

# SOUTHERN REGION INDUSTRIAL LAND

## Current State Assessment

### STAGE 1 FINAL REPORT

20 December 2018

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# Executive Summary

## About this Study

This report was prepared by MacroPlan Dimasi for the Department of Environment, Land, Water and Planning (DELWP). DELWP is preparing a plan that will guide the future development of industrial and commercial land across metropolitan Melbourne.

The following report describes the current state of industrial land supply and demand within Melbourne's Southern Region relative to metropolitan Melbourne, including gross hectares occupied and available supply by zone; industrial land consumption rates and prices; employment by industry and output by industry within each of the six municipalities, three State Significant Industrial Precincts (SSIPs) and other selected areas.

The findings of this report will inform the development of future industrial land development scenarios to be tested and documented in a future report to be prepared as part of this study.

## High Level Policy & Planning Context

Plan Melbourne 2017-2050 foreshows the largest share of population and employment growth will take place in Melbourne's north and west and within designated National Employment & Innovation Clusters (NEICs) and SSIPs. The Growth Corridor Plans (2012) sets out the overall strategic vision for the future planning and development of each growth area and guides the Precinct Structure Plan (PSP) process including a total of approximately 3,660 ha allocated for industrial or commercial zones in the South East Growth Corridor plus another approximately 60 ha to be potentially zoned as industrial or commercial.

The SSIPs are expected to be the focus for major industrial developments linked to the Principal Freight Network and transport gateways.

- The Victorian Freight Plan: Delivering the Goods was released by the Victorian Government in July 2018. It outlines initiatives that will be taken over the next five years to improve how goods are moved to their local, interstate and overseas markets.
- As the adopted Government strategy for freight, it indicates the Port of Hastings plays a lesser role as Bay West is recognised to be better placed in terms of existing and future infrastructure.
- The Freight Plan (2018) identifies the better use of rail assets as a priority and supports port rail shuttles with on-dock facilities at the Port of Melbourne. Freight terminals for rail shuttles are proposed at Lyndhurst (adjoining Dandenong South), Altona and Somerton.
- As part of the previous Freight Plan (2013), planning work had been undertaken for improved road connections along the Western Port Highway and upgrades and new rail freight links along the Dandenong rail.

The significance of the three SSIPs highlights the continued need for careful planning of industrial land holdings within the Southern Region.

Local planning and policy frameworks, including zones and overlays and local development strategies will need to be carefully considered to ensure an appropriate balance between industry needs and sensitive environmental areas.

Details of local planning and policy frameworks and their importance for this study are discussed elsewhere in this report.

# Executive Summary

## Industrial Land Use & Activity

### Metropolitan Melbourne

Melbourne's resident population was reported to be 4.65 million at Census 2016, with approximately 1.03 million residents (around 22%) living in Melbourne's Southern Region. There were approximately 350,300 jobs located in the Southern Region (around 17% of the metropolitan total), highlighting the relative importance of the Southern Region, particularly the SSIPs as a major focus for employment within this region.

Melbourne currently has almost 26,000 hectares of land zoned for industrial purposes. Of this, around 6,670 hectares (26%) are vacant, with approximately 4,430 hectares (17%) of vacant land located within SSIPs. In addition, 6,275 hectares of unzoned land has been identified through growth corridor plans and previous strategic plans. During the past five years, demand for new industrial land has averaged around **270 hectares a year**, with demand driven by freight, logistics and manufacturing.

### Southern Region

The Southern Region comprises six Local Government municipal areas – City of Kingston, City of Casey, City of Frankston, City of Greater Dandenong, Cardinia Shire and Mornington Peninsula Shire. There are three State Significant Industrial Precincts (SSIPs) within the Southern Region namely: Southern (Dandenong LGA), Hastings (Mornington Peninsula LGA) and Officer/Cardinia Road (Cardinia Shire Council). There are several other industrial precincts (separate to the SSIPs) with the largest being Carrum Downs (Frankston), Braeside (Kingston) and the proposed Cranbourne West (Casey). Each of the LGAs also contain smaller, discrete industrial nodes, some of which are quite old and/or fragmented with limited available land.

Key observations about the Southern Region include:

- City of Kingston and City of Greater Dandenong report the highest population and employment densities followed by Frankston and Casey.
- Cardinia and Mornington report lower population and employment densities owing to their relative size and significant non-urban uses and green wedges.
- Dandenong accounts for the largest number of employed persons followed by Kingston, Casey, Frankston and Mornington.
- City of Casey and Cardinia Shire Council rank among Melbourne's largest and fastest growing municipalities respectively, meaning both of these areas are likely to continue to require more land for employment related uses when compared with Kingston, Frankston and Mornington.
- The Southern Region comprises **9,513 gross hectares** zoned industrial land of which **2,463.5 hectares** (26%) is available for future industrial use / development.
- Mornington accounts for **1,039 hectares** of vacant supply, however **975 hectares** of this is zoned specifically for port related uses and not available for general industrial purposes.
- Approximately **1,225.4 hectares** industrial land is proposed in Casey (287.7 hectares or 23.5%) and Cardinia (937.7 hectares or 76.5%). Land availability would be reduced should proposed Casey Planning Scheme Amendment C219 be approved.
- Industrial land consumption rates range from the highest in Dandenong (**54.1 hectares a year**) to the lowest in Casey (**2.5 hectares a year**).

Current consumption rates suggest industrial land stocks may be exhausted in Frankston in the short-term (i.e. 2-3 years) and in Kingston and Greater Dandenong during the next 11-12 years. Other areas appear to have relatively sufficient industrial stocks. However, due to potential demand transfer from the established precincts with tightening land supply, the exhaustion of available industrial land might occur sooner. It is also noted that the Port of Hastings SSIP is currently positioned as port related precinct with the majority of land reserved for port related uses, meaning the practical accessibility and potential developability for general industrial / commercial uses within the Port of Hastings SSIP is limited. Plus according to Casey Planning Scheme Amendment C219, approximately 133 ha available industrial land located in Cranbourne West (outside of SSIPs) is currently proposed to be rezoned to residential. Considering these factors, the actual available zoned industrial land for future industrial use / development is estimated to be less than 2,463.5 ha within the Southern Region.

# \_Executive Summary

## Employment & Economic Output

In 2016 there were at least **350,000 jobs** based in Melbourne's Southern Region of which **120,924** (35%) were employed in industries typically using industrial land such as manufacturing, construction, wholesale trade, freight and logistics and warehousing.

- When compared with metropolitan Melbourne, the Southern Region had a higher relative share of workers in manufacturing, retail trade, construction and wholesale trade and a lower relative share in education and training, professional, scientific and technical services, public administration and safety, administrative support and financial and insurance services.
- Industries reporting relatively strong growth in workers included transport postal and warehousing and a range of professional scientific and technical and administrative services.
- Not surprisingly, manufacturing and wholesale trade experienced the largest declines in workers in the Southern Region during this time, consistent with trends across metropolitan Melbourne, Victoria and Australia.
- This highlights that construction and transport/warehousing related industrial land uses are likely to represent a higher relative share of total industrial land consumption when compared with wholesale trade and manufacturing.
- This owes to strong and continued population growth in areas such as Cardinia and Casey and the emergence of population serving employment such as retail trade, health care and education services as relatively more important contributors to employment compared with traditional industries.
- This continuing trend will have implications for the quantum and type of industrial land supply and use particularly in areas such as Casey and Cardinia.

The total Gross Regional Product (GRP) or value of economic output produced in the Southern Region **was \$48.9 billion** in 2016.

- City of Greater Dandenong was the largest contributor to jobs and economic output within the Southern Region accounting for 27% of all jobs, 37% of all industrial jobs and 28% of Gross Regional Product within the Southern Region. This owes to the scale and significance of the Southern Industrial Precinct (SSIP) and reflects the ongoing importance of Dandenong in the Southern Region.
- City of Kingston was the second largest contributor to jobs and economic output within the Southern Region accounting for 21% of all jobs, 24% of all industrial jobs and 22% of Gross Regional Product within the Southern Region. This owes largely to the scale and significance of the Braeside and Moorabbin Airport Industrial Precincts.
- City of Casey is the third largest contributor to jobs and economic output, accounting for 18% of all jobs, 14% of all industrial jobs and 16% of Gross Regional Product within the Southern Region.

Traditional industries such as manufacturing, construction, wholesale trade, transport postal and warehousing all experienced growth in output per worker that was higher than retail trade, education and health care services.

- Whilst population serving jobs are an important part of a healthy functioning economy and for supporting population growth, output per worker values remains relatively higher across traditional industries and this is important for assessing the Southern Region's current and future economic growth.
- This demonstrates the continuing importance of traditional industries as a source of economic value both in terms of output and employment and value-adding potential and highlights the need for appropriate land use planning to support these industries.

This means appropriate provision of industrial land needs to be made available to support those industries with high total output as well as strong value-adding potential as measured by output by worker. Planning for future industrial land developments in Southern Region will require careful consideration to ensure appropriate land and infrastructure is made available to support industry needs and economic growth.

The historic and current industrial land consumption and availability, employment growth and industrial shift-share characteristics in the Southern Region will be used to set up the base assumptions for the Stage 2 assessment.

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# **\_Glossary**

ABS	Australian Bureau of Statistics
DELWP	Department of Environment, Land, Water and Planning
GRP	Gross Regional Product which is a measure of economic production and output
Industrial Land	As defined within the UDP and in Chapter 1 of this report
MSS	Municipal Strategic Statements
NEIC	National Employment & Innovation Cluster
PPF	Planning Policy Framework
REMPAN	An economic and land use tool
SSIP	State Significant Industrial Precinct
UDP	Urban Development Program
VPPs	Victorian Planning Provisions

# 1\_Introduction

## 1.1\_About this Report

This report was prepared by MacroPlan Dimasi (the author) for the Department of Environment, Land, Water and Planning (DELWP).

DELWP is preparing a plan that will guide the future development of industrial and commercial land across metropolitan Melbourne.

The metropolitan area totals approximately 8,833 square kilometres.

In developing the plan, DELWP is specifically exploring the supply and demand of industrial land within Melbourne's Southern Region including land consumption rates and prices relative to metropolitan Melbourne. The Southern Region area totals 2,767 square kilometres or 31% of the metropolitan total area.

- The Southern Region comprises six Local Government municipal areas – City of Kingston, City of Casey, City of Frankston, City of Greater Dandenong, Cardinia Shire and Mornington Peninsula Shire.
- There are three State Significant Industrial Precincts (SSIPs) within the Southern Region namely: Southern (Dandenong LGA), Hastings (Mornington Peninsula LGA) and Officer/Cardinia Road (Cardinia Shire Council).
- There are several other industrial precincts (separate to the SSIPs) with the largest being Carrum Downs (Frankston), Braeside (Kingston) and Cranbourne West (Casey). Each of the LGAs also contain smaller, discrete industrial nodes, some of which are quite old and/or fragmented with limited available land.

The following report describes the current state of industrial land supply and demand within Melbourne's Southern Region relative to metropolitan Melbourne, including gross hectares occupied and available supply by zone; industrial land consumption rates and prices; employment by industry and output by industry within each of the LGAs and SSIPs.

The findings of this report will inform the development of future industrial land supply and demand scenarios to be tested and documented in a future report to be prepared as part of this study.

Figure 1\_Melbourne Subregions



# 1\_Introduction

## 1.2\_Study Approach

This report describes the Southern Region study area including three SSIPs and other industrial areas within a metropolitan Melbourne context and interprets State and local government planning and policy frameworks most relevant to industrial land supply and development within the Southern Region.

Key details of the six municipalities are presented below:

- Kingston (C) – 91.4sqkm.
- Greater Dandenong (C) – 129.5sqkm.
- Frankston (C) – 129.6sqkm.
- Casey (C) – 409.4sqkm.
- Cardinia (S) – 1,282.6sqkm.
- Mornington Peninsula (S) – 724.2sqkm.

Details of the three SSIPs are presented below:

- Southern Industrial Precinct (2,973.3 hectares).
- Officer / Pakenham Industrial Precinct (654.9 hectares).
- Port of Hastings Industrial Precinct (1,391.0 hectares).

Other industrial precincts explored in this study include:

- All industrial precincts in Kingston, including Moorabbin Airport industrial precinct, Moorabbin and Clayton South.
- Other industrial precinct outside of the Southern SSIP in Dandenong, including Westall Road, Springvale Central, Springvale North, Noble Park, Princess Highway and Springvale Road.
- All industrial precincts in Frankston, including Carrum Downs and Frankston Highway.
- Other industrial precincts outside of the Southern SSIP in Casey, including Cranbourne West and a number of scattered industrial parcels / estates.

- Other industrial precincts outside of the Officer / Pakenham SSIP, including a number of industrial parcels / estates along Princes Highway.
- Other industrial precincts outside of the Port of Hastings SSIP, including a number of industrial parcels / estates along Nepean Highway and Mornington Peninsula Freeway.

Industrial land is defined in accordance with the UDP and includes the following zones:

- Industrial 1, 2 and 3 Zones.
- Commercial 2 Zone.
- Business 3 and 4 Zones.
- Special Use Zone 1 in Mornington Peninsula Shire.
- Activity Centre Zone within City of Casey.
- Land within Moorabbin Airport Business Park in Kingston.
- Urban Growth Zone land identified as industrial within Precinct Structure Plans (Cardinia Shire & Casey City Councils).

Key trends relating to current and historic industrial land use and supply, consumption rates and relative prices are presented for each of the six LGAs, three SSIPs and several other industrial estates within the Southern Region. This assessment draws on data and information presented in the *Urban Development Program (UDP)* and relevant market intelligence obtained by the author.

Information relating to employment by industry and output by industry within the Southern Region LGAs and SSIPs is presented including benchmark ratios (e.g. employment/hectare; population/employment; and Gross Regional Output/worker) within a Melbourne metropolitan context drawing on ABS Census (2016).

REMPLAN has been referenced to verify various benchmark indicators for the study area including output / employment and this tool will be used for scenario testing during future stages of this study.

# 1\_Introduction

## 1.3\_References

ABS Census (2011, 2016)  
ABS Catalogue 3218  
Casey Planning Scheme Amendment C219, Panel Report 4 January 2018  
Cordell  
City of Casey Planning Scheme  
Cardinia Shire Council Planning Scheme  
City of Greater Dandenong Industrial and Commercial Changes and Demand  
Final Strategy 2016  
Cranbourne East Precinct Structure Plan 2010  
Cranbourne Town Centre Structure Plan 2018  
Cranbourne West Precinct Structure Plan 2012  
Dandenong South Industrial Area Extension Structure Plan 2009  
Delivering the Goods – Victorian Freight Plan (2018)  
Economic.id (2017)  
Fountain Gate – Narre Warren CBD Structure Plan 2016  
Frankston Planning Scheme  
Garfield Township Strategy 2002  
Gembrook Township Strategy 2011  
Growth Corridor Plans (2012)  
Infrastructure Victoria 30-Year Plan  
Kingston Planning Scheme  
Koo Wee Rup Township Strategy 2015  
Mordialloc Structure Plan 2004  
Mornington Peninsula Activity Centres Strategy 2018  
Mornington Peninsula Industrial Areas Strategy 2018  
Mornington Planning Scheme  
Plan Melbourne 2017-2050  
REMPAN (2016)  
Realestate.com.au  
Pricerfinder  
Springvale Activity Centre Structure Plan 2017  
Planning Policy Framework (PPF)  
Urban Development Program 2017  
Victorian Freight Plan (2013)

# 2\_Study Area & Policy Context

## 2.1\_Study Area Context

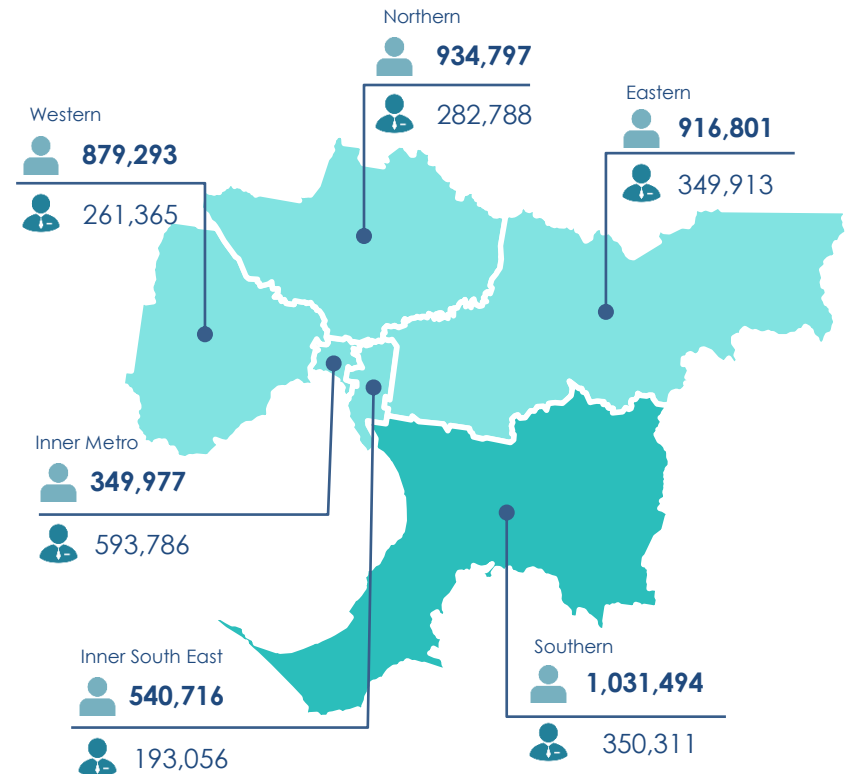
Melbourne's resident population was reported to be 4.65 million at Census 2016, with approximately 1.03 million residents (around 22%) living in Melbourne's Southern Region. There were approximately 350,300 jobs located in the Southern Region (around 17% of the metropolitan total), highlighting the relative importance of the Southern Region, particularly the SSIPs as a major focus for employment within this region. Some important regional benchmarks / ratios for comparison purposes are presented in the table below and interpreted elsewhere in this report.

**Table 1\_Melbourne Regions Population, Employment & Densities, 2016**

SUB-REGION	AREA SQKM	POPULATION	EMPLOYMENT <sup>A</sup>	POPULATION DENSITY #/HA	JOB DENSITY #/HA
INNER METRO	77.6	349,977	593,786	45.10	76.52
INNER SOUTH EAST	161.8	540,716	193,056	33.42	11.93
EASTERN	2,902.6	916,801	349,913	3.16	1.21
NORTHERN	1,592.9	934,797	282,788	5.87	1.78
<b>SOUTHERN</b>	<b>2,766.7</b>	<b>1,031,494</b>	<b>350,311</b>	<b>3.73</b>	<b>1.27</b>
WESTERN	1,331.5	879,293	261,365	6.60	1.96
<b>METROPOLITAN MELBOURNE</b>	<b>8,833.1</b>	<b>4,653,078</b>	<b>2,031,219</b>	<b>5.27</b>	<b>2.30</b>

*Note – <sup>A</sup> Employment refers to jobs by usual place of work/address*  
*Source: ABS 3218, Census 2016*

**Figure 2\_Melbourne Subregions Population & Employment, 2016**



**Metropolitan Melbourne**

**4,653,078**  
**2,031,219**

Source: ABS 3218

## 2\_Study Area & Policy Context

### 2.2\_About the Southern Region

The Southern Region comprises six municipalities, with three separate SSIPs located within the municipalities of Dandenong (Southern), Mornington (Hastings) and Cardinia (Officer/Cardinia Road Precinct).

Key observations about the Southern Region include:

- City of Kingston and City of Greater Dandenong report the highest population and employment densities followed by Frankston and Casey
- Cardinia and Mornington report lower population and employment densities owing to their relative size.
- Dandenong accounts for the largest number of employed persons followed by Kingston, Casey, Frankston and Mornington.

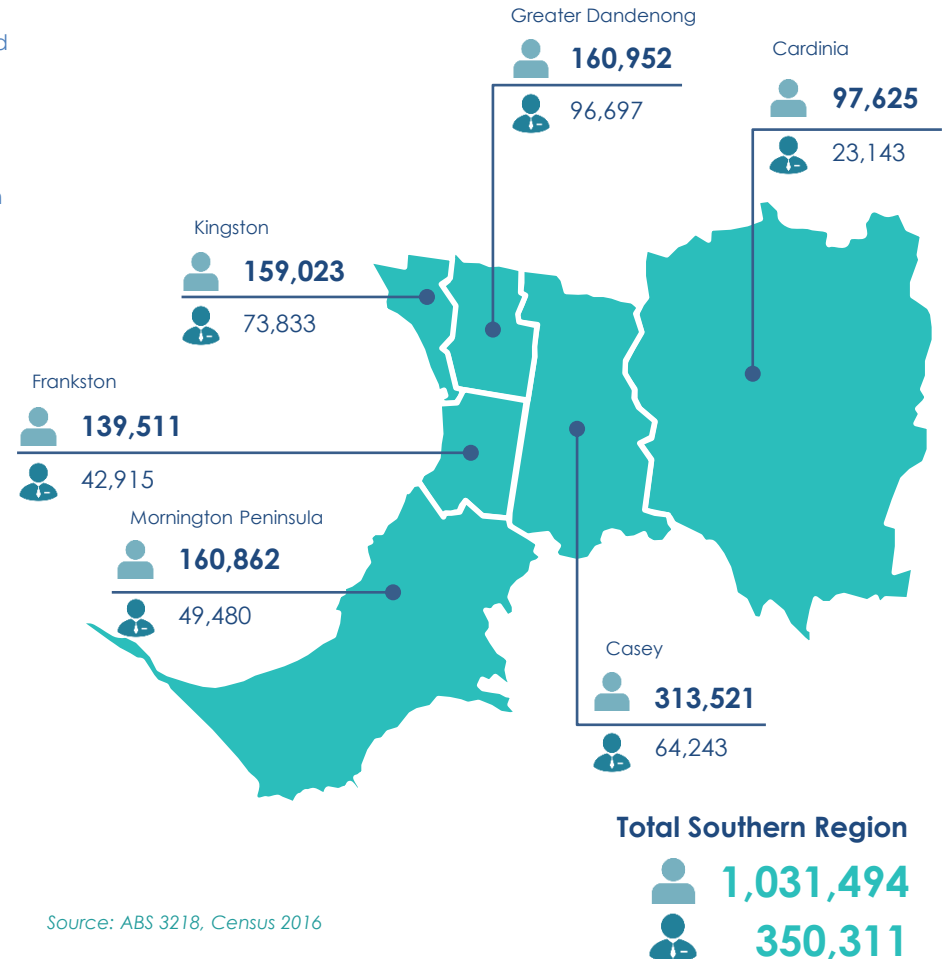
City of Casey and Cardinia Shire Council rank among Melbourne's largest and fastest growing municipalities respectively, meaning both of these areas are likely to continue to require more land for employment related uses when compared with Kingston, Frankston and Mornington.

**Table 2\_Southern Region Population, Employment & Densities, 2016**

SUB-REGION LGA	AREA SQKM	POPULATION	EMPLOYMENT	RATIO POP to AREA Ha.	RATIO JOBS to AREA Ha.
KINGSTON LGA	91.4	159,023	73,833	17.40	8.08
DANDENONG LGA	129.5	160,952	96,697	12.43	7.47
FRANKSTON LGA	129.6	139,511	42,915	10.77	3.31
CASEY LGA	409.4	313,521	64,243	7.66	1.57
CARDINIA LGA	1,282.6	97,625	23,143	0.76	0.18
MORNINGTON LGA	724.2	160,862	49,480	2.22	0.68
<b>SOUTHERN REGION</b>	<b>2,766.7</b>	<b>1,031,494</b>	<b>350,311</b>	<b>3.73</b>	<b>1.27</b>

Source: ABS 3218, Census 2016

**Figure 3\_Southern Subregion Population & Employment by LGA, 2016**



# 2\_Study Area & Policy Context

## 2.3\_Policy Context

### Overview

The author has considered both State and local planning and policy contexts in framing the current state industrial market assessment and in defining likely scenarios for future industrial developments within the Southern Region and across the three SSIPs.

Important State and local planning and policy documentation assessed as part of this study are outlined below and further information relating to their relative significance and implications for this study are presented in this chapter and in the Annexure to this report.

#### State planning & policy context

- Plan Melbourne 2017-2050
- Growth Corridor Plans
- Victorian Freight Plan: Delivering the Goods (2018)
- Victorian Infrastructure Plan
- Planning Policy Framework (PPF)

#### Local planning & policy context

- Municipal Strategic Statements (MSS)
- VPPs / Planning Schemes / Amendments  
e.g. Proposed Cranbourne West C219
- Planning zones, overlays and provisions
- Local and regional policies
- Economic development strategies
- Industrial land strategies / CREP etc

# 2\_Study Area & Policy Context

## 2.3\_Policy Context

### Plan Melbourne

Plan Melbourne anticipates Melbourne's population will reach around 8.0 million residents by 2051 with Victoria's population growing to over 10 million. This will generate the need for up to 1.5 million jobs during this period.

A combination of suburban employment clusters, health and education precincts and large scale industrial precincts will be required to support future population growth and create employment diversity through knowledge based industries that will drive economic growth.

Plan Melbourne foreshows the largest share of population and employment growth will take place in Melbourne's north and west.

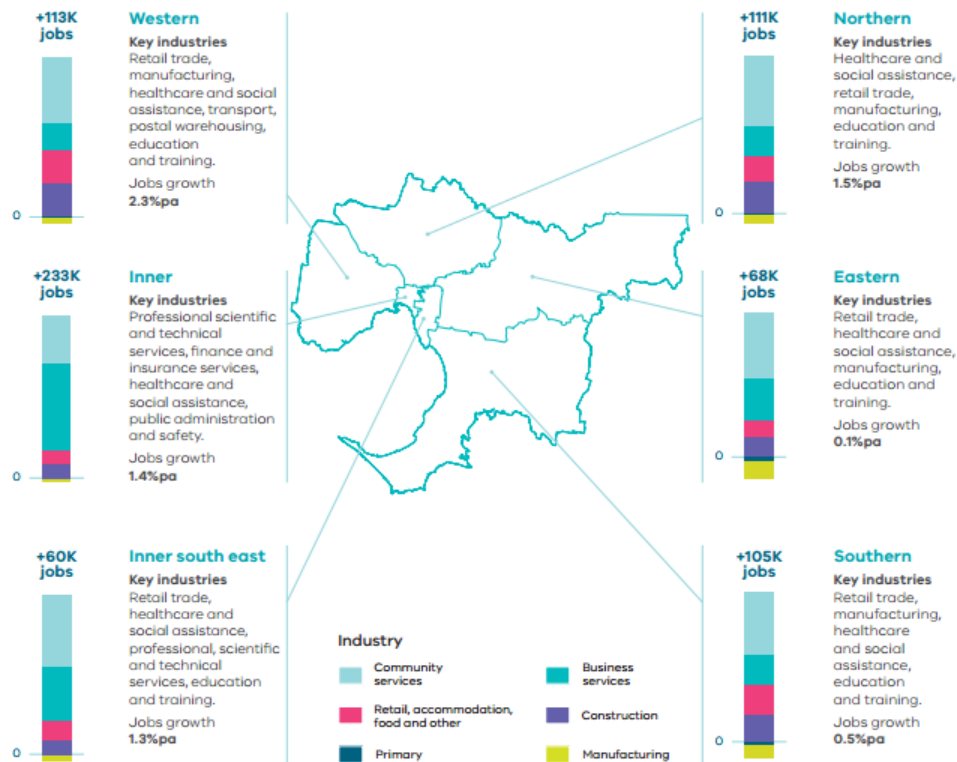
The Southern Region is forecast to generate around 105,000 jobs by 2031 (around 0.5% p.a.) compared with the Western and Northern Regions growing at approximately 1.5% p.a. and 2.3% p.a. respectively.

SSIPs will be the focus for major industrial developments linked to the Principal Freight Network and transport gateways.

- SSIPs will be protected from incompatible land uses to allow continual growth in freight, logistics and manufacturing investment and will be a key focus for investment and growth in future.
- Port of Hastings will be protected as a key gateway for moving freight and will enable future employment and economic development opportunities within the Southern Region.

The significance of the three SSIPs, in conjunction with the Port of Hastings and Bay West as well as the possible South-East Airport highlights the continued need for careful planning of infrastructure and the delivery of serviced industrial land within the Southern Region.

Figure 4\_Projected Employment Growth, Metropolitan Melbourne, 2015–2031



Notes: Jobs growth Estimated compound annual growth rate, July 2011–July 2015 (Department of Economic Development, Jobs, Transport and Resources, internal analysis, 2016). Source: Department of Economic Development, Jobs, Transport and Resources, internal analysis (2016)



# 2\_Study Area & Policy Context

## 2.3\_Policy Context

### Growth Corridor Plans

The *Growth Corridor Plans (2012)* divides Melbourne into the following four growth corridor areas:

- West Growth Corridor;
- North Growth Corridor;
- South East Growth Corridor; and
- Sunbury / Diggers Rest Growth Corridor.

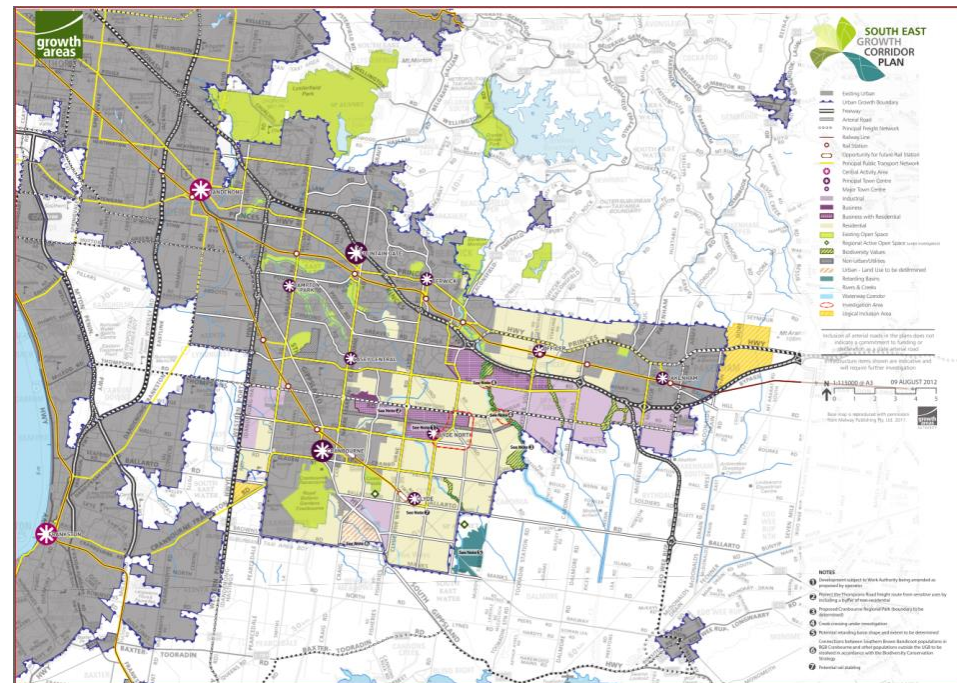
The growth corridor plan sets out the overall strategic vision for the future planning and development of each growth area and guides the Precinct Structure Plan (PSP) process.

The South East Growth Corridor Plan allocates approximately 2,370 hectares of land as industrial, approximately 1,290 hectares of land as commercial with approximately 60 hectares of additional land that could be potentially zoned as industrial or commercial during the PSP process.

Officer-Pakenham Industrial / Business Corridor (Officer Employment PSP, Cardinia Road PSP, Pakenham West Employment PSP, Pakenham South Employment PSP and Minta Farm PSP), Thompsons Road Business Corridor (Casey Central PSP and Thompsons Road PSP), Cranbourne West Employment Area (Cranbourne West PSP) and South Gippsland Highway Industrial Node (Cranbourne East PSP and Casey Field South PSP) have been identified within the South East Growth Corridor Plan as land allocated for industrial and commercial zoning.

The majority of the PSPs mentioned above have been completed and are generally in accordance with the South East Growth Corridor Plan.

Figure 5\_South East Growth Corridor Plan



Source: South East Growth Corridor Plan, Victoria Planning Authority 2012

## 2\_Study Area & Policy Context

### 2.3\_Policy Context

#### Victorian Freight Plan

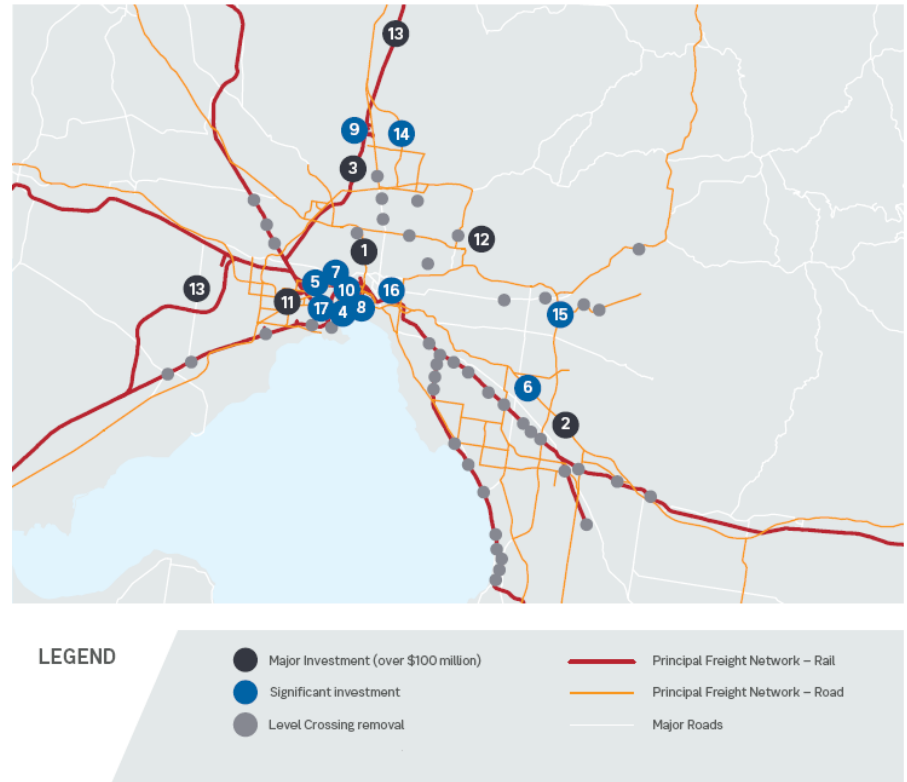
The Victorian Government recently released a new freight plan *Delivering the Goods – Victorian Freight Plan (2018)* that provides for Victoria's freight and logistics system that will have implications for employment land requirements as various industries reevaluate the competitive strengths of geographic locations in the Southern Region.

Within this document under Priority 4: Plan for Victoria's future port capacity, the Port of Hastings plays a lesser role as Bay West is recognised to be better placed in terms of existing and future infrastructure. This document is not incorporated into the planning scheme.

This is compared with the earlier 2013 Victoria the Freight State which anticipated a new freight terminal in Dandenong South to handle the transfer of freight from the Port of Melbourne, improved road connections along the Western Port Highway to Hastings including freeway upgrades and new rail freight links along the Dandenong rail line and in the longer term connections to the new Port Facilities.

The 2018 plan also highlights a number of current freight investments as illustrated in Figure 6. This includes various level crossing removal projects along the principle rail freight network in the Southern Region, which is expected to boost freight efficiency within the region and connecting other regions. This also includes the proposed North East Link which is planned to complete in 5-10 years and is expected to improve accessibility to the Officer / Pakenham SSIP from the Northern Region and bypass the city.

Figure 6\_Victorian Freight Plan, 2018



- |   |  |  |
|---|--|--|
| 1 CityLink Widening                                     | 7 Pavement strengthening for HPFV – Footscray Rd | 14 O'Herns Road interchange                          |
| 2 M1 Widening Stage 1 EastLink-Clyde Rd                 | 8 Port Rail Shuttle Network                      | 15 Bridge rehabilitation – Dandenong Creek, Wantirna |
| 3 M80 Upgrade (including bridge strengthening for HPFV) | 9 Steel handling terminal                        | 16 Bridge rehabilitation – Yarra River, Richmond     |
| 4 Webb Dock access improvements                         | 10 Dynon Terminal upgrade                        | 17 Port of Melbourne Lease                           |
| 5 Bridge strengthening for HPFV – Shepherd Bridge       | 11 West Gate Tunnel                              |  |
| 6 Bridge strengthening for HPFV – M1                    | 12 North East Link                               |  |
|   | 13 Proposed interstate freight terminals         |  |

Source: *Delivering the Goods – Victorian Freight Plan (2018)*

# 2\_Study Area & Policy Context

## 2.3\_Policy Context

### Infrastructure Victoria 30-Year Strategy

The *Infrastructure Victoria 30-Year Strategy* has made a range of recommendations for new and upgraded transport links, which are needed at different times and have different levels of certainty, but together provide a transport network to meet long-term growth.

Other than major rail capacity uplift relating to passenger rail services, there are no planned enabling infrastructure investments within the State Significant Industrial Precincts (SSIPs) located in the Southern Region or within the other industrial precincts in the study area.

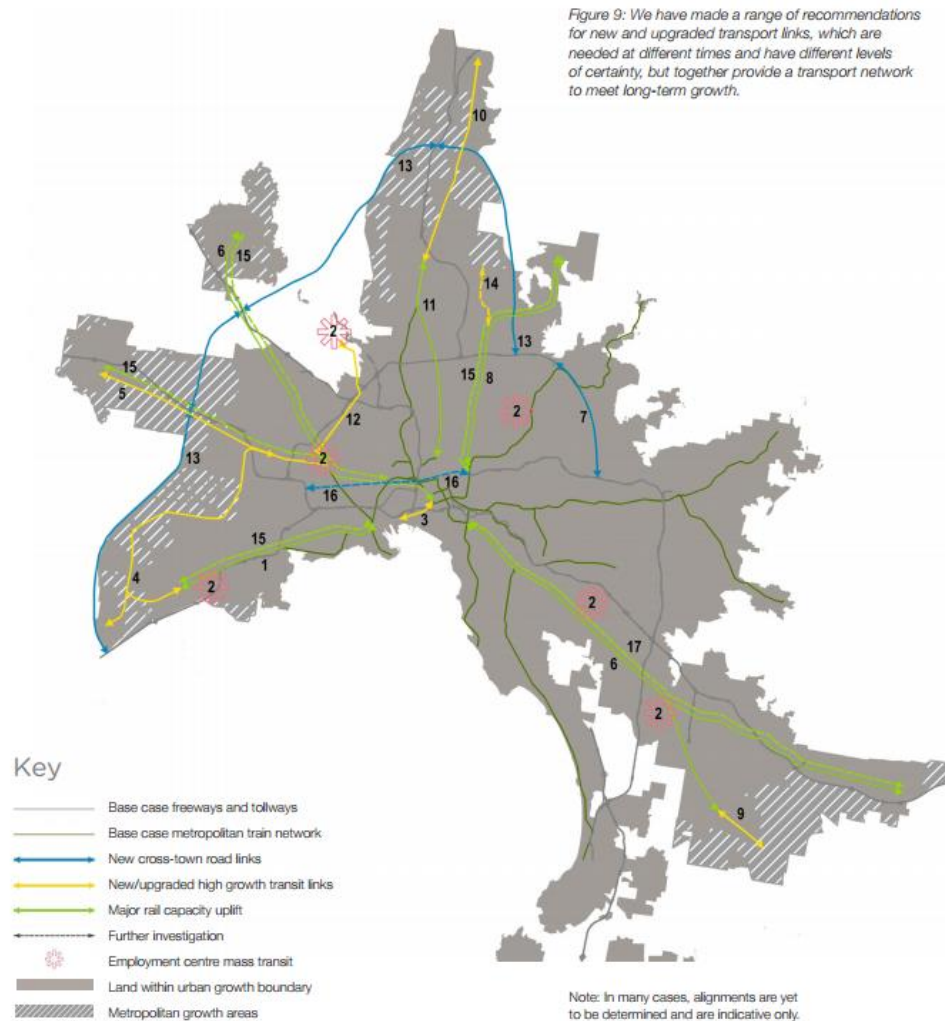
**Table 3\_Key New and Upgraded Transport Links in Melbourne**

Number (not in priority order)	New and upgraded transport links	Recommendation number(s)
<b>Short to medium term (complete within 15 years)</b>		
1	Train timetabling	10.4.2
2	Employment centre mass transit*	11.5.4
3	Fishermans Bend tram link	1.2.1, 10.8.1
4	Geelong/Werribee/Wyndham rail	1.3.4, 10.8.2, 12.3.1
5	Melton rail electrification	1.3.6, 10.8.3
6	10-car metropolitan trains	10.5.2
7	North East Link	11.5.6, 13.5.2
8	High-capacity signalling (priority line, eg Clifton Hill)	10.4.7
9	Clyde rail extension	1.3.7, 10.8.4
<b>Longer term (complete within 15-30 years)</b>		
10	Wallan rail electrification	1.3.8, 10.8.5
11	City Loop reconfiguration	10.10.1
12	Melbourne Airport rail link	10.9.2, 11.4.2
13	Outer Metropolitan Ring Road	11.5.7, 13.5.3
<b>Longer term (further investigation)</b>		
14	Wollert transport links	1.3.9, 10.8.6
15	Melbourne Metro – future stages	10.10.2
16	Eastern Freeway-CityLink-Western Ring Road	11.5.8, 13.5.4
17	Regional rail eastern corridor	12.3.3, 13.5.5

\*The middle and outer employment centres covered by Recommendation 11.5.4 include East Werribee, Sunshine, Melbourne Airport, Latrobe, Monash and Dandenong South.

Source: *Infrastructure Victoria 30 Year Strategy*

**Figure 7\_Key New and Upgraded Transport Links in Melbourne**



Source *Infrastructure Victoria 30 Year Strategy*

# 2\_Study Area & Policy Context

## 2.3\_Policy Context

### Planning Policy Framework

The Planning Policy Framework (PPF) provides the overall strategic direction for the state. The following PPF facilitates the strategic direction for industrial land uses:

#### Clause 11.01-1S Settlement

##### Objective

To promote the sustainable growth and development of Victoria and deliver choice and opportunity for all Victorians through a network of settlements.

#### Clause 11.02-1S Supply of urban land

##### Objective

To ensure a sufficient supply of land is available for residential, commercial, retail, industrial, recreational, institutional and other community uses.

#### Clause 11.02-3S Sequencing of development

##### Objective

To manage the sequence of development in areas of growth so that services are available from early in the life of new communities.

##### Strategy

Improve the coordination and timing of infrastructure and service delivery in areas of growth.

#### Clause 17.01-2S Innovation and Research

##### Objective

To create opportunities for innovation and the knowledge economy within existing and emerging industries, research and education.

#### Clause 17.01-2S Innovation and Research cont.

##### Strategy

Support the development of business clusters

Promote a physical environment that is conducive to innovation and creative activities.

#### Clause 17.03 Industry

##### Clause 17.03-1S Industrial land Development

##### Objective

To ensure availability of land for industry.

#### Clause 17.03-3S State significant industrial land

##### Objective

To protect industrial land of State significance.

#### Clause 18.03-1S Planning for ports

##### Objective

To support the effective and competitive operation of Victoria's commercial trading ports at local, national and international levels and to facilitate their ongoing sustainable operation and development.

#### Clause 18.03-2S Planning for port environs

##### Objective

To plan for and manage land in the environs of commercial trading ports so that development and use are compatible with port operations and provide reasonable amenity expectations.

# 2\_Study Area & Policy Context

## 2.3\_Policy Context

### Local Planning Policy Framework

#### City of Greater Dandenong

##### Clause 21.02-2 Regional context

Dandenong IN2Z Industrial Area: Greater Dandenong is the only area in South East Melbourne that has a designated Industrial 2 Zone, reserved for heavy and / or offensive industries requiring extensive buffer zones.

##### Clause 21.02-3 Land use

Industrial Industry ranges from small-scale light industries in older established areas, to newer, general industrial estates, with large allotments and purpose-built factories.

Key industries located in Greater Dandenong include advanced manufacturing in automotive, plastics and scientific equipment, as well as food processing and distribution, and metal fabrication. Greater Dandenong's large industrial areas house some key national and international organisations. New 'high tech' industry is steadily replacing the traditional heavy industry upon which the region depended in the post-war period.

The Dandenong Industrial 2 Precinct provides for environmentally sensitive industries and is a resource of state significance as it is one of only three strategic locations within the State where industries, that require significant buffers from sensitive uses can operate. It includes a diverse range of industries, among them, food processing establishments licensed for export, as well as chemical and general industries.

##### Clause 21.03 A Vision for Greater Dandenong

Council's vision for Greater Dandenong is:

A nationally and internationally competitive city; a pre-eminent industrial centre for Melbourne's south-east with a significant high-tech/knowledge industrial component; a centre for government, multi-national investment and employment; vibrant commercial and retail sector and a state of the art inter-modal transport interchange for south eastern Victoria.

##### Clause 21.04 Land use

##### Clause 21.04-3 Industrial

While Greater Dandenong is home to the State significant Industrial 2 Zone, the challenge is to protect this zone for its intended purpose and to carefully manage the interface between this zone and other zones. Industrial areas need to provide a safe environment and facilities for people to cycle or walk to their work place...

Industry also needs to manage the challenge of noise pollution, air pollution and reducing other adverse impacts on the environment – including ground water.

A prosperous local industrial economy not only provides local employment opportunities but also reduces the need for long journeys to work and transport pollution with positive ramifications for the environment. Industry should be encouraged to develop best practice in regards to utilisation of energy and resources.

# 2\_Study Area & Policy Context

## 2.3\_Policy Context

### Local Planning Policy Framework

#### City of Greater Dandenong cont.

Economic issues – The Dandenong Industrial 2 Zone accommodates industries that require significant buffers from sensitive uses. This is one of only three Industrial 2 Zones within the State and is of State significance.

To ensure the availability of land in this strategic location for its primary purpose, the Industrial 2 Precinct needs to be protected against the encroachment of those industrial activities which do not require significant buffers from sensitive land uses.

Another key challenge for Greater Dandenong is the continued take up of industrial land for bulky goods retailing will jeopardise the municipality's industrial development.

The lack of public transport accessibility to industrial areas has proved to be a significant barrier for young people accessing employment, it is important to ensure accessibility between industrial areas and other employment nodes to public transport.

#### Objective

1. To provide development, employment and industrial opportunities, which cater for a broad range of industries.

#### Objective

2. To facilitate new investment, development and redevelopment.

#### Objective

3. To develop and exploit existing infrastructure and locational advantage of the City's industrial areas.

#### Objective

4. To encourage the integration of commercial and industrial developments in existing Commercial 2 Zones.

#### Objective

5. To protect the strategically significant Industrial 2 Zone for its primary purpose

#### Objective

6. To protect industrial zones for industrial activity.

#### Objective

7. To improve the image of industrial areas in Greater Dandenong.

#### Objective

8. To ensure industrial uses do not impact adversely on the amenity and safety of surrounding land uses and the environment.



# 2\_Study Area & Policy Context

## 2.3\_Policy Context

### Local Planning Policy Framework

#### City of Kingston

Clause 21.02 Municipal Profile  
Clause 21.02-2 Regional context

Industry/employment  
Kingston has the highest concentration of manufacturing employment in metropolitan Melbourne, and is therefore a major provider of jobs to the south-east metropolitan region.

Clause 21.02-3 Municipal overview

Industry  
Kingston is one of the largest and most concentrated manufacturing bases in metropolitan Melbourne. The municipality has over 4,000 manufacturing businesses which provide employment for over 25,000 people, representing around 10% of Melbourne's manufacturing jobs.

Locations for industry range from older established areas in Moorabbin,

Cheltenham and Braeside, which accommodate small to medium sized industries, to newer estates at Redwood Gardens, Parkview and Woodlands, which are generally within a garden setting and provide for medium to large scale firms.  
Clause 21.03 Land use challenges for the new millennium

#### Industrial revitalisation

Kingston will continue to play a major role within the manufacturing sector in both a regional and state context. The City's older industrial areas however are in need of significant revitalisation if they are to remain viable locations for modern manufacturing businesses.

Significant infrastructure funding will be required if Council is to provide assistance to these industries to overcome the major physical constraints which currently inhibit their efficiency and operation.

Clause 21.07 Industrial Land Use

Clause 21.07-1 Overview

Council has a continued emphasis on the achievement of high amenity, well landscaped settings for new industrial estate development will also enhance the attractiveness of the municipality as a destination for office/industrial headquarters.

The City's older industrial areas are in need of significant revitalisation in order to remain viable locations for modern manufacturing businesses.  
The smaller, isolated pockets of industrial land are no longer appropriate or viable locations for industry.

The larger areas such as Moorabbin and Mordialloc/Braeside form the traditional backbone of smaller scale manufacturing in the south-east region of Melbourne.

Despite their age and physical constraints, these areas will continue to play an important role in generating jobs and wealth for many years to come.

Clause 21.07-3 Objectives, strategies and implementation

#### Objective 1

To provide a range of industrial land and buildings to meet the needs a broad range of industries.

#### Objective 2

To facilitate new investment and redevelopment in Kingston's older industrial areas.

#### Objective 5

To redevelop smaller pockets of industrial land located within residential areas for innovative residential or mixed use development, taking into account local environmental and amenity issues.

# 2\_Study Area & Policy Context

## 2.3\_Policy Context

### Local Planning Policy Framework

#### Frankston City Council

##### Clause 21.01 Introduction

The municipality has large tracts of commercial and industrial land and, with the increased accessibility provided by East Link and Peninsula Link this land provides employment and economic opportunities for residents and businesses in the region. The transport network also provides links to employment nodes within Greater Dandenong, Kingston, Monash and Casey.

##### Clause 21.03-3 Strategic Framework Plan

The main strategic directions identified on the Strategic Framework Plan and individual land use theme plans are:

- Major industrial development and consequent job creation is encouraged at Carrum Downs.

##### Clause 21.08-1 Key issues

- Rejuvenating ageing industrial stock to ensure that employment opportunities are maximised.

##### Clause 21.08-2 Objectives, strategies and implementation

###### Objective 2

Rejuvenate ageing industrial stock and identify new opportunities for industrial employment.

#### Mornington Peninsula Shire

##### Clause 21.02 Profile of the Mornington Peninsula

Many of the Shire's industrial areas display a mix of service industry and sales/supply yards, indicating a local trade base.

##### Clause 21.03 Mornington Peninsula – Regional role and local vision

##### Clause 21.03-1 The regional role of the Mornington Peninsula

###### Port activity

Western Port boasts major deep-water port facilities, including Victoria's largest bulk liquid cargo port.

Land resources adjacent to ports should be protected to preserve their value for uses which are dependent upon or gain substantial economic advantage from proximity to the port's particular shipping operations.

Port and industrial development should be physically separated from sensitive urban development by the establishment of appropriate buffers, which reduce the impact of vibration, intrusive lighting, noise and air emissions from port activities.

##### Clause 21.03-3 Summary of strategic challenges and opportunities

Council recognises a role for township industrial areas which are provided as an important employment base as well as services to the local population. Council notes that these areas often attract bulky goods retailing and provision may be made in these areas for restricted retailing, provided the retail function of the town centres is not compromised.



## 2\_Study Area & Policy Context

### Mornington Peninsula Shire cont.

#### Clause 21.07-4 Industrial areas

Manufacturing is a significant employer in the Shire; involving local service industry and manufacturing based in the townships as well as the major concentration of employment at the Western Port Industrial complex in Hastings.

While Mornington Peninsula currently has a substantial supply of light industrial land, there is a relative shortage of lots larger than 2,000 square metres. It is necessary to prevent the premature subdivision of remaining industrial land to maintain a supply of larger development sites.

Manufacturing and service industry remain a significant component of the Shire's employment base. To achieve Council has an objective to facilitate the expansion of existing industries and to attract new industries that provide services to the Peninsula community, contribute to the local employment base and that are compatible with the Peninsula's character and environment.

#### Clause 21.10 Managing port area development

Council's planning scheme provides that it should protect the long term value of Western Port for selected port and industrial purposes that depend upon or gain significant economic advantage from proximity to natural deep water channels.

NOTE: In April 2018 Mornington Peninsula Shire adopted its Industrial Areas Strategy. The strategy does not include land in the Special Use Zone Schedule 1 set aside for port-related uses in its assessment of demand for industrial land as the SUZ1 land is not available for general industrial use and development.

### City of Casey

#### Clause 21.01-4 Economic context

The City has a good range of these industries, with a large manufacturing precinct located in Hallam, smaller service industries' precincts located in Doveton, Cranbourne, Narre Warren and Berwick.

The municipality also sits within a broader regional context, with the neighbouring City of Greater Dandenong, and Dandenong South in particular, being a significant employment destination for Casey's residents. In the future, the Shire of

Cardinia will also be an important employment destination for Casey's residents, with Casey itself ultimately fulfilling a similar role for residents of these municipalities. Improving public transport and road connections to both municipalities will therefore be an important objective for the future.

#### Clause 21.09 Berwick Northern Area

##### Clause 21.09-3 Strategies

- Maintain the Enterprise Avenue industrial estate as a high-amenity service industrial precinct for the local area.

#### Clause 21.12 Casey Coast

##### Clause 21.12-3 Strategies

###### Tooradin

- Provide for a high amenity service industrial precinct west of Tooradin Station Road that minimises off-site amenity impacts.

#### Clause 21.16 Cranbourne East

##### Clause 21.16-3 Strategies

- Maintain buffers and manage the interface of the residential areas with the existing abattoir and industrial activities along Thompsons Road, to protect the operation of existing uses and minimise loss of residential amenity.

# 2\_Study Area & Policy Context

## City of Casey cont.

### Clause 21.17 Cranbourne North

#### Clause 21.17-3 Strategies

- Develop a new service business/industrial precinct with high levels of amenity on the northern side of Thompsons Road to provide local business and employment opportunities.

### Clause 21.18 Cranbourne West

#### Clause 21.18-2 Objectives

- To develop a new industry and business park to improve economic development and employment opportunities within Cranbourne West and the wider Cranbourne region that is sustainable, well landscaped and has high levels of amenity and accessibility

### Clause 21.21 Hallam

#### Clause 21.21-2 Objectives

- To extend and modernise the employment and service business potential of Hallam industrial area.

## Cardinia Shire Council

### Clause 21.04 Economic development

#### Clause 21.04-4 Industry

#### Overview

The main industrial area within the municipality is established within Pakenham with smaller industrial precincts also located in Emerald, Maryknoll, Beaconsfield, Officer, Bunyip, Koo Wee Rup and Lang Lang. A number of existing industries add value to the process of agricultural production.

In the Casey-Cardinia Growth Area, 2,500 additional hectares have been set aside for employment uses, including industry and commerce. South East Industrial Business Park (located at the intersection of Bald Hill Road and Koo Wee Rup Road, Pakenham), will provide 167 hectares of industrial land to support more jobs to be created near Pakenham.

#### Key issues

- Facilitating the development of the Pakenham and Cardinia Road Employment Precincts.
- Facilitating linkages between industry and agricultural uses particularly in terms of transport networks.
- Locating future industry to ensure appropriate access from the transportation network.
- Recognising that future industry development will be increasingly linked to a range of knowledge based services.

#### Objective

To develop manufacturing and service industries that provide services to local residents and businesses, support local employment and reflect a high standard of urban design.

### Clause 21.07-2 Gembrook

#### Economic development

- Provide for light industrial land uses to service the township.

### Clause 21.07-7 Koo Wee Rup

#### Economic Development

- Provide additional industrial land to the south of the township to encourage local employment opportunities.
- Facilitate the development of an additional industry and service industry precinct within the Koo Wee Rup township.

## 2\_Study Area & Policy Context

### 2.4\_Summary

The Southern Region is a significant area accounting for a relatively large share of Melbourne's total population (22% of residents) and employment (17% of jobs).

Whilst Plan Melbourne 2017-2050 anticipates most of Melbourne's future population growth will occur in the Western and Northern metropolitan regions, the Southern Region remains important as a major contributor to future employment growth, with significant regional freight infrastructure investments planned for the region.

Key observations relating to the Southern Region include:

- City of Greater Dandenong accounts for the largest number of employed persons followed by Kingston, Casey, Frankston and Mornington.
- City of Kingston and City of Greater Dandenong report the highest population and employment densities followed by Frankston and Casey
- City of Casey and Cardinia Shire Council rank among Melbourne's largest and fastest growing municipalities respectively, meaning both of these areas are likely to continue to require more land for employment related uses when compared with Kingston, Frankston and Mornington.

Planning for future industrial land developments in Southern Region will require careful consideration to ensure appropriate land and infrastructure is made available to support industry needs and economic growth.

Local planning and policy frameworks, including zones and overlays and local development strategies will need to be carefully considered to ensure an appropriate balance between industry needs and sensitive environmental areas.

# 3\_Industrial Land Use & Activity

## 3.1\_Metropolitan Industrial Land Context

Melbourne currently has almost 26,000 hectares of land zoned for industrial purposes. Of this, around 6,670 hectares (26%) are vacant, with approximately 4,430 hectares (17%) of vacant land located within SSIPs. In addition, 6,275 hectares of unzoned land has been identified through growth corridor plans and previous strategic plans.

During the past five years, demand for new industrial land has averaged around 270 hectares a year, with demand driven by freight, logistics and manufacturing.

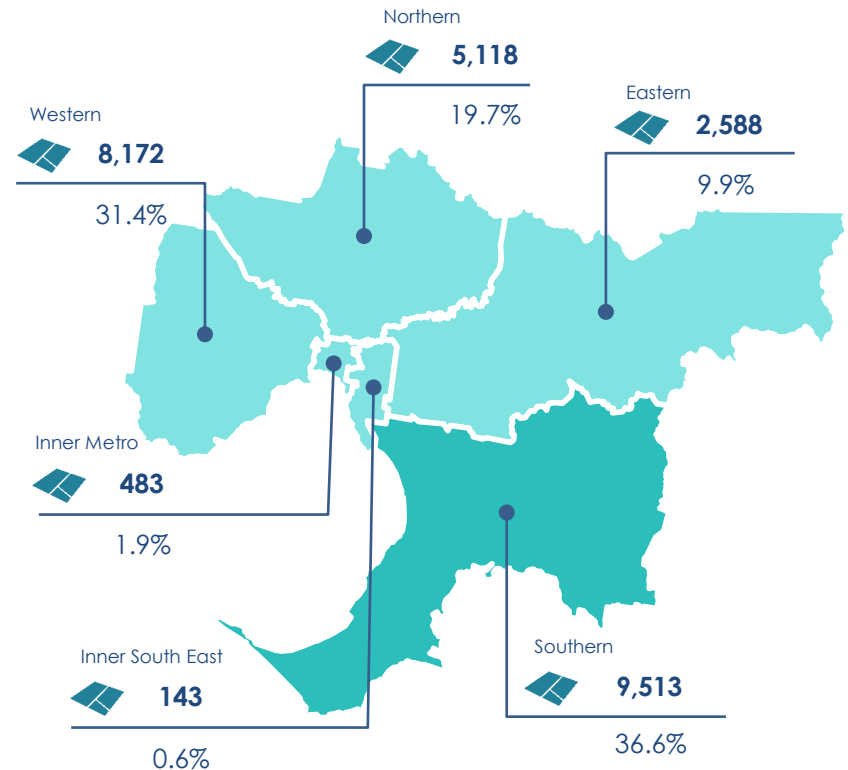
- The largest current contributors to industrial land consumption are the Northern and Western Regions (approx.164 hectares p.a.) followed by the Southern Region (approx. 92 hectares p.a.).
- The Northern and Western Regions account for the largest share of occupied zoned industrial land (approx. 9,255 hectares or 48%) followed by the Southern Region (approx. 7,050 hectares or 36%).
- The Northern and Western Regions account for the largest available supply of zoned industrial land (approx. 4,035 hectares or 60%) followed by the Southern Region (approx. 2,464 hectares or 37%).

**Table 4\_Melbourne Subregions Industrial Land (Gross Ha), 2017**

SUB-REGION	OCCUPIED (HA)	VACANT SUPPLY (HA)	TOTAL (HA)	CONSUMPTION HA P.A.*
INNER METRO	471.9	11.2	483.1	1.0
INNER SOUTH EAST	141.0	2.4	143.3	0.0
EASTERN	2,431.1	156.5	2,587.6	11.3
NORTHERN	3,748.2	1,369.6	5,117.8	66.6
<b>SOUTHERN</b>	<b>7,049.1</b>	<b>2,463.5</b>	<b>9,512.6</b>	<b>91.7</b>
WESTERN	5,506.6	2,665.5	8,172.1	97.0
<b>METROPOLITAN MELBOURNE</b>	<b>19,347.9</b>	<b>6,668.7</b>	<b>26,016.5</b>	<b>267.6</b>

*Note: Consumption (ha pa) refers to average consumption rates from 2012 to 2017*  
Source: UDP 2017

**Figure 8\_Melbourne Subregions Zoned Industrial Land Stock (Gross Ha), 2017**



**Metropolitan Melbourne**  
**26,017 gross ha**

Source: UDP 2017

# 3\_Industrial Land Use & Activity

## 3.2\_Southern Region Activity

### Overview

The Southern Region comprises 9,513 gross hectares zoned industrial land of which 2,463.5 hectares (26%) is available for future industrial use / development. Approximately 2,870 hectares of this land is located within the Special Use Zone 1 in Mornington Peninsula and is not available for general industrial use and development. Approximately 1,225.4 hectares industrial land is proposed in Casey (287.7 hectares or 23.5%) and Cardinia (937.7 hectares or 76.5%). This may reduce owing to the proposed rezoning of industrial land in Cranbourne West (Casey Planning Scheme Amendment C219).

Based on a 5-year average from 2012-2017, industrial land consumption rates range from the highest in Dandenong (54.1 hectares p.a.) to the lowest in Casey (2.5 hectares p.a.). These consumption rates suggest industrial land stocks may be exhausted in Frankston in the short- term (i.e. 2-3 years) and in Kingston and Greater Dandenong during the next 11-12 years.

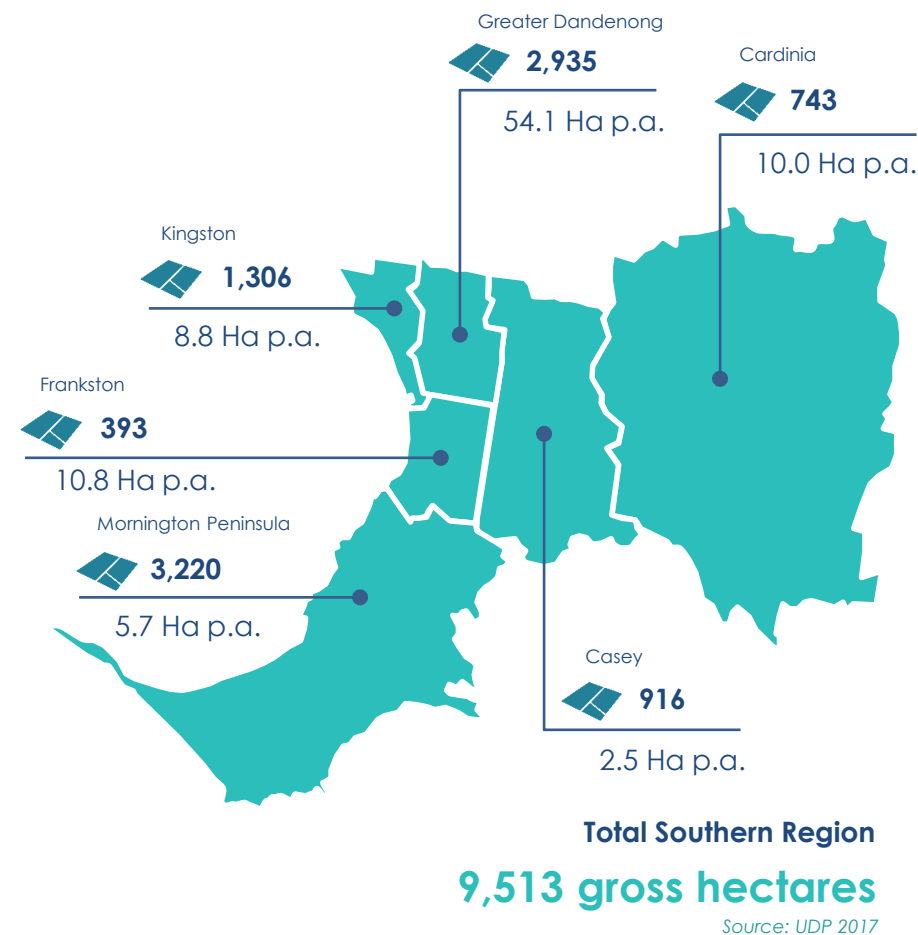
While other areas appear to have sufficient industrial stocks based on these consumption rates, due to potential demand transfer from established industrial precincts with tightening land supply (such as the Southern SSIP, Frankston, Mornington Peninsula and Kingston), consumption rates would increase and the exhaustion of available industrial land would occur sooner in Casey and Cardinia.

**Table 5\_Southern Subregion – Zoned & Proposed Future Industrial Land (Gross Ha), 2017**

SUB-REGION LGA	OCCUPIED (HA)	SUPPLY (HA)	TOTAL (HA)	PROPOSED (HA)
KINGSTON	1,200.8	105.1	1,305.9	0.0
DANDENONG	2,328.7	605.8	2,934.5	0.0
FRANKSTON	362.5	30.6	393.1	0.0
CASEY	622.3	293.4	915.7	287.7
CARDINIA	353.6	389.8	743.4	937.7
MORNINGTON	2,181.2	1,038.8	3,220.0	0.0
<b>SOUTHERN REGION</b>	<b>7,049.1</b>	<b>2,463.5</b>	<b>9,512.6</b>	<b>1,225.4</b>

Source: UDP 2012-2017

**Figure 9\_Southern Subregions Industrial Land Stock (Gross Ha), 2017**



# 3\_Industrial Land Use & Activity

## 3.2\_Southern Region Activity

### Industrial Consumption Sensitivity

To demonstrate more recent trends, a sensitivity analysis is conducted using the most recent consumption rates (i.e. the averages for the last 2 years and the past 12 months).

In Casey and Cardinia, where consumption rates have seen gradual increases, the calculated theoretical exhaustion is expected to occur much sooner reflecting potential future growth. Based on the most recent consumption rates, the theoretical exhaustion in Casey is estimated to be between 55-67 years and that in Cardinia is 26-31 years (excluding proposed industrial land). Obviously, should consumption rates continue to increase in these locations, exhaustion could occur even sooner.

It is also noted a total of 2,827.1 ha industrial land in Mornington is zoned SUZ, of which 975.6 ha is available. This leaves 347.9 ha total industrial land zoned C2Z or IN3Z, of which 63.2 ha is available. Excluding the SUZ land, the theoretical exhaustion in Mornington is estimated at approximately 13-15 years based on the most recent consumption rates.

**Table 6\_Southern Subregion – Zoned Industrial Land Consumption Sensitivity\*, 2017**

SUB-REGION LGA	OCCUPIED (HA)	SUPPLY (HA)	TOTAL (HA)	CONSUMPTION HA P.A. <sup>^</sup>	THEORETICAL EXHAUSTION
KINGSTON	1,200.8	105.1	1,305.9	13.4-13.5	7-8 YEARS
DANDENONG	2,328.7	605.8	2,934.5	56.3-65.7	9-11 YEARS
FRANKSTON	362.5	30.6	393.1	10.8-16.1	2-3 YEARS
CASEY	622.3	293.4	915.7	4.4-5.3	55-67 YEARS
CARDINIA	353.6	389.8	743.4	12.7-15.1	26-31 YEARS
MORNINGTON#	284.8	63.1	347.9	4.2-4.7	13-15 YEARS
<b>SOUTHERN REGION</b>	<b>5,152.7</b>	<b>1,487.8</b>	<b>6,640.5</b>	<b>104.8-117.4</b>	<b>13-14 YEARS</b>

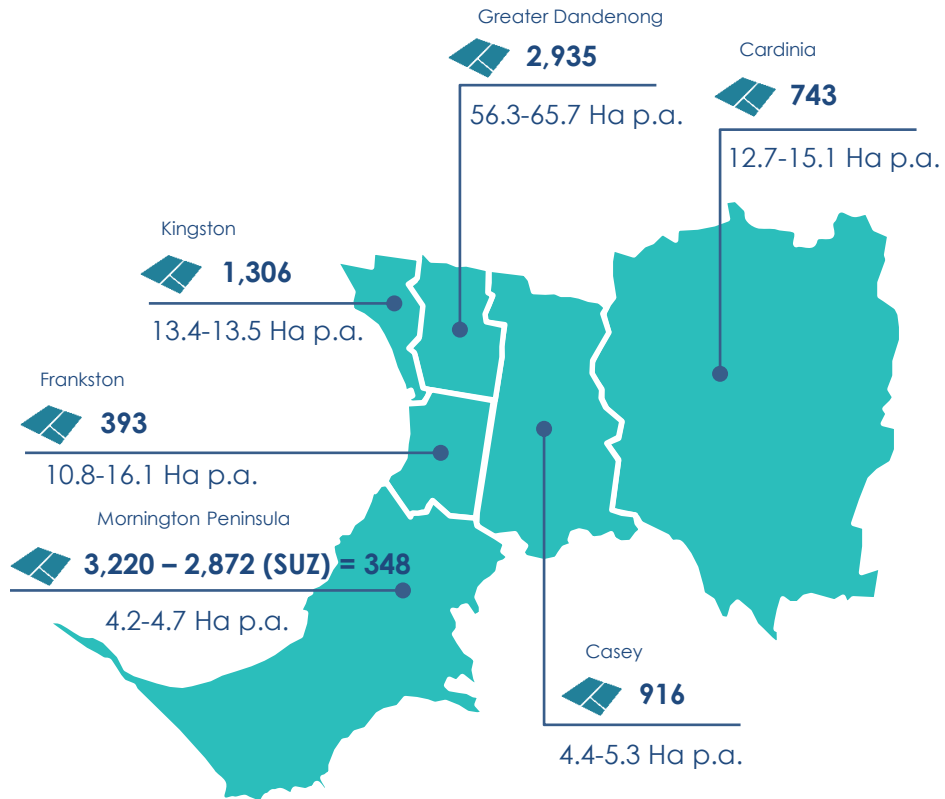
Note: \* This sensitivity assessment excludes proposed industrial land

<sup>^</sup> Consumption (ha pa) refers to the range between the average consumption rate of 2014-17 and the consumption rate of 2015-17

# Industrial land in Mornington excludes SUZ

Source: UDP 2017

**Figure 10\_Southern Subregions Industrial Land Stock Sensitivity (Gross Ha), 2017**



Source: UDP 2017

# 3\_Industrial Land Use & Activity

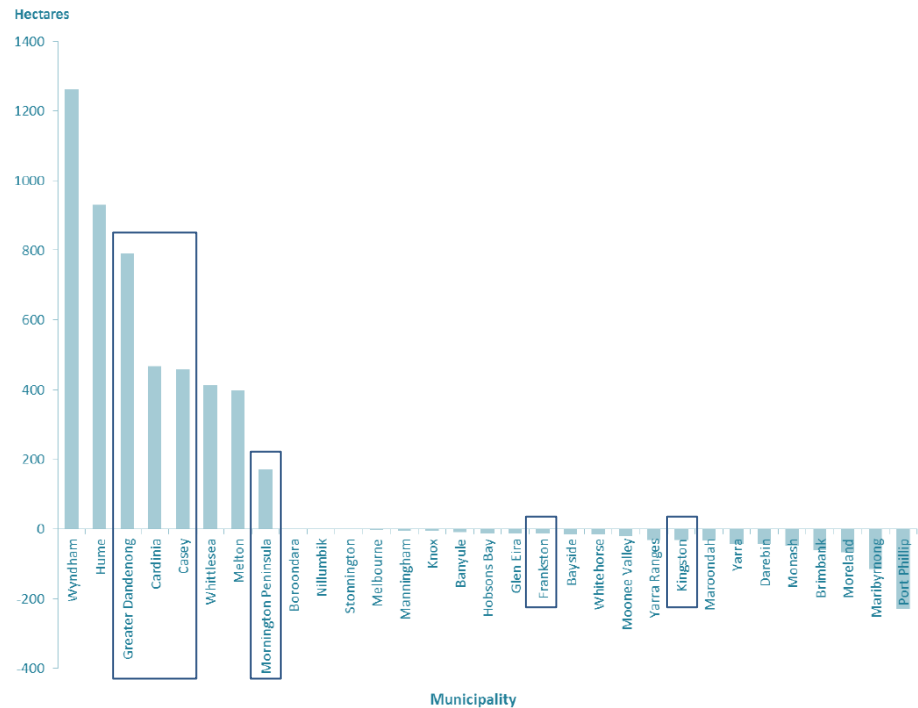
## 3.2\_Southern Region Activity

According to UDP, a total of 6,294 hectares of land was zoned for industrial purposes over the last 16 years whilst 2,210 hectares was zoned from industrial for other purposes across metropolitan Melbourne, resulting in a net increase of 4,084 hectares of zoned industrial land.

This increase occurred mainly in municipalities with a State Significant Industrial Precinct, whilst losses of industrial land were mainly in Melbourne's inner and middle areas. Net change of zoned industrial land by municipality is presented in Figure 11 and by location across metropolitan Melbourne is presented in Figure 12 overleaf.

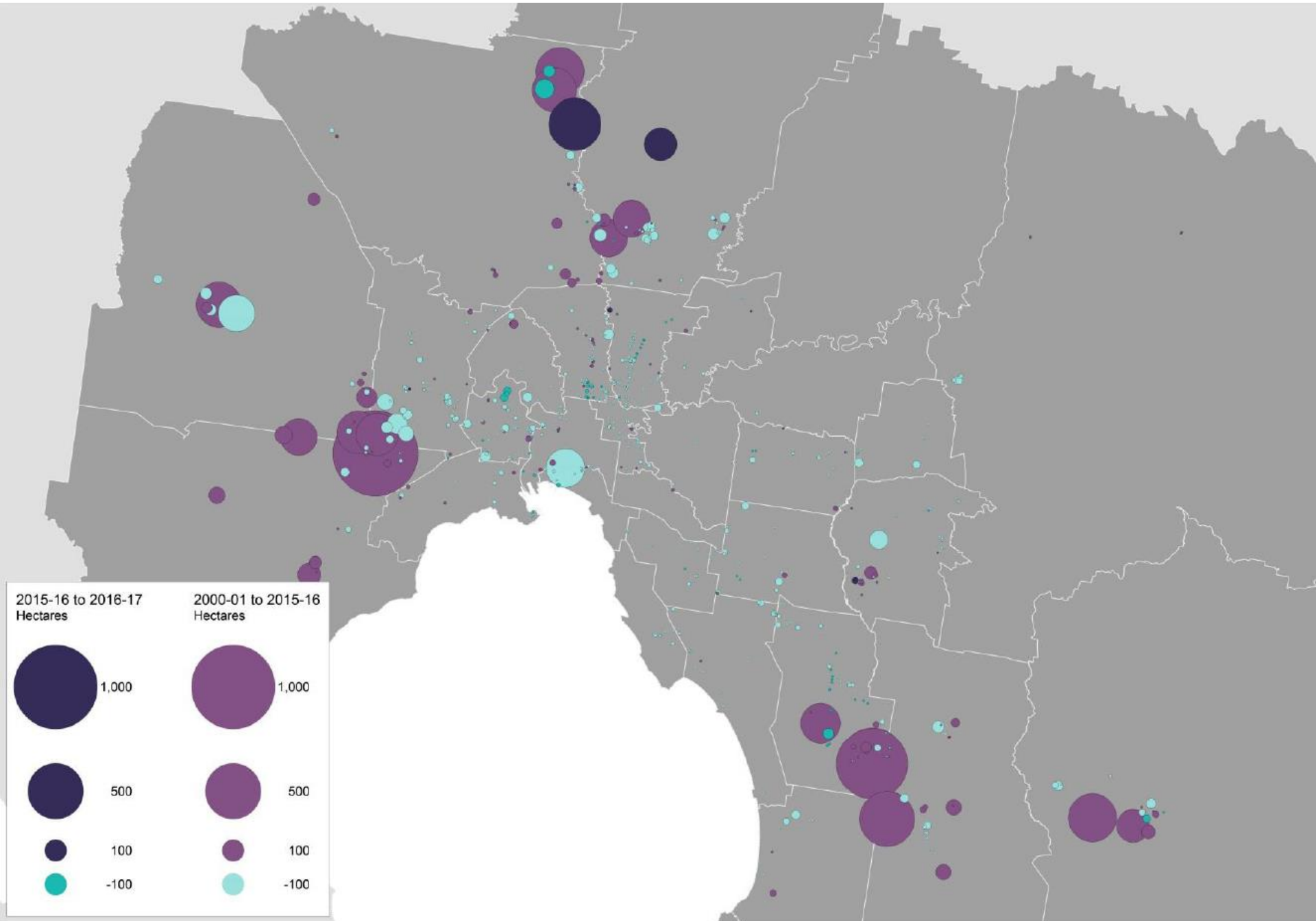
For the Southern Region, there is significant net increase of zoned industrial land in Greater Dandenong, Cardinia, Casey and Mornington Peninsula, whilst slight losses in Frankston and Kingston during 2000-01 and 2016-17. This results in overall increase of 1,840 hectares of zoned industrial land in the Southern Region, particularly the three SSIPs within the region.

**Figure 11\_Net Change of Zoned Industrial Land by Municipality, 2000-01 to 2016-17**



Source: UDP 2017

Figure 12\_Net Change of Zoned Industrial Land, Metropolitan Melbourne, 2000-01 to 2016-17





# 3\_Industrial Land Use & Activity

## 3.3\_State Significant Industrial Precincts

The three SSIPs within the Southern Region contain approximately 5,020 gross hectares zoned industrial land.

- The **Southern** Industrial Precinct (Dandenong/Casey) is the largest of the three totalling 2,973.3 gross hectares of which 2,331.7 hectares (78.4%) are occupied and 641.6 hectares are available supply (21.5%). The Southern SSIP is also the most mature and significant SSIP of the three in the Region, home to a large number industrial related employers.
- **Port of Hastings** Industrial Precinct is the second largest totalling 1,391.0 hectares of which 817 hectares (58.7%) are occupied and 574 hectares are available supply (41.3%). Based on current policy, the Port of Hastings SSIP and surrounding SUZ1 zoned land is reserved to port related uses.
- **Officer / Pakenham** Industrial Precinct totals 654.9 gross hectares with 937.7 hectares planned future expansion potential. The Officer / Pakenham SSIP provides for future industrial land supply for the broader region.

Average annual consumption rates between 2012 and 2017 within the Southern SSIP are the highest at 56.9 hectares p.a. followed by Officer/Pakenham at 10 hectares p.a. Based on historic consumption, there is the potential for industrial land stocks within the Southern SSIP to be exhausted during the coming 11-12 years. There is sufficient existing and planned industrial stocks within the Officer / Pakenham precinct within the foreseeable future.

**Table 7\_ Southern Subregion State Significant Industrial Precincts (Gross Ha), 2017**

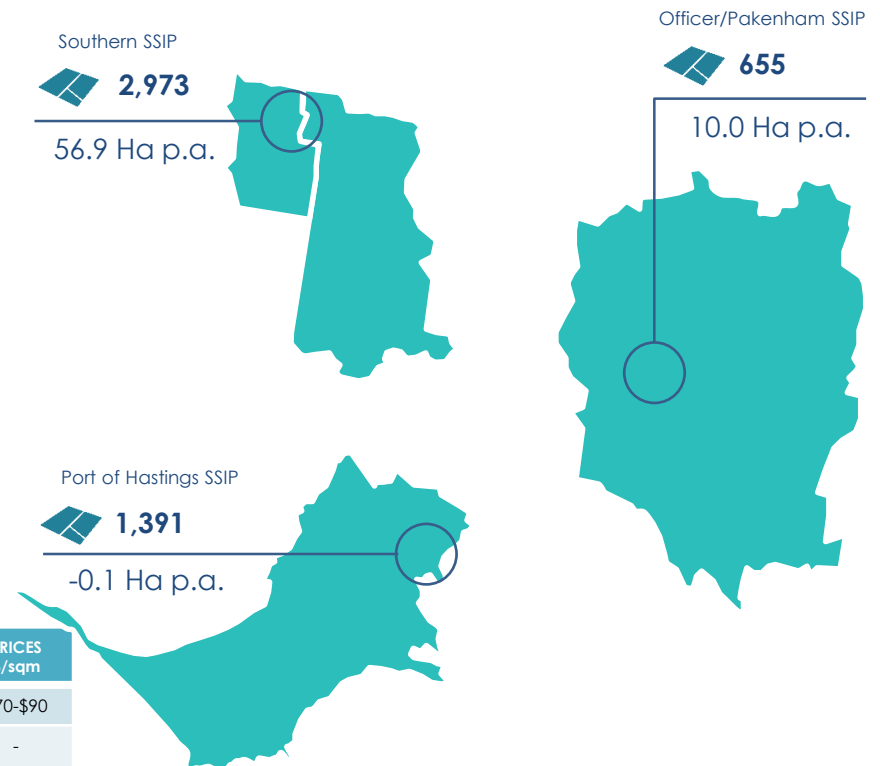
SSIP	OCCUPIED (HA)	SUPPLY (HA)	TOTAL (HA)	PROPOSED (HA)	CONSUMPTION HA P.A.*	THEORETICAL EXHAUSTION**	PRICES \$/sqm
Southern	2,331.7	641.6	2,973.3	0.0	56.9	11-12 YEARS	\$70-\$90
Officer / Pakenham	291.9	363.0	654.9	937.7	10.0	36-130 YEARS	-
Port of Hastings	817.0	574.0	1,391.0	0.0	-0.1	-	\$80-\$110

Note: \*Consumption (ha pa) refers to average consumption rates from 2012 to 2017

\*\* The higher end of theoretical exhaustion considers proposed industrial land

Source: UDP 2017

**Figure 13\_ Southern Subregion State Significant Industrial Precincts (Gross Ha), 2017**



**Total SSIPs in Southern Region**  
**5,019 gross hectares**

Source: UDP 2017

# 3\_Industrial Land Use & Activity

## 3.3\_State Significant Industrial Precincts

### Southern Industrial Precinct

The majority of zoned industrial land within the Southern Industrial Precinct is located in City of Greater Dandenong with a portion (350 hectares) located within City of Casey.

- Approx. 2,330 hectares are occupied with the majority (1,593.8 hectares or 68.4%) being located within Industrial 1 zone (IN1Z).
- Approx. 641.6 hectares are available for industrial use with the majority (549.8 hectares or 85.7%) being located within Industrial 1 zone (IN1Z).
- The majority of zoned industrial land stocks located along Greens Road, north of Abbots Road and along Frankston Dandenong Road and Dandenong Bypass are occupied.
- Most industrial land available for development is located in the south-east of the precinct (abutting the Green Wedge corridor) and north-western corner of the precinct at Dandenong Bypass.

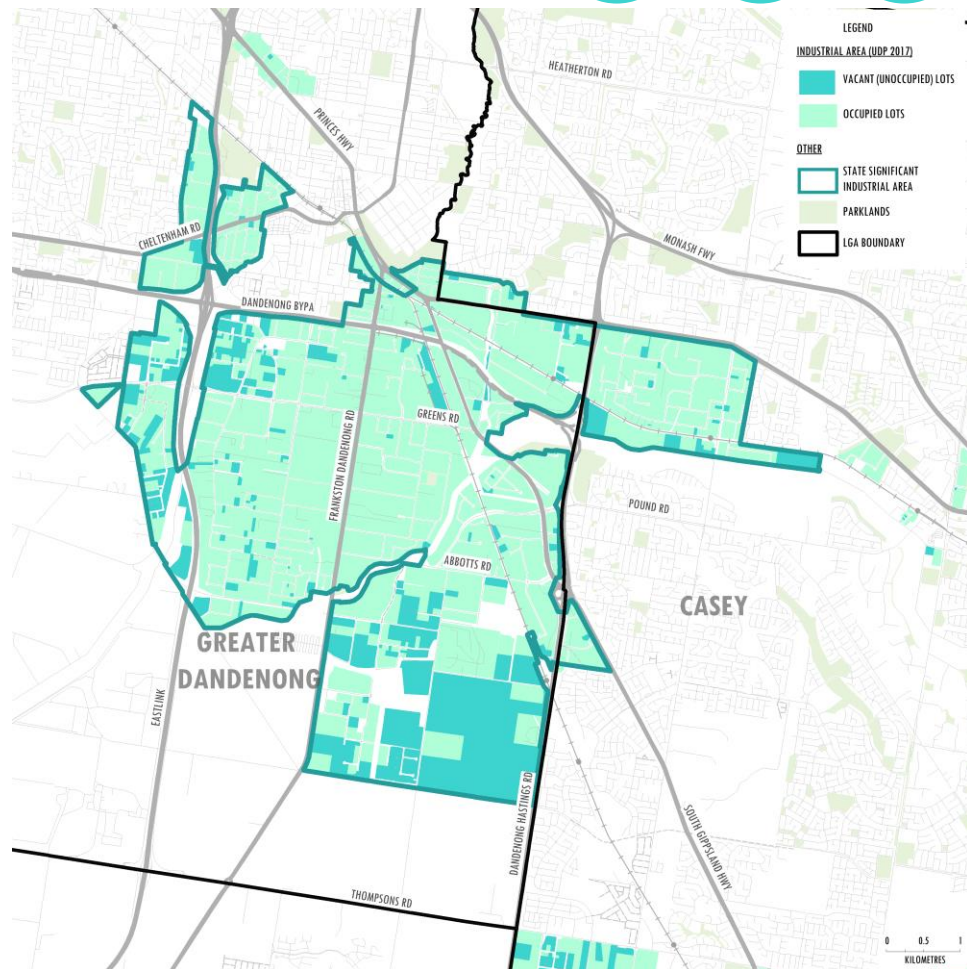
Zoned industrial land prices within the Southern Industrial Precinct range from \$70-\$90/m<sup>2</sup>.

**Table 8\_Southern SSIP by Zoning (Gross Ha), 2017**

Southern SSIP	OCCUPIED (HA)		SUPPLY (HA)		TOTAL (HA)	
C2Z	391.6	16.8%	19.8	3.1%	411.4	13.8%
IN1Z	1,593.8	68.4%	549.8	85.7%	2,143.7	72.1%
IN2Z	248.6	10.7%	18.3	2.8%	266.9	9.0%
IN3Z	97.6	4.2%	53.6	8.4%	151.2	5.1%
<b>Total</b>	<b>2,331.6</b>	<b>100.0%</b>	<b>641.6</b>	<b>100.0%</b>	<b>2,973.2</b>	<b>100.0%</b>

Source: UDP 2017

**Figure 14\_Southern SSIP**



56.9  
Ha p.a.

11-12  
years

\$70-\$90  
Per sqm

Source: UDP 2017, MacroPlan Dimasi

# 3\_Industrial Land Use & Activity

## 3.3\_State Significant Industrial Precincts

### Officer/Pakenham Industrial Precinct

The Officer / Pakenham Industrial Precinct is located in Cardinia Shire Council.

- Approx. 291.9 hectares are occupied with a relatively even split between Industrial 1 zone (IN1Z) and Urban Growth Zone (UGZ).
- Approx. 363 hectares are available for industrial use with the majority (210.2 hectares or 57.9%) being located within Industrial 1 zone (IN1Z).
- There is approx. 937.7ha land proposed for future industrial use on the southern side of the Princes Freeway across four separate locations including south and west of the Cardinia Road and Officer South employment precincts.
- The majority of zoned industrial land stocks north of the Princes Freeway are occupied with a smaller precinct north of the Princes Highway being largely occupied.

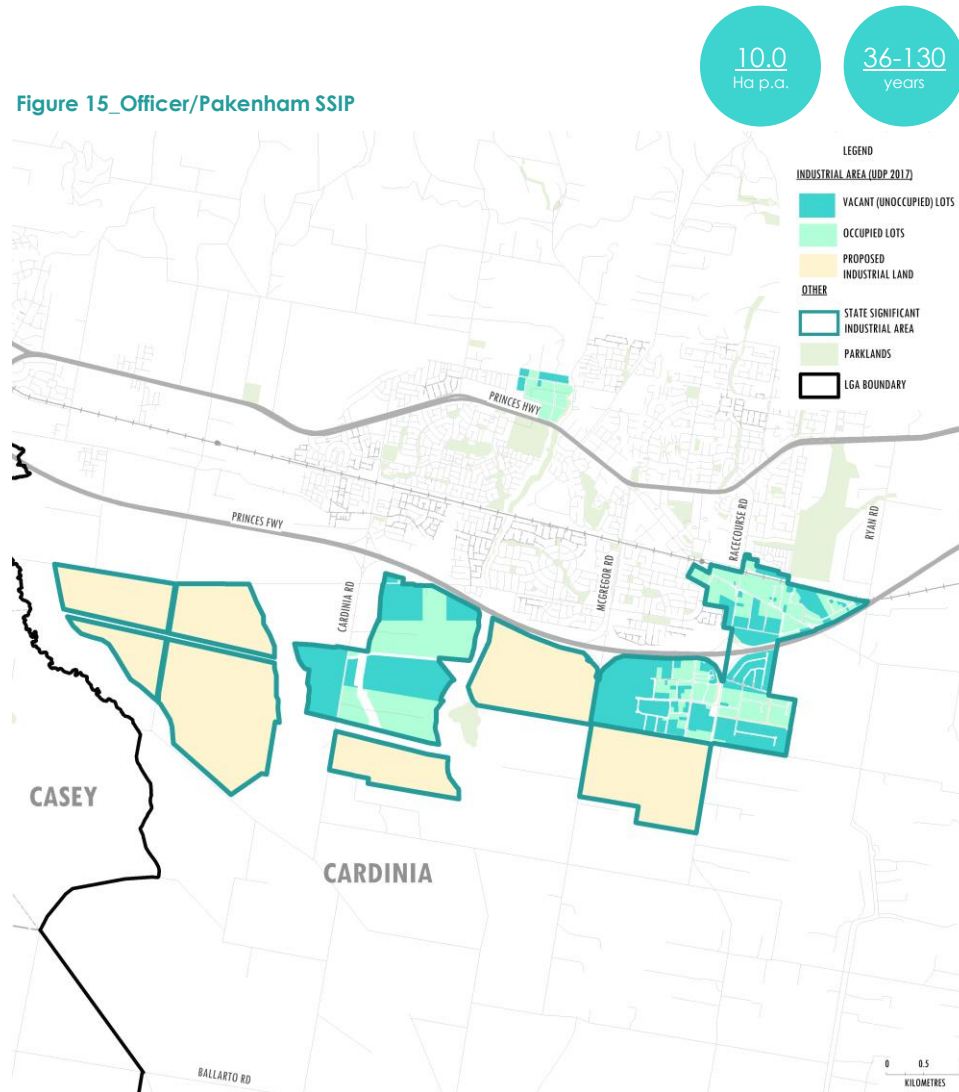
There is sufficient current industrial land supply including proposed industrial land to meet future needs into the future.

**Table 9\_Officer/Pakenham SSIP by Zoning (Gross Ha), 2017**

Officer/ Pakenham SSIP	OCCUPIED (HA)		SUPPLY (HA)		TOTAL (HA)	
IN1Z	144.3	49.4%	210.2	57.9%	354.5	54.1%
UGZ2	147.6	50.6%	152.8	42.1%	300.4	45.9%
<b>Total</b>	<b>291.9</b>	<b>100.0%</b>	<b>363.0</b>	<b>100.0%</b>	<b>654.9</b>	<b>100.0%</b>

Source: UDP 2017

**Figure 15\_Officer/Pakenham SSIP**



Source: UDP 2017, MacroPlan Dimasi

# 3\_Industrial Land Use & Activity

## 3.3\_State Significant Industrial Precincts

### Port of Hastings Industrial Precinct

The Port of Hastings Industrial Precinct is zoned Special Use Zone 1 (SUZ1) and is strategically positioned for port related uses. The Port of Hastings is wholly located in Mornington Peninsula Shire Council.

- Approx. 817 hectares are occupied with approx. 574 hectares available for industrial use.
- The majority of zoned industrial land stocks within the SSIP shown as vacant are located north of Bluescope Steel Corporation fronting Western Port Bay.
- A key purpose of the SSIP and SUZ1 zoned land is to provide a location for selected port and industrial uses which depend upon or gain significant economic advantages from the natural deep water channels in Westernport. Industrial uses are only permitted within the zone if they are dependent on or gain significant economic advantage from proximity to deep water port facilities, be directly associated with such a use or be a marine service industry. As such the Port of Hastings SSIP has limited practical developability to pick up potential future demand transfer from precincts with tightening land supply.
- Take-up rates within the Port of Hastings precinct have been negligible during the past five years.

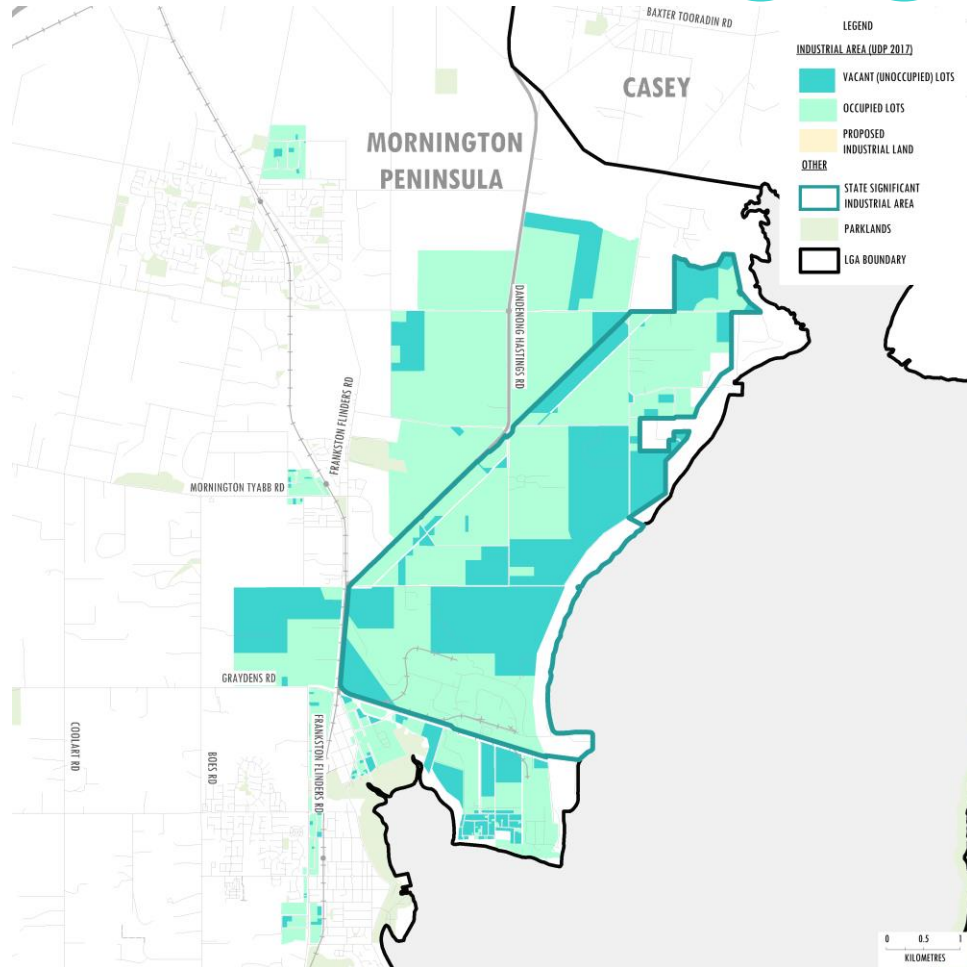
Zoned industrial land prices within the Port of Hastings Industrial Precinct range from \$80- \$110/m2. This is higher than the Southern Industrial Precinct and may present a barrier to potential investors / developers.

**Table 10\_Port of Hastings SSIP by Zoning (Gross Ha), 2017**

Port of Hastings SSIP	OCCUPIED (HA)	SUPPLY (HA)	TOTAL (HA)
SUZ1	817.0	574.0	1,391.0

Source: UDP 2017

**Figure 16\_Port of Hastings SSIP**



Source: UDP 2017, MacroPlan Dimasi

# 3\_Industrial Land Use & Activity

## 3.4\_Other Industrial Precincts

Mornington Peninsula has the largest stock of industrial land located outside the three SSIPs (1,829 hectares) followed by Kingston (1,306 hectares). Of Mornington Peninsula's stock, approximately 1,480 hectares is located within the SUZ1 and is not available for general industrial use and development.

Casey, Frankston and Dandenong have relatively similar stocks of industrial land in discrete industrial precincts located outside the three SSIPs. Cardinia has only a small stock of industrial land outside the Officer / Pakenham SSIP.

There are very limited industrial land stocks available outside the State-significant Industrial Precincts identified in Plan Melbourne in City of Greater Dandenong, City of Kingston and Frankston City Council.

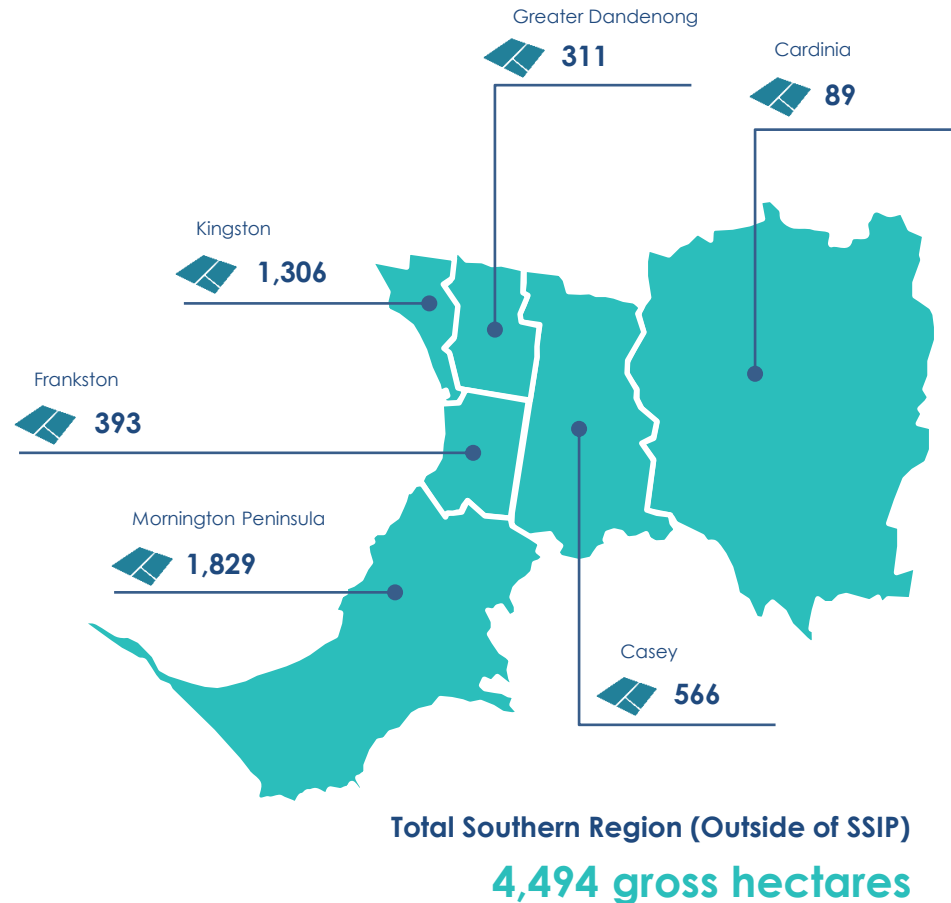
The available industrial land stocks within the City of Casey would be reduced if a proposed rezoning of Cranbourne West employment land occurred. This could also lead to increased pressure for other designated employment land rezonings in the vicinity.

**Table 11\_Southern Subregion Other Industrial Precinct (Gross Ha), 2017**

SUB-REGION LGA	OCCUPIED (HA)	SUPPLY (HA)	TOTAL (HA)	PROPOSED (HA)
KINGSTON	1,200.8	105.1	1,306.0	0.0
DANDENONG	309.2	1.8	311.0	0.0
FRANKSTON	362.5	30.6	393.1	0.0
CASEY	310.1	255.8	565.9	287.7
CARDINIA	61.7	26.8	88.5	0.0
MORNINGTON	1,364.2	464.8	1,829.0	0.0
<b>SOUTHERN REGION</b>	<b>3,608.6</b>	<b>885.0</b>	<b>4,493.6</b>	<b>287.7</b>

Source: UDP 2017

**Figure 17\_Southern Subregion Other Industrial Precincts (Gross Ha), 2017**



Source: UDP 2017



# 3\_Industrial Land Use & Activity

## 3.4\_Other Industrial Precincts

### Kingston

#### Key Points

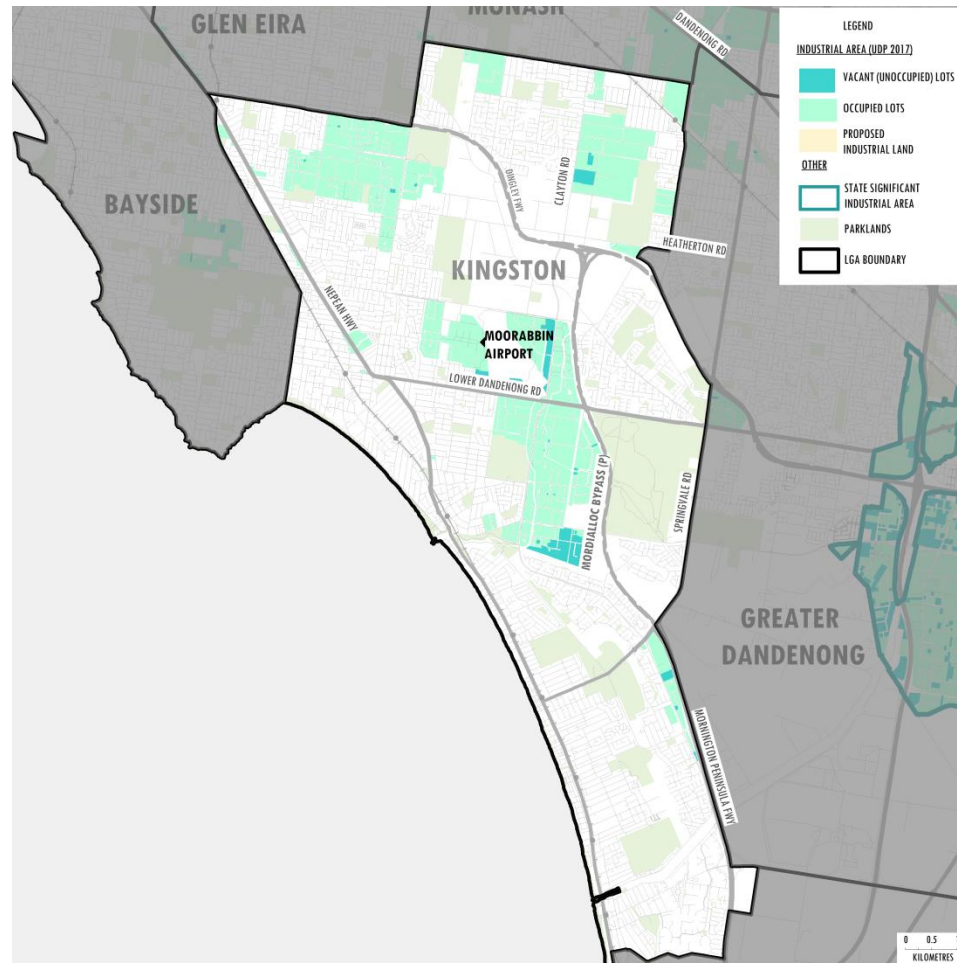
- The stock of industrial zoned land in City of Kingston totals 1,306 gross hectares with the majority (82.4%) being zoned Industrial 1 zone (IN1Z).
- Industrial land stocks are dispersed across five areas: Braeside, Moorabbin Airport, Moorabbin, Clayton South and Oakleigh South. The combined area of Braeside and Moorabbin Airport accounts for more than 50% of total industrial stocks within the municipality.
- There is limited available industrial land within Moorabbin Airport and Clayton South. Most available industrial land is located within the south-eastern corner of Braeside along the Mordialloc Bypass.
- Most industrial land stocks within Kingston are occupied with only 105.1 hectares (8.0%) available for future industrial use. The majority (58.8%) is located within an Industrial 1 zone (IN1Z).
- Current industrial land consumption rates within Kingston indicate the stock of industrial land may be exhausted within the next 11-12 years.

**Table 12\_Kingston Other Industrial Precincts (Gross Ha), 2017**

KINGSTON	OCCUPIED (HA)		SUPPLY (HA)		TOTAL (HA)	
C2Z	99.9	8.3%	4.9	4.7%	104.8	8.0%
CA	110.4	9.2%	38.3	36.5%	148.8	11.4%
IN1Z	989.5	82.4%	61.8	58.8%	1,051.3	80.5%
IN3Z	1.0	0.1%	0.1	0.1%	1.1	0.1%
<b>Total</b>	<b>1,200.8</b>	<b>100.0%</b>	<b>105.1</b>	<b>100.0%</b>	<b>1,306.0</b>	<b>100.0%</b>

Source: UDP 2017

**Figure 18\_Kingston Industrial Precincts**



Source: UDP 2017, MacroPlan Dimasi

# 3\_Industrial Land Use & Activity

## 3.4\_Other Industrial Precincts

### Dandenong

#### Key Points

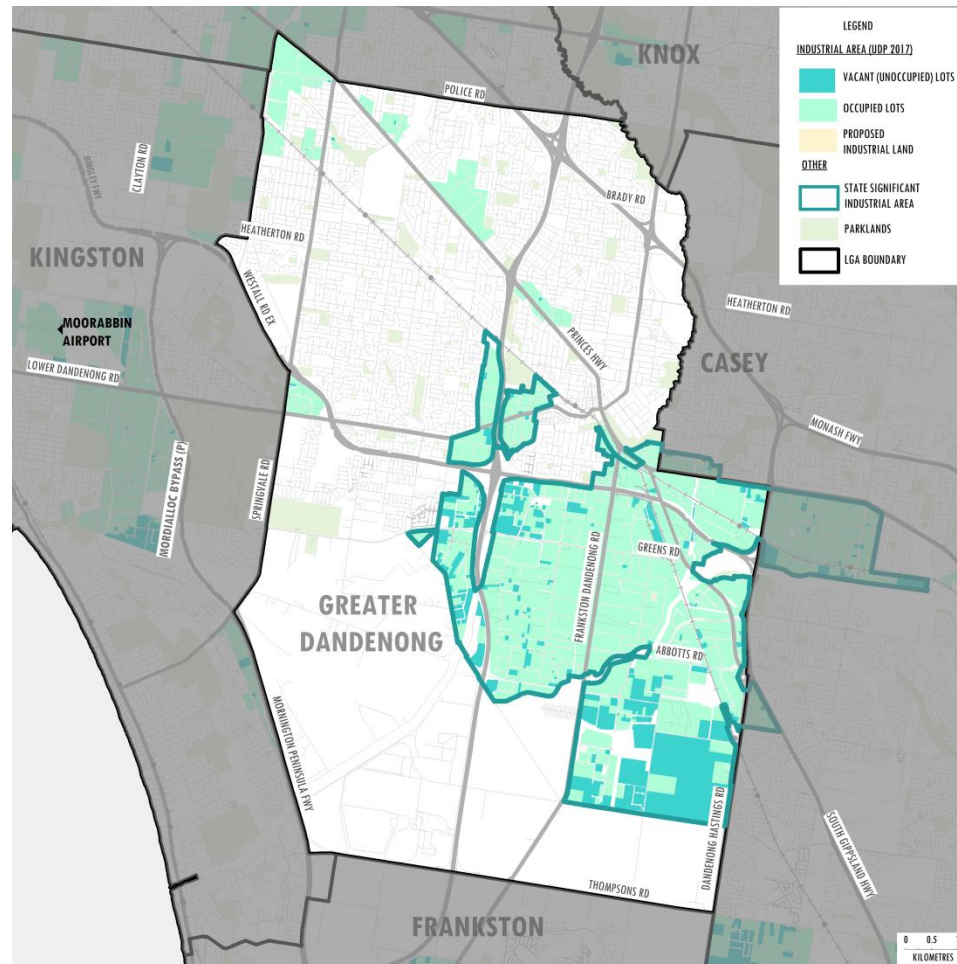
- The stock of industrial zoned land within the City of Greater Dandenong located outside the Southern Industrial Precinct totals 311 gross hectares with the majority (99.4%) being occupied.
- Most of this industrial land is located within the north-western portion of the municipality in or near Springvale, abutting the municipalities of Kingston and Monash. The majority of this land is zoned Commercial 2 zone (C2Z) with the balance being zoned Industrial 1 (IN1Z).
- There are discrete pockets of industrial land located along the Princes Highway and at Keysborough on Springvale Road. Land in these areas is largely occupied.
- If the current industrial land consumption rates identified for the Southern Industrial Precinct were projected on Dandenong, it would provide that the stock of industrial land within Dandenong may be exhausted within the next 11-12 years.

**Table 13\_Dandenong Other Industrial Precincts (Gross Ha), 2017**

DANDENONG	OCCUPIED (HA)		SUPPLY (HA)		TOTAL (HA)	
C2Z	185.9	60.1%	1.2	66.0%	187.1	60.2%
IN1Z	123.3	39.9%	0.6	34.0%	123.9	39.8%
<b>Total</b>	<b>309.2</b>	<b>100.0%</b>	<b>1.8</b>	<b>100.0%</b>	<b>311.0</b>	<b>100.0%</b>

Source: UDP 2017

**Figure 19\_Dandenong Industrial Precincts**



Source: UDP 2017, MacroPlan Dimasi

# 3\_Industrial Land Use & Activity

## 3.4\_Other Industrial Precincts

### Frankston

#### Key Points

- The stock of industrial zoned land within Frankston totals 393.1 gross hectares with the majority (92.2%) being occupied. Most industrial land is zoned Industrial 1 (IN1Z).
- Most industrial land is located within the Carrum-Downs Industrial Precinct with a number of discrete industrial precincts dispersed along the Frankston Freeway.
- Industrial land in this area is largely occupied with the only supply available being located in the Carrum-Downs Precinct.
- There are a number of small-scale older industrial estates located within the south and east of the municipality which are fully occupied.
- Current industrial land consumption rates within Frankston indicate the stock of industrial land may be exhausted within the next 2-3 years.

**Table 14\_Frankston Other Industrial Precincts (Gross Ha), 2017**

FRANKSTON	OCCUPIED (HA)		SUPPLY (HA)		TOTAL (HA)	
B4Z	26.8	7.4%	0.5	1.8%	27.3	6.9%
IN1Z	335.7	92.6%	30.1	98.2%	365.8	93.1%
<b>Total</b>	<b>362.5</b>	<b>100.0%</b>	<b>30.6</b>	<b>100.0%</b>	<b>393.1</b>	<b>100.0%</b>

Source: UDP 2017

**Figure 20\_Frankston Industrial Precincts**



Source: UDP 2017, MacroPlan Dimasi



# 3\_Industrial Land Use & Activity

## 3.4\_Other Industrial Precincts

### Casey

#### Key Points

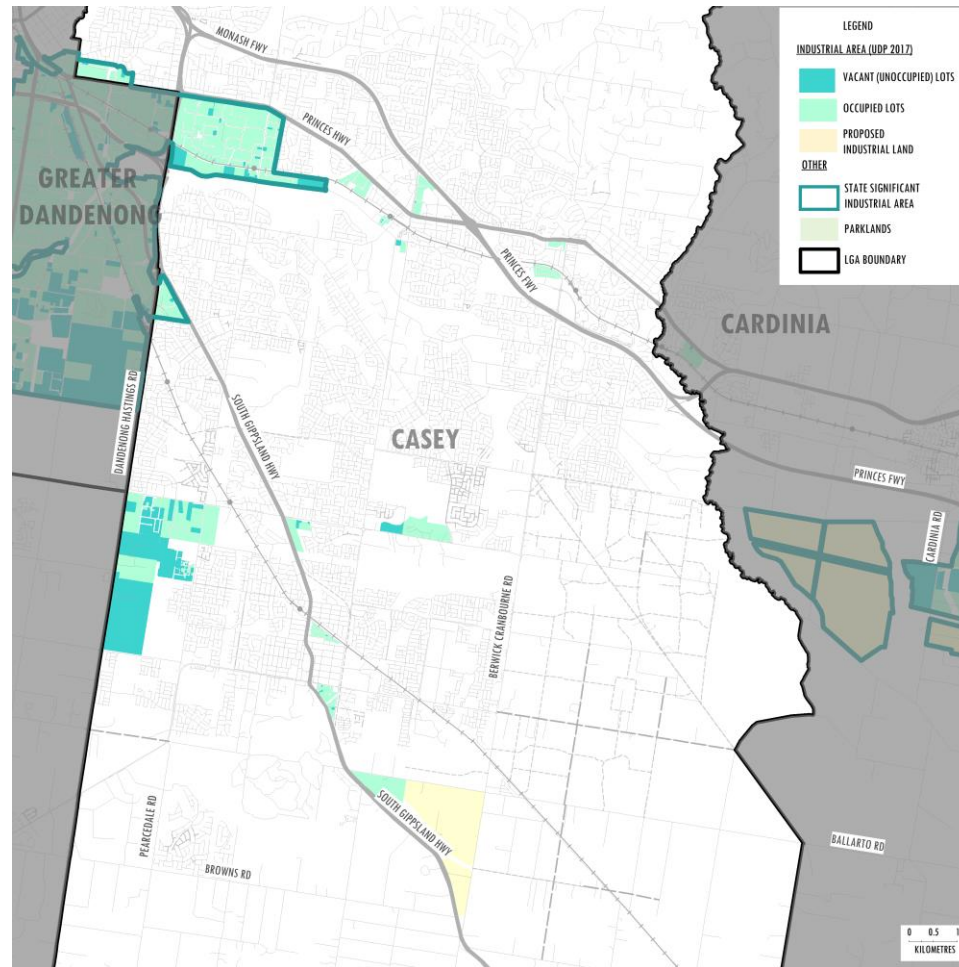
- The stock of industrial zoned land within the City of Casey located outside the Southern Industrial Precinct totals 565.9 gross hectares with 55% being occupied.
- Most of the unoccupied zoned industrial land is located within the Cranbourne West Industrial Precinct with a number of smaller discrete industrial precincts dispersed along the Princes Highway, South Gippsland Highway and Thompsons Road.
- A total of 287.7 hectares are planned for future industrial use along the South Gippsland Highway near Clyde.
- A proposed rezoning of up to 133 ha available industrial land within Cranbourne West would significantly reduce the total stock of zoned industrial supply by over 50% from the current level.

**Table 15\_Casey Other Industrial Precincts (Gross Ha), 2017**

CASEY	OCCUPIED (HA)		SUPPLY (HA)		TOTAL (HA)	
ACZ	20.9	6.7%	0.8	0.3%	21.7	3.8%
C2Z	67.6	21.8%	10.1	4.0%	77.7	13.7%
IN1Z	14.6	4.7%	0.0	0.0%	14.6	2.6%
IN3Z	21.7	7.0%	1.4	0.6%	23.2	4.1%
UGZ1	143.3	46.2%	243.4	95.2%	386.7	68.3%
UGZ2	42.0	13.6%	0.0	0.0%	42.0	7.4%
<b>Total</b>	<b>310.1</b>	<b>100.0%</b>	<b>255.8</b>	<b>100.0%</b>	<b>565.9</b>	<b>100.0%</b>

Source: UDP 2017

**Figure 21\_Casey Industrial Precincts**



Source: UDP 2017, MacroPlan Dimasi

# 3\_Industrial Land Use & Activity

## 3.4\_Other Industrial Precincts

### Cardinia

Outside the Officer / Pakenham Industrial Precinct there is very little available industrial land.

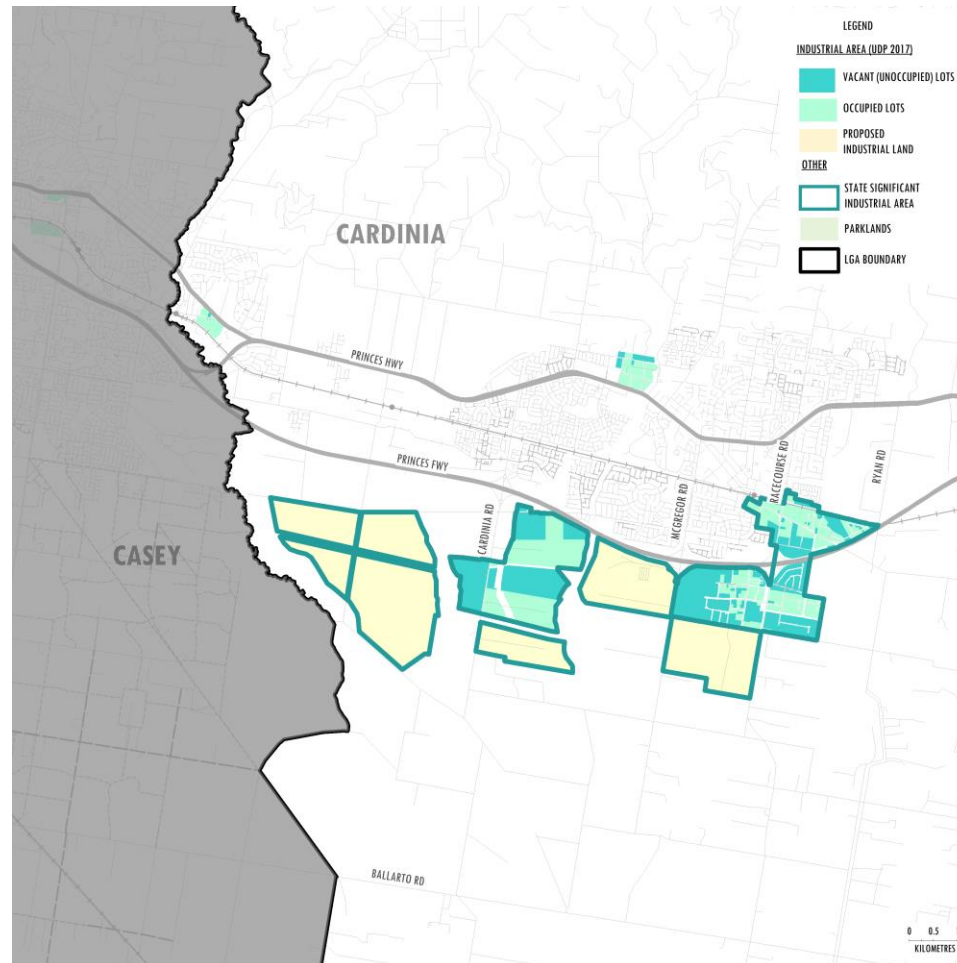
Two discrete industrial precincts exist along the Princes Highway at Pakenham and Beaconsfield. There appears to be some land available within the Pakenham precinct zoned Industrial 1 (IN1Z) with only negligible land availability in Beaconsfield.

**Table 16\_Cardinia Other Industrial Precincts (Gross Ha), 2017**

CARDINIA	OCCUPIED (HA)		SUPPLY (HA)		TOTAL (HA)	
C2Z	2.0	3.3%	0.0	0.0%	2.0	2.3%
IN1Z	59.7	96.7%	26.8	100.0%	86.5	97.7%
<b>Total</b>	<b>61.7</b>	<b>100.0%</b>	<b>26.8</b>	<b>100.0%</b>	<b>88.5</b>	<b>100.0%</b>

Source: UDP 2017

**Figure 22\_Cardinia Industrial Precincts**



Source: UDP 2017, MacroPlan Dimasi

# 3\_Industrial Land Use & Activity

## 3.4\_Other Industrial Precincts

### Mornington

Outside the Port of Hastings State Significant Industrial Precinct there is 1,829 hectares industrial land, of which 75% is occupied. The majority of available land is located around the northern and western edges of the Hastings SSIP and within the Cribb Point industrial area.

A number of smaller discrete industrial precincts in and around Mornington and along Frankston-Flinders Road north of Somerville with the majority of this land being occupied.

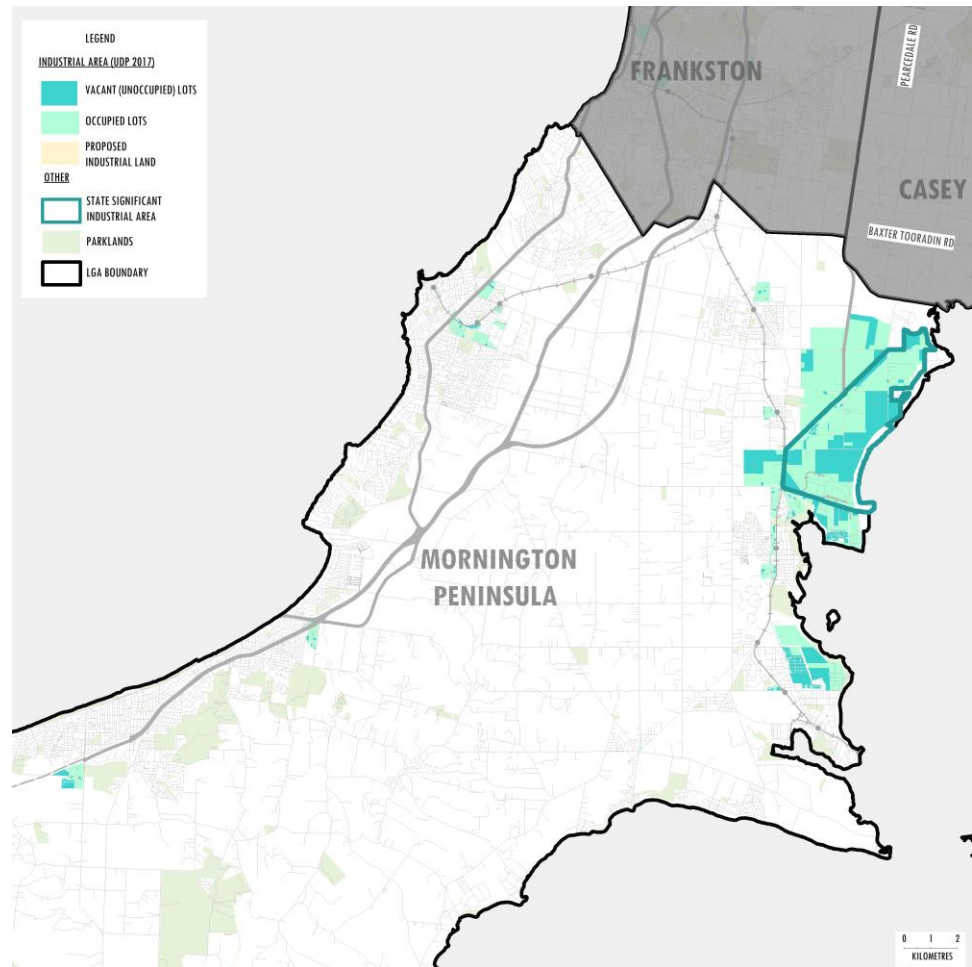
The vast majority of available land (approximately 1,480 hectares) is zoned Special Use Zone (SUZ1) and is not available for general industrial use and development.

**Table 17\_Mornington Other Industrial Precincts (Gross Ha), 2017**

MORNINGTON	OCCUPIED (HA)		SUPPLY (HA)		TOTAL (HA)	
C2Z	17.2	1.3%	2.0	0.4%	19.2	1.0%
IN3Z	267.6	19.6%	61.2	13.2%	328.8	18.0%
SUZ1	1,079.4	79.1%	401.7	86.4%	1,481.1	81.0%
<b>Total</b>	<b>1,364.2</b>	<b>100.0%</b>	<b>464.8</b>	<b>100.0%</b>	<b>1,829.0</b>	<b>100.0%</b>

Source: UDP 2017

**Figure 23\_Mornington Industrial Precincts**



Source: UDP 2017, MacroPlan Dimasi

# 3\_Industrial Land Use & Activity

## 3.5\_Summary

### State Significant Industrial Precincts

- Overall, the Southern Industrial Precinct (Dandenong/Casey) is the largest of the three SSIPs totalling 2,973.3 gross hectares of which 2,331.7 hectares (78.4%) are occupied and 641.6 hectares are available supply (21.5%).
- Port of Hastings Industrial Precinct is the second largest totalling 1,391.0 hectares of which 817 hectares (58.7%) are occupied and 574 hectares are available supply (41.3%). Based on current policy, the Port of Hastings SSIP and surrounding SUZ1 zoned land is reserved to port related uses. A key purpose of this land is to provide a location for selected port and industrial uses which depend upon or gain significant economic advantages from the natural deep water channels in Westernport. Industrial uses are only permitted within the zone if they are dependent on or gain significant economic advantage from proximity to deep water port facilities, be directly associated with such a use or be a marine service industry. As such the Port of Hastings SSIP has limited practical developability to pick up potential future demand transfer from precincts with tightening land supply.
- Officer / Pakenham Industrial Precinct totals 654.9 gross hectares with 937.7 hectares of planned future expansion potential.
- Average annual consumption rates within the Southern Industrial Precinct (Dandenong) are the highest at 56.9 hectares p.a. followed by Officer/Pakenham at 10 hectares p.a.
- It appears there is some potential for industrial land stocks within the Southern Industrial Precinct to be exhausted during the coming 11-12 years. Officer / Pakenham Industrial precinct appears to have sufficient existing and planned industrial stocks within the foreseeable future. However, due to potential demand transfer from the established precincts with tightening land supply, the exhaustion of available industrial land would be likely to occur sooner.

### Other Industrial Precincts

- Current consumption rates suggest industrial land stocks may be exhausted in Frankston in the short-term (i.e. 2-3 years) and in Kingston during the next 11-12 years.
- The proposed rezoning of a large parcel of available industrial land (approximately 133 ha) within Cranbourne West would significantly reduce the total stock of zoned industrial supply in this municipality, which would result in the exhaustion of industrial land stocks occurring sooner.
- Cardinia Shire Council appears to have sufficient industrial land stocks for the foreseeable future.
- There appears to be some capacity in other industrial precinct outside of SSIPs to accommodate part of the potential demand transfer from established industrial precinct with tightening land supply.

# 4\_Employment & Economic Output

## 4.1\_Study Area Overview

In 2016 there were at least 350,000 jobs based in Melbourne's Southern Region of which 120,924 (35%) were employed in industries typically using industrial land such as manufacturing, construction, wholesale trade, freight and logistics and warehousing.

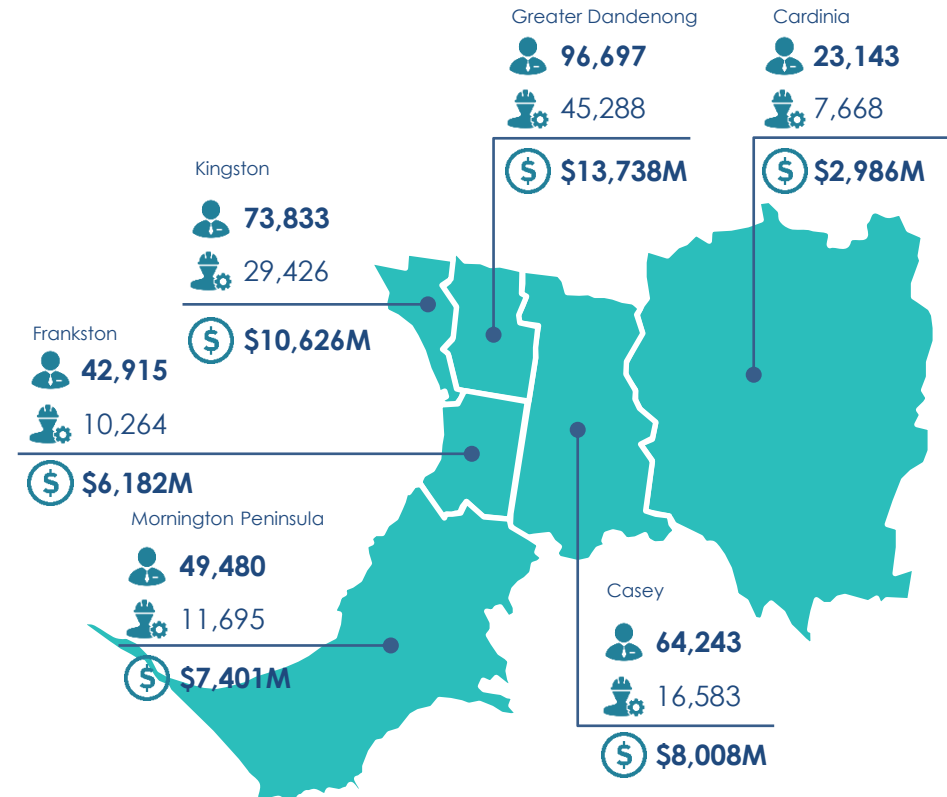
The total Gross Regional Product (GRP) or value of economic output produced in the Southern Region was \$48.9 billion in 2016.

- City of Greater Dandenong was the largest contributor to jobs and economic output within the Southern Region accounting for 27% of all jobs, 37% of all industrial jobs and 28% of Gross Regional Product within the Southern Region. This owes to the scale and significance of the Southern Industrial Precinct (SSIP) and reflects the ongoing importance of Dandenong in the Southern Region.
- City of Kingston was the second largest contributor to jobs and economic output within the Southern Region accounting for 21% of all jobs, 24% of all industrial jobs and 22% of Gross Regional Product within the Southern Region. This owes largely to the scale and significance of the Braeside and Moorabbin Airport Industrial Precincts.
- City of Casey is the third largest contributor to jobs and economic output, accounting for 18% of all jobs, 14% of all industrial jobs and 16% of Gross Regional Product within the Southern Region.

Frankston and Mornington are relatively similar in terms of total employment and their relative contributions to regional economic output.

Whilst Cardinia makes the smallest contribution of the six municipalities this area is expected to grow significantly in the future and has the largest stock of industrial land supply within the Southern Region.

Figure 24\_Southern Subregion Employment (POW) & GRP, 2016



**Total Southern Region**  
**350,311 total jobs**  
**120,924 jobs (industry)**  
**\$48,941M GRP**

Source: ABS Census 2016

# 4\_Employment & Economic Output

## 4.2\_Regional Employment Trends

Within the Southern Region in 2016, industries accounting for the highest relative share of **total employment** were manufacturing (13.5%), retail trade (12.5%), healthcare and social assistance (11.8%) and construction (9.1%).

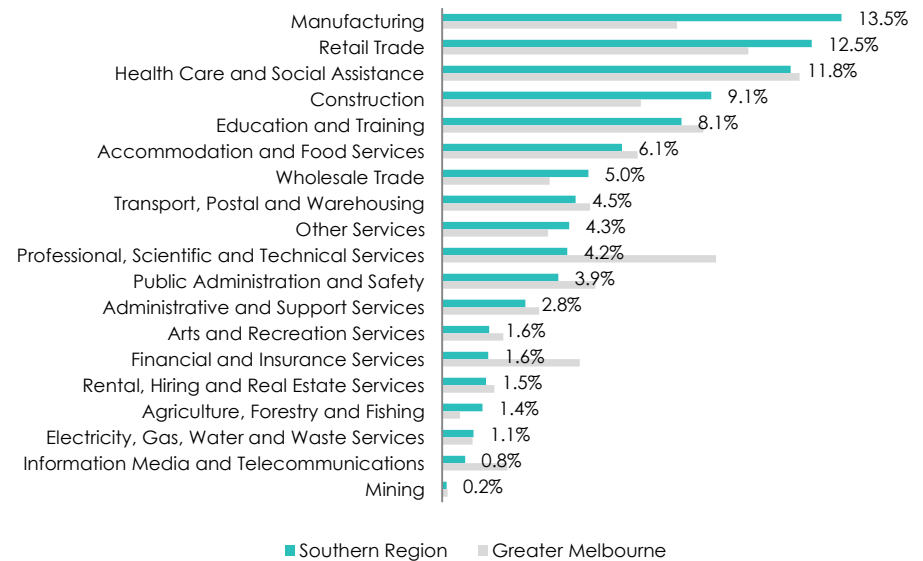
This most likely reflects the historic and ongoing role and function of Dandenong, Kingston and to some extent Frankston as major industrial and manufacturing hubs in the region, but also highlights the growing importance of outer-metropolitan growth areas such as Casey and Cardinia which account for a large share of Melbourne's population growth.

This has coincided with significant construction activity during the past decade and created a need for more retail and health care and education relates services to meet the needs of a growing population.

Wholesale trade and transport, postal and warehousing each accounted for 5.0% and 4.5% respectively reflecting the size and scale of the region and rapid population growth which has occurred in locations such as Cardinia and Casey.

When compared with metropolitan Melbourne, the Southern Region had a higher relative share of workers in manufacturing, retail trade, construction and wholesale trade and a lower relative share in education and training, professional, scientific and technical services, public administration and safety, administrative support and financial and insurance services.

Figure 25\_Southern Subregion Employment by Industry (POW), 2016



Source: ABS Census 2016



# 4\_Employment & Economic Output

## 4.2\_Regional Employment Trends

Cardinia has a relatively high share of workers employed within population serving industries such as retail trade, construction, education and health related services. This owes to the region's continuing rapid population growth and is generally consistent with the area's evolution from a largely rural area into one of Melbourne's fastest growing urban fringe locations.

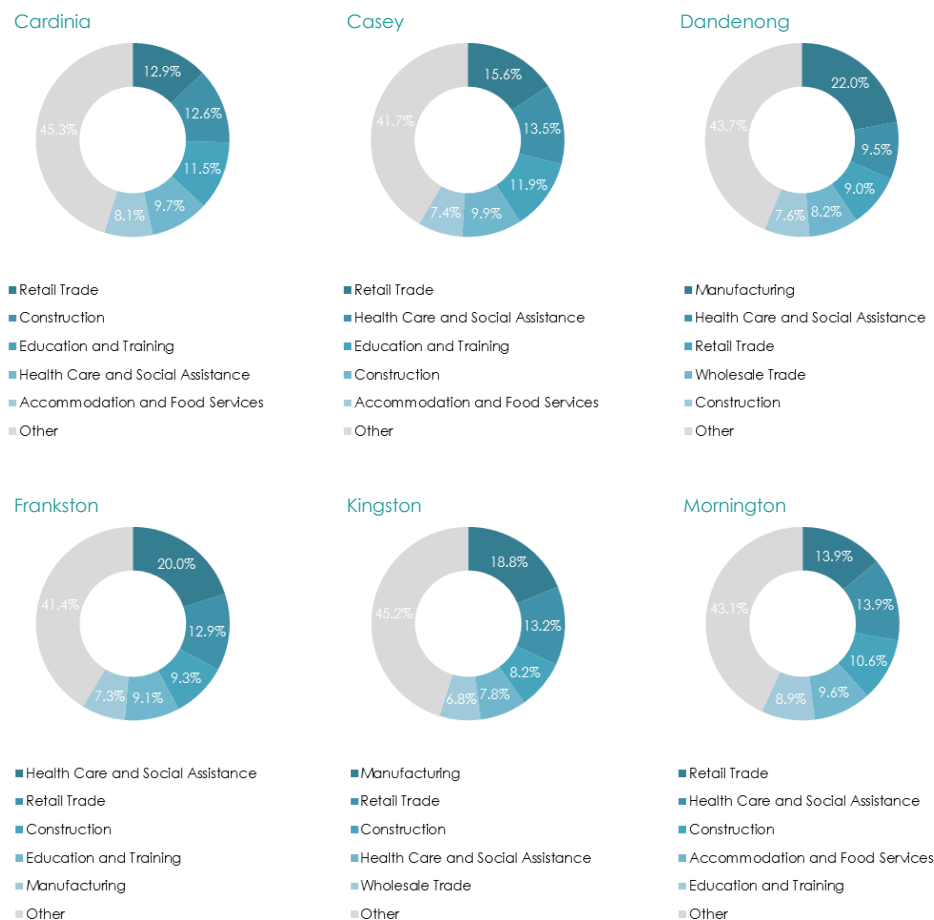
Casey is rather similar to Cardinia in so far as the largest relative share of workers are in population serving industries including retail trade, health care, education and training and construction. This is consistent with the relatively large share of retail activity centre floor space within two major activity centres (Narre Warren and Cranbourne) when compared with the stock of industrial land within the municipality.

In contrast Dandenong is the Southern Region's traditional manufacturing heartland with the largest relative shares of workers in manufacturing (22%), wholesale trade and construction. The size of the municipality as a major population and employment centre means health care and retail trade also account for a relatively large share of total jobs.

Like Dandenong, Kingston's historic function as a manufacturing and industrial hub with direct access to Moorabbin Airport means the largest relative share of workers remain in traditional sectors such as manufacturing (18%) with a relatively large share of workers in construction and wholesale trade. With a large, ageing population the area comprises a significant share of workers in retail and health related services.

Frankston and Mornington are reasonably similar, with older populations on average and with relatively large shares of workers in health care and retail trade followed by construction – owing to the extent of tourism and residential developments occurring in various bayside locations within each municipality. Manufacturing still features as a significant industry in Frankston whilst accommodation and food services features as a major employer in Mornington owing to the region's function as a major year-round tourism destination.

Figure 26\_Southern Subregion Employment by Industry by LGA (POW), 2016



Source: ABS Census 2016

# 4\_Employment & Economic Output

## 4.2\_Regional Employment Trends

In the Southern Region, those industries with the largest growth in workers between 2011-2016 were construction, health care and retail trade as well as accommodation/food services and education and training.

Industries reporting relatively strong growth in workers included transport postal and warehousing and a range of professional scientific and technical and administrative services.

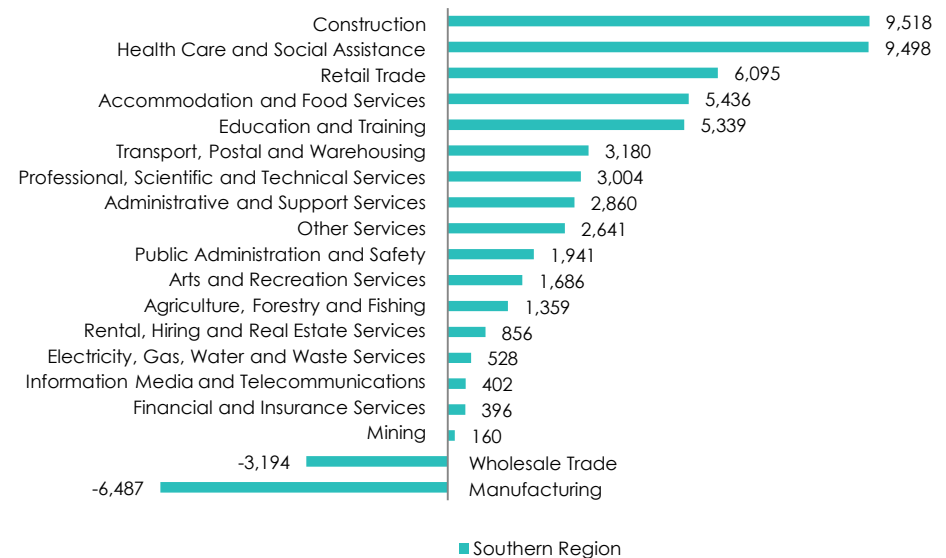
Not surprisingly, manufacturing and wholesale trade experienced the largest declines in workers in the Southern Region during this time, consistent with trends across metropolitan Melbourne, Victoria and Australia.

This highlights that construction and transport/warehousing related industrial land uses are likely to represent a higher relative share of total industrial land consumption when compared with wholesale trade and manufacturing.

This owes to strong and continued population growth in areas such as Cardinia and Casey and the emergence of population serving employment such as retail trade, health care and education services as relatively more important contributors to employment compared with traditional industries.

This continuing trend will have implications for the quantum and type of industrial land supply and use particularly in areas such as Casey and Cardinia.

Figure 27\_Southern Subregion Change of Employment by Industry (POW), 2011-16



Source: ABS Census 2016



# 4\_Employment & Economic Output

## 4.2\_Regional Employment Trends

During the period 2011-2016:

- the number of workers employed in manufacturing declined in all municipalities except Cardinia, with the largest declines in Kingston and Dandenong owing to their relative scale as large industrial precincts. This trend is likely to have implications for the types of industrial land required in future in these locations.
- Conversely, the number of workers employed in construction and transport, postal and warehousing increased in all municipalities with the largest increases in Dandenong, Casey and Kingston followed by Mornington Peninsula, Cardinia and Frankston. Again, this is likely to have implications for format and location of industrial land required in future.
- The number of workers employed in most services industries increased in almost all municipalities with the most significant increases being in retail trade, health care and social assistance and education and training.

**Table 18\_Southern Subregion Change of Employment by Industry by LGA (POW), 2011-16**

2011-16	Cardinia	Casey	Greater Dandenong	Frankston	Kingston	Mornington Peninsula
Agriculture, Forestry and Fishing	81	561	137	89	254	241
Mining	36	22	37	26	37	-3
Manufacturing	351	-643	-1,523	-720	-3,436	-528
Electricity, Gas, Water and Waste Services	1	-100	658	604	-685	44
Construction	947	1,584	3,459	824	1,527	1,169
Wholesale Trade	-179	-508	-108	-171	-1,945	-286
Retail Trade	907	2,270	1,745	-296	1,293	181
Accommodation and Food Services	764	1,525	943	437	961	814
Transport, Postal and Warehousing	183	527	1,824	82	634	-63
Information Media and Telecommunications	5	198	73	15	135	-25
Financial and Insurance Services	95	274	-54	11	72	2
Rental, Hiring and Real Estate Services	70	302	172	76	113	126
Professional, Scientific and Technical Services	228	574	644	219	944	392
Administrative and Support Services	261	644	696	391	492	388
Public Administration and Safety	113	450	634	180	285	286
Education and Training	863	1,902	1,005	374	726	469
Health Care and Social Assistance	790	2,563	2,407	1,544	892	1,304
Arts and Recreation Services	91	408	256	283	322	326
Other Services	311	734	789	-20	522	300
Inadequately described	651	1,875	4,751	1,358	3,281	1,193
Not stated	314	850	1,569	574	937	562
Not applicable	0	0	0	0	0	0

Source: ABS Census 2016

# 4\_Employment & Economic Output

## 4.3\_Regional Output Trends

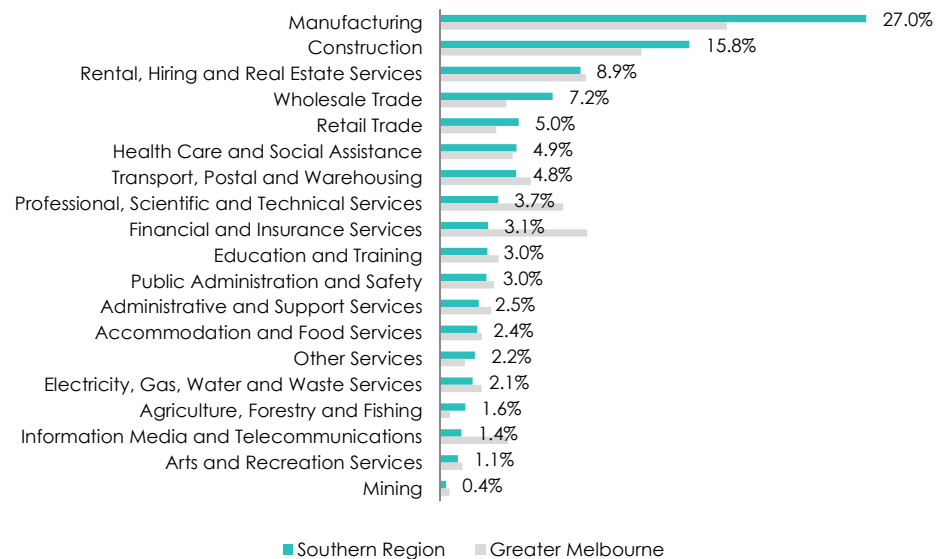
Within the Southern Region in 2016, those industries accounting for the highest relative share of **total sub-region output** were manufacturing (27%), construction (15.8%), rental, hiring and real estate services (8.9%), wholesale trade (7.2%) and retail trade (5.0%).

This compares with industries with the highest relative share of **total employment**, being manufacturing (13.5%), retail trade (12.5%), healthcare and social assistance (11.8%) and construction (9.1%).

This is consistent with recent significant population growth and construction activity in municipalities such as Casey and Cardinia and the resulting need for more wholesale and retail trade activities and services to meet the needs of a growing population.

When compared with metropolitan Melbourne, the Southern Region has a higher relative share of total output attributable to manufacturing, construction, wholesale and retail trade and a lower relative share of output attributable to education and training, professional, scientific and technical services, public administration and safety, administrative support and financial and insurance services.

Figure 28\_Southern Subregion Output by Industry, 2016



Source: Economic.id, REMPLAN

# 4\_Employment & Economic Output

## 4.3\_Regional Output Trends

Cardinia has a relatively high share of output attributable to population serving industries such as construction, rental, hiring and real estate and retail trade, as well as manufacturing. As stated previously, this owes to the region's continuing rapid population growth and is generally consistent with the area's evolution from a largely agricultural region into an urban growth area.

Casey is similar to Cardinia in that the largest relative share of output derives from population serving industries including retail trade, health care, rental, hiring and real estate and construction. Manufacturing also accounts for a relatively high share of total output.

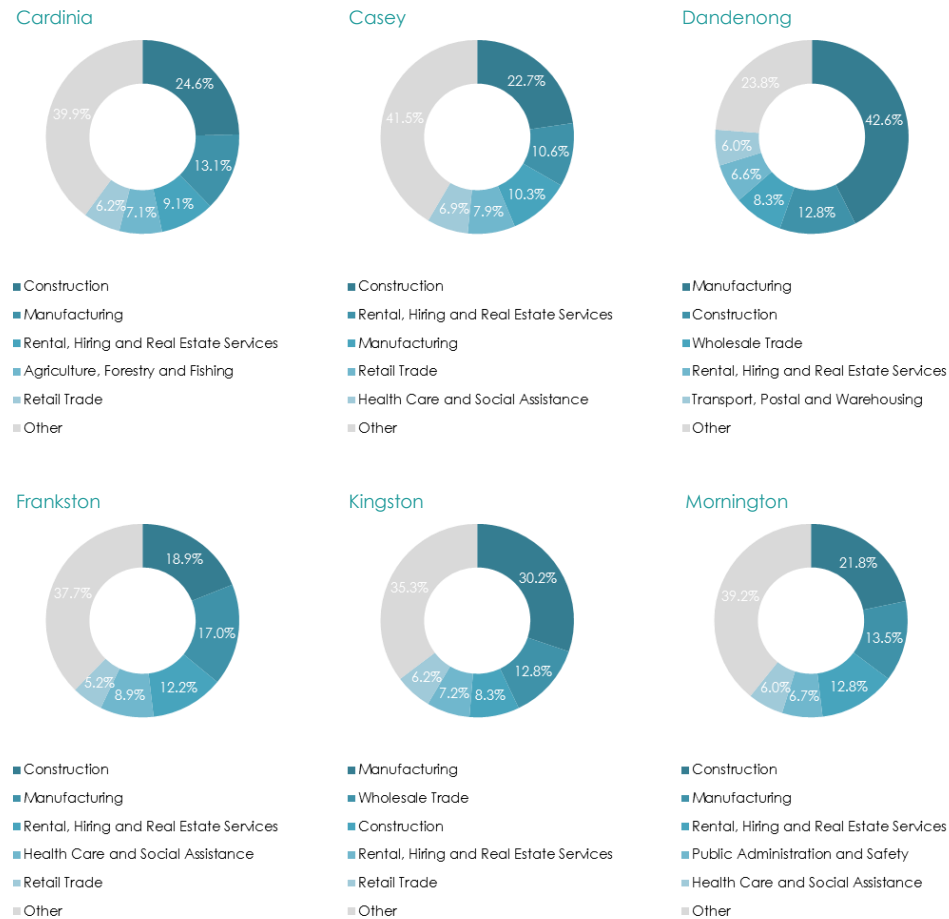
In contrast Dandenong has the largest relative share of output attributable to manufacturing (42.6%), construction and wholesale trade. Consistent with this trend, transport, postal and warehousing as well as rental, hiring and real estate services also account for a relatively large share of output.

Like Dandenong, Kingston's historic function as a manufacturing and wholesale trade hub with direct access to Moorabbin Airport means manufacturing retains the highest relative share of output (30.2%) with a relatively large shares of output attributable to wholesale trade and construction.

Frankston and Mornington are very similar with similar overall output shares attributable to construction, manufacturing and rental, hiring and real estate services as well as health care and social assistance.

Manufacturing still features as a significant industry in Frankston whilst rental, hiring and real estate services is of growing importance to output in Mornington owing to the region's tourism attractions.

Figure 29\_Southern Subregion Output by Industry by LGA , 2016



Source: Economic.id, REMPLAN

# 4\_Employment & Economic Output

## 4.3\_Regional Output Trends

Within the Southern Region in 2016, those industries accounting for the highest relative **output per worker** were rental, hiring and real estate services, mining and manufacturing.

It is worth noting the traditional industries such as construction, wholesale trade, manufacturing, transport, postal and warehousing and wholesale trade feature ahead of most services industries, particularly retail, education and health care services.

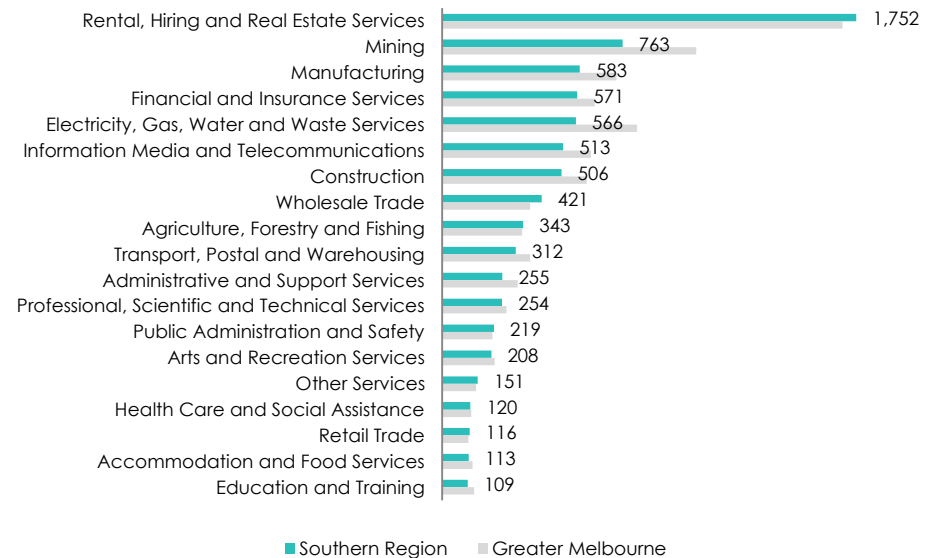
This most likely owes to the structure of traditional industries, which are typically capital intensive and generally offer greater potential for value adding or productivity measured by total output per worker when compared with services industries, which tend to be more knowledge based and labour intensive.

Overall this highlights the ongoing importance of traditional industries both in terms of employment, output and value adding potential as part of the regional economy.

Whilst population serving jobs are an important part of a healthy functioning economy and for supporting population growth, output per worker values remains relatively higher across traditional industries and this is important for assessing the Southern Region's current and future economic growth.

This means appropriate provision of industrial land needs to be made available to support those industries with high total output as well as strong value-adding potential as measured by output by worker.

Figure 30\_Southern Subregion Output per Worker by Industry (\$000), 2016



Source: [Economic.id](#), REMPLAN

# 4\_Employment & Economic Output

## 4.3\_Regional Output Trends

During the period 2011-2016:

- The largest increases in output per worker across all municipalities occurred in rental, hiring and real estate services followed by a range of services industries.
- Greater Dandenong experienced the highest marginal increase in output per worker followed by Kingston, Mornington and Frankston.
- Not surprisingly, traditional industries such as manufacturing, construction, wholesale trade, transport postal and warehousing all experienced growth in output per worker that was higher than retail trade, education and health care services.
- This demonstrates the continuing importance of traditional industries as a source of economic value both in terms of output and employment and value-adding potential and highlights the need for appropriate land use planning to support these industries.

**Table 19\_Southern Subregion Output per Worker by Industry by LGA (\$000), 2016**

<b>Output by Worker by Industry \$000</b>	<b>Cardinia</b>	<b>Casey</b>	<b>Greater Dandenong</b>	<b>Frankston</b>	<b>Kingston</b>	<b>Mornington Peninsula</b>
Agriculture, Forestry and Fishing	333	318	347	364	403	356
Mining	406	173	821	553	212	1,761
Manufacturing	393	367	713	645	456	581
Electricity, Gas, Water and Waste Services	762	609	458	717	607	459
Construction	471	497	623	564	288	580
Wholesale Trade	405	393	372	368	529	366
Retail Trade	117	110	112	111	133	111
Accommodation and Food Services	91	94	123	122	107	132
Transport, Postal and Warehousing	268	267	311	280	379	297
Information Media and Telecommunications	380	370	583	521	580	549
Financial and Insurance Services	427	424	656	632	540	626
Rental, Hiring and Real Estate Services	1,402	1,458	1,888	2,144	1,677	1,812
Professional, Scientific and Technical Services	232	201	268	268	267	268
Administrative and Support Services	198	208	286	271	253	271
Public Administration and Safety	170	165	204	196	212	307
Education and Training	89	93	122	127	107	116
Health Care and Social Assistance	109	111	122	124	127	121
Arts and Recreation Services	189	209	216	198	246	183
Other Services	150	140	152	142	174	134
<b>Total</b>	<b>241</b>	<b>217</b>	<b>369</b>	<b>277</b>	<b>284</b>	<b>283</b>

Source: Economic.id, REMPLAN

# 4\_Employment & Economic Output

## 4.4\_State Significant Industrial Precincts

MacroPlan has analysed REMPLAN data to identify the volume of jobs and estimated economic output by Destination Zone (DZN), which is the smallest geographical unit of measurement for which the ABS provides employment data. This section identifies key findings relating to employment and economic output for each State Significant Industrial Precinct within the Southern subregion, and for selected other industrial precincts.

### Data Note

There is a significant lack of alignment between the boundaries of the three identified SSIPs adjacent and DZN boundaries. MacroPlan has included all DZNs that contain any land within SSIPs within the employment and economic output figures identified in section 4.4. Concordance maps for each SSIP are provided for reference.

Further consultation with the client is required to address statistical geographical alignment issues and enhance the accuracy of data reported in this section.

### Key Findings

Overall, there are under **87,169 jobs in Destination Zones that are entirely or partially within Southern Region State Significant Industrial Precincts**. Due to lack of alignment between SSIP boundaries and statistical geographic standards, further works are required to identify the precise quantum of jobs within each SSIP.

Additionally, **DZNs that are wholly or partially within the three SSIPs in the Southern Region contribute approximately \$33.7 billion in estimated contribution to Gross Regional Product within the Southern Region**. This notes that this figure is artificially high due to the inclusion of land outside of SSIPs due to statistical boundary misalignments.

**Figure 31\_Industrial Employment (POW) & Output in SSIPs in Southern Subregion, 2016**



Source: ABS Census 2016, MacroPlan Dimasi

Data note: figures above include all DZNs that are either wholly or partially within State-Significant Industrial Precincts. As such, figures include jobs and economic output that occurs outside of SSIPs where there is also a share of the relevant DZN within an SSIP.

# 4\_Employment & Economic Output

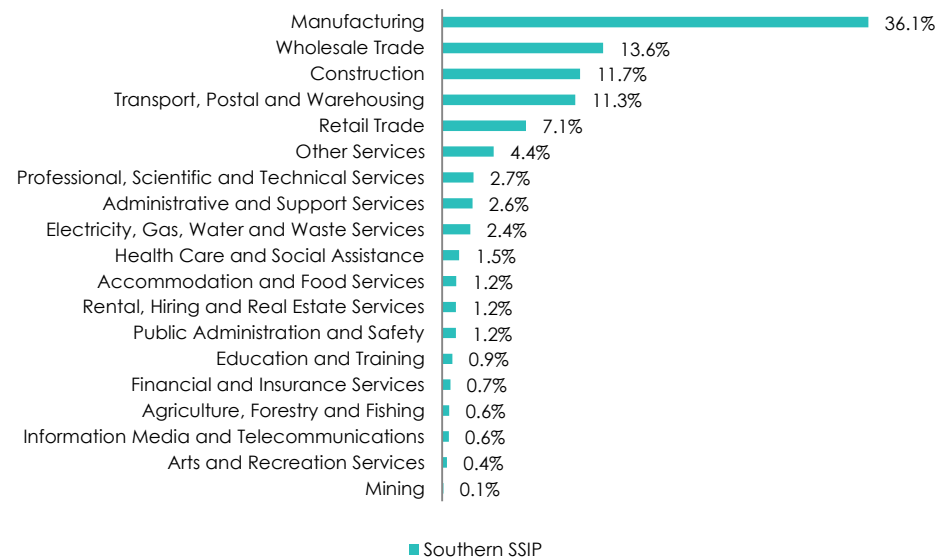
## 4.4\_State Significant Industrial Precincts

### Southern SSIP

The Southern State-Significant Industrial Precinct contains 48 individual Destination Zones, which covers a total land area of approximately 5,590.81 hectares. Key findings based upon REMPLAN Destination Zone data are provided below:

- **Destination Zones wholly or partially within the Southern SSIP contain approximately 67,858 jobs, at an estimated jobs ratio of approximately 12 jobs per hectare.** This notes that land within some DZNs included in the study area may be vacant, undeveloped or used for non-employment uses – which results in an artificially low employment density ratio.
- **DZNs wholly or partially within the Southern SSIP contribute a total of \$30.36 billion in estimated economic output to the Southern Region.**
- **Additionally, the economic output density of the Southern SSIP is estimated at \$5.43 million per hectare.** Similarly to the employment density ratio, this figure is affected by DZNs that are partially within the SSIP boundary – particularly noting that rural fringe DZNs are typically larger and less densely populated with jobs than established areas and as such may dilute both employment density and economic output ratios.
- Manufacturing is the single largest employing sector, accounting for over one-third of all jobs (36.1%). The Southern SSIP is a major hub for manufacturing-related and supply-chain activities, reflected in the large share of Wholesale Trade (13.6%) and Transport, Postal & Warehousing (11.3%) sector jobs.
- Construction is also a significant industrial sector, noting a strong alignment between construction-related employing uses and surrounding greenfield residential development which is occurring at a high tempo.

Figure 32\_Southern SSIP Employment by Industry (POW), 2016



Source: ABS Census 2016, MacroPlan Dimasi

Data note: figures above are indicative and reflect a preliminary 'best fit' of DZNs relative to SSIP boundaries; as such, data above does not capture the entirety of the Southern SSIP and excludes DZN that are partially within the Southern SSIP (and may therefore undercount workers). Inversely, data summarised adjacent includes all DZN that are partially or wholly within the Southern SSIP (and may therefore over count workers and output).

# 4\_Employment & Economic Output

## 4.4\_State Significant Industrial Precincts

### Southern SSIP

Figure 33\_Southern SSIP boundary compared to relevant DZN

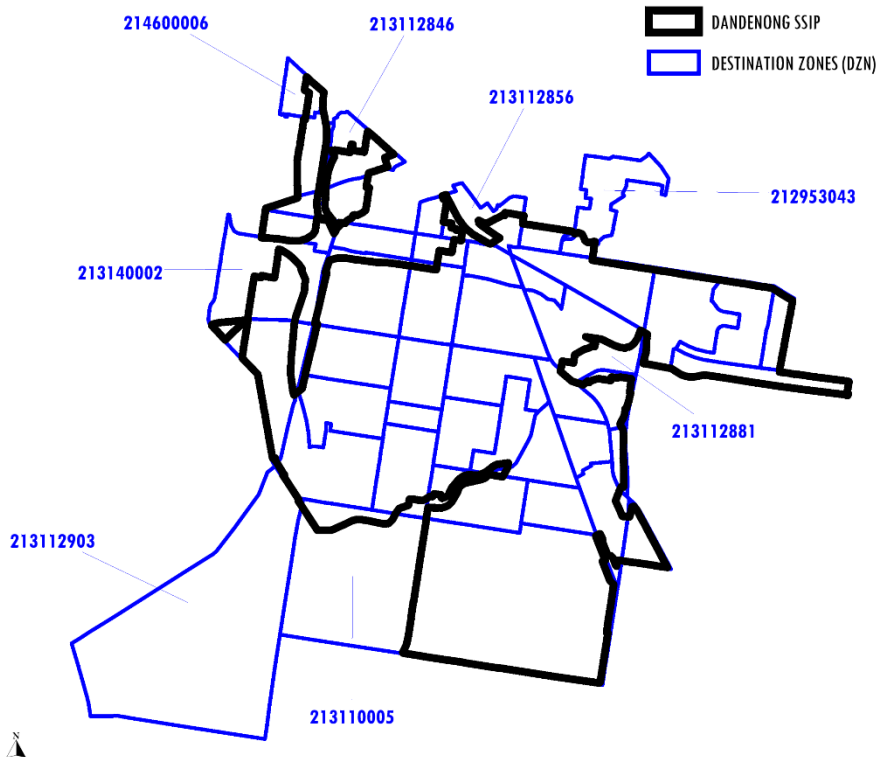


Table20\_Economic Output & Employment by DZN, Southern SSIP

DZN	SA2_name	SSIP	Output \$M	Area ha	Output density \$M / ha	Jobs	Jobs / ha
212950002	Doveton	Southern SSIP	65.40	14.19	4.61	67.75	4.77
212950003	Doveton	Southern SSIP	205.20	25.59	8.02	588.33	22.99
212953043	Doveton	Southern SSIP	53.99	102.66	0.53	276.78	2.70
212970001	Hallam	Southern SSIP	1,603.76	107.98	14.85	3,614.29	33.47
212970003	Hallam	Southern SSIP	1,845.29	150.68	12.25	4,410.73	29.27
212970004	Hallam	Southern SSIP	566.36	40.10	14.12	1,440.84	35.93
212973036	Hallam	Southern SSIP	217.28	68.67	3.16	526.20	7.66
213060001	Lynbrook - Lyndhurst	Southern SSIP	401.89	41.71	9.64	1,028.13	24.65
213110002	Dandenong	Southern SSIP	111.85	35.60	3.14	409.84	11.51
213110003	Dandenong	Southern SSIP	142.63	20.82	6.85	329.91	15.85
213110004	Dandenong	Southern SSIP	22.09	24.24	0.91	104.28	4.30
213110005	Dandenong	Southern SSIP	417.89	426.89	0.98	673.71	1.58
213110006	Dandenong	Southern SSIP	1,998.65	695.78	2.87	3,538.33	5.09
213110007	Dandenong	Southern SSIP	26.20	53.31	0.49	58.42	1.10
213112824	Dandenong	Southern SSIP	1,454.30	171.09	8.50	2,702.82	15.80
213112825	Dandenong	Southern SSIP	651.23	115.57	5.63	1,434.30	12.41
213112826	Dandenong	Southern SSIP	415.66	38.98	10.66	1,091.06	27.99
213112827	Dandenong	Southern SSIP	1,185.84	113.73	10.43	2,915.79	25.64
213112828	Dandenong	Southern SSIP	740.82	165.85	4.47	1,600.60	9.65
213112831	Dandenong	Southern SSIP	1,838.89	117.05	15.71	3,547.28	30.31
213112832	Dandenong	Southern SSIP	542.18	30.17	17.97	1,080.61	35.82
213112834	Dandenong	Southern SSIP	314.96	86.85	3.63	685.90	7.90
213112835	Dandenong	Southern SSIP	1,349.09	104.53	12.91	2,638.24	25.24
213112846	Dandenong	Southern SSIP	610.40	83.28	7.33	1,806.37	21.69
213112856	Dandenong	Southern SSIP	255.17	68.76	3.71	1,011.02	14.70
213112870	Dandenong	Southern SSIP	1,244.27	90.19	13.80	2,635.00	29.22
213112871	Dandenong	Southern SSIP	409.74	128.25	3.19	1,136.24	8.86
213112872	Dandenong	Southern SSIP	386.36	43.53	8.88	470.32	10.80
213112873	Dandenong	Southern SSIP	1,057.35	138.81	7.62	2,800.31	20.17
213112874	Dandenong	Southern SSIP	1,237.65	107.78	11.48	2,366.27	21.95
213112875	Dandenong	Southern SSIP	968.72	75.04	12.91	1,747.24	23.28
213112876	Dandenong	Southern SSIP	318.96	27.89	11.44	603.04	21.62
213112877	Dandenong	Southern SSIP	832.79	78.59	10.60	2,027.26	25.80
213112878	Dandenong	Southern SSIP	538.95	55.08	9.78	1,106.34	20.09
213112879	Dandenong	Southern SSIP	656.86	54.64	12.02	1,224.25	22.41
213112880	Dandenong	Southern SSIP	863.37	130.12	6.64	2,417.50	18.58
213112881	Dandenong	Southern SSIP	829.24	171.04	4.85	2,590.04	15.14
213112882	Dandenong	Southern SSIP	276.00	51.05	5.41	799.15	15.65
213112883	Dandenong	Southern SSIP	89.66	22.05	4.07	280.34	12.71
213112900	Dandenong	Southern SSIP	343.29	70.39	4.88	900.51	12.79
213112901	Dandenong	Southern SSIP	893.38	84.44	10.58	1,766.47	20.92
213112903	Dandenong	Southern SSIP	138.07	810.75	0.17	187.65	0.23
213140002	Keysborough	Southern SSIP	69.81	214.84	0.32	136.88	0.64
213142838	Keysborough	Southern SSIP	537.58	55.82	9.63	1,345.50	24.10
213142838	Keysborough	Southern SSIP	835.55	160.75	5.20	2,002.58	12.46
213142840	Keysborough	Southern SSIP	239.59	24.88	9.63	461.27	18.54
213142843	Keysborough	Southern SSIP	428.03	49.30	8.68	926.79	18.80
214600006	Noble Park - West	Southern SSIP	129.27	41.50	3.11	345.06	8.31

Source: REMPLAN



# 4\_Employment & Economic Output

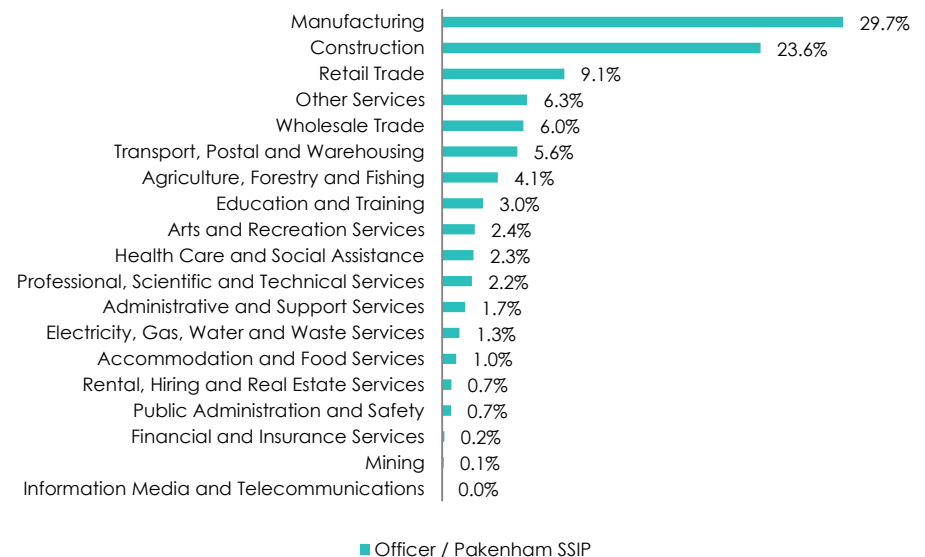
## 4.4\_State Significant Industrial Precincts

### Officer/Pakenham SSIP

The Officer-Pakenham State-Significant Industrial Precinct contains 8 individual Destination Zones, which covers a total land area of approximately 9,707.97 hectares. Key findings based upon REMPLAN Destination Zone data are provided below:

- **Destination Zones wholly or partially within the Officer-Pakenham SSIP contain approximately 15,385 jobs, at an estimated jobs ratio of approximately 1.6 jobs per hectare.** This notes that a large quantum of land within DZNs south of the may be vacant, undeveloped or used for non-employment uses, particularly in the south-west of the study area – which results in an artificially low employment density ratio.
- **DZNs wholly or partially within the Officer-Pakenham SSIP contribute a total of \$1.8 billion in estimated economic output to the Southern Region.**
- **Additionally, the economic output density of the Officer-Pakenham SSIP is estimated at \$0.18 million per hectare.** Similarly to the employment density ratio, this figure is affected by DZNs that are partially within the SSIP boundary – particularly noting that rural fringe DZNs are typically larger and less densely populated with jobs than established areas and as such may dilute both employment density and economic output ratios.
- **Manufacturing and Construction account for over half (53.3%) of all jobs within the Officer-Pakenham SSIP study area.** The high prevalence of Construction jobs reflects the growing residential development pipeline in nearby residential precincts in Officer, Berwick and Clyde / Cranbourne. Manufacturing had the highest relative share of any sector, reflecting the regional strength of the Southern Region as a major manufacturing hub.

Figure 34\_Officer/Pakenham SSIP Employment by Industry (POW), 2016



Source: ABS Census 2016, MacroPlan Dimasi

Data note: figures above are indicative and reflect a preliminary 'best fit' of DZNs relative to SSIP boundaries; as such, data above does not capture the entirety of the Officer-Pakenham SSIP and excludes some DZNs that are partially within the Officer-Pakenham SSIP (and may therefore undercount workers). Inversely, data summarised adjacent includes all DZN that are partially or wholly within the Southern SSIP (and may therefore over count workers and output).

# 4\_Employment & Economic Output

## 4.4\_State Significant Industrial Precincts

### Officer/Pakenham SSIP

Figure 35\_Officer-Pakenham SSIP boundary compared to relevant DZN

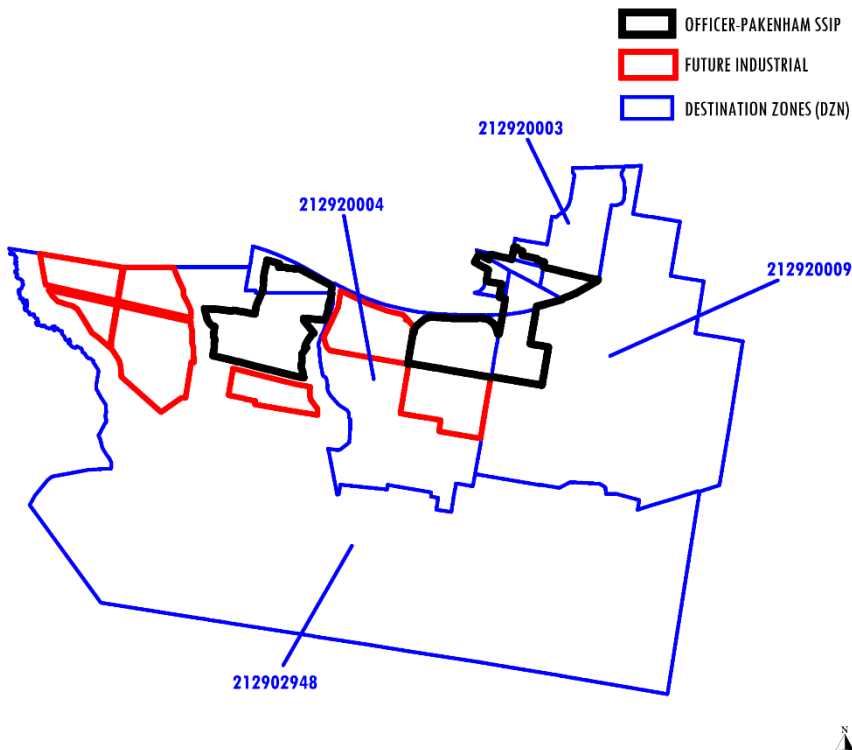


Table 21\_Economic Output & Employment by DZN, Officer-Pakenham SSIP

DZN	SA2_name	SSIP	Output \$M	Area ha	Output density \$M / ha	Jobs	Jobs / ha
212902948	Koo Wee Rup	Officer-Pakenham SSIP	64.73	6,040.63	0.01	236.06	0.04
212920003	Pakenham - South	Officer-Pakenham SSIP	34.13	253.60	0.13	123.89	0.49
212920004	Pakenham - South	Officer-Pakenham SSIP	278.28	1,219.47	0.23	717.15	0.59
212920006	Pakenham - South	Officer-Pakenham SSIP	223.51	33.51	6.67	382.76	11.42
212920008	Pakenham - South	Officer-Pakenham SSIP	168.92	56.07	3.01	423.69	7.56
212920009	Pakenham - South	Officer-Pakenham SSIP	265.82	2,033.19	0.13	600.02	0.30
212920010	Pakenham - South	Officer-Pakenham SSIP	263.97	41.81	6.31	595.35	14.24
212922968	Pakenham - South	Officer-Pakenham SSIP	484.63	29.69	16.32	781.20	26.31

Source: REMPLAN

# 4\_Employment & Economic Output

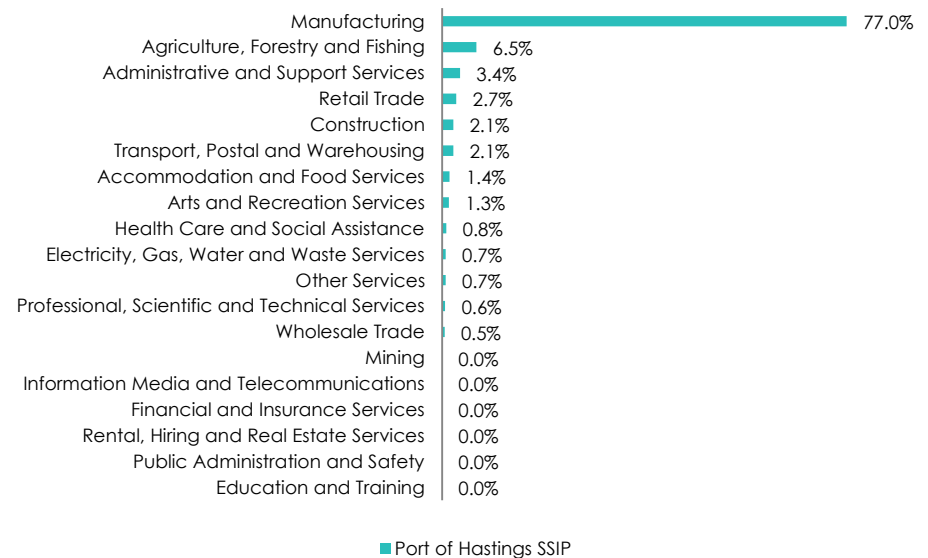
## 4.4\_State Significant Industrial Precincts

### Port of Hastings SSIP

The Port of Hastings State-Significant Industrial Precinct contains 3 individual Destination Zones, which covers a total land area of approximately 4,793.64 hectares. Key findings based upon REMPLAN Destination Zone data are provided below:

- **Destination Zones wholly or partially within the Port of Hastings SSIP contain approximately 3,927 jobs, at an estimated jobs ratio of approximately 0.82 jobs per hectare.** This notes that a large quantum of land within DZNs to the north of the study area may be vacant, undeveloped or used for non-employment uses, resulting in an artificially low employment density ratio.
- **DZNs wholly or partially within the Port of Hastings SSIP contribute a total of \$1.5 billion in estimated economic output to the Southern Region.**
- **Additionally, the economic output density of the Port of Hastings SSIP is estimated at \$0.31 million per hectare.** Similarly to the employment density ratio, this figure is affected by DZNs that are partially within the SSIP boundary – particularly noting that large, predominantly rural / agricultural land in DZNs to the north of the study area dilute both employment density and economic output ratios.
- **Manufacturing is the dominant sector within the Port of Hastings SSIP, accounting for approximately 77% of all jobs.** This predominantly reflects the presence of major steel manufacturing and export infrastructure and infrastructure associated with petroleum (oil and gas) handling and export infrastructure.

Figure 36\_Port of Hastings SSIP Employment by Industry (POW), 2016



Source: ABS Census 2016, MacroPlan Dimasi

Data note: figures above are indicative and reflect a preliminary 'best fit' of DZNs relative to SSIP boundaries; as such, data above does not capture the entirety of the Port of Hastings SSIP and excludes some DZNs that are partially within the Port of Hastings SSIP (and may therefore undercount workers). Inversely, data summarised adjacent includes all DZN that are partially or wholly within the Southern SSIP (and may therefore over count workers and output).

# 4\_Employment & Economic Output

## 4.4\_State Significant Industrial Precincts

### Port of Hastings SSIP

Figure 37\_Hastings SSIP boundary compared to relevant DZN

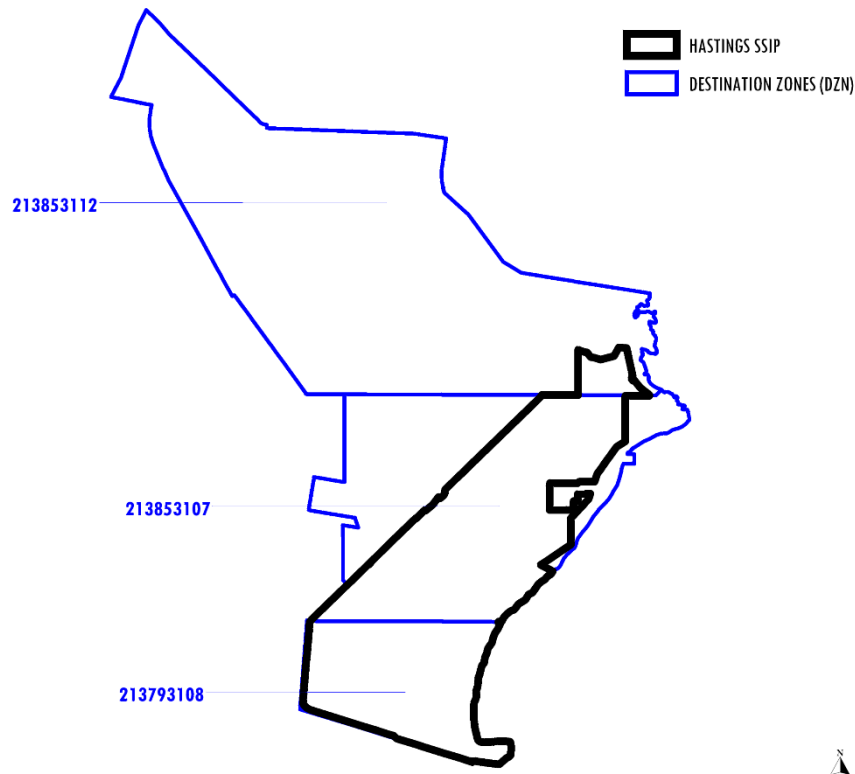


Table 22\_Economic Output & Employment by DZN, Officer-Pakenham SSIP

DZN	SA2_name	SSIP	Output \$M	Area ha	Output density \$M / ha	Jobs	Jobs / ha
213793108	Hastings - Somers	Hastings SSIP	350.49	582.71	0.60	729.27	582.71
213853107	Somerville	Hastings SSIP	63.18	1,625.12	0.04	181.35	1,625.12
213853112	Somerville	Hastings SSIP	1,095.41	2,585.81	0.42	3,015.91	2,585.81

Source: REMPLAN

# 4\_Employment & Economic Output

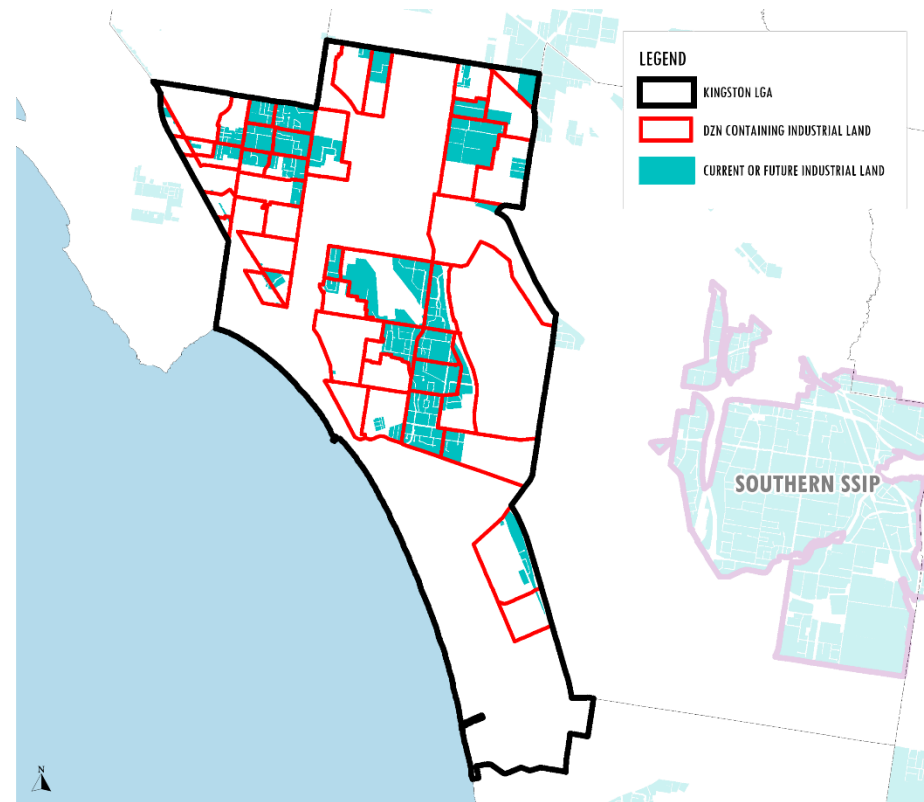
## 4.5\_Other Industrial Precincts

### Kingston

#### Key Points

- DZNs within Kingston LGA containing current or future industrial land supply identified in the Urban Development Program (Industrial, 2018) are identified in the map adjacent. REMPLAN data has been extracted for all DZNs containing industrial land, excluding DZNs already identified within SSIPs.
- DZNs containing industrial land occupy approximately 4,144 hectares within Kingston LGA.
- The economic output of DZNs containing industrial land is estimated at \$20.4 billion. This area has an estimated economic output density of approximately \$4.92 million per hectare.
- DZNs containing industrial land within Kingston contain an estimated 54,625 jobs. The estimated employment density within this area is approximately 13.2 jobs per hectare. This notes that not all jobs within this area are industrial.

Figure 38\_Kingston LGA: Other Industrial Land



Source: ABS / MacroPlan (2018)

Data note: current or future industrial land identified above is based upon the UDP 2017 or VPA land use data. Please note that all Destination Zones (DZNs, identified in red above) containing industrial land have been identified in this map, noting that small fragmented parcels have not necessarily been considered in the high-level summary findings of this report.

# 4\_Employment & Economic Output

## 4.5\_Other Industrial Precincts

### Kingston

Table 23\_Kingston LGA, DZNs containing industrial land (2018)

DZN	SA2_name	LGA	Output \$M	Area ha	Output density \$M / ha	Jobs	Jobs / ha
211842728	Braeside	Kingston	1,277.44	124.72	10.24	3,000.92	24.06
211842730	Braeside	Kingston	888.17	120.01	7.40	2,179.24	18.16
211842731	Braeside	Kingston	1,201.70	88.93	13.51	2,726.50	30.66
211842732	Braeside	Kingston	811.79	70.92	11.45	1,853.29	26.13
211842746	Braeside	Kingston	1,110.93	91.61	12.13	2,647.68	28.90
211872774	Chelsea Heights	Kingston	51.08	97.98	0.52	200.20	2.04
211872790	Chelsea Heights	Kingston	459.10	221.60	2.07	1,398.54	6.31
211882705	Cheltenham - Highett (East)	Kingston	92.73	73.11	1.27	441.31	6.04
211882706	Cheltenham - Highett (East)	Kingston	42.73	21.43	1.99	196.67	9.18
211882707	Cheltenham - Highett (East)	Kingston	874.74	35.83	24.41	4,931.83	137.65
211882708	Cheltenham - Highett (East)	Kingston	41.06	11.04	3.72	165.69	15.01
211882711	Cheltenham - Highett (East)	Kingston	63.01	67.22	0.94	279.29	4.15
211882713	Cheltenham - Highett (East)	Kingston	64.15	89.18	0.72	229.71	2.58
211882714	Cheltenham - Highett (East)	Kingston	248.44	100.35	2.48	693.71	6.91
211882715	Cheltenham - Highett (East)	Kingston	594.67	54.96	10.82	1,332.93	24.25
211882716	Cheltenham - Highett (East)	Kingston	391.06	38.35	10.20	1,117.14	29.13
211882734	Cheltenham - Highett (East)	Kingston	386.13	28.59	13.51	869.10	30.40
211882754	Cheltenham - Highett (East)	Kingston	318.98	46.66	6.84	808.45	17.33
211902741	Mentone	Kingston	110.66	36.92	3.00	507.28	13.74
211902742	Mentone	Kingston	69.73	31.81	2.19	456.71	14.36
211902744	Mentone	Kingston	261.96	72.93	3.59	704.53	9.66
211912750	Moorabbin - Heatherton	Kingston	55.08	23.39	2.35	400.81	17.14
211912753	Moorabbin - Heatherton	Kingston	411.99	69.61	5.92	1,285.93	18.47
211912755	Moorabbin - Heatherton	Kingston	1,144.15	55.48	20.62	2,543.28	45.84
211912756	Moorabbin - Heatherton	Kingston	1,111.90	46.54	23.89	2,345.47	50.40
211912757	Moorabbin - Heatherton	Kingston	604.45	62.68	9.64	1,711.89	27.31
211912758	Moorabbin - Heatherton	Kingston	497.20	39.90	12.46	1,409.01	35.31
211912759	Moorabbin - Heatherton	Kingston	929.35	138.45	6.71	2,774.61	20.04

Source: REMPLAN

DZN	SA2_name	LGA	Output \$M	Area ha	Output density \$M / ha	Jobs	Jobs / ha
211922735	Moorabbin Airport	Kingston	1,476.93	307.55	4.80	2,767.48	9.00
211932722	Mordialloc - Parkdale	Kingston	218.33	184.89	1.18	1,057.75	5.72
211932724	Mordialloc - Parkdale	Kingston	77.05	77.74	0.99	404.26	5.20
211932725	Mordialloc - Parkdale	Kingston	260.06	117.82	2.21	689.72	5.85
211932727	Mordialloc - Parkdale	Kingston	760.97	95.44	7.97	2,076.73	21.76
213092702	Clarinda - Oakleigh South	Kingston	148.97	107.39	1.39	343.94	3.20
213092703	Clarinda - Oakleigh South	Kingston	578.24	80.36	7.20	1,427.93	17.77
213100001	Clayton South	Kingston	167.10	72.66	2.30	594.46	8.18
213100002	Clayton South	Kingston	190.09	170.49	1.11	531.51	3.12
213100005	Clayton South	Kingston	686.94	206.89	3.32	1,573.75	7.61
213100006	Clayton South	Kingston	412.46	38.14	10.81	831.09	21.79
213102769	Clayton South	Kingston	427.77	118.57	3.61	1,080.89	9.12
213102770	Clayton South	Kingston	331.06	56.26	5.88	896.06	15.93
213132747	Dingley Village	Kingston	377.15	342.98	1.10	866.77	2.53

Source: REMPLAN

Data note: these tables correspond to the map located on the previous page. Please note that these tables summarise all Destination Zones within the relevant geographic area that contain industrial land identified by the UDP 2017 or future industrial land identified by VPA land use data.

# 4\_Employment & Economic Output

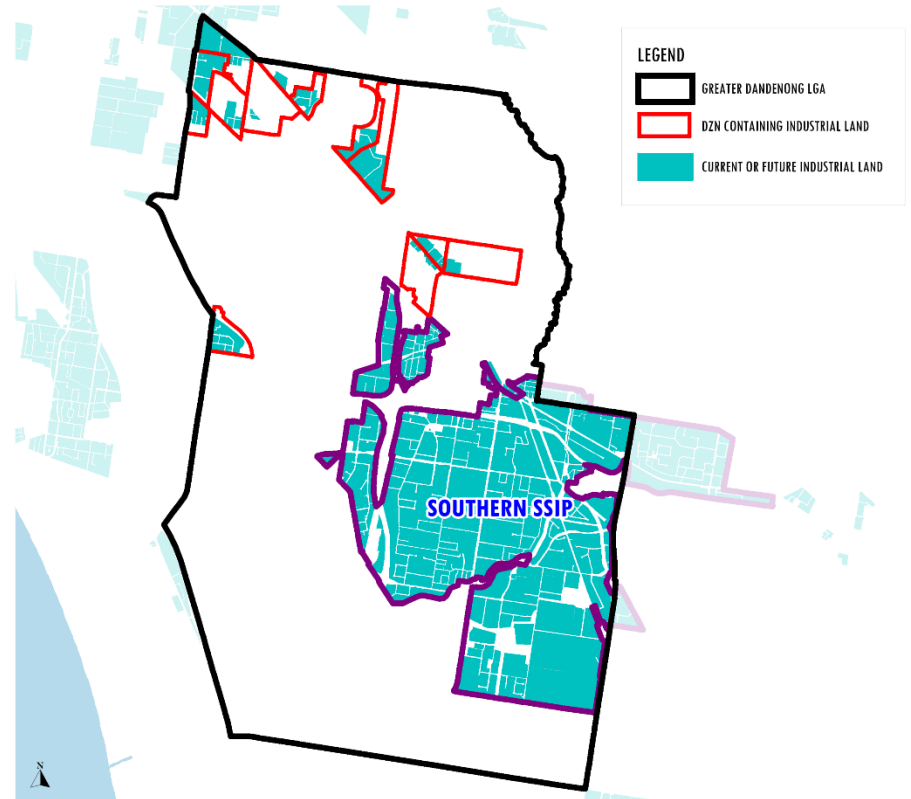
## 4.5\_Other Industrial Precincts

### Greater Dandenong

#### Key Points

- DZNs within Greater Dandenong LGA containing current or future industrial land supply identified in the Urban Development Program (Industrial, 2018) are identified in the map adjacent. REMPLAN data has been extracted for all DZNs containing industrial land, excluding DZNs already identified within SSIPs.
- DZNs containing industrial land occupy approximately 947.12 hectares within Dandenong LGA.
- The economic output of DZNs containing industrial land is estimated at \$5 billion. This area has an estimated economic output density of approximately \$5.28 million per hectare.
- DZNs containing industrial land within Greater Dandenong contain an estimated 16,528 jobs. The estimated employment density within this area is approximately 17.5 jobs per hectare. This notes that not all jobs within this area are industrial.

Figure 39\_Greater Dandenong LGA: Other Industrial Land



Source: ABS / MacroPlan (2018)

Data note: current or future industrial land identified above is based upon the UDP 2017 or VPA land use data. Please note that all Destination Zones (DZNs, identified in red above) containing industrial land have been identified in this map, noting that small fragmented parcels have not necessarily been considered in the high-level summary findings of this report.

# 4\_Employment & Economic Output

## 4.5\_Other Industrial Precincts

### Greater Dandenong

**Table 24\_Greater Dandenong LGA, DZNs containing industrial land (2018)**

DZN	SA2_name	LGA	Output \$M	Area ha	Output density \$M / ha	Jobs	Jobs / ha
213112844	Dandenong	Greater Dandenong	94.74	85.74	1.10	279.41	3.26
213112845	Dandenong	Greater Dandenong	213.74	32.09	6.66	600.04	18.70
213112852	Dandenong	Greater Dandenong	740.26	122.18	6.06	4,515.32	36.96
213142885	Keysborough	Greater Dandenong	694.50	60.42	11.49	1,684.29	27.88
213162893	Noble Park North	Greater Dandenong	757.29	115.14	6.58	1,917.65	16.65
213162925	Noble Park North	Greater Dandenong	785.94	55.33	14.20	1,764.59	31.89
213172914	Springvale	Greater Dandenong	154.54	34.35	4.50	516.97	15.05
213172915	Springvale	Greater Dandenong	208.25	76.71	2.71	937.72	12.22
213172916	Springvale	Greater Dandenong	439.43	61.55	7.14	870.65	14.15
213172917	Springvale	Greater Dandenong	487.52	87.82	5.55	1,934.52	22.03
213172921	Springvale	Greater Dandenong	147.35	120.35	1.22	618.73	5.14
213172922	Springvale	Greater Dandenong	122.23	56.73	2.15	413.51	7.29
213172924	Springvale	Greater Dandenong	158.42	38.71	4.09	475.54	12.28

Source: REMPLAN

Data note: this table corresponds to the map located on the previous page. Please note that this table summarises all Destination Zones within the relevant geographic area that contain industrial land identified by the UDP 2017 or future industrial land identified by VPA land use data.



# 4\_Employment & Economic Output

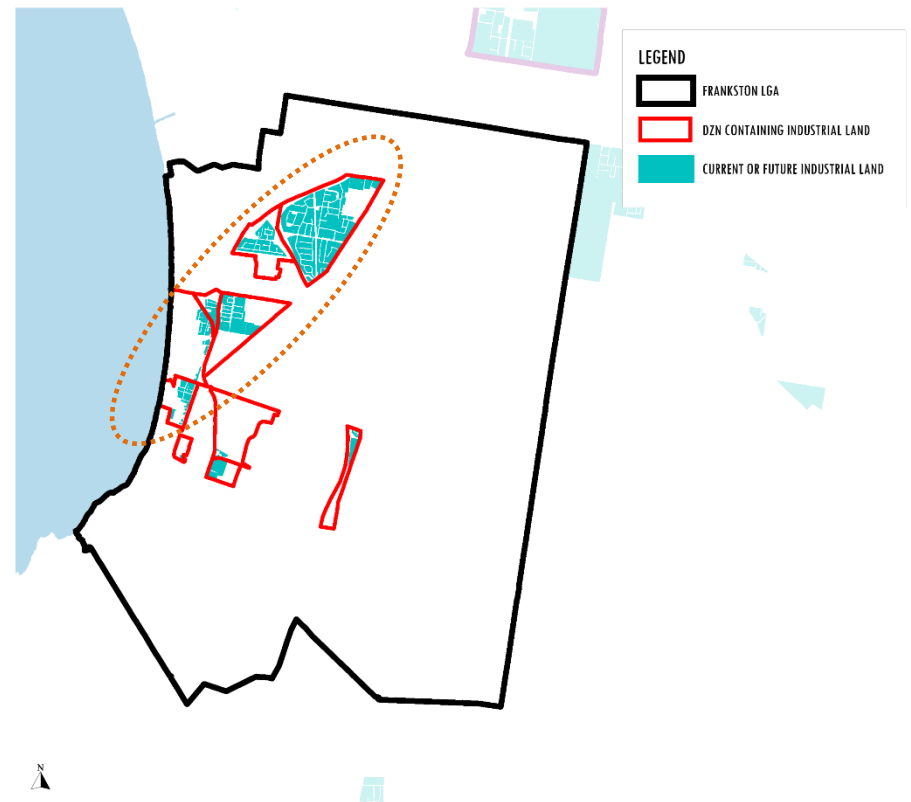
## 4.5\_Other Industrial Precincts

### Frankston

#### Key Points

- DZs within Frankston LGA containing current or future industrial land supply identified in the Urban Development Program (Industrial, 2018) are identified in the map adjacent. REMPLAN data has been extracted for all DZs containing industrial land, excluding DZs already identified within SSIPs.
- DZs containing industrial land occupy approximately 1,247 hectares within Frankston LGA.
- The economic output of DZs containing industrial land is estimated at \$5.4 billion. This area has an estimated economic output density of approximately \$4.36 million per hectare.
- DZs containing industrial land within Frankston LGA contain an estimated 16,423 jobs. The estimated employment density within this area is approximately 13.2 jobs per hectare. This notes that not all jobs within this area are industrial.

Figure 40\_Frankston LGA: Other Industrial Land



Source: ABS / MacroPlan (2018)

Data note: current or future industrial land identified above is based upon the UDP 2017 or VPA land use data. Please note that all Destination Zones (DZs, identified in red above) containing industrial land have been identified in this map, noting that small fragmented parcels have not necessarily been considered in the high-level summary findings of this report.

# 4\_Employment & Economic Output

## 4.5\_Other Industrial Precincts

### Frankston

**Table 25\_Frankston LGA, DZNs containing industrial land (2018)**

DZN	SA2_name	LGA	Output \$M	Area ha	Output density \$M / ha	Jobs	Jobs / ha
213703069	Carrum Downs	Frankston	3,176.28	365.47	8.69	7,572.60	20.72
213710008	Frankston	Frankston	69.45	37.33	1.86	553.03	14.81
213713080	Frankston	Frankston	314.62	73.93	4.26	1,602.09	21.67
213713083	Frankston	Frankston	83.57	16.60	5.03	454.50	27.38
213720002	Frankston North	Frankston	119.11	162.94	0.73	629.93	3.87
213743090	Langwarrin	Frankston	157.62	53.23	2.96	853.61	16.04
213753068	Seaford (Vic.)	Frankston	432.16	128.44	3.36	1,174.84	9.15
213753091	Seaford (Vic.)	Frankston	286.64	202.62	1.41	1,014.51	5.01
213753093	Seaford (Vic.)	Frankston	739.39	175.19	4.22	2,341.29	13.36
213753094	Seaford (Vic.)	Frankston	59.45	32.22	1.85	226.69	7.04

Source: REMPLAN

Data note: this table corresponds to the map located on the previous page. Please note that this table summarises all Destination Zones within the relevant geographic area that contain industrial land identified by the UDP 2017 or future industrial land identified by VPA land use data.

# 4\_Employment & Economic Output

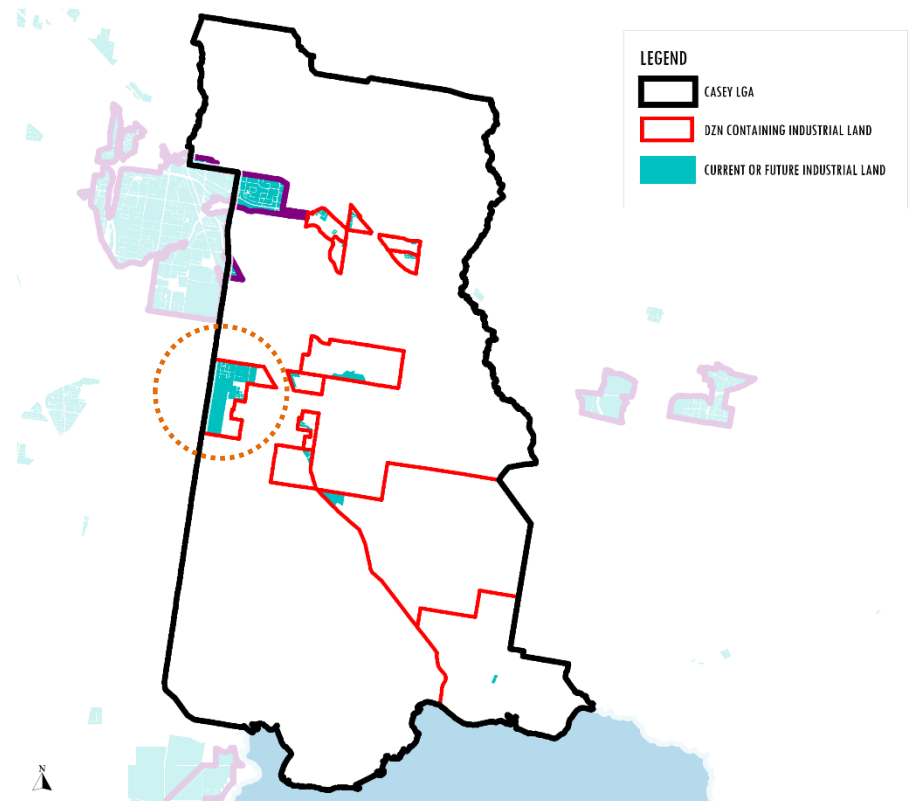
## 4.5\_Other Industrial Precincts

### Casey

#### Key Points

- DZNs within Casey LGA containing current or future industrial land supply identified in the Urban Development Program (Industrial, 2018) are identified in the map adjacent. REMPLAN data has been extracted for all DZNs containing industrial land, excluding DZNs already identified within SSIPs.
- DZNs containing industrial land occupy approximately 8,884.32 hectares within Casey LGA.
- The economic output of DZNs containing industrial land is estimated at \$2.5 billion. This area has an estimated economic output density of approximately \$0.28 million per hectare.
- DZNs containing industrial land within Casey LGA contain an estimated 10,592 jobs. The estimated employment density within this area is approximately 1.2 jobs per hectare, noting that small industrial parcels within predominantly residential / non-industrial DZNs have diluted both employment density and economic output ratios.

Figure 41\_Casey LGA: Other Industrial Land



Source: ABS / MacroPlan (2018)

Data note: current or future industrial land identified above is based upon the UDP 2017 or VPA land use data. Please note that all Destination Zones (DZNs, identified in red above) containing industrial land have been identified in this map, noting that small fragmented parcels have not necessarily been considered in the high-level summary findings of this report.

# 4\_Employment & Economic Output

## 4.5\_Other Industrial Precincts

### Casey

**Table 26\_Casey LGA, DZNs containing industrial land (2018)**

DZN	SA2_name	LGA	Output \$M	Area ha	Output density \$M / ha	Jobs	Jobs / ha
212932983	Berwick - North	Casey	109.84	96.44	1.14	686.09	7.11
212932984	Berwick - North	Casey	184.59	74.75	2.47	839.80	11.23
213003014	Cranbourne	Casey	158.85	95.35	1.67	671.33	7.04
213003017	Cranbourne	Casey	325.14	289.10	1.12	1,432.63	4.96
213003020	Cranbourne	Casey	130.45	119.44	1.09	770.25	6.45
213023023	Cranbourne North	Casey	336.56	692.35	0.49	1,068.65	1.54
213033059	Cranbourne South	Casey	243.11	#####	0.06	832.87	0.21
213040001	Cranbourne West	Casey	34.93	584.87	0.06	142.84	0.24
213080001	Pearcedale - Tooradin	Casey	141.58	#####	0.05	519.26	0.19
214560003	Narre Warren - South West	Casey	396.85	62.15	6.39	1,957.36	31.49
214560004	Narre Warren - South West	Casey	427.41	144.80	2.95	1,630.38	11.26
214560005	Narre Warren - South West	Casey	6.81	69.77	0.10	40.79	0.58

Source: REMPLAN

Data note: this table corresponds to the map located on the previous page. Please note that this table summarises all Destination Zones within the relevant geographic area that contain industrial land identified by the UDP 2017 or future industrial land identified by VPA land use data.

# 4\_Employment & Economic Output

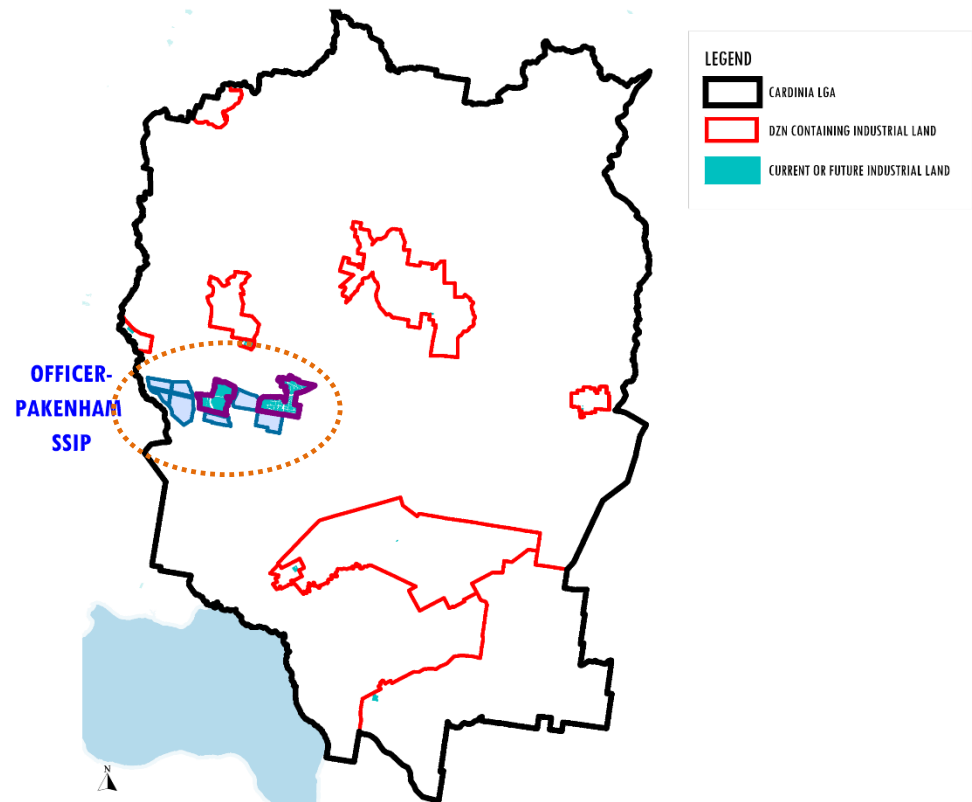
## 4.5\_Other Industrial Precincts

### Cardinia

#### Key Points

- DZNs within Cardinia LGA containing current or future industrial land supply identified in the Urban Development Program (Industrial, 2018) are identified in the map adjacent. REMPLAN data has been extracted for all DZNs containing industrial land, excluding DZNs already identified within SSIPs.
- DZNs containing industrial land occupy approximately 24,143.78 hectares within Cardinia LGA.
- The economic output of DZNs containing industrial land is estimated at \$1.4 billion. This area has an estimated economic output density of approximately \$0.06 million per hectare.
- DZNs containing industrial land within Cardinia LGA contain an estimated 4,707 jobs. The estimated employment density within this area is approximately 0.2 jobs per hectare, noting that a number of significantly sized DZNs contain small parcels of industrial land. Further review and consultation is required to determine how to manage outliers in DZN data that are geographically relevant but statistically negligible.

Figure 42\_Cardinia LGA: Other Industrial Land



Source: ABS / MacroPlan (2018)

Data note: current or future industrial land identified above is based upon the UDP 2017 or VPA land use data. Please note that all Destination Zones (DZNs, identified in red above) containing industrial land have been identified in this map, noting that small fragmented parcels have not necessarily been considered in the high-level summary findings of this report.

# 4\_Employment & Economic Output

## 4.5\_Other Industrial Precincts

### Cardinia

**Table 27\_Cardinia LGA, DZNs containing industrial land (2018)**

DZN	SA2_name	LGA	Output \$M	Area ha	Output density \$M / ha	Jobs	Jobs / ha
212872949	Beaconsfield - Officer	Cardinia	391.46	214.42	1.83	1,178.84	5.50
212882930	Bunyip - Garfield	Cardinia	39.42	3,379.84	0.01	130.09	0.04
212882945	Bunyip - Garfield	Cardinia	89.66	345.00	0.26	430.63	1.25
212892938	Emerald - Cockatoo	Cardinia	88.48	487.98	0.18	419.86	0.86
212900001	Koo Wee Rup	Cardinia	76.98	6,603.84	0.01	217.31	0.03
212900003	Koo Wee Rup	Cardinia	186.19	237.81	0.78	883.88	3.72
212902974	Koo Wee Rup	Cardinia	201.59	11,926.90	0.02	425.55	0.04
212910004	Pakenham - North	Cardinia	22.93	900.14	0.03	47.96	0.05
212912956	Pakenham - North	Cardinia	324.04	47.85	6.77	973.80	20.35

Source: REMPLAN

Data note: this table corresponds to the map located on the previous page. Please note that this table summarises all Destination Zones within the relevant geographic area that contain industrial land identified by the UDP 2017 or future industrial land identified by VPA land use data.

# 4\_Employment & Economic Output

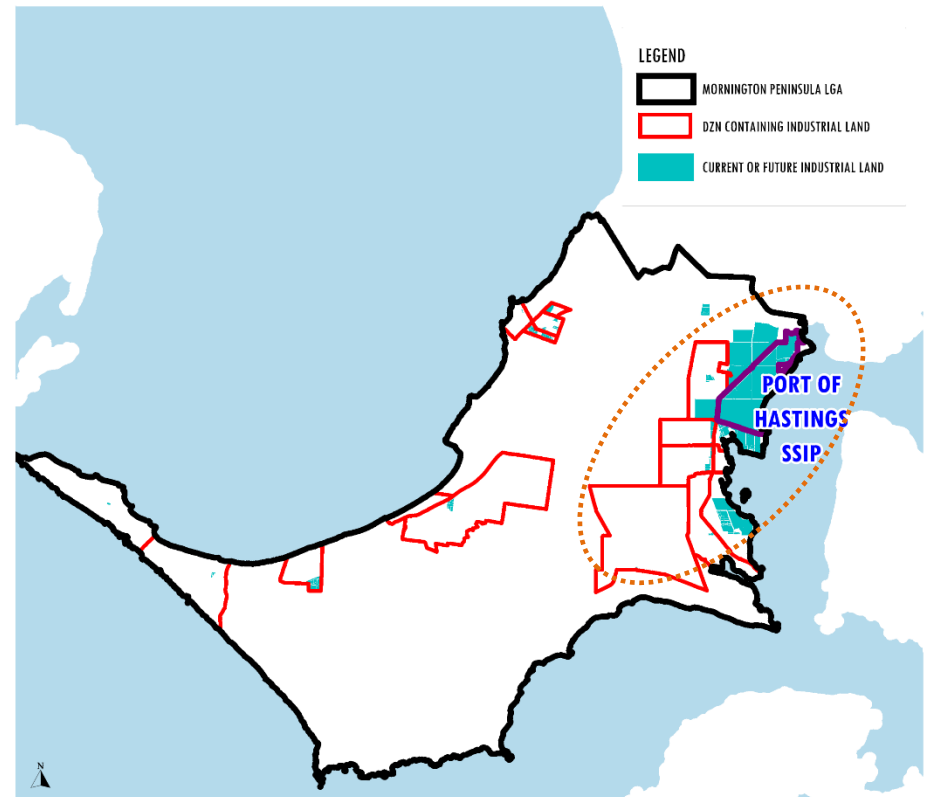
## 4.5\_Other Industrial Precincts

### Mornington Peninsula

#### Key Points

- DZs within Mornington Peninsula LGA containing current or future industrial land supply identified in the Urban Development Program (Industrial, 2018) are identified in the map adjacent. REMPLAN data has been extracted for all DZs containing industrial land, excluding DZs already identified within SSIPs.
- DZs containing industrial land occupy approximately 16,835 hectares within Cardinia LGA.
- The economic output of DZs containing industrial land is estimated at \$6.4 billion. This area has an estimated economic output density of approximately \$0.38 million per hectare.
- DZs containing industrial land within Cardinia LGA contain an estimated 22,977 jobs. The estimated employment density within this area is approximately 1.36 jobs per hectare, noting that a number of significantly sized DZs contain small parcels of industrial land. Further review and consultation is required to determine how to manage outliers in DZN data that are geographically relevant but statistically negligible.

Figure 43\_Mornington Peninsula LGA: Other Industrial Land



Source: ABS / MacroPlan (2018)

Data note: current or future industrial land identified above is based upon the UDP 2017 or VPA land use data. Please note that all Destination Zones (DZs, identified in red above) containing industrial land have been identified in this map, noting that small fragmented parcels have not necessarily been considered in the high-level summary findings of this report.

# 4\_Employment & Economic Output

## 4.5\_Other Industrial Precincts

### Mornington Peninsula

**Table 28\_Mornington Peninsula LGA, DZNs containing industrial land (2018)**

DZN	SA2_name	LGA	Output \$M	Area ha	Output density \$M / ha	Jobs	Jobs / ha
213773127	Dromana	Mornington Peninsula	199.43	276.77	0.72	941.49	3.40
213773128	Dromana	Mornington Peninsula	392.41	2,930.26	0.13	1,321.12	0.45
213793098	Hastings - Somers	Mornington Peninsula	107.83	1,092.10	0.10	343.22	0.31
213793099	Hastings - Somers	Mornington Peninsula	580.59	1,083.13	0.54	1,534.80	1.42
213793100	Hastings - Somers	Mornington Peninsula	188.88	3,692.41	0.05	701.63	0.19
213793102	Hastings - Somers	Mornington Peninsula	304.52	810.88	0.38	1,056.57	1.30
213793103	Hastings - Somers	Mornington Peninsula	160.86	613.58	0.26	501.93	0.82
213793106	Hastings - Somers	Mornington Peninsula	415.10	456.26	0.91	524.13	1.15
213803138	Mornington	Mornington Peninsula	1,095.76	273.83	4.00	5,421.62	19.80
213803141	Mornington	Mornington Peninsula	224.23	205.38	1.09	928.22	4.52
213803142	Mornington	Mornington Peninsula	944.10	103.33	9.14	2,993.18	28.97
213803147	Mornington	Mornington Peninsula	177.69	84.07	2.11	837.64	9.96
213833121	Point Nepean	Mornington Peninsula	413.13	1,660.65	0.25	1,259.94	0.76
213833130	Point Nepean	Mornington Peninsula	384.65	1,834.13	0.21	1,545.02	0.84
213843124	Rosebud - McCrae	Mornington Peninsula	422.07	587.83	0.72	2,098.84	3.57
213853109	Somerville	Mornington Peninsula	351.51	1,131.26	0.31	968.34	0.86

Source: REMPLAN

Data note: this table corresponds to the map located on the previous page. Please note that this table summarises all Destination Zones within the relevant geographic area that contain industrial land identified by the UDP 2017 or future industrial land identified by VPA land use data.



# 4\_Employment & Economic Output

## 4.6\_Additional Note

- This section has detailed each individual Destination Zone containing industrial land (current or future) within the Southern Region.
- It is acknowledged that many identified DZNs within the study area contain industrial land, but include a surplus of land that is unrelated to industrial uses.
- REMPLAN data identifying the volume of jobs and economic output within the Southern Region is only provided at Destination Zone geographic level, which is consistent with ABS publications – for this reason, all relevant DZNs containing industrial land have been recorded and identified in the maps and tables contained in this section.

# A\_Annexure

## A1\_Planning Context and Overview

## Contact

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