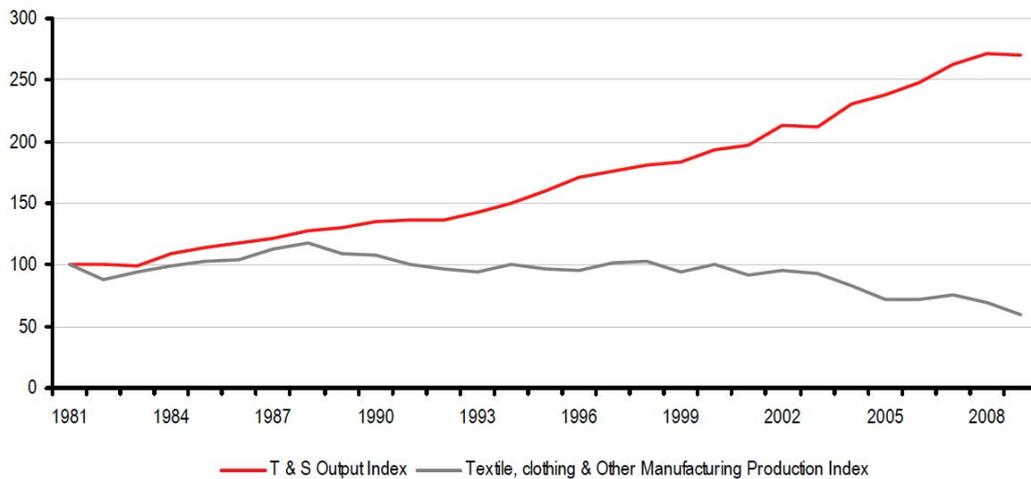
Despite these changes manufacturing still accounts for over 10% of Victoria's economy and will continue to be an important driver of demand for industrial land.

The Increasing Importance Of Logistics As A Use Of Industrial Land

These trends have been accompanied by, and are in part responsible for, an increase in the relative importance of the logistics and transport industry. The inverse relationship between trends in the two sectors is illustrated in the graph below (again drawn from the Jones Lang LaSalle report):

Figure 4.1.7: Index growth in T & S output and textile, clothing & footwear production, 1981–2009*

Source: Jones Lang LaSalle Research & Consulting, ABS, Access Economics
base year 1981 = 100



Many companies have changed their supply-chain strategies to cut costs and improve operational efficiencies, outsourcing their storage needs or consolidating warehousing into larger distribution centres. In the City of Greater Dandenong, for example, this has seen a shift in typical warehouse sizes from 10,000-15,000 square metres fifteen years ago to 40,000 square metres or more today.

Such changes in company strategy contributed to both the demand for and supply of Australian industrial property growing dramatically from around the year 2000 up until the global financial crisis. The expansion was far in excess of that indicated by Australia’s economic growth, a traditional driver of demand for industrial property.

The shift to larger warehouse and distribution centres has made proximity to freeways, container ports and airports more important in determining demand for industrial land. In Melbourne’s case this has seen a shift towards the western and northern suburbs (and increasingly the western and northern growth areas) as the preferred locations for manufacturing as well as logistics uses.

Melbourne’s Role As A Logistics Centre

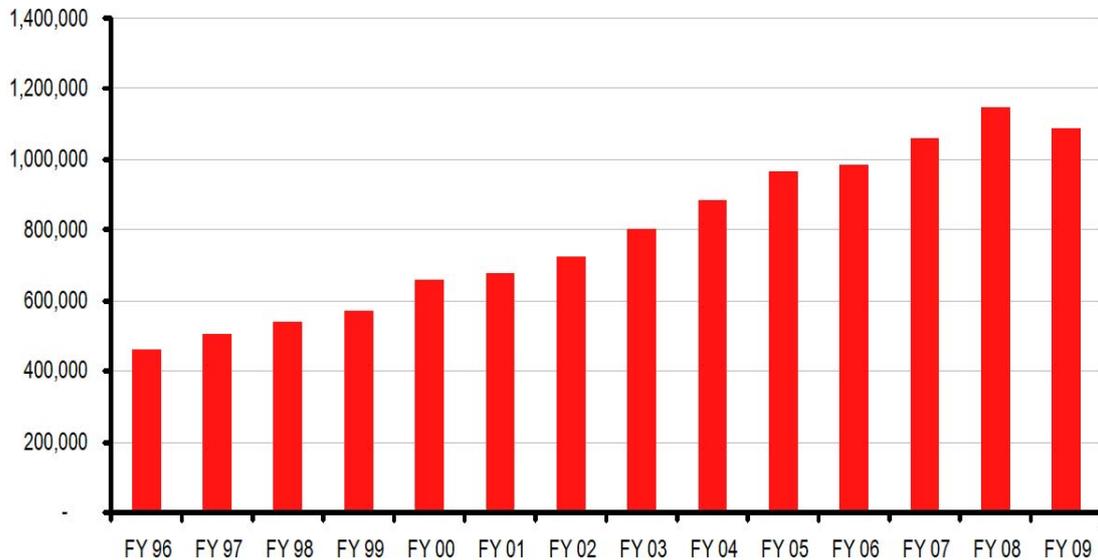
As a logistics centre, Melbourne has several key strategic competitive advantages over other Australian cities. They include the role of the Port of Melbourne as Australia’s largest container port, the substantial share of national airfreight that moves through Tullamarine Airport, good infrastructure provision (particularly rail and freeway access) and relatively lower industrial land costs.

The Port of Melbourne continues to see strong growth in container traffic (see

graph below) and has the capacity to continue to grow its container trade. In addition strategic planning for Melbourne has identified opportunity to develop a second container port at Hastings.

Figure 4.3.3: Containerised imports (TEUs), Port of Melbourne, FY96–FY09

source: Jones Lang LaSalle Research & Consulting, Port of Melbourne Corporation



Consumption of Industrial Land In Melbourne

As an input to planning for the growth areas Jones Lang LaSalle estimated the average annual consumption and remaining supply of industrial land in the Melbourne metropolitan region. The Jones Lang LaSalle analysis breaks the metropolitan industrial land market into the five sub-regions – inner (or city fringe), west, north, east and south – shown below.

Figure 5.1: Melbourne Industrial Precincts



The Jones Lang LaSalle report summarised industrial land trends in each of these regions as follows:

- The ‘City Fringe’ Region

The city fringe industrial land supply is primarily located in Port Melbourne with industrial land in other areas having been progressively converted to other higher value uses.

As land values and rents are higher than in other precincts a number of industrial land users have chosen to move to larger, more affordable lots in the west and north. What remains is increasingly characterised by smaller strata titles developments with significant high tech and office components.

The city fringe region is expected to make a negligible contribution to Melbourne’s future industrial land supply.

- The Western Region

The western region comprises both an established inner precinct and developing, strategically important industrial areas in middle and outer suburbs. Recent and committed improvements to the freeway network (the Deer Park Bypass and the Metropolitan Ring Road upgrade) and proximity to the Port of Melbourne have resulted in the region having a high take-up of available industrial land.

The western region accounts for 28% of Melbourne's future industrial land supply.

- The Eastern Region

Industrial land stocks in Melbourne's eastern suburbs are largely developed and the region is expected to account for only 4% of Melbourne's forecast industrial land supply.

- The Southern Region

Melbourne's south-east suburbs were a traditional location for manufacturing and warehousing. With changes in the structure of the economy many of these traditional sites are being transformed into service centres with a higher office component. Recent industrial land releases have been focused on areas further out where larger, more affordable, sites benefit from access to the Eastlink freeway.

There is a very substantial supply of potential industrial land in the outer south-east – the region accounts for some 43% of the current supply of land already identified for future industrial uses.

Jones Lang LaSalle forecast that this supply may be taken up relatively slowly in future given the preference of the market for sites in the west and north with relatively better access to the Port of Melbourne and interstate freeway and rail links.

- The Northern Region

The northern region is characterised by the availability of larger lots and relatively cheaper rents. It has good rail and freeway access (with construction of the Craigieburn bypass) and is also an attractive location for airport related industrial activity. The region is the location of a number of large distribution centres.

The northern region contains 25% of the metropolitan areas current supply of developable industrial land.

The Jones Lang LaSalle analysis showed that consumption of industrial land over the past decade had been concentrated in the west and south regions – broadly in line with the distribution of industrial land stocks across metropolitan Melbourne. Take-up rates have remained broadly unchanged with the north the only region to see a consistent rise in consumption.

Consumption trends by region are summarized in the table below:

Table 5.2.1: Average annual consumption of industrial land – region in metropolitan Melbourne

Source: VIC DPCD, Jones Lang LaSalle Research & Consulting

Region	1995 to 2000 (Ha)	2000 to 2005 (Ha)	2005 to 2009 (Ha)
West	119	111	105
South	116	101	96
North	44	54	67
East	26	17	13
Inner	-1	1	1
Metropolitan Melbourne	304	284	281

Current Industrial Land Stocks

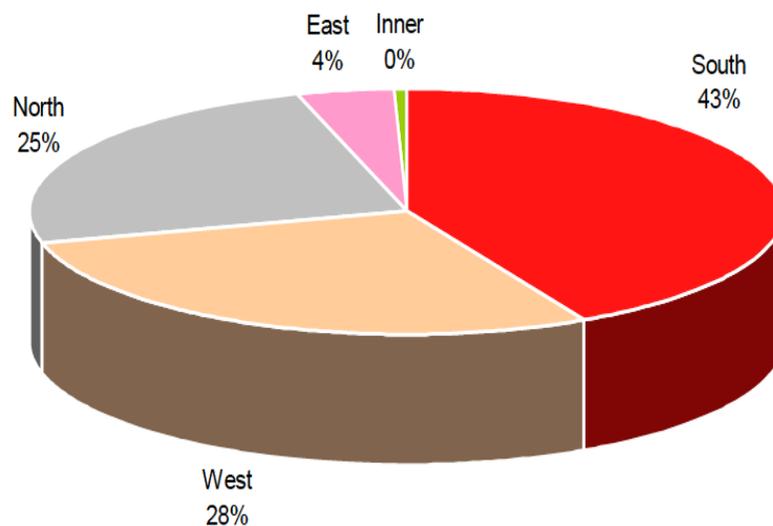
Jones Lang LaSalle estimate the current net supply of vacant developable industrial land across metropolitan Melbourne as close to 6,800 hectares. The definition of ‘net supply’ excludes local roads, open space, land required for infrastructure and land constrained by environmental or other factors. It therefore provides a good measure of the estimated area actually available for industrial development.

The distribution of this land supply between what Jones Lang LaSalle defines as Melbourne’s ‘city fringe’ suburbs and the west, north, south and eastern regions is shown in the graphs below:

Figure 5.1.4: Forecast net developable land supply by region in metropolitan Melbourne – 2009

Source: VIC DPCD, 2009 UDP

Note: Estimated stock of zoned vacant industrial land stocks (net developable area – Ha)

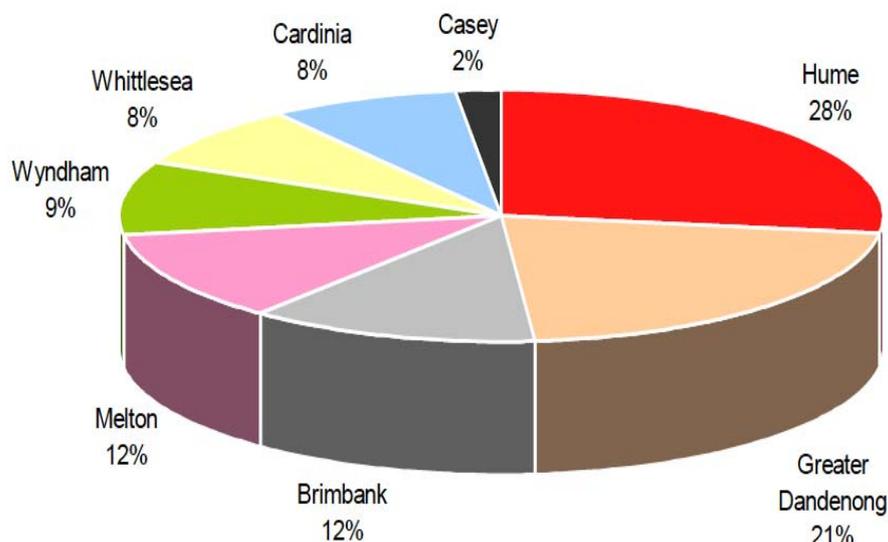


On a local government area basis the distribution of the bulk of the remaining industrial land supply is as shown in the graph below:

Figure 5.1.5: Forecast net developable land supply in study area LGAs – 2009

Source: VIC DPCD, 2009 UDP

Note: Estimated stock of zoned vacant industrial land stocks (net developable area – Ha)



In terms of industrial land stocks by zone type Jones Lang LaSalle estimated current stock levels as follows:

Table 5.1.11: Estimated stock of vacant industrial land by zoning (net developable area) – region in metropolitan Melbourne, 2009

Source: VIC DPCD, Jones Lang LaSalle Research & Consulting

Region	Industrial 1	Industrial 2	Business 3	Airport Business Park	Comprehensive Development Zone	All zoned land
South	53%	13%	25%	11%	82%	42%
West	28%	87%	53%	16%	18%	28%
North	11%	0%	20%	57%	0%	25%
East	7%	0%	2%	14%	0%	4%
Inner	0%	0%	0%	3%	0%	0%
Metropolitan Melbourne	100%	100%	100%	100%	100%	100%

Just over 70% of the total stock of vacant developable industrial land is within industrial zones (Industrial 1, 2 or 3) with a further 14% in Comprehensive Development Zones and smaller amounts in Business 3 Zones and the Airport Business Park Zone.

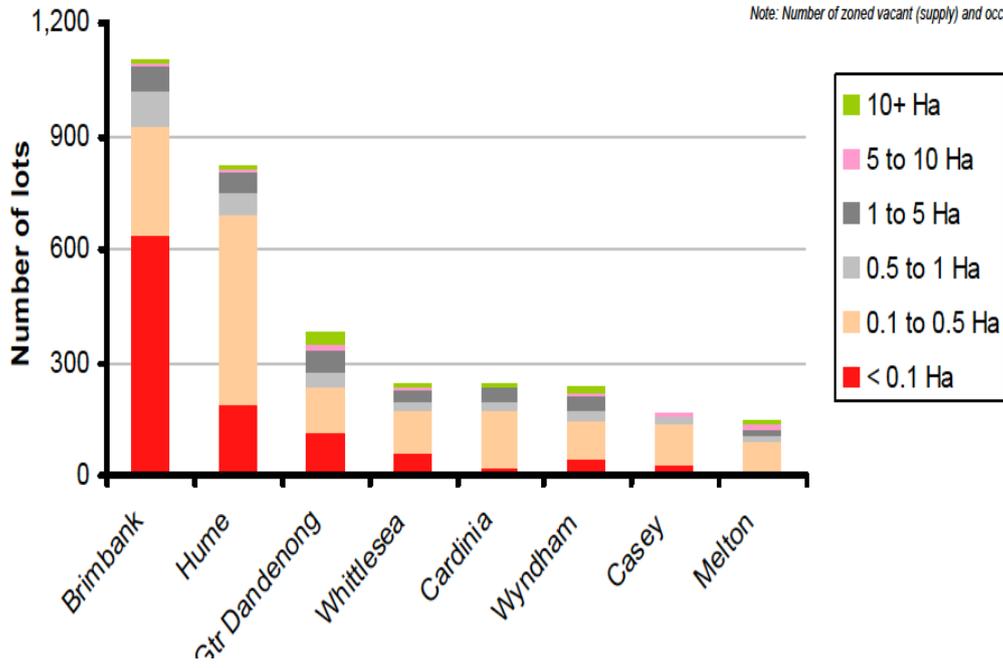
It will be important in planning for future industrial development in the growth areas to provide for a mix of zone types so that there are suitable options available to meet the needs of all types of business investors.

In terms of supply by lot size, lots of under 0.5 hectares dominates the current supply across the metropolitan area. This is shown in the graph below:

Figure 5.1.6: Smaller-sized lots dominate future land supply in study area

Source: VIC DPCCD, 2009 UDP

Note: Number of zoned vacant (supply) and occupied industrial lots by lot size cohort



4 The Role Of Growth Areas In Melbourne's Future Industrial Land Supply

Growth Areas Increasing Role In Industrial Land Supply

As noted earlier in this report the growth areas already play an important role in Melbourne's industrial land supply.

Wyndham, Melton, Hume, Whittlesea and Cardinia Councils all include large stocks of zoned industrial land. In 2009 the growth area councils in total included almost 4,500 hectares of occupied industrial land which made up over a quarter of the total occupied industrial land in metropolitan Melbourne.

In 2008/2009 the growth area councils accounted for close to half (47%) of the total consumption of industrial land across metropolitan Melbourne. Even without the 2010 UGB changes the growth areas comprised over 46% of Melbourne's remaining supply of industrial land (totaling almost 3,150 hectares).

During 2010 and 2011 the completion of precinct structure plans in the west and south-east of Melbourne added an additional 1330 hectares of land to the stock of zoned industrial land in the growth areas.

The role of the growth areas in Melbourne's industrial land supply will continue to grow in future. As existing industrial land uses in inner and middle suburbs are displaced by higher value uses, and remaining areas of vacant industrial land in established suburbs are progressively taken-up, the growth areas will provide Melbourne's primary supply of land for manufacturing and logistics investment.

It is therefore critical that the Growth Corridor Plans identify sufficient land to meet future needs for Melbourne's industrial and mixed use development. By ensuring that Melbourne continues to have an ample supply of industrial land, the Growth Corridor Plans will play an important role in reinforcing Melbourne's competitiveness as Australia's principal manufacturing and logistics centre.

In this context it is important to take a long term perspective in determining how much land should be set aside for future industrial use. As there are no viable alternatives to the growth areas in providing for Melbourne's future industrial land requirements, and further major changes to the Urban Growth Boundary cannot be assumed, the Growth Corridor Plans have been prepared on the basis of ensuring that Melbourne will have sufficient industrial land stocks to last for at least forty and that the areas put aside for future industrial uses are sufficiently large to provide for uses that require big sites, substantial buffer zones, etc.

With the growing importance of the freight and logistics industry as a user of industrial land the Growth Corridor Plans also ensure that there is an appropriate supply of industrial land in the western and northern growth corridors that are favored by the logistics industry because of their good freeway and rail access to the Port of Melbourne, Melbourne Airport and the main interstate freight corridors.

Investigations of Future Industrial Land Requirements

As outlined earlier in this report three reports were commissioned from specialist consultants as inputs to preparation of the Growth Corridor Plans.

The three reports were:

- a broadly based analysis of growth area employment trends and the employment mix and distribution required to achieve the GAA's target of providing for one additional job for each new household in the growth areas. This wider analysis was prepared by Essential Economics.

Based upon a range of forecasts of the rate of population increase in the growth areas the Essential Economics report estimated the number and size of activity centres that would be required to provide for retail and office employment in the growth areas. It also estimated the scale of industrial land development that could be anticipated based upon the growth areas well established role as a location for industrial and logistics employment.

The Essential Economics report identified the need to provide for both larger estates serving a metropolitan wide market and smaller estates serving more localized (sub-regional or district) markets. Making separate provision for these more localised requirements will both enable smaller scale businesses to be located closer to the markets they serve and also help ensure that localized and peripheral uses do not need to take up the available capacity in the larger industrial estates (it is estimated that such uses typically account for about one third of total land use in industrial estates in established suburbs).

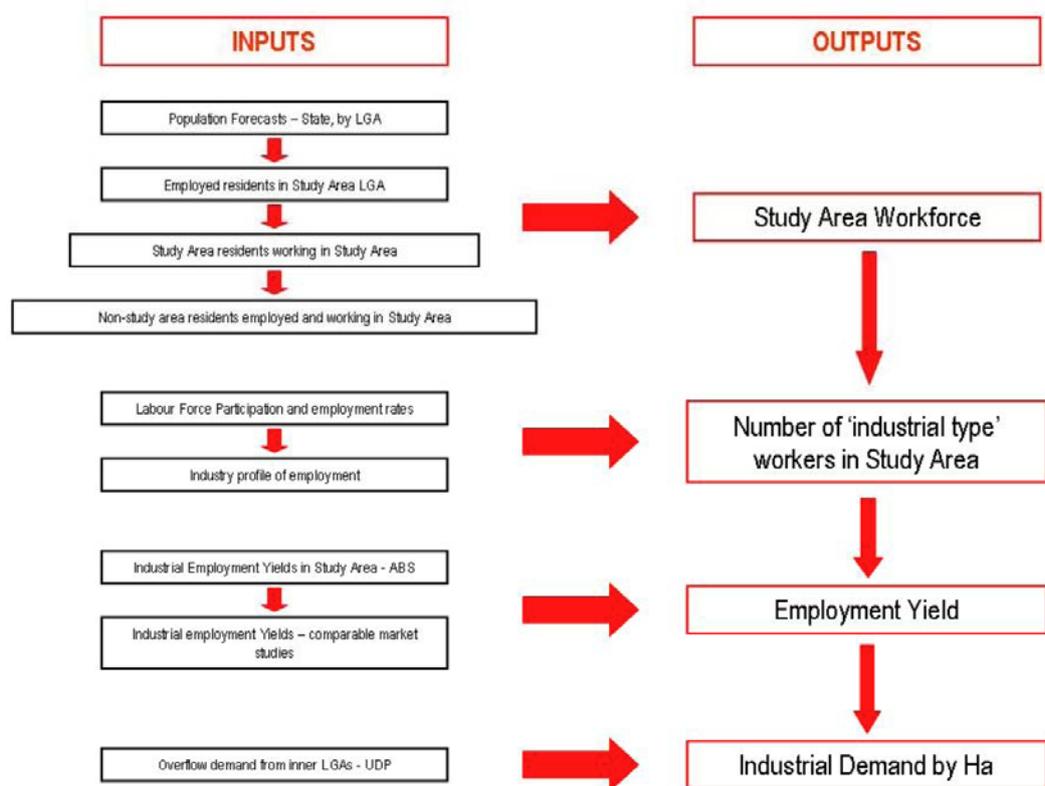
As a result of this analysis the Growth Corridor Plans include provision for the larger industrial and mixed-use estates. These large estates will generally provide for in excess of 200 hectares of net developable industrial land and will sometimes be significantly larger. This is sufficient both to provide for industrial uses that require substantial buffer zones and also to allow, over time, for the emergence of significant clusters of related industries within some of the major estates.

The requirement for smaller local industrial areas (typically of about twenty to twenty five hectares) will be addressed in the subsequent development of precinct structure plans and is not included in the estimate of the future supply of industrial land identified in the Corridor Plans.

- The second specialist report was prepared by Jones Lang Lasalle and focused specifically on estimating core industrial land requirements in the growth areas. It made use of a combination of methodologies that included both consideration of the size of the future industrial workforce in the growth areas and the likely spill-over of industrial land demand from other parts of the metropolitan area.

The Jones Lang Lasalle report also looked in detail at the changing composition of industrial land uses in Melbourne and at the drivers of the locational decisions of industrial land users. On the basis of this analysis the consultants ranked the growth area municipalities in terms of their relative attractiveness to manufacturing and logistics business and prepared individual industrial land demand forecasts for each growth area council.

The Jones Lang Lasalle analysis of future core industrial land requirements utilised the most detailed methodology of the three consultants. The main elements of the approach adopted are summarized in the diagram below.



- the last of the three reports was commissioned from Spatial Economics. It analysed recent trends in the take-up of industrial land across the metropolitan area and the level of remaining land stocks in each of Melbourne’s major industrial nodes. The report utilized data collected on industrial land uses as part of preparation of the Department of Planning and Community Development’s annual urban development program report

Based upon this data Spatial Economics prepared trend based forecasts of future take-up of industrial land across the metropolitan area as a whole and in each of the growth corridors.

The Spatial Economics estimate of future growth area industrial land

requirements were towards the upper end of the range of estimates produced by the three consultants. This reflects the factoring-up of demand to take account of non-industrial uses (including bulky goods retailing, some community uses, etc) that typically account for up to thirty percent of total land use within industrial zones, and also the relatively high level of take-up of industrial land over recent years associated with the restructuring of manufacturing and logistics industries in Melbourne.

The reports reliance on projection of past trends in industrial land take-up also meant that Spatial Economics projected a significantly higher level of demand for industrial land in Melbourne's south-east. By comparison the other two consultants reports were based more on analysis of the changing distribution of population and workforce growth between the growth corridors, together with the likely drivers of future location decisions by industrial land buyers. These reports pointed to a much higher share (up to 90%) of projected industrial land demand being in the west and northern growth corridors.

Integrating Estimates of Future Industrial Land Requirements

As already noted the reports prepared by the three specialist consultants had somewhat differing scopes and each used a differing methodology to assess future industrial land requirements in the growth areas. The use of a number of separate methodologies was deliberate and provides a check on the reasonableness of the consolidated estimates of future industrial requirements adopted in the Growth Corridor Plans.

The estimates produced by the three consultants point to a likely future demand for industrial land the growth areas as a whole of between 3,600 and 6,800 hectares.¹

In preparing the Growth Corridor Plans the decision was made to use an industrial land supply figure of 5,000ha which falls within the mid-point of these demand estimates.

This is considered to be a reasonable basis to plan from – it will provide Melbourne with a good long-term supply of industrial land under a range of growth scenarios.

It will also account for any possible underestimation of loss of industrial land in Melbourne's established areas to other, as well as taking account of the fact that up to 30% of total industrial land within industrial areas is typically made of non-industrial activities. It will also help ensure that a shortage of suitable land does not drive up Industrial land prices or act as a constraint of future business investment.

As noted above, at the level of individual growth corridors there was greater

¹ This is essentially based on the upper end of the lower range and the lower end of the upper range of forecasts produced by Essential Economics. The forecasts from Jones Land Lasalle and Spatial Economics broadly sat within this range. It should be noted that the wide range between the upper and lower estimates is attributable to the differing assumptions made by consultants on range of variables, including different population and economic growth scenarios, different take up rates and uses of industrial land, etc.

variability between the demand forecasts prepared by the three consultants. In particular the Spatial Economics report suggested that, based upon past trends, approximately 28% of the total future supply should be provided in the south-eastern growth corridor. By contrast both Jones Lang Lasalle and Essential Economics recommended that, based upon both the levels of current vacant industrial land stocks and the likely drivers of the future location decisions of business, close to 90% of the total addition to the metropolitan industrial land supply should be provided in the west and north.

The Growth Corridor Plans have adopted a *distribution* of future industrial land supplies broadly in line with the recommendations made by Jones Lang Lasalle and Essential Economics. The proposed distribution of the additional industrial land supplies provided in the Corridor plans is summarized in the table below:

Corridor	Industrial (hectares)	Commercial - gross (hectares)	Land assumed industrial within Commercial Precinct* (hectares)	Mixed Use - gross (hectares)	Land assumed industrial within Mixed Use Precincts* (hectares)	Total Industrial (hectares)
West	2000	1000	500	200	50	2550
North	1700	70	35	40	10	1745
Sunbury	210	-	-	-	-	210
South-east	260	380	190	170	42.5	492
Total	4170	1450	725	410	102.5	4997

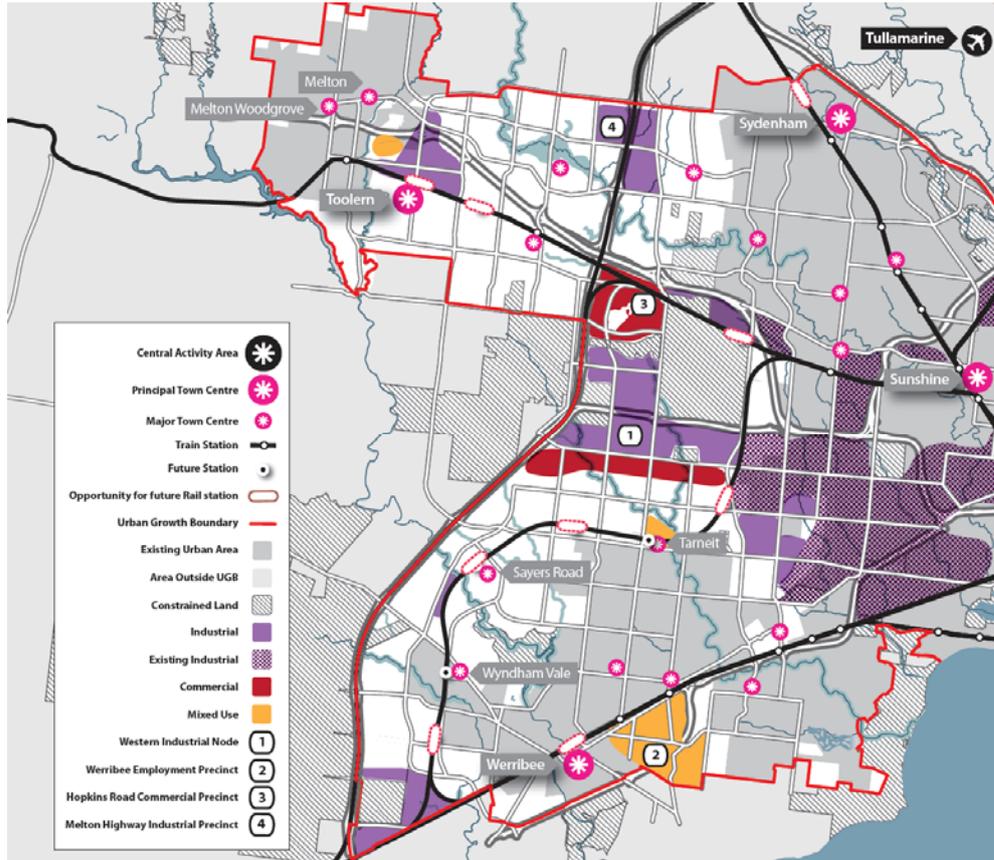
(* - The above land budget has assumed that around half of land within commercial precincts, and one quarter of land within mixed use precincts will be developed for industrial purposes).

Areas Identified for Industrial Development in the Corridor Plans

As a result of the detailed analysis of future industrial land requirements undertaken in preparing the draft Growth Corridor Plans the Plans make strategic provision for major new industrial estates that will ensure that Melbourne retains its competitive advantage in industrial land supply and as a location for manufacturing and logistics investment.

The relevant elements of each of the Corridor Plans is summarised below:

The Melbourne West Growth Corridor Plan



The draft Melbourne West Growth Corridor Plan makes provision for over 2,000 gross hectares of industrial land. The principal components of this additional supply will comprise:

- a large (approximately 1,500 hectares) extension of Melbourne's existing western industrial node (which incorporates the Laverton North, Laverton and Altona industrial areas).

This precinct includes provision for the possible future provision of a major new inter-modal freight terminal that would enable freight coming from the ports of Melbourne and Geelong and by rail from interstate to be transferred between rail and road. It will have excellent access both from a new freeway link between the Western Ring Road and the future Outer Metropolitan Ring Transport route.

The development of the proposed industrial precinct will be complemented by the provision of a new commercial precinct of approximately 400 hectares along the southern side of Boundary Road. This precinct will provide for commercial activities serving the western industrial node and adjacent residential areas and will also serve as a buffer between the future inter-modal freight terminal and residential areas further south.

- a 390 gross hectare new industrial area at Toolern with access from the Western Freeway. This precinct also includes 130 gross hectares of land proposed for future mixed-use development adjacent to the future Toolern

principal town centre.

- a new 600 gross hectare industrial precinct adjacent to the reservation for the Outer metropolitan Ring route and with access from the Melton Highway.

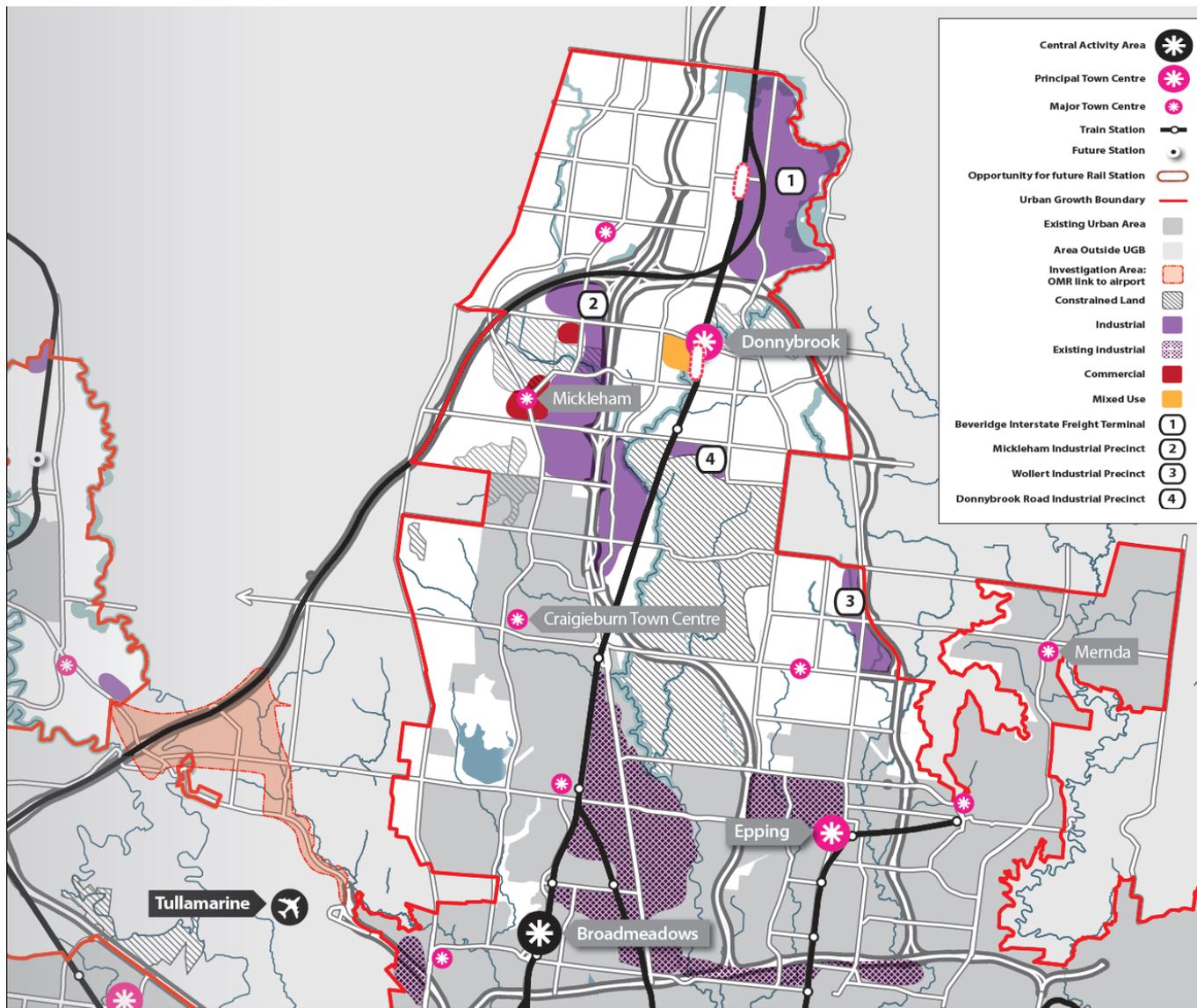
In addition the Melbourne West Growth Corridor Plan includes provision for:

- a 600 gross hectare commercial precinct to the west of Hopkins Road and south of the Western Freeway. This precinct is intended to provide for higher density employment uses such as a potential research and development areas and office park.

The Hopkins Road precinct will have exceptional access from both the OMR and the western Freeway and, being adjacent to the western rail line, has the potential for future provision of a rail station should this be justified by future employment growth. It is well placed to contribute to the strategic goal of achieving increased employment diversity in the western Growth Corridor.

- the Werribee Employment Precinct which is currently the location of a number of research and development activities and which has the potential to be an important future mixed-use precinct. The Werribee employment precinct totals 925 hectares.

The Melbourne North Growth Corridor Plan



The draft Melbourne North Growth Corridor Plan provides for 1,700 gross hectares of industrial land in addition to just over 100 hectares of mixed-use and commercial land.

The principal components of the proposed provision for future industrial development are:

- an extension of the existing Craigieburn industrial corridor north along the Hume Freeway to the junction between the Hume Freeway and the proposed Outer Metropolitan Ring Transport route. This extension will provide an additional 310 gross hectares of industrial land with exceptional access to both the interstate rail and freeway networks.
- an area of approximately 220 gross hectares of adjacent to the E6 reservation in Wollert. This proposed industrial area will provide for both

local and regional employment development as well as buffering the existing Hanson quarry and landfill site at Woolert.

The Woolert industrial precinct would benefit from the future development of the E6 which would provide good road freight access both to metropolitan and interstate freight routes.

- some 80 gross hectares of land south of Donnybrook Road and east of the Hume Freeway. Depending upon future requirements for location of public utilities this proposed industrial area could be extended east of the Melbourne-Sydney rail line and total some 140 gross hectares. It is proposed that Donnybrook Road would be designed to carry freight traffic and by linking the Hume Freeway and E6 routes would provide very good road access for road freight.
- longer term provision for the potential development of a major new industrial area adjacent to the planned Beveridge Interstate Freight Terminal. Almost 1,100 gross hectares of land has been identified for this future industrial area east of the Melbourne-Sydney rail line and north of the E6 reservation.

In addition the Melbourne North Growth Corridor Plan provides for:

- development of 50 gross hectares of commercial land associated with a new town centre at Mickleham; and
- approximately 40 hectares of mixed-use development adjacent to the proposed new principal town centre at Donnybrook North.

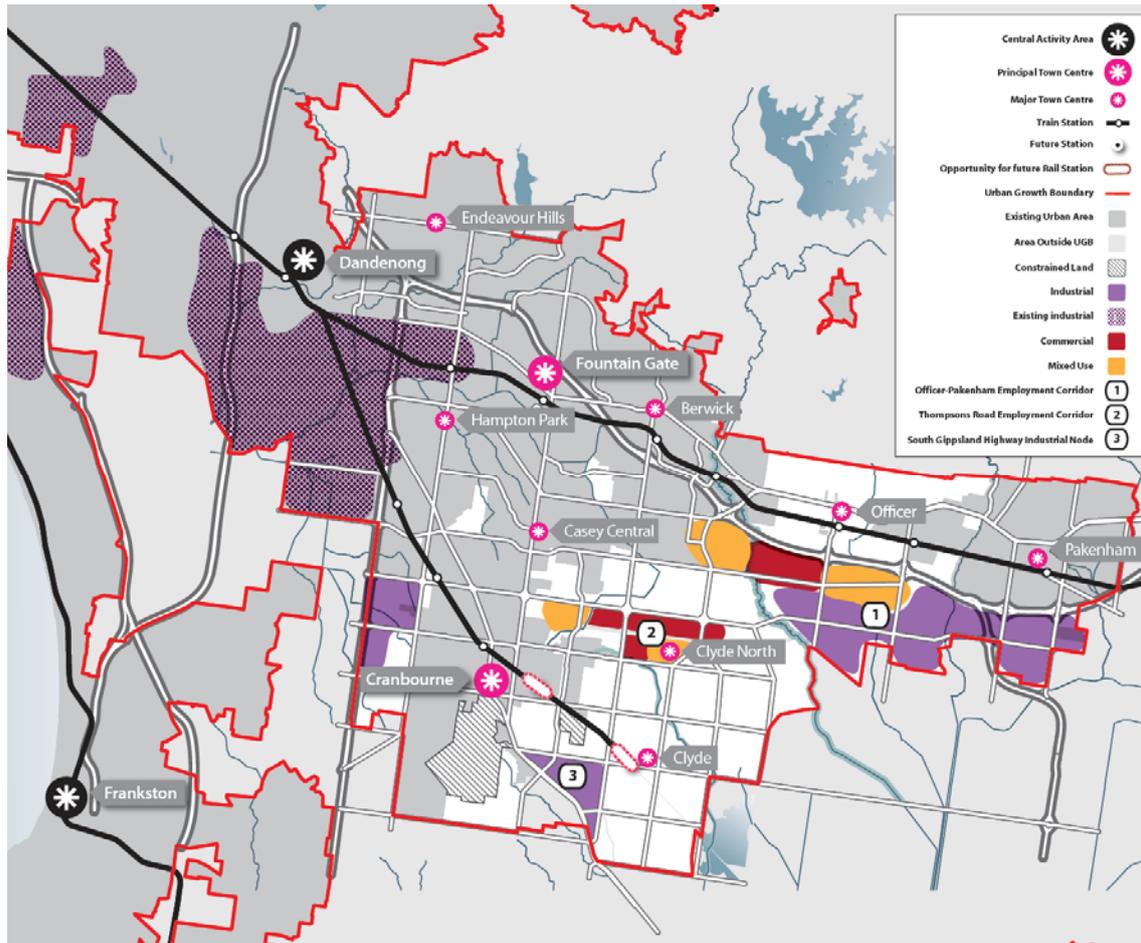
The Melbourne South East Growth Corridor Plan

The Melbourne South East Corridor Plan provides for some 300 hectares of additional industrial land. This provision supplements the approximately 2,700 hectares of employment land (principally in the Officer-Pakenham employment corridor) already identified within the pre-2010 UGB in the south east growth area.

The main proposed additions to the areas available for employment development in the south east are:

- 260 gross hectares of industrial land for manufacturing and logistics uses along the South Gippsland Highway.
- some 380 gross hectares of commercial land and 170 gross hectares of mixed-use and commercial areas along Thompsons Road that will provide for a mix of business services, service trades and other similar uses.

These proposed employment areas are shown on the plan below:



The Sunbury Growth Corridor Plan

The draft Sunbury Growth Corridor Plan provides for 210 gross hectares of additional industrial land in the south east of the growth area and adjacent to Diggers Rest.

It is expected that this land will primarily provide for the services industry needs of the growth corridor although portion of the area may also be used for manufacturing and logistics uses serving a wider metropolitan market.

The location of the proposed Sunbury employment areas is shown on the plan below:

