Devon Meadows & Casey Fields South PSP Employment and Retail Needs Assessment (Final)

Victorian Planning Authority

05 | 12 | 2022

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Contents

Abbreviations

Abbreviation	Description
ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
AC	Activity Centre
e-PSP	Employment Precinct Structure Plan
LGA	Local Government Area
LUFP	Land Use Framework Plan
MAC	Metropolitan Activity Centre
MICLUP	Melbourne Industrial and Commercial Land Use Plan
NEIC	National Employment and Innovation Cluster
PFN	Principal Freight Network
Plan Melbourne	Plan Melbourne 2017-2050
PPTN	Principal Public Transport Network
PSP	Precinct Structure Plan
RSCA	Regionally Significant Commercial Area
RSIP	Regionally Significant Industrial Precinct
SEEC	South East Economic Corridor
SA2	Statistical Area, Level 2 (e.g. Australian Bureau of Statistics geography)
SSIP	State Significant Industrial Precinct
UGB	Urban Growth Boundary
VIF	Victoria in Future

Executive Summary

Project background and scope

The Victorian State Government has identified priorities around employment growth targets that are to be met in connection with encouraging sustainable development across Greater Melbourne. Prudent coordination and planning for the rollout of residential greenfield estates is a key part of this vision. Under the Melbourne Industrial and Commercial Land Use Plan (MICLUP), a framework for the development of industrial and commercial lands across Melbourne was established. As part of the broader suite of planning initiatives for the South Eastern Growth Corridor of Melbourne, the Victorian Planning Authority (VPA) is now preparing for the development of the Devon Meadows and Casey Fields South Precinct Structure Plan (PSP).

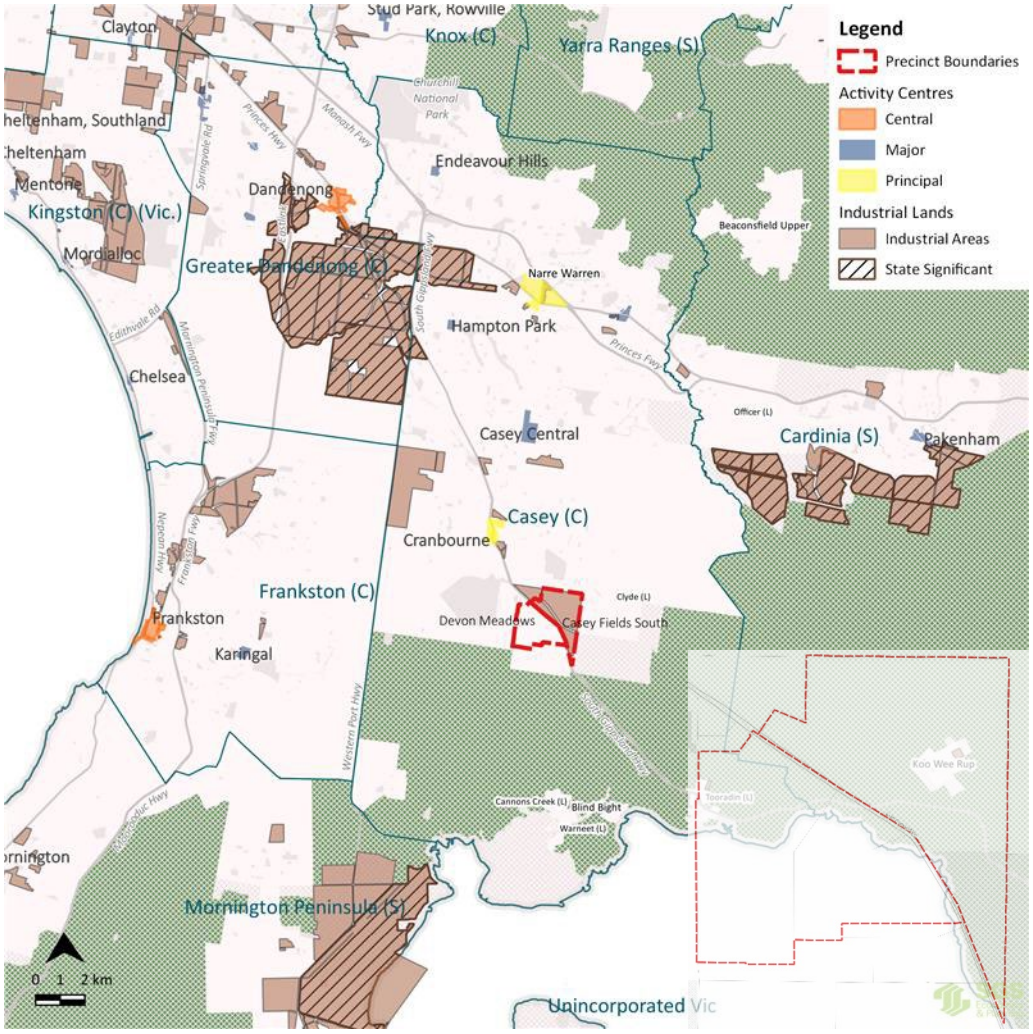
The VPA engaged SGS Economics and Planning to prepare an assessment of employment and retail needs for the Casey Fields South and Devon Meadows growth precinct. This involves economic forecasting, retail analysis and planning to understand the context of the precinct as part of the growth corridor, retail demand, surrounding environment, relevant government policies and the mix of employment generating land uses that could be expected to locate within the precinct. This will inform the new PSP and Infrastructure Contribution Plan (ICP) to guide growth over the next 20-30 years with an estimated 3,200 lots and over 4,400 jobs.

Project study area

The precinct has a combined total land area of 536 hectares. It is split by the South Gippsland Highway and bounded by Ballarto Road to the north, Clyde Five Ways Road to the east, Browns Road to the south and Craig Road to the west comprising Devon Meadows (261 hectares) and Casey Fields South (275 hectares).

The site is in Casey City Council, 50km southeast of the Melbourne CBD and 10-20km from surrounding State Significant Industrial Precincts (SSIP) including Southern/Dandenong (to the northwest), Officer-Pakenham (northeast) and Port of Hastings (south). The precinct is located close to existing and planned communities including Cranbourne, Clyde and Botanic Ridge.

DM AND CFS EMPLOYMENT PSP



Source: SGS Economics and Planning, 2022

Policy and economic context

Plan Melbourne identifies key precincts to deliver employment floorspace across Metropolitan Melbourne. Casey Fields South and Devon Meadows are part of the Southern Region. In the Plan, the Southern Region is forecast to generate around 105,000 jobs by 2031 (around 0.5% p.a.), lower than the Western and Northern Region's growth rates of around 1.5% p.a. and 2.3% p.a. respectively.

Plan Melbourne highlights the need for future industrial land to be identified in strategic locations to ensure there is sufficient land available for major industrial development such as the project site and major industrial developments in the Southern Region such as the three nearby SSIPs (Southern in Dandenong, Officer-Pakenham and Port of Hastings). Whilst Plan Melbourne identifies the site as future industrial land at a high level, MICLUP specifically identifies Casey Fields South as a Regionally Significant Industrial Precinct.

The South East Economic Corridor (SEEC) Context Report provides further regionally specific direction to ultimately support over 1 million residents with an estimated 560,000 jobs. An intensification of knowledge-based jobs in Casey Fields South (CFS) is planned as part of the future e-PSP, with a long-term time frame extending to 2060. In the shorter term, CFS will primarily cater for manufacturing, logistics and population-serving businesses while other more knowledge based economic activity and job growth is directed into established centres.

Economic opportunities

The table below summarises the major economic opportunities in the region, categorised by industry. All future employment PSP precincts in the region have a role to play in maximising these opportunities for the region's business and resident communities.

Given the full analysis contained in this report, it is the bolded opportunities which are considered the most regionally significant that Casey Fields South can play.

Industry group	Gaps in the region	Opportunities
Manufacturing for primary industries (agriculture and mining)	Minimal, given the green wedge and Gippsland foodbowl.	An opportunity to build one of, if not the strongest, agriculture linked manufacturing precincts in the State.
Manufacturing for knowledge sectors (professional services and IT)	Still early in the development of this corridor for these industries. Dependent on growing professional services and IT businesses in centres and business parks.	Activity Centres are potential nodes where these industries can grow, with some being accessible to DM/CFS PSP. **IT products also require a combination of industrial/business park/R&D functions**
Manufacturing for health care	Local health anchors/ health and education precincts. Demand and the case for these institutions will increase as population in the region grows.	A new health and education precinct can be anticipated in this region, although more likely to be in the Cardinia Shire. Note the long supply chain in the health industry.
Manufacturing for transport industries (rolling stock and infrastructure)	This type of manufacturing can require long assembly lines and storage facilities, meaning large lots.	Good transport connection along the South Gippsland Highway to connect with other industrial precincts, most of which are strong in the logistics industries. Leverage established clusters in the region for these activities.
Transport and logistics, particularly moving manufactured products	As above – large lots something to keep in mind, particularly early in the precinct's development.	Leverage established clusters in the region for these activities. Land for these activities in other industrial precincts in the region has run out, so the next logical areas for

		this demand to be accommodated will be needed.
Wholesaling	Transport as above. Large lots for storage facilities at low cost.	This is an opportunity for CFS early in its development phase whilst land values are still low.
Business and research serving professional services	Relatively low access to a critical mass of local businesses to service. Transport access and precinct amenity that suits white collar workers. Research and development around manufacturing, food products, health/bio-medicine/sport.	**As the region matures, more businesses will emerge, creating more client opportunities.** **Growing the presence of knowledge institutions such as university campuses to help with skill development of the local workforce and alliance with research institutes.**

Land supply and suitability

Land suitability was mapped for CFS and DM based on criteria around access, infrastructure, natural and built constraints, amenity and sensitive uses and the preferred locations of these land use types: heavy industry, light industry, business parks, service industry and freight.

Overall the area is well suited to Business Park/Research Facilities and Service Industries. Light industrial and Freight also work well, but Heavy Industry is less suitable and should be provided for elsewhere in the region. Casey Fields South is also likely to be a far more versatile employment precinct location than Devon Meadows.

PROPORTION OF LAND THAT IS SUITABLE FOR EACH LAND USE TYPE

Land Use Type	Devon Meadows	Casey Fields South
Service Industry	96%	100%
Business Park / Research	96%	100%
Heavy Industry	0%	10%
Light Industry	0%	48%
Freight	13%	89%

Employment forecasts

Given the long term nature of the opportunities at CFS, employment forecasts have for now been aligned to that allocated under SEEC by 2061. That is, 4,400 jobs requiring approximately 92ha of developed employment land.

At full development (end state), the CFS precinct is expected to be capable of accommodating more than double that level, at 9,400 jobs across 195ha of land. This may not be reached until one, two or even three decades post 2061 – depending on the rate of economic growth in this region over the coming decades.

EMPLOYMENT, FLOORSPACE & LAND AREA DEVELOPMENT YIELDS BY 2061

	Employment yield (jobs)	Floorspace yield (sqm)	Net Land Area (ha)	Total Developable Area (ha)
By 2061	4,400	264,000	80ha	92ha
End state	9,400	565,000	170ha	195ha

Activity centres

A future residential community of 10,000 people is expected to support an activity centre of approximately 7,000 to 8,000sqm in retail floorspace anchored by a 3,000sqm full line supermarket. The range of potential ancillary businesses is summarised in the table below.

INDICATIVE RANGE OF POTENTIAL BUSINESSES

Category	Supported Businesses	Unsupported businesses
Supermarket	Supermarket/grocer (up to 3,000sqm)	-
Specialty Shop	Butcher, Bakery, Fruit & Veg, Deli, Apparel, Bookstore,	Bulky goods, DDS, Departments stores,
Hospitality	Café, Restaurant, Takeaway	Bars, nightclubs, hotels, entertainment
Non-retail	Accountant, Conveyancer, Shared Workspaces, Medical Practice, Real Estate Agency, Child Care Centre	Major commercial office tenants, multi-national corporations, major institutions – which would all be better suited in an employment precinct.

A small business oriented activity node is also feasible for the Casey Fields South Precinct, focusing on conveniences, takeaway/cafes/restaurants, shared workspaces and conference rooms for the local business community.

Both centres should be located as close as possible to the respective centroids of their precincts to maximise accessibility outcomes and amenity benefits.

Opportunities and recommendations

In Devon Meadows, there is an opportunity to develop a residential neighbourhood anchored by a Neighbourhood Activity Centre of 7,000 to 8,000sqm anchored by a 3,000sqm full-line supermarket. That centre will have a residential orientation, and include local delis, butchers, bakers etc. plus small scale population serving businesses such as local accountants, conveyancers, real estate agents.

For Casey Fields South, business parks/research facilities and service industry are particularly well suited, so the precinct should be branded for them in the long run, with some potential flexibility for light industry and freight uses. The flexibility is necessary because some business park/research facilities often need an element of niche-manufacturing capability.

Ultimately three options were conceived as being suitable for Casey Fields;

1. Option 1: Business Park & Research Focus – where amenity and large commercial development sites that offer campus style office/ research facilities give CFS a point of difference from other key employment locations in the region.
2. Option 2: General Employment Precinct – where a mix of light industry, service industry, freight and business parks are planned for – maximising flexibility with a potential for review based on trends given the precinct is not expected to develop for a few decades.
3. Option 3: Hybrid Approach – where the inner core of the precinct becomes commercial and is designed with strong amenity and active transport focus, whereas the outer parts of the precinct with strong arterial access is preferenced for industry and freight.

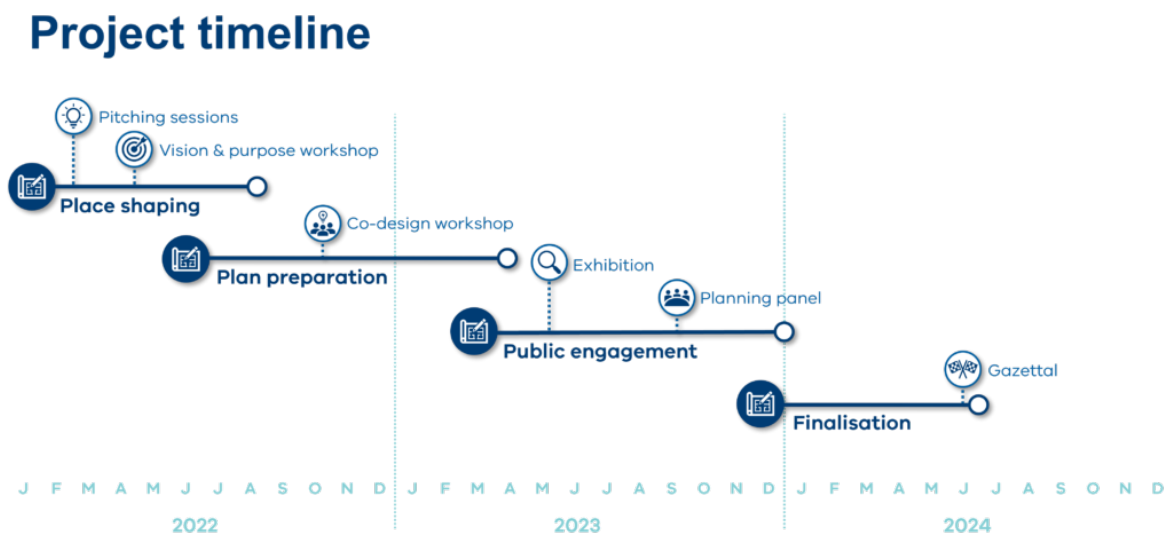
1. Introduction

1.1 Project background and scope

The Victorian State Government has identified priorities around employment growth targets that are to be met in connection with encouraging sustainable development across Greater Melbourne. Prudent coordination and planning for the rollout of residential greenfield estates is a key part of this vision. Under the Melbourne Industrial and Commercial Land Use Plan (MICLUP), a framework for the development of industrial and commercial lands across Melbourne was established. As part of the broader suite of planning initiatives for the South Eastern Growth Corridor of Melbourne, the Victorian Planning Authority (VPA) is now preparing for the development of the Devon Meadows (DM) and Casey Fields South (CFS) Precinct Structure Plan (PSP).

The VPA has engaged SGS Economics and Planning to prepare an assessment of employment and retail needs for the Casey Fields South and Devon Meadows growth precinct. This involves economic forecasting, retail analysis and planning to understand the context of the precinct as part of the growth corridor, retail demand, surrounding environment, relevant government policies and the mix of employment generating land uses that could be expected to locate within the precinct. This will inform the new PSP and Infrastructure Contribution Plan (ICP) to guide growth over the next 20-30 years with an estimated 3,200 lots and over 4,400 jobs. The VPA's PSP project timeline is outlined below for overall context.

FIGURE 1: PSP PROJECT TIMELINE



Source: Victorian Planning Authority, 2022

As the VPA's vision and pitching session summary outlines, there is a significant opportunity to support greater local employment opportunities in Casey Fields South. Determining the types of employment activities planned for in Casey Fields South will impact the type of environment that is created over the coming decades. The recent South East Economic Corridor Strategic Context Report to 2060 (SEEC)

forecasts that sufficient employment land supply exists in the corridor, reducing the pressure on Devon Meadows to provide employment land which will be discussed later in this report.

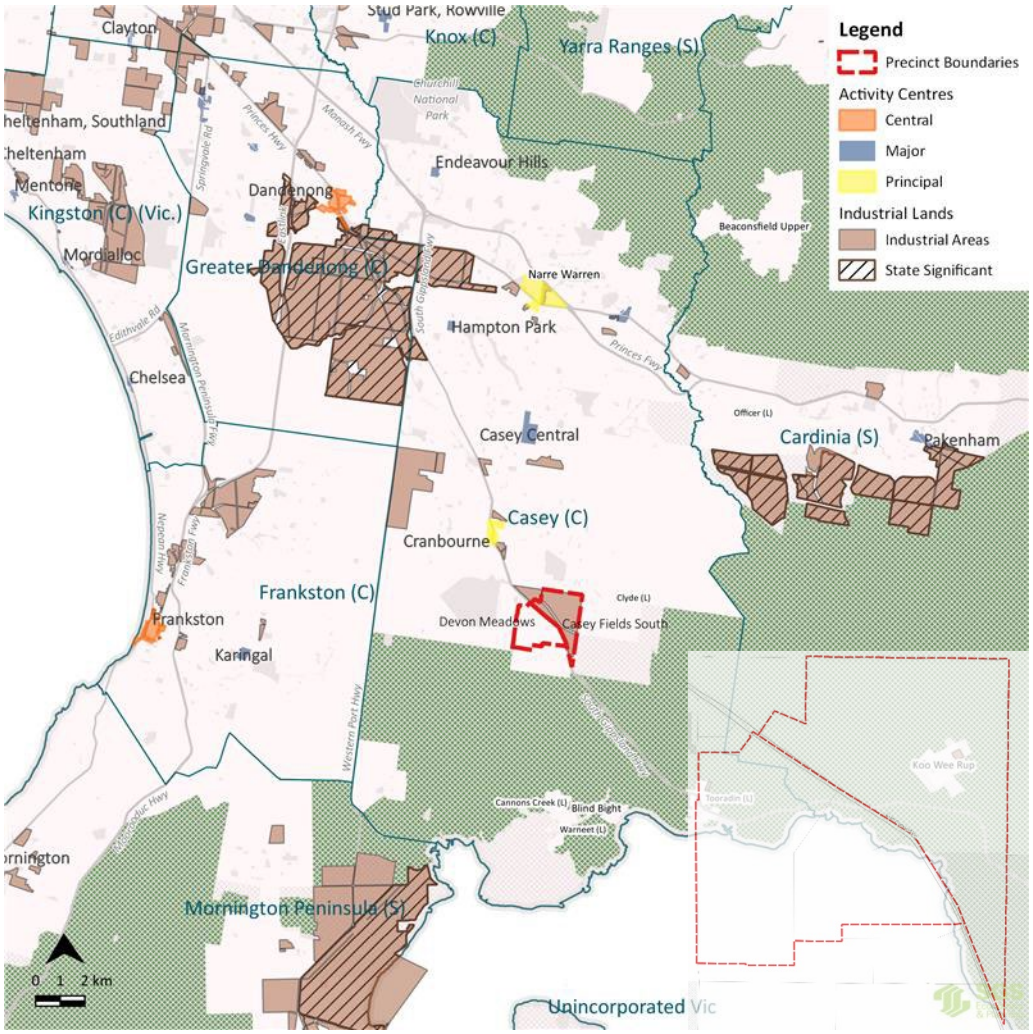
1.2 Project study area

The precinct has a combined total land area of 536 hectares, which is larger than Fishermans Bend. It is split by the South Gippsland Highway and bounded by Ballarto Road to the north, Clyde Five Ways Road to the east, Browns Road to the south and Craig Road to the west comprising:

- Devon Meadows – 261 hectares
- Casey Fields South – 275 hectares

The site is in Casey City Council, 50km southeast of the Melbourne CBD and 10-20km from surrounding State Significant Industrial Precincts (SSIP) including Southern/Dandenong (to the northwest), Officer-Pakenham (northeast) and Port of Hastings (south). The precinct is located close to existing and planned communities including Cranbourne, Clyde and Botanic Ridge.

FIGURE 2: DM AND CFS EMPLOYMENT PSP



Source: SGS Economics and Planning, 2022

2. Policy Context

This section outlines relevant state and local government policies and implications.

2.1 Plan Melbourne Strategy

In 2017, the State Government of Victoria released the refreshed Plan Melbourne (The Plan), a document to guide growth across Victoria to 2050. The Plan is an overarching planning document for metropolitan Melbourne, providing a framework for local government planning.

Casey Fields South and Devon Meadows are part of the Southern Region of Metropolitan Melbourne. In the Plan, the Southern Region is forecast to generate around 105,000 jobs by 2031 (around 0.5% p.a.), lower than the Western and Northern Region's growth rates of around 1.5% p.a. and 2.3% p.a. respectively. The Southern State Signficant Industrial Precinct (SSIP) includes almost 3,000 hectares of zoned land and includes part of the City of Greater Dandenong, neighbouring the City of Casey.

The Plan is structured into several outcomes, with a series of directions and objectives intended to support each:

- Outcome 1 highlights that Melbourne is to be a productive city that attracts investment, supports innovation and creates jobs. The first direction linked to this outcome is to 'create a city structure that strengthens Melbourne's competitiveness for jobs and investment'.
- Policy 1.1.6 directly addresses the need to plan for 'industrial land in the right locations to support employment and investment opportunities'.
- Outcome 2 promotes housing choice in locations close to jobs and services which will reduce the need to commute long distances across Melbourne for employment.

The Plan highlights that over the past five years, demand for new industrial land has averaged around 205 hectares a year, driven primarily by freight, logistics and manufacturing. The Plan highlights the positive impacts of recent investments in Victoria's transport network and hubs on Melbourne's major industrial areas, noting that metropolitan employment precincts are well positioned to absorb additional growth near major transport gateways and freight terminals.

It highlights the need for future industrial land to be identified in strategic locations to ensure there is sufficient land available for major industrial development such as the project site and major industrial developments in the Southern Region such as the three nearby SSIPs which can be seen in the map below (Southern in Dandenong, Officer-Pakenham and Port of Hastings).

FIGURE 3: SOUTHERN REGION - IMPLEMENTATION PLAN

Southern Region

Precincts and Activity Centres
- National employment and innovation cluster
- Metropolitan activity centre
- Health and education precinct
- State-significant industrial precinct — existing
- State-significant industrial precinct — future
- Industrial area — existing
- Industrial area — future
- Business and residential precinct
- Major activity centre
- Major activity centre — future

Transport
- Transport gateway – airport
- Transport gateway – seaport
- State significant road corridor
- Road network
- Rail network
- Train station
- Level crossing removal site

Transport projects — committed
- Caulfield to Dandenong Level Crossing Removal and Line Upgrade
- Monash Freeway upgrade

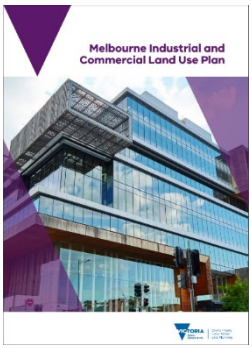
Transport projects — potential future
- Western Port highway upgrade / Rail Link to Hastings

Environment
- Conservation area (as identified in the Biodiversity Conservation Strategy for Melbourne's growth area)
- Ramsar site
- National park / state park
- Marine national park / marine sanctuary
- Public open space
- Regional park — emerging
- Regional park — proposed
- Wastewater treatment plant
- Water's edge parklands
- Waterway
- Waterbody

Administration
- Southern Region boundary
- Urban growth boundary
- Growth area
- Urban area
- Green wedge land
- Local government area boundary

Source: Plan Melbourne Refresh, 2017

2.2 Melbourne Industrial and Commercial Land Use Plan (MICLUP)



The Melbourne Industrial and Commercial Land Use Plan (MICLUP) is a metropolitan planning framework which provides an overview of current and future needs for industrial and commercial land across Melbourne. The objective of this plan is to inform the strategic directions across metropolitan Melbourne by supporting state and local government planning for commercial and industrial lands to effectively plan for employment, industrial needs and better inform strategic directions.

MICLUP emphasises the importance of identifying, zoning and protecting land for employment over the long-term. It does this by identifing a hierachy of industrial and commercial precincts:

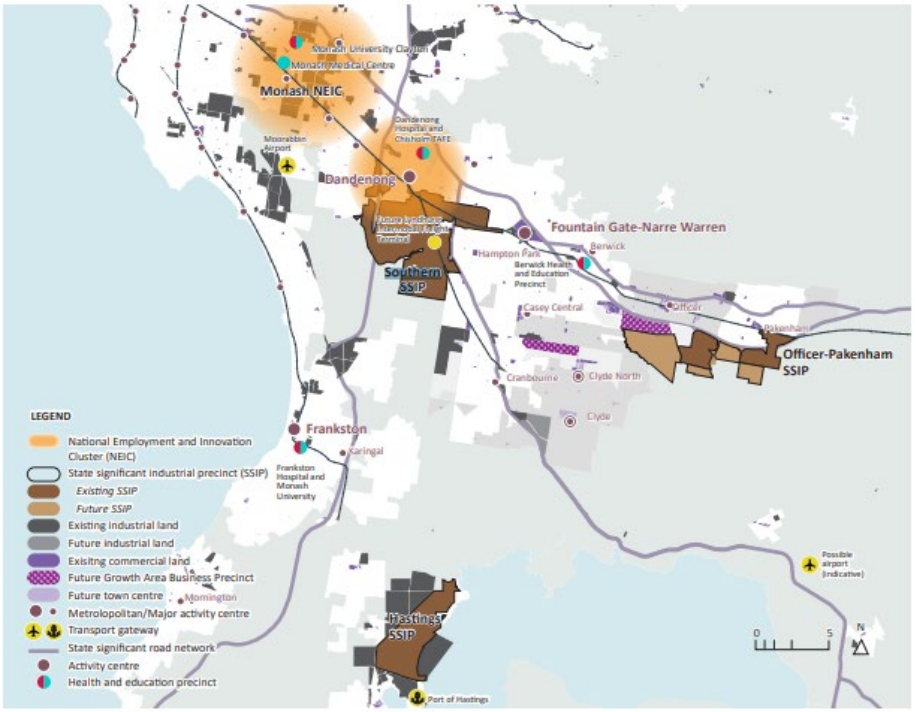
- State signficant industiral precincts (SSIP)
- Regionally significant industrial precincts (RSIP)
- Local industrial precincts (LIP)

- State signficant commercial precincts (SSCP)
- Regionally significant commercial precincts (RSCP)
- Local commercial precincts (LCP)

Zoning based on this hierarchy aims to preserve the range of employment uses and options into the long-term, specifically large land parcels needed for industry.

The MICLUP provides further detail on the SSIPs and RSIPs within the Southern Region, including the coordination of industrial land across this large corridor which is linked to future growth areas and town centres such as Clyde just to the east of Casey Fields South along Ballarto Road.

FIGURE 4: MICLUP SOUTHERN REGION CURRENT INDUSTRIAL AND COMMERCIAL LAND SUPPLY



Source: SGS Economics and Planning, based on *Melbourne Industrial and Commercial Land Use Plan*, April 2020.

Source: MICLUP, 2020

Under MICLUP, Casey Fields South is identified as a Regionally Significant Industrial Precinct (RSIP) for the purpose of providing opportunities for a range of industrial and employment uses that can contribute significantly to regional and local economies. According to MICLUP, RSIPs may also offer opportunities to transition to broader types of employment offering a higher amenity to workers and economic vibrancy rather than traditional conceptions of industrial employment.

MICLUP states that the future Casey Fields South industrial precinct near Clyde is identified in the South East Growth Corridor Plan as a future industrial node. This precinct's direct access to the South Gippsland Highway provides great opportunities for a range of industrial uses (particularly freight) and proximity to a proposed new railway station and major activity centre immediately to its north at Clyde would also create significant attraction for business parks and offices once those assets become fully established.

TABLE 1: KEY POINTS FROM MICLUP AND IMPLICATIONS FOR THIS PSP

MICLUP	*Implication for CFS/DM*
Industrial	
MICLUP stating the importance of industrial land with 'ongoing protection and retention for industrial uses will be critical, as will retaining other key industrial areas that can accommodate industry needs for land into the future'.	*Casey Fields South is an RSIP so needs to be (a) protected and retained as such and the VPA also needs to identify what future uses will feature most prominently.*
A range of State Government industry sector strategies are referenced. Opportunities for ▪ **Industrial** lands include construction, defence, food and fibre, medical and pharmaceuticals, energy, transport (freight and logistics). ▪ **Commercial** lands include education and professional services.	*CFS has potential regionally significant industrial and commercial areas which could leverage these industry opportunities and create synergies.*
In terms of an approach to future planning, the long term land supply is described as needing to be 'set aside to support future industry and business', whilst the role of planning is described as one which involves providing clarity and certainty for how and where businesses can grow to assist investment.	*Clear and certain market signals are highlighted as the key to support business investment decisions. That means CFS needs to be clear on its employment outcomes as primary goals and it should not let other supportive or surrounding uses dilute or compromise that core employment outcome.*
MICLUP also emphasises the legacy and importance of long term strategic planning to develop employment precincts. References are made to how land was set aside for industrial land as far back as the 1954 MMBW planning scheme, providing market certainty for land that would eventually be activated by infrastructure investment (e.g. Laverton North planned in 1954, activated with the Western Ring Road in the 1990s).	*Key employment precincts can take decades to fully develop (along with infrastructure investment). The CFS area is likely to be a similar long term prospect, with market certainty, time and infrastructure all necessary ingredients to it reaching its ultimate role in the region.*
MICLUP also addresses the issue of buffer zones, highlighting their role as separating incompatible land uses to protect sensitive uses from off-site impacts, whilst noting that the presence of those sensitive uses can detract from certainty for industry. Importantly, buffer areas are stated to be able to accommodate businesses, urban services and other uses that are compatible with both industry and sensitive uses.	*CFS must therefore be planned with buffer zones clearly at the forefront of mind, with the land uses in those buffer zones needing to be carefully selected amongst a range that includes 'businesses' and 'urban services', and clearly not a sensitive use such as residential. Buffer zones should also be defined from the edge of required industry uses and should encroach into them.*
MICLUP provides zoning guidance for RSIPs/SSIPs. Industrial 1 and 2 zones are recommended for land within the precincts themselves, Industrial 3 is slated for buffer zones, whilst Commercial 2 is nominated for some situations in growth corridor plans where a business precinct has been identified. Commercial 3 provides for dwellings and residential buildings via planning permit.	*Industrial 1, 2 and Commercial 2 prohibit residential uses, but Commercial 3 does allow for residential and could be an option where a horizontal mix is desired (noting vertical mixed use is difficult to achieve until higher densities/heights are achievable (currently only limited to within 10km of Melbourne CBD and select Activity Centres with major*

MICLUP	*Implication for CFS/DM*
	infrastructure). Commercial 2 and Industrial 3 can be used as buffer zones between residential and industry.
Commercial	
MICLUP estimates that between 2016 to 2031, almost 10million sqm of new commercial floorspace is required across Metropolitan Melbourne. Professional services, finance and insurance were identified as the strongest sources of demand. Whilst the inner-metro region will accommodate a significant proportion of growth, the South Region is still expected to gain 1.37million sqm.	*Employment precincts such as CFS will have a role in helping to accommodate some of that demand expected for the South Region. That requires the commercial areas to be quite flexible longer term so that as long term employment trends shift, they are still able to play a role..*
In mixed use contexts, activity centres and Commercial 1 zoned precincts, MICLUP acknowledges that balancing demand between residential and commercial uses within the same precincts are problematic as the market for commercial purposes isn't necessarily receptive to such environments in the long run. MICLUP therefore also notes the importance of understanding the needs of developers, landowners and business/industry/commerce.	*Any mixed-use precincts in CFS will need to be planned carefully with consideration of evolving market drivers. For example, residential development on higher floors with commercial podiums/ground floor (that have become popular in inner city contexts) may be unfeasible in an outer suburban context today. This may drive single use developments initially. However, by the time the region is fully developed, the business world may be very different. Such patterns are difficult to assess definitively for the long run, but the best thing may be to not preclude certain development outcomes and retain flexibility in precincts.*
RSIPs may also offer opportunities to transition to broader types of employment offering a higher amenity to workers and economic vibrancy rather than traditional conceptions of industrial employment.	*A high provision of residential should still be discouraged IN CFS to focus on employment floorspace. However there needs to be some exploration of how mixed use could deliver improved amenity outcomes for workers and the role that residential (if any) can play, and DM could provided residential outcomes in the catchment*

Source: SGS Economics and Planning, 2022

2.3 South East Economic Corridor (SEEC) Strategic Context Report to 2060

The South East Economic Corridor (SEEC) Strategic Context Report to 2060 is a regional spatial framework for employment precincts and activity centres in Greater Dandenong, Casey and Cardinia LGAs, prepared by the Victorian Planning Authority (VPA). The main objective of this document is to provide an evidence base and vision for the long term role and function of employment land in future PSPs in the region.

An intensification of knowledge-based jobs in Casey Fields South (CFS) is planned as part of the future e-PSP, with a long-term time frame extending to 2060. In the shorter term, CFS will primarily cater for manufacturing, logistics and population-serving businesses while other more knowledge based economic activity and job growth is directed into established centres.

Casey Fields South provides long-term affordable industrial land which will also enable other areas to grow and transition. It is a regionally significant industrial precinct (RSIP) flagged for future industrial uses. The RSIP is near the following landmarks and transport links:

- Royal Botanic Gardens Cranbourne
- Cranbourne Racecourse
- Western Port Green Wedge
- South Gippsland Highway (PFN)
- Proposed new railway station at Clyde
- Planned Clyde major activity centre
- a large residential catchment and links to Cranbourne, and
- potential to act as an agricultural processing or manufacturing gateway for south eastern Victoria.

In the short term, there are plans to enhance north–south regional public transport links. Opportunities highlighted for PSP investigation include the Cardinia and Pakenham stations, along Narre Warren, Clyde and Soldiers Roads connecting Casey Fields South and Croskell to the Fountain Gate–Narre Warren and the Berwick Health and Education Precinct.

The report highlights the RSIP's potential role and function such as the following:

- Local industry/employment opportunities connected to key sectors – food value add freight and logistics, urban services, sport and recreation and links to the Royal Botanic Gardens.
- Providing long-term affordable industrial land.
- South Gippsland Highway frontage to contain a bulky goods precinct to serve nearby residents.
- Supports other precincts to transition into higher-order and more diverse roles.
- Plan to evolve and diversify over time especially via connections to Port of Hastings, Green Wedge and potential future South East Airport.
- Offer high amenity to provide opportunities for a wide range of businesses to grow and innovate.
- Provides long-term affordable industrial land to enable other locations to transition and grow.

Devon Meadows was investigated as a future major employment node. However, locational analysis was not prepared for this area as it was determined that additional industrial supply locations would

likely dilute the success of other defined employment locations, rather than create more employment in Casey. Thus, Devon Meadows is being explored for residential development.

2.4 Southern Region Industrial Land Study (Stages 1 & 2 – Current & Future State)

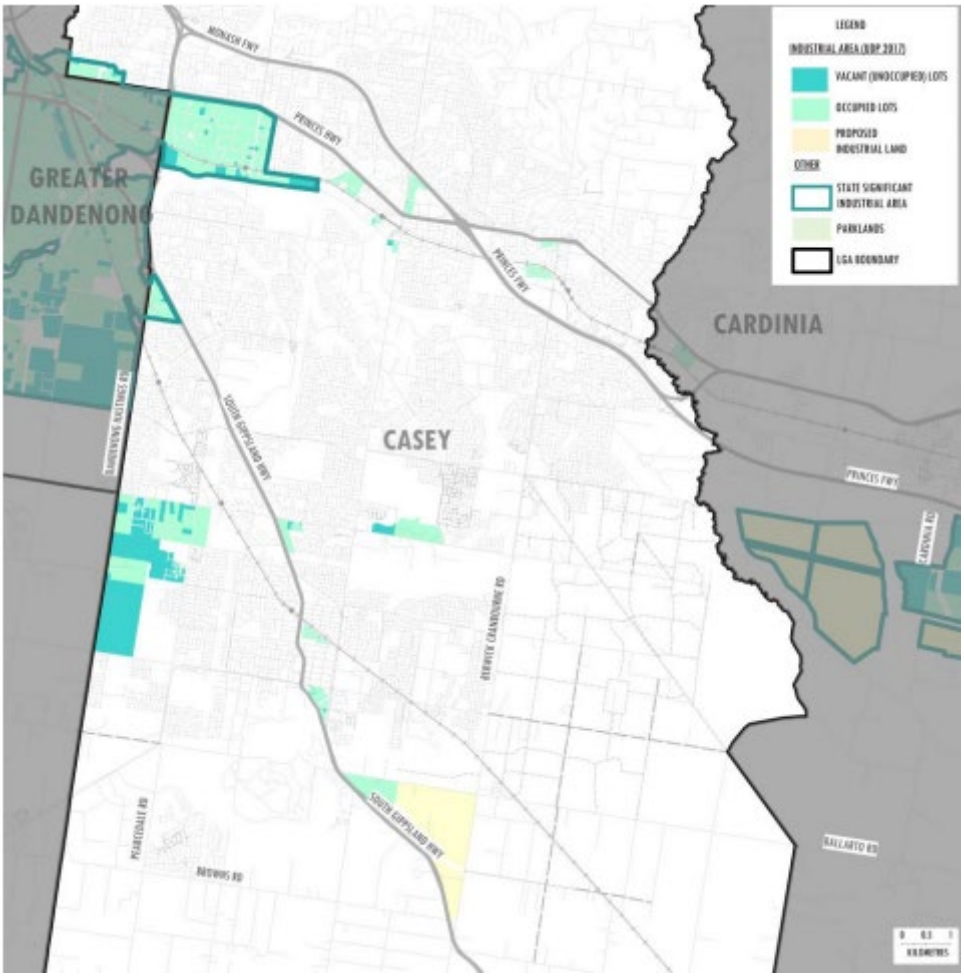
The study labels Casey Fields South as a future e-PSP within the South East Growth Corridor Plan, with land identified for commercial and industrial zoning. There is a possibility to increase the catchment over time via connections to the potential future South East Airport. In the shorter term, most will primarily cater for manufacturing, logistics and population-serving businesses while higher-order economic activity and job growth is directed into established centres.

The key issues outlined for the City of Casey in this study include:

- Prioritising key precincts such as Pakenham and Cardinia Road Employment Precincts.
- Facilitating transport network linkages between industry and agribusiness.
- Acknowledging a range of future knowledge-based industry services.

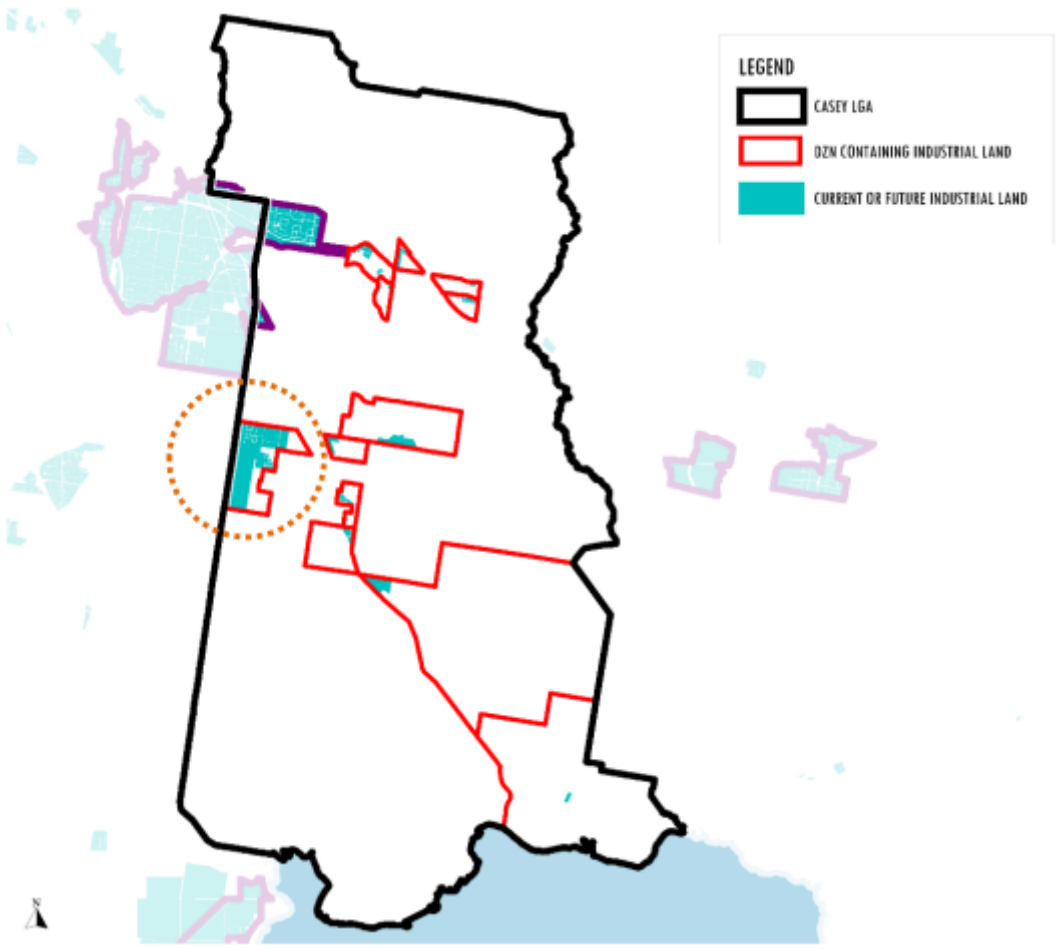
The main objective for the City of Casey is to facilitate manufacturing and service industries that support local residents and businesses and provide local employment whilst ensuring high standards of urban design.

FIGURE 5: CASEY SRILS INDUSTRIAL PRECINCTS



Source: DEWLP, 2018

FIGURE 6: CASEY INDUSTRIAL LAND



Source: DEWLP, 2018

2.5 Casey Council Activity Centres Strategy (2020)

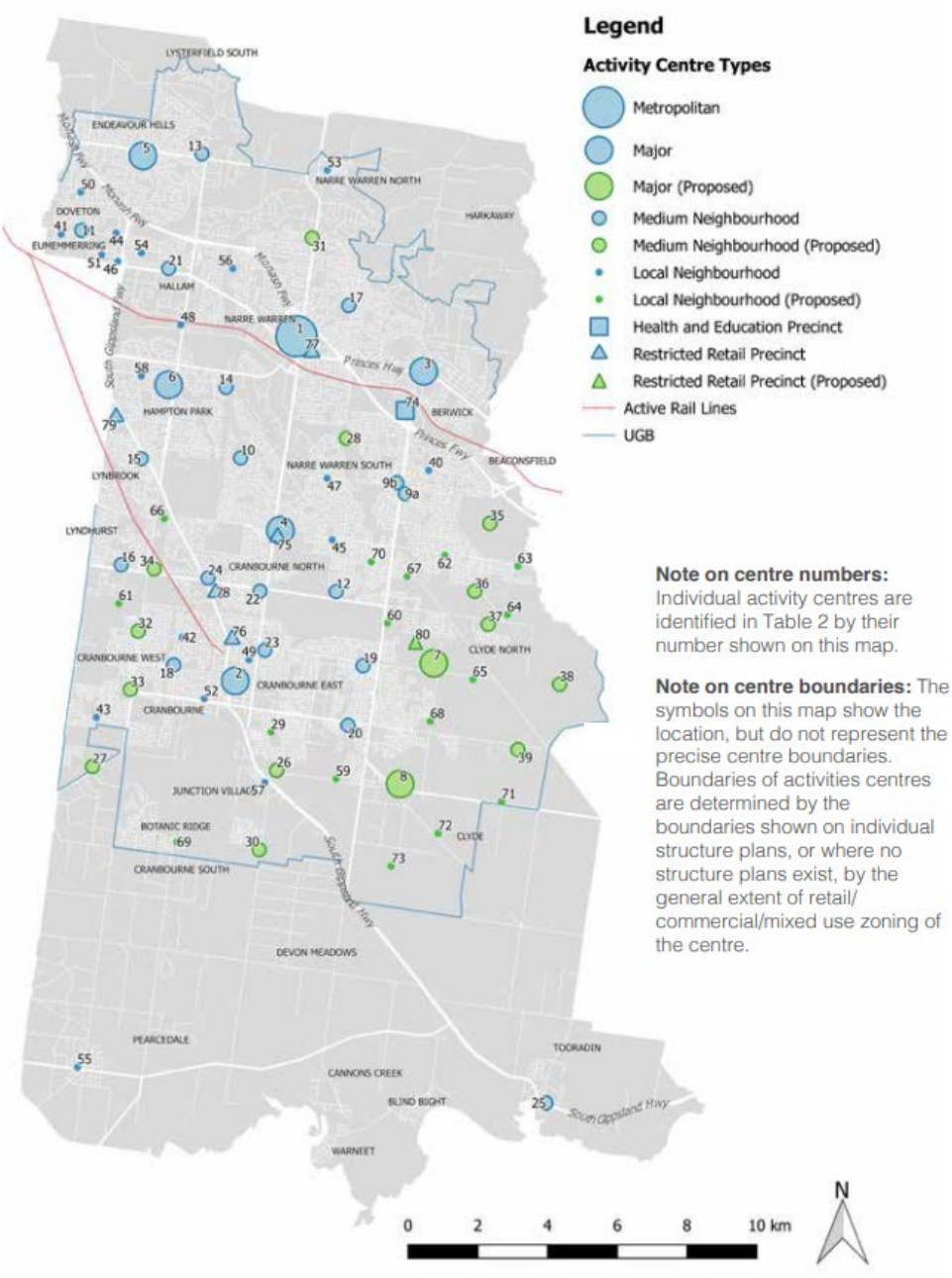
This strategy highlights 16 objectives in 4 main categories: A citywide network of activity centres, the economic engines of Casey and great places for people. It also considers development assessment matrices, guidelines and criteria.

This City of Casey report focuses on proposed activity centres and the implications for CFS and DM and the existing major activity centre of Cranbourne. Clyde Town Centre is a proposed major activity centre anticipated to open in 2026, in line with the significant population growth forecasted for the southern area. This activity centre will initially be anchored by a single supermarket and will grow into a key subregional centre. The Clyde Town Centre will service the Clyde Creek and Casey Fields South Residential PSP areas.

The map below identifies the local proposed activity centres including Ballarto Road Local Convenience Centre (No. 59 - within the Casey Fields South PSP) and nearby Adrian Street Town Centre (No. 26 -

Cranbourne East PSP), Eastern Local Town Centre (No. 30 - Botanic Ridge Stage 2 PSP) and The Arcade (No. 57).

FIGURE 7: CASEY ACTIVITY CENTRES



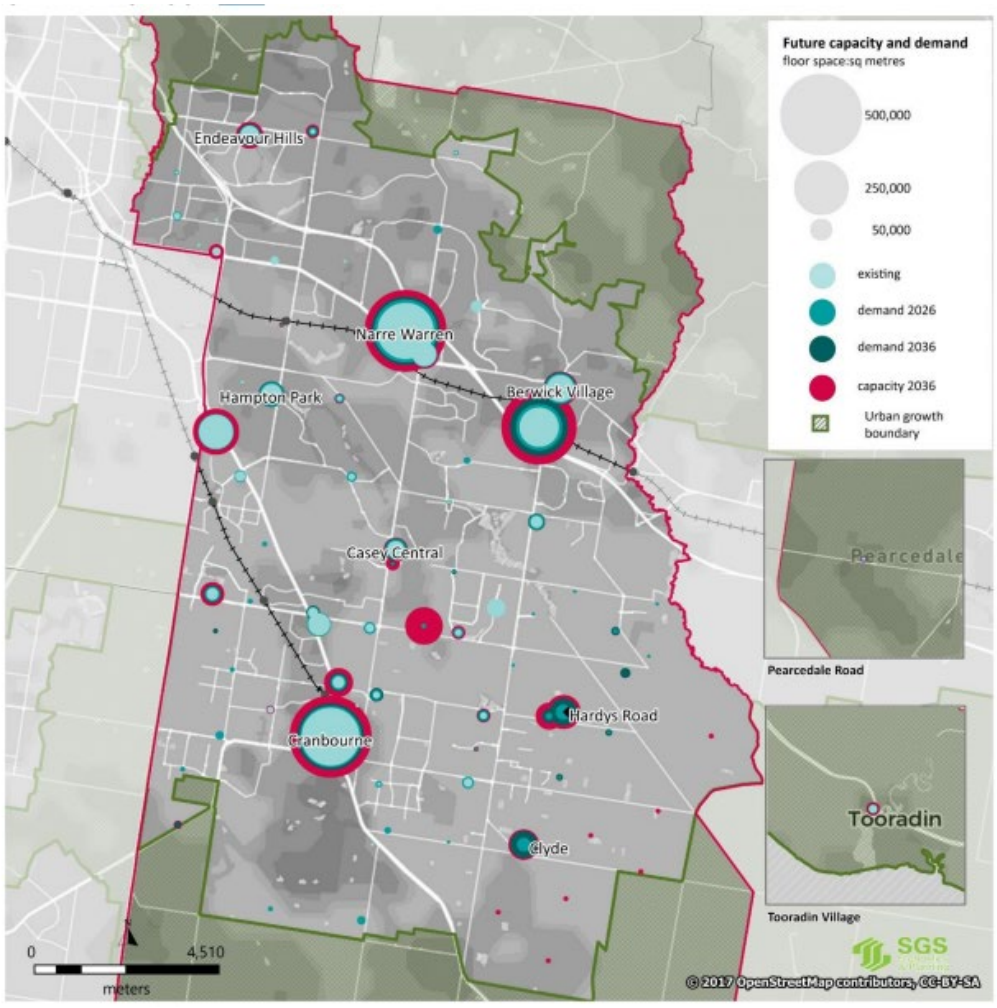
Source: City of Casey, 2020

2.6 Retail & Other Employment Floorspace Assessment

This corresponding report provides the detailed background through supply and demand analysis of Casey Council's retail, activity centres and other employment floorspace. It includes related strategies and an action plan to promote optimal rollout across the City of Casey.

The assessment looked at the composition and distribution of retail and other employment uses in Casey's existing activity centres, reviewed the most recent Activity Centres Strategy and hierarchy of centres, and modelled the current demand for and supply of employment floorspace in the municipality. The main recommendations of the assessment are an updated activity centres hierarchy, aspirational classifications for some centres recognising their desired future roles in the region, and the optimal rollout of activity centre floorspace. This economic assessment informs the updated activity centres hierarchy mentioned in the corresponding Strategy.

FIGURE 8: OPTIMAL ROLLOUT MAP



Source: SGS Economics and Planning, 2017

Key recommendations of the assessment relevant to this precinct include:

- Additional neighbourhood centres to fill network gaps in the yet to be planned growth areas
- The assessment recommends further employment diversification to encourage self-sufficiency in Casey with diverse retailing formats (i.e. smaller format and discount department stores)
- More activity centre floorspace to be planned for/available in PSP areas for increased retail growth
- The need for more supermarket floorspace

- The need for Medium and Local Neighbourhood Activity Centres to provide convenient and walkable access to local services and facilities

2.7 Other Considerations

Aboriginal Cultural Heritage Sensitivity

The City of Casey lies within the boundary of the Mayone Bulluk Bunurong, the lands of the Bunurong people of the Kulin Nation. The City of Casey have various significant sites within the borders including scar trees, stone tool artefact scatters, coastal or freshwater shell middens, and burial sites. However, the exact locations are not provided in an effort to preserve the sites. Much of Devon Meadows and parts of CFS is labelled as having Aboriginal cultural heritage sensitivity as set out by VicPlan, as seen in the map below. It is understood the VPA will be undertaking further detailed analysis to better understand the specific implications this will have for the future of the PSP.

FIGURE 9: ABORIGINAL CULTURAL HERITAGE SENSITIVITY

Source: DELWP, 2022

3. Economic Trends and Opportunities

This section commences with an overview of major macro-economic patterns, before focusing on economic activity in the region – distilling the key opportunities off the back of those clusters of industries. We then land on resulting locational implications for Devon Meadows and Casey Fields South in order to capitalise on opportunities and fix gaps.

3.1 Macroeconomic patterns

A range of macroeconomic patterns have been considered in this assessment. Appendix A contains the full description of these patterns, but the key issues and likely impacts for Casey Fields and Devon Meadows are as follows:

- Knowledge-based services as the core economic driver, which shouldn't be misinterpreted as everyone working inside high rise office towers. Knowledge based services include research and development, design, engineering, marketing, advertising, and creative industries – much of which SGS has found to be located in broad-hectare employment lands (such as Casey Fields) in our numerous land audits across Australia as businesses express a keen interest to ensure those functions are co-located with their production and logistics operations.
- Rise of advanced manufacturing & niche manufacturing, which means the use of technology and/or intellectual property in production. Heavily linked to the first trend, it places an increased emphasis on employment precincts that will be suitable for both industrial and knowledge functions/workers. This has implications for local skills (training, qualifications), access (via both road for trucks and PT for knowledge workers) and amenity (still shielded from sensitive uses, but 'nice' enough precinct for what many knowledge workers might expect from their work environment).
- Increased trade and decentralised distribution pathways and increasing spatial interactions within supply chain, where supply chains require a highly mobile distribution network so that all components of the production chain can be easily moved around (and then to customers). For this SEEC region to function well, all precincts (even if not a designated freight hub) need to have strong road or rail freight access so that the supply chains can function smoothly for day-to-day business. At the end of the production line, sea/air ports and freeways out of the region become important. This region has most of those gateways.
- Health care will be the single largest growth sector, with ageing population and technological advances driving the growth. No health precinct in Casey Fields/Devon Meadows is envisaged at this stage, but there are some significant health assets in the region (both existing and potential), so we can expect the commercial and industrial activity in this PSP precinct(s) to service and have links back to those health precincts.
- The increasing movement towards agglomeration economies, which has typically been the focus of CBDs and Activity Centres. The increased prevalence of knowledge based services in employment precincts however, introduces a degree of nuance to the traditional low density planning principles for industrial areas and business parks. Higher densities (that still allow for production activities at

affordable per-sqm rates), better amenity and access to public transport are now all considerations as is co-location with allied businesses (both anchor multi-nationals and clusters of SMEs) and assets such as TAFEs, Universities and research hubs. Such as research assets can also create their own suburban agglomeration economies as seen by places such as Monash Clayton or more recently Melbourne University's Berwick Campus.

- Impacts and uncertainty from COVID-19, which is an extensive evolving research topic in its own right. The most relevant issue is the decentralisation of the workforce whereby more flexible working arrangements are facilitating opportunities for workers to work closer to (or at) home for better work-life balance. PSP precincts have an opportunity to work with this trend in the suburbs providing employment opportunities and floorspace in closer proximity to the greenfield residential developments.

3.2 Regional economic activity

Over the past few years, SGS has undertaken research on a number of key economic indicators specifically in this South East Region that directly influence demand for business activities at the Devon Meadows and Casey Fields PSPs. These include:

- Industry growth patterns across Victoria, which found that industries such as agricultural manufacturing (machinery and pesticides), pharmaceutical manufacturing and medical/surgical equipment manufacturing are growing quickest for potential industrial uses, whilst in the commercial sectors, a variety of medical type uses have featured most prominently since 2016.
- Key transport infrastructure in the South-East Region of Melbourne, with good road and rail connections such as Eastlink, the Monash Freeway, Mornington Peninsula Freeway, the Princess Highway and Freeway, Nepean Highway, Western Port Highway and South Gippsland Highway Three rail lines provide connections to Frankston and Stony Point, Cranbourne, and Pakenham. There is also Moorabbin Airport and the Port of Hastings.
- Key existing and planned employment precincts in the region, which include the Southern SSIP and the Officer-Pakenham SSIP. The former is a major nationally significant employment cluster, whilst the latter is already beginning to accommodate much of the overflow from the Southern SSIP in Dandenong. Devon Meadows is strategically positioned between these two major preincts.
- The diverse variety of employment clusters in the region, including one of the major manufacturing hubs in Australia, health care hubs (particularly around Dandenong, Monash and Frankston), a range of utility facilities, one of the largest transport and logistics hubs in the state, an agricultural industry with links back to Gippsland (which Devon Meadows sits along the road to) and professional services that help service these industries (many also being positioned in employment precincts to service B2B clients).
- Cross-industry linkages, which finds the area strong for providing manufactured inputs into the agriculture, IT and transport/logistics industries. The high volume of wholesaling and logistics activity also supports those industries in getting the products from producers to customers.

Full details of these five pieces of research & evidence (including maps, charts and tables) have been collated in Appendix A of this report.

3.3 Opportunities and gaps

Given those regional activities identified, the following industries are the strongest economic opportunities in the region:

- Manufacturing for primary industries (agriculture and mining)
- Manufacturing for knowledge sectors (professional services and IT)
- Manufacturing for health care
- Manufacturing for transport industries (rolling stock and infrastructure)
- Transport and logistics, particularly moving manufactured products
- Wholesaling
- Business serving professional services (IT, architecture, engineering, health)

The question then turns to what those industries most need to need to succeed. The table below forms an assessment of gaps and opportunities for the region moving forward. Gaps, because those components are still not strong in the region, but also potential opportunities if they are capitalised upon.

Industry group	Gaps in the region	Opportunities
Manufacturing for primary industries (agriculture and mining)	Minimal, given the green wedge and Gippsland foodbowl.	An opportunity to build one of, it not the strongest agriculture linked manufacturing precincts in the State.
Manufacturing for knowledge sectors (professional services and IT)	Still early in the development of this corridor for these industries. Dependent on growing professional services and IT businesses in centres and business parks.	Activity Centres are potential nodes where these industries can grow, with some being accessible to DM/CFS PSP. IT products also require a combination of industrial/business park/R&D functions
Manufacturing for health care	Local health anchors/ health and education precincts. Demand and the case for these institutions will increase as population in the region grows.	A new health and education precinct is likely in this region, although more likely to be in the Cardinia Shire. Note the long supply chain in the health industry.
Manufacturing for transport industries (rolling stock and infrastructure)	This type of manufacturing can require long assembly lines and storage facilities, meaning large lots.	Good transport connection along the South Gippsland Highway to connect with other industrial precincts, most of which are strong in the logistics industries. Leverage established clusters in the region for these activities.
Transport and logistics, particularly moving manufactured products	As above – large lots something to keep in mind, particularly early in the precinct's development.	Leverage established clusters in the region for these activities.

		Land for these activities in other industrial precincts in the region has run out, so the next logical areas for this demand to be accommodated will be needed.
Wholesaling	Transport as above. Large lots for storage facilities at low cost.	This is an opportunity for CFS early in its development phase whilst land values are still low.
Business and research serving professional services	Relatively low access to a critical mass of local businesses to service. Transport access and precinct amenity that suits white collar workers. Research and development around manufacturing, food products, health/bio-medicine/sport.	As the region matures, more businesses will emerge, creating more client opportunities. Growing the presence of knowledge institutions such as university campuses to help with skill development of the local workforce and alliance with research institutes.

These are the key economic opportunities in this precinct. The planning for the precinct needs to be conducted with the attraction and growth of businesses and jobs in these industries as the main priority. The locational link between industry and land is discussed in the next sub-section.

3.4 Location and business use requirements

Finally the locational requirements of these industries can be summarised as follows. Note that these requirements form inputs to the land use suitability analysis and mapping in Section 4, determining to extent to which these requirements can actually be satisfied.

Industry group	Land requirements	Location/access requirements
Heavy Industry Manufacturing for primary industries (agriculture and mining) Manufacturing for transport industries (rolling stock and infrastructure)	Large separation buffers to residential, large sites, flat land, provision of utilities & information/communications technology infrastructure, heavy industry zoning	B-double truck access, proximity to freight route, proximity to motorways, container port, rail terminal, access to supply chain, access to labour
Light Industry Manufacturing for knowledge sectors (professional services and IT) Manufacturing for health care	Small to medium buffer zones, industrial zoning, provision of utilities & information/communications technology infrastructure	Truck access, proximity to freight routes
Freight Transport and logistics, particularly moving manufactured products Wholesaling	Large sites, flat land, industry zoning, competitively priced land, ready site access/ egress	B-double truck access, access to key freight routes, direct access to ports/ rail/ intermodal hub
Business Parks and Research Centres	Commercial/ industrial zoning, decent amenity, high quality information/ communications technology infrastructure	Access to tertiary educated skills, access to research and innovation services, public and./or private transport access
Service Industry	Competitively priced land, small lots, industrial zoning	Central to customers, good road access

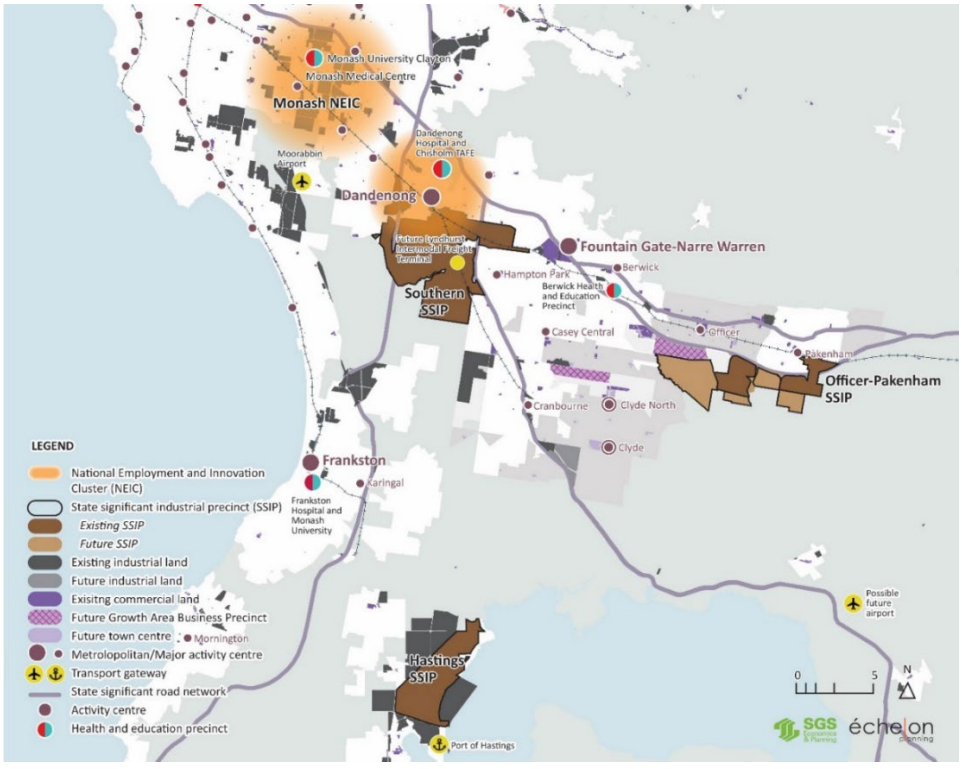
4. Land Use Suitability

Given the key industries of focus and land requirements outlined at the end of Section 3, this section reviews the existing land supply in Devon Meadows/Casey Fields, arriving at conclusions on the extent to which the land is suitable for those industries and strategic implications resulting from that alignment.

4.1 Regional land supply

MICLUP estimates the Southern Region[1] has a total of 9,610 hectares of zoned land set aside for industrial uses. Approximately 7,270 hectares is currently occupied, with 2,440 hectares currently zoned and vacant.[2] Approximately 1,260 hectares of this vacant land is located within the Officer-Pakenham SSIP, with 1,180 hectares of vacant land elsewhere (zoned and unzoned). The Southern Region currently contains a total of 855 hectares of land zoned for commercial purposes, estimated to have the capacity to accommodate 3.2 million square metres of commercial floorspace. Approximately 43 percent of all existing floorspace supply is located within the municipalities of Casey and Greater Dandenong.

FIGURE 10: CURRENT INDUSTRIAL AND COMMERCIAL LAND SUPPLY IN THE SOUTHERN REGION



Source: SGS Economics and Planning, based on *Melbourne Industrial and Commercial Land Use Plan*, April 2020

[1] Southern Metro Region defined as Cardinia, Casey, Kingston, Frankston, Gr Dandenong, and Mornington Peninsula LGAs.
[2] MICLUP, p. 88.

4.2 Casey Fields South and Devon Meadows

Overall, the Casey Fields South and Devon Meadows PSP areas are undeveloped lands on the rural-urban fringe with relatively large land parcels. The existing land within the boundaries of the precincts comprise of 275ha in Casey Fields South and 261ha in Devon Meadows. Casey Fields South has been designated as a future Regionally Significant Industrial Precinct.

FIGURE 11: DEVON MEADOWS AND CASEY FIELDS SOUTH LAND PARCELS AND AERIAL

Source: SGS Economics and Planning, 2022

4.3 DM and CFS Land Suitability Assessment

Assessment criteria

The rest of this section focuses on the suitability of the two PSP areas for various employment land uses.

Before quantifying how much of that land can be considered to be 'supply' for industrial and/or commercial land uses in the later sections of this report, the suitability of that land for those uses must first be analysed. In this section we spatially analyse a range of land criteria to build a composite picture of suitability across the precinct.

The criterion which are under consideration in this analysis are listed below in Table 2. Most are included in the analysis, and most of those are also part of a sieve mapping exercise. The exceptions are those criterions which can be assumed to be uniformly available across the precinct (power, water) or not available across the precinct (public transport, existing built environment amenity).

TABLE 2: SUITABILITY CATEGORIES, CRITERION

Category	Criteria	Comments
Access	Road /truck access	Included, mapped
	Public Transport	Included, not mapped
Infrastructure (utilities)	Gas	Included, mapped
	NBN	Included, mapped
	Power	Assumed available across precinct
	Water	Assumed available across precinct
Natural Constraints	Biodiversity	Included, mapped
	Bushfire	Included, mapped
	Fauna	Included, mapped
	Flooding	Included, mapped
	Riparian/ waterways	Included, mapped
Amenity	Creeks interface	Included, mapped
	Built	Included, not mapped
Sensitive uses	Residential	Included, mapped
	Aboriginal Heritage	Included, mapped

	Post contact heritage	Included, mapped

Source: SGS Economics and Planning, 2022

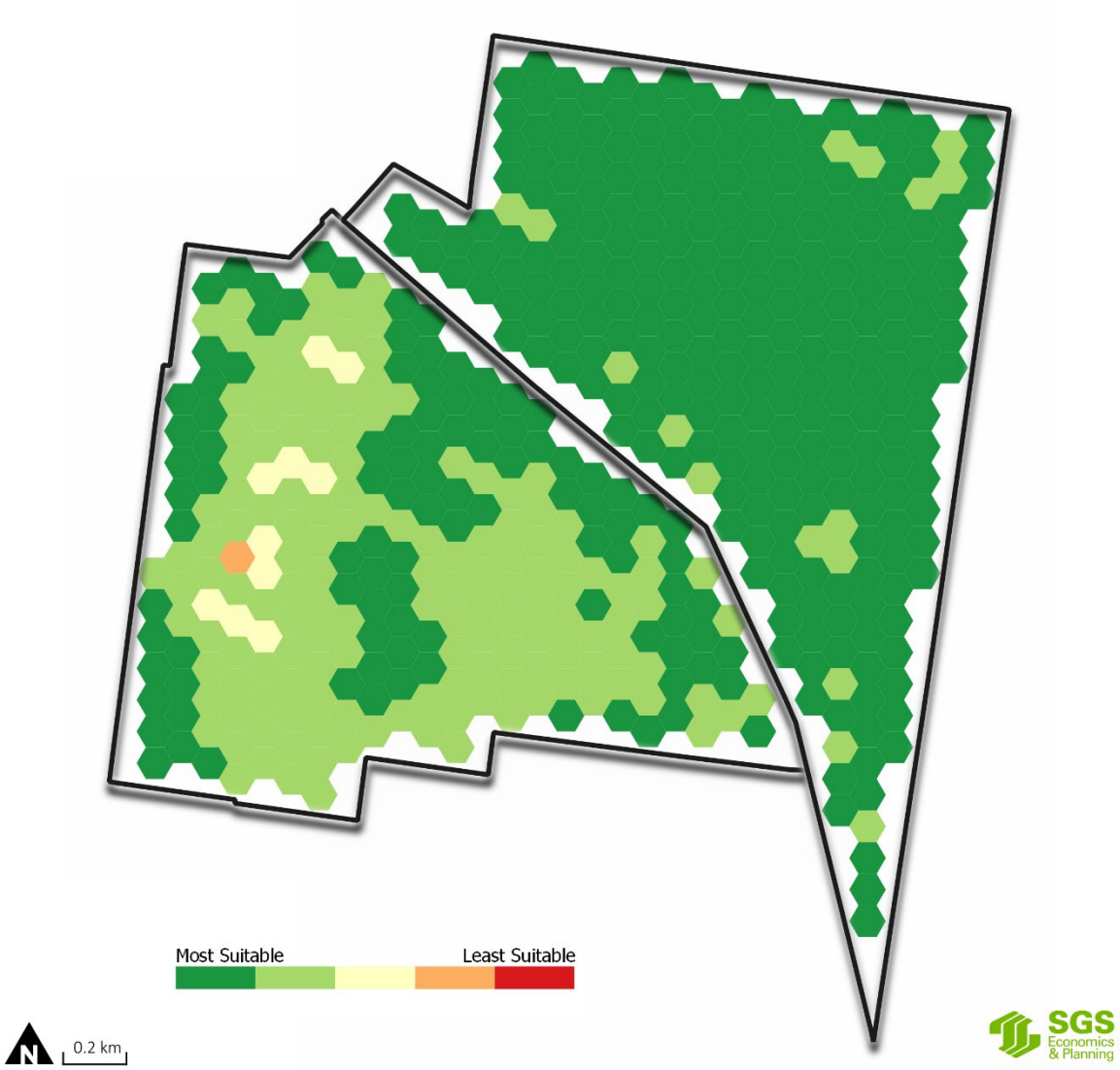
The criteria above are then weighted based on their relative levels of importance to various land uses to derive a composite result for land suitability. In summary:

- Heavy industry – locates away from sensitive uses, prefers larger lots, benefits from direct road access/ access to Principal freight network
- Light industry – benefits from access to main roads, can locate closer to sensitive uses
- Freight and logistics – road access important to development of industry, can locate close to sensitive uses, benefits from freeway access
- Service industry – locate preferred close to residential uses, flexible in location
- Business parks[3] – can locate close to sensitive uses, road access preferred.

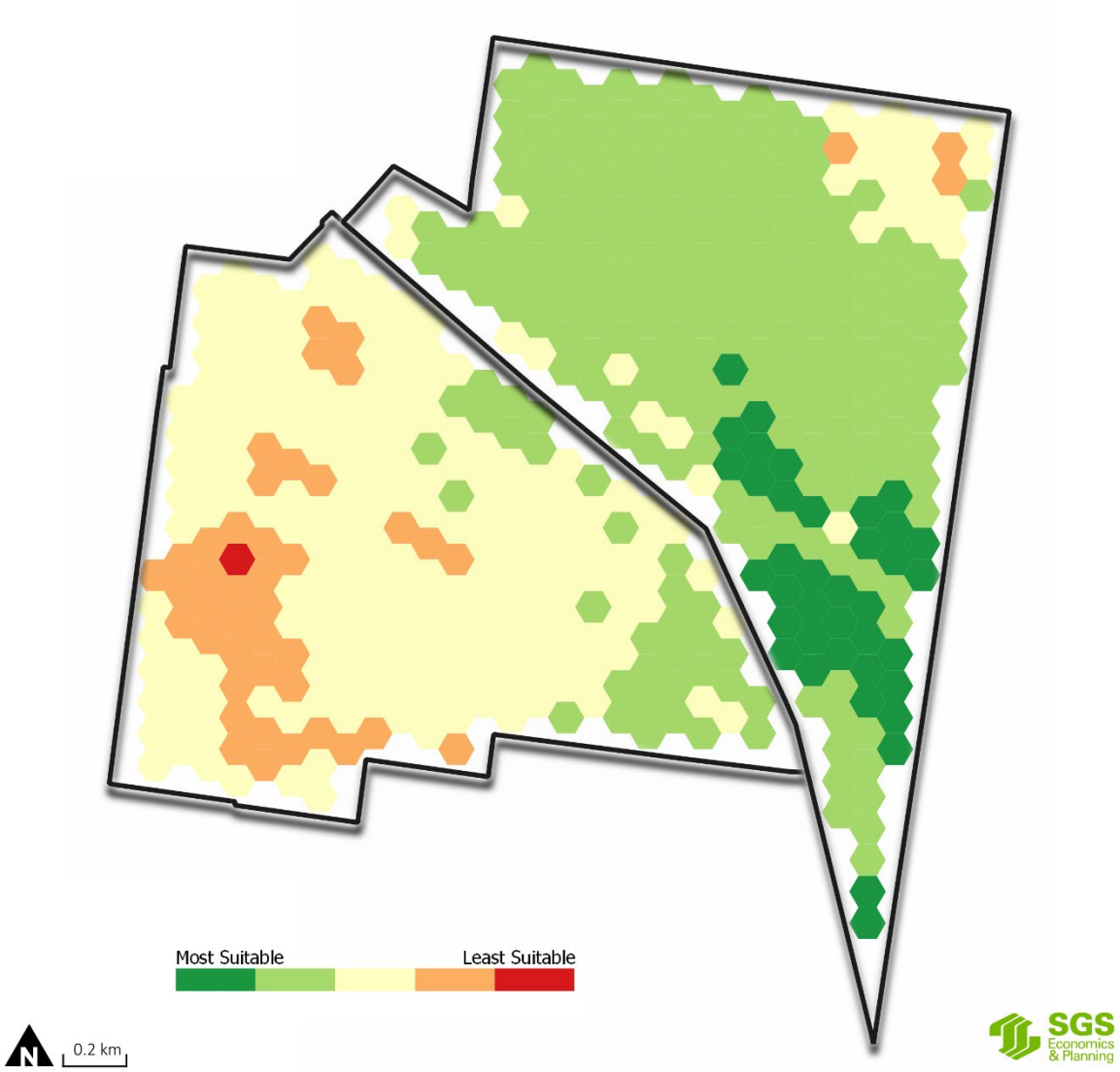
The maps over the following pages show the extent to which each land use type is suitable for Devon Meadows and Casey Fields South, with deeper shades of green being some of the most feasible land in the region for that type of land use, red being unsuitable and yellow meaning it will work in the location, but there will be more suitable locations in the region too.

[3] includes potential research facilities.

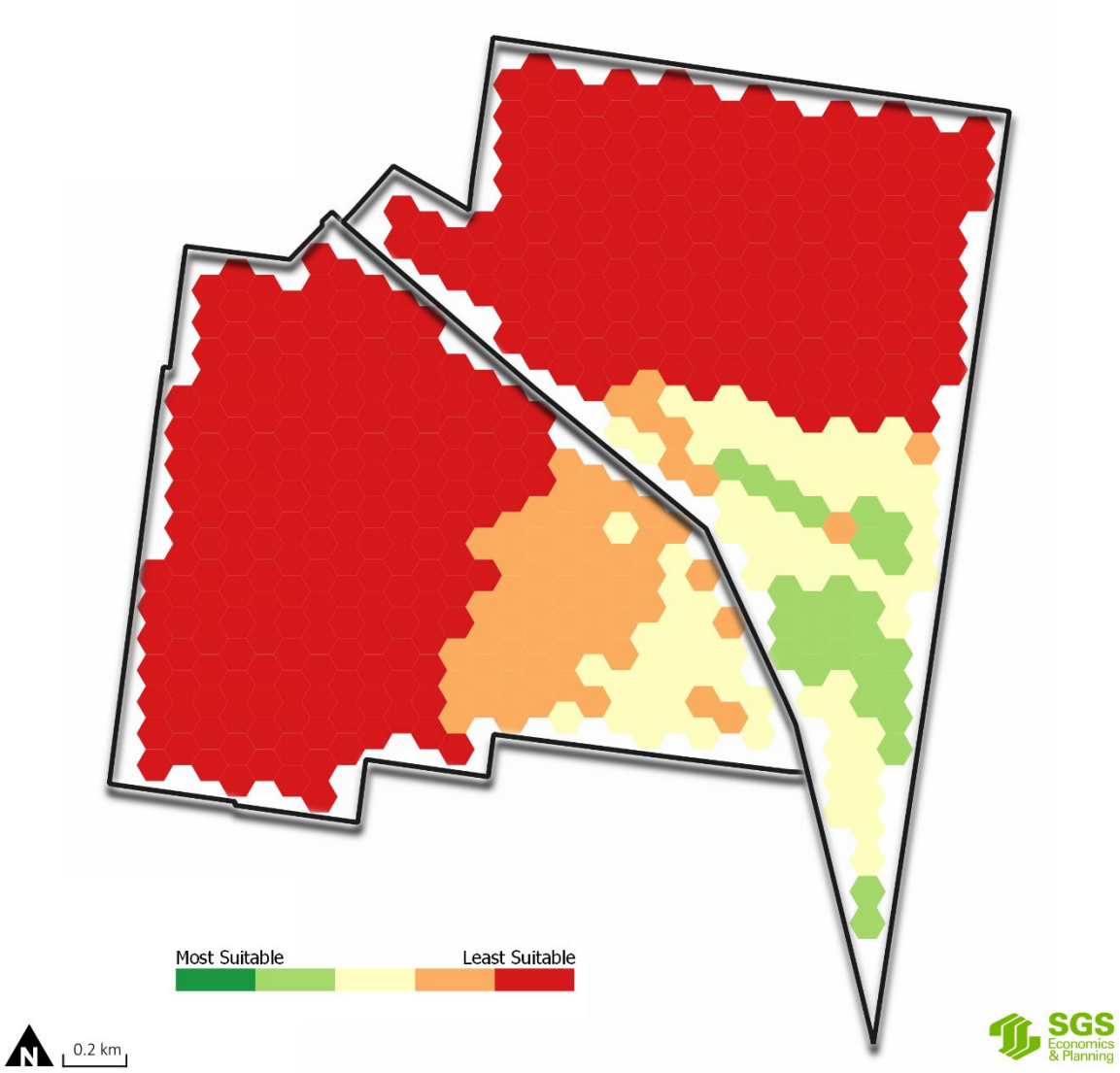
Business Parks



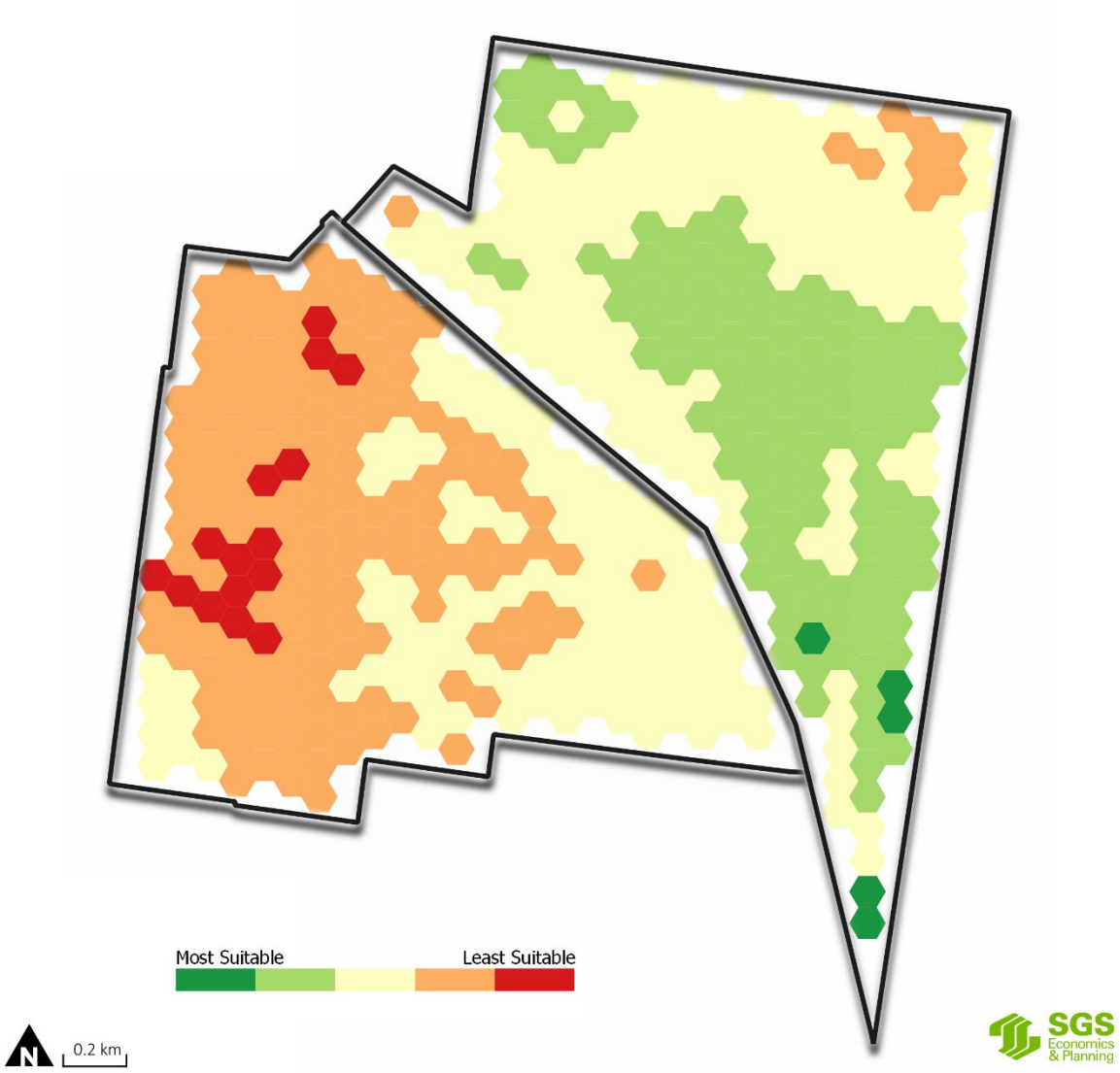
Freight


Most Suitable
Least Suitable
N
0.2 km
SGS
Economics
& Planning

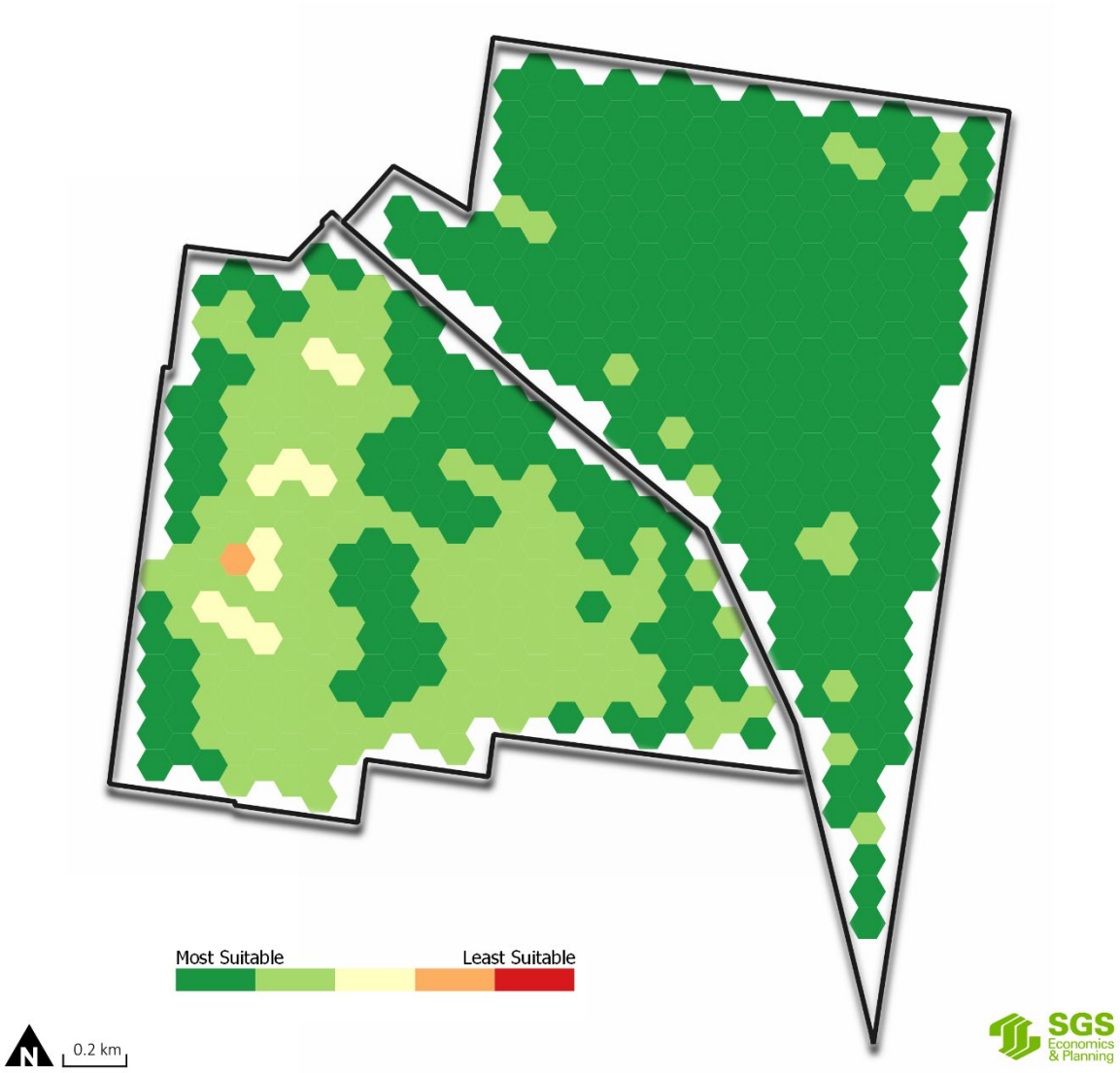
Heavy Industry



Light Industry



Service Industry



Quantitatively, the following table summarises the extent to which each land use is suitable in each PSP area. Overall it shows the area is particularly well suited to Business Park/Research Facilities and Service Industries. Light industrial and Freight also work well, but Heavy Industry is less suitable should be provided for elsewhere in the region, particularly in the designated SSIPs.

TABLE 3 PROPORTION OF LAND THAT IS SUITABLE FOR EACH LAND USE TYPE

Land Use Type	Devon Meadows	Casey Fields South
Service Industry	96%	100%
Business Park / Research	96%	100%
Heavy Industry	0%	10%
Light Industry	0%	48%
Freight	13%	89%

Casey Fields South also possesses potential to become a far more diverse and unconstrained employment precinct than Devon Meadows.

5. Employment and Space Forecasts

This section discusses the outputs of the baseline employment forecasts, and then discusses the impact of demand occurring because of industrial take up and the likely outcomes that will have implications for CFS employment land.

5.1 Context & Method

Before diving into what the demand for employment land uses will be, it is important to note the location of CFS/DM as one of the last PSPs on the rural-fringe. That means that whilst this region is rich with economic activity and future opportunity, most of the potential industrial and/or commercial employment growth is unlikely to occur within the short to medium term. Some interim land uses that deliver jobs is of course possible, but overall, the majority of economic activity is not expected to arrive until after 2050 which is about 30 years away.

Traditional employment forecasting methodology is strongest when using historical trends and drivers, along with policy to assist. This combination is strongest in the first 15 to 20 years of the forecast, where historical trends tend to be most relevant, and then becomes more of a general guide from 20-25 years onwards as the 'risk' of other economic, social or policy shocks reduce the potential relevance of those numbers.

With that in mind, this section is still titled 'employment and space forecasts' because it ultimately arrives at numbers for the employment activities to guide land use development – but how it gets there is different from the traditional employment forecasting methodology.

We look at the 'end state' model of the region – i.e. once all the other PSP precincts reach or get near to full development, what economic opportunities are most strongly represented in the region, and what will it still need to 'complete the picture'. From there, those activities are aligned with the economic forecasts of the region from a demand perspective to provide a degree of quantitative realism to the opportunity – acknowledging the long 30-40+ year timeframe means those numbers are best used as a guide only.

5.2 Regional End State

The graphic below charts out the existing and potential economic uses in the region – divided by precincts/centres to develop a potential 'end-state' picture for the South-East Growth Corridor Region. The purpose of the graphic is to understand what economic opportunities will be well represented and which others are rarer and therefore can be better catered for.

It shows that (a) the region will possess a myriad of growth opportunities for almost all economic activities (b) will be particularly well represented for industrial activity through the SSIPs (c) has most of the support functions that are needed to help growth in the major economic categories and (d) also has the key anchors/gateways to facilitate that growth.

FIGURE 12 REGIONAL ECONOMIC OPPORTUNITIES BY END STATE

KEY REGIONAL ECONOMIC OPPORTUNITIES

	LOCATION	ANCHORS				CORE SPECIALISATIONS						DIVERSIFIED ECONOMY		
		Health & Education	Ports & Key Transport Interchanges	Major government offices (Council HQs, State/Fed decentralisation)	Leading private sector anchors (Big Tech, Linfox etc.)	Heavy manufacturing industries	Freight &logistics industries	Light manufacturing industries	Research & Development	Broad-Hectare Business Parks	Service Industry/ Construction	Support services - Finance, insurance, real estate, legal in Offices	Support services - Retail/ Hospitality	Support services - Bulky Goods Retail
KEY CENTRES	DANDENONG AC			Existing								Existing	Existing	
	FRANKSTON AC			Existing								Existing	Existing	
	FOUNTAIN GATE-NARRE WARREN AC											Potential	Existing	
	CRANBOURNE AC											Potential	Existing	
	OFFICER AC											Potential	Existing	
	PAKENHAM AC											Potential	Existing	
	BERWICK AC											Potential	Existing	
	CLYDE NORTH												Potential	
EMPLOYMENT PRECINCTS	SOUTHERN SSIP				Existing			Existing						
	OFFICER-PAKENHAM SSIP				Potential	Potential	Potential	Potential			Potential			
	HASTINGS SSIP						Potential							
KEY EMPLOYMENT PSPS	CROSKELL								Potential	Potential		Potential		
	OFFICER SOUTH				Potential	Potential				Potential		Potential		
	CARDINIA ROAD							Potential	Potential		Potential	Potential		
	PAKENHAM WEST				Potential		Potential	Potential			Potential			
	PAKENHAM SOUTH					Potential	Potential	Potential			Potential			
	CASEY FIELDS								Casey Fields Opportunities	Casey Fields Opportunities				Casey Fields Opportunities
OTHER NODES	BERWICK H&E PRECINCT	Existing												
	FRANKSTON H&E PRECINCT	Existing												
	DANDENONG H&E PRECINCT	Existing												
	MOORABBIN AIRPORT		Existing											
	PORT OF HASTINGS		Existing											
	LYNDHURST FREIGHT TERMINAL		Potential											
	PRINCESS HIGHWAY													Existing
	SOUTH GIPPSLAND HIGHWAY													Potential

Existing | Potential | Casey Fields Opportunities

Given that situation, Casey Fields South can play a number of different roles:

1. The strongest regionally significant role would potentially be in research/development and large business park land uses. Whilst there are other PSP areas that will potentially be zoned Commercial 2, not many are the size of Casey Fields and so it would be better placed to accommodate larger research institutions and business parks in the long run as demand for sites becomes stronger and lots are further subdivided in order precincts.
2. Industrial is also an option but in the short to medium run, the regional strategy is to funnel demand through to the SSIPs to ensure that they become established for those heavy industry uses and not become eroded.
3. Service industry/bulky goods are another possibility, but would most likely work better if they are located further inboard where the businesses have closer access to their customers. The bulky goods uses in particular, could hypothetically be located anywhere along Princess Highway/South Gippsland Highway, not necessarily at CFS/DM specifically.

5.3 Employment Forecast

In SGS's modelling for the South East Economic Corridor (SEEC), approximately 4,400 jobs were allocated to the Casey Fields South PSP area by end state (proxied by the year 2061). SGS employment land studies into this region suggest for the business park/research facility/light industry hybrid development model, 60sqm per job of floorspace can be expected.

For 4,400 jobs at that rate, 264,000sqm of employment floorspace can be expected for development. With an average plot ratio of 3 to 1, it is expected that Casey Fields South will initially require about 80 hectares of land to be reserved for those business park and allied uses. Of course the precinct itself is much larger, with approximately 195ha of net land expected to be developable.

Ultimately, the precinct could well grow to contain that volume of activity, but it is recommended that only 80ha (with perhaps 15% extra for land churn) be zoned up to 2061 to avoid creating unnecessary competition with other precincts in the region which are expected for development. It is also wise to focus on ensuring that infrastructure (road access, amenity, utilities etc.) and services be focused on that 80ha portion of the precinct initially, rather than trying to service the whole 195 ha in the one hit.

The key statistics are summarised in the table below.

TABLE 4 EMPLOYMENT, FLOORSPACE & LAND AREA DEVELOPMENT YIELDS BY 2061

	Employment yield (jobs)	Floorspace yield (sqm)	Net Land Area (ha)	Total Developable Area (ha)
By 2061	4,400	264,000	80ha	92ha
End state	9,400	565,000	170ha	195ha

6. Local Activity Centre Requirements

6.1 Devon Meadows

In Devon Meadows, the VPA is currently planning for a residential neighbourhood of approximately 10,000 residents from a dwelling yield of approximately 3,000[4]. This is expected to be a relatively self-contained neighbourhood, albeit with some minor relationship to the Activity Centre in the neighbouring Botanic Ridge PSP (which also has its own residential neighbourhood to service).

With that being the case, it is expected that the majority of the 10,000 residents should be formally serviced through a new centre in Devon Meadows.

Surrounding Hierarchy & Need

The surrounding activity centre hierarchy is featured in Figure 14 below, with centres and their respective 800m (primary-walkable) and 2km (secondary) catchments shaded in blue.

The map shows that for a potential community in Devon Meadows, most residents will not be within an 800m walking distance of a nearby centre – therefore constituting the need for a new centre.

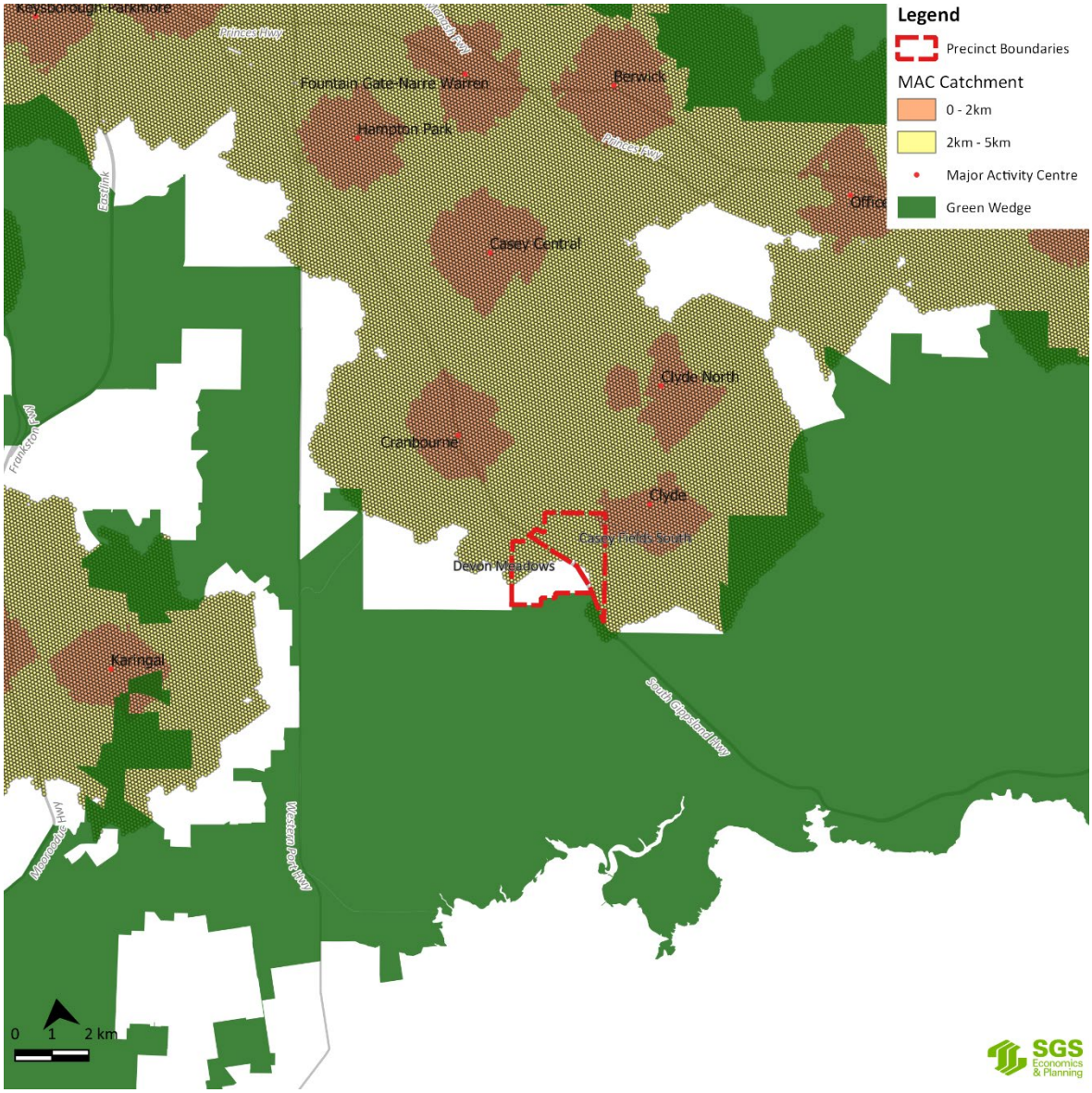
In order to maximise walkability outcomes, that centre should be located near the centroid of the Devon Meadows PSP precinct – with a slight shift to the east also an option as the residents in the far west corner are somewhat serviced by the Botanic Ridge AC.

Ideally the Devon Meadows residents would all be within the Cranbourne and Clyde AC's 5km catchment for higher order services and goods. This is only partly achieved (see yellow shading). However given there is unlikely to be much further residential development to the south or west of Devon Meadows for the foreseeable future, a new Principal or Major Activity Centre further in that direction will be unfeasible from a demand perspective, leaving Cranbourne and Clyde to service the remainder of this catchment from a higher order perspective.

The key recommendation in this case is to ensure that transport connections to those two centres be strengthened, with particular importance on the ability of key arterials such as South Gippsland Highway to accommodate the extra vehicles coming from future Devon Meadows residents in particular. This will be a key issue in the long run because those higher order centres will also need to provide all the key community/educational services that Devon Meadows does not.

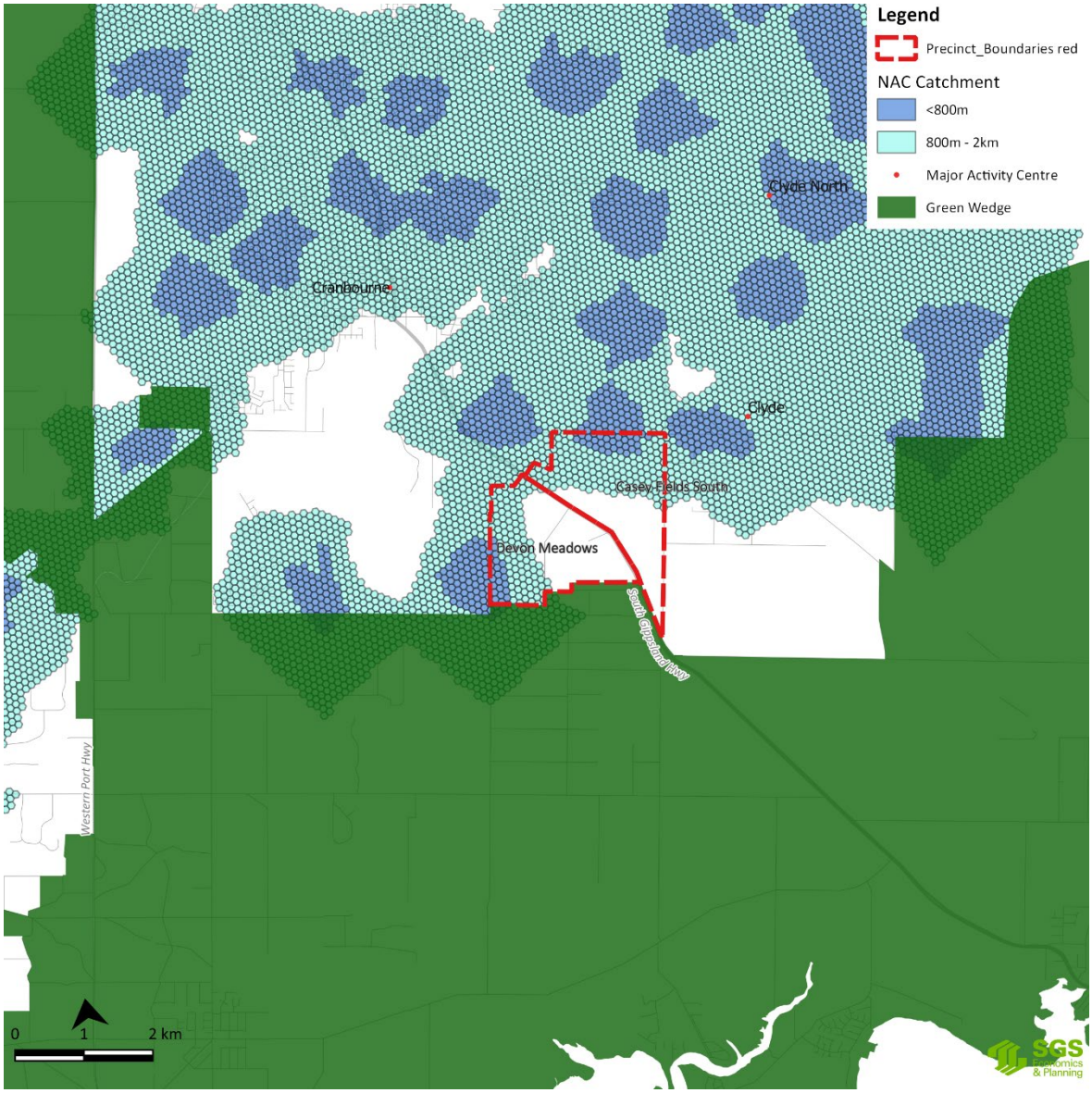
[4] These are approximate numbers for the purposes of the centres needs assessment. Final yields may change based on residential land use configurations.

FIGURE 13: EXISTING AND PLANNED ACTIVITY CENTRES AROUND THE SUBJECT PSP AREAS (MAJOR)



Source: SGS Economics and Planning, 2022

FIGURE 14: EXISTING AND PLANNED ACTIVITY CENTRES AROUND THE SUBJECT PSP AREAS (NEIGHBOURHOOD)



Source: SGS Economics and Planning, 2022

Potential centre size

For Devon Meadows, SGS has used the spending profile, centre trading levels and spending capture of other studies into the local region to determine the ideal composition of the centre as follows:

- The average annual total retail spend per capita is $5,000 for supermarkets/grocery, $6,100 for specialties, $2,200 for hospitality

- The average annual retail trading level of a growth area NAC anchored by a supermarket is $13,000 per annum per sqm for the supermarket/grocery store, $7,000 for specialty stores, $7,500 for hospitality.
- In a standard large NAC up to 75per cent locally generated spending can be captured locally for supermarkets, with 40 per cent for specialty stores and hospitality.
- This is based on the level of retail floorspace that Devon Meadows residents (at full development) can support. Depending on the timing of this PSP relative to the Botanic Ridge PSP, an impact assessment to the Botanic Ridge PSP could be undertaken to understand any potential trade diversion effects. The residential yield in the Botanic Ridge PSP area would be a key consideration.

Based on those assumptions, the following floorspace volumes can be expected in DM, with 10,000 population size highlighted as the VPA has indicated that is the likely population yield in Devon Meadows at end state:

TABLE 5 DEVON MEADOWS ACTIVITY CENTRE LIKELY SIZE AND FLOORSPACE DEMAND

Population size	Centre supportable floorspace (sqm)					
	Supermarket/ grocery	Specialty stores	Hospitality	Total Retail	Office	Total (Retail + Office)
5,000	1,500	1,800	600	3,900	1,600	5,500
10,000	**3,000**	**3,600**	**1,200**	**7,800**	**3,300**	**11,100**
15,000	4,500	5,200	1,800	11,700	4,900	16,600

Source: SGS Economics and Planning, 2022

A centre of over 7,800sqm in size would also be able to attract some levels of non-retail floorspace uses. Office tenants could typically include real estate agents, travel agents, local lawyers and accountants, whilst community uses could include small scale medical service providers. The common theme amongst these businesses is that they primarily serve the future local residents, not businesses.

Major commercial office tenants, multi-national corporations and major institutions would still be directed into Cranbourne and other higher order centres, whilst commercial operators that need more land can settle in Casey Fields South's employment precinct.

Currently, ~30% of Neighbourhood Centres in this region are occupied by some office floorspace. Given a 7,800sqm retail centre, that would constitute about 3,300sqm of population serving office space – resulting in an 11,100sqm sized centre in total.

All of these businesses would be likely to provide local employment opportunities, albeit at a small scale.

Other local shop nodes may establish in the residential areas in addition to the centre (within limits imposed by the planning controls in those residential zones).

Land area

The land area that such a such would occupy is summarised in the table below. This area would include features such as parking, vegetation, walkways etc.

TABLE 6 LAND AREA ALLOCATION FOR POTENTIAL NACS

Population size	Retail (sqm)	Office (sqm)	Total (Retail + Office)	Land Area (Ha)
5,000	3,900	1,600	5,500	1.5
10,000	**7,800**	**3,300**	**11,100**	**3.1**
15,000	11,700	4,900	16,600	4.6

So based on a population of 10,000, a 3.1ha site should be reserved/zoned for a local neighbourhood centre.

The following table lists the potential range of businesses that could be accommodated in this centre, as well as those which should be directed to other more suitable locations in the LGA (e.g. Cranbourne or Casey Fields South). This is not a definitive or exhaustive list, but rather an indicator of what the market could typically deliver in a centre that serves this neighbourhood community and promotes social interaction:

TABLE 7 INDICATIVE RANGE OF POTENTIAL BUSINESSES

Category	Supported Businesses	Unsupported businesses
Supermarket	Supermarket/grocer (up to 3,000sqm)	-
Specialty Shop	Butcher, Bakery, Fruit & Veg, Deli, Apparel, Bookstore,	Bulky goods, DDS, Departments stores,
Hospitality	Café, Restaurant, Takeaway	Bars, nightclubs, hotels, entertainment
Non-retail	Accountant, Conveyancer, Shared Workspaces, Medical Practice, Real Estate Agency, Child Care Centre	Major commercial office tenants, multi-national corporations, major institutions – which would all be better suited in an employment precinct.

Source: SGS Economics and Planning

Urban design and amenity considerations

Given the local role and range of businesses expected at this future centre, the VPA should plan for this node with the following design principles as a guide:

- Ensure good pedestrian and cycling access to the centre
- Ensure good walkability within the centre

- Offer a sufficient level of car parking and truck access, primarily for accessibility and servicing needs to the grocer/supermarket respectively
- Create a community and family friendly environment through appropriate plantations and street furniture
- Encourage local entrepreneurship and community collaboration through the availability of shared workspaces and/or multi-purpose function rooms, particularly as part of any community facility development.

6.2 Casey Fields South

In addition, the 4,400 workers in Casey Fields South could also be serviced through a separate node in that PSP area. That node should be kept separate from the one in Devon Meadows because (a) it would be in closer proximity to the local workforce in Casey Fields South (b) need businesses and floorspace to cater to a more corporate/employment clientele and (c) should have an amenity that reflects a business park feel as opposed to that of a residential community.

The Casey Fields South precinct – whilst within the 2km catchment of some other nearby centres – should be serviced by a new node that will specifically be marketed to its future local workforce. That centre should therefore also be near the centroid of the Casey Fields South PSP precinct to maximise walkable outcomes as well as maximising the potential amenity benefits that this centre can then provide to the surrounding employment areas.

Previous SGS research into retail and hospitality spending in employment areas suggest that a small share of workers' retail spending can be expected in employment areas, with a larger component for food and hospitality as work breakfasts, lunches, dinners and drinks are a positive part of the local experience for workers.

For a local workforce of 4,400 employees, it is expected that a centre with 660 to 880sqm of retail floorspace would be adequate, featuring restaurants/cafes/bars/takeaway shops, along with a small grocer. A conference centre, studio/gallery/shared workspace and/or reception facility would be ideal uses to collocate with the retail.

TABLE 8 EXPENDITURE AND FLOORSPACE OF A POTENTIAL CENTRE/NODE IN CFS

Commodity type	Expenditure Capture p.a.			Floorspace (sqm)	
	Per worker	4,400 jobs (by 2061)	9,400 jobs (end state)	4,400 jobs (by 2061)	9,400 jobs (end state)
Groceries/Convenience	$250	$1,100,000	$2,350,000	80	180
Restaurants & Cafes	$660	$2,904,000	$6,204,000	390	480
Merchandise	$305	$1,342,000	$2,867,000	190	220
Total Retail Floorspace				**660**	**880**
Conference centre, Studio/gallery, Shared workspace				2,000	4,000
Total Centre				**2,660**	**4,880**

Note that these assumptions still hold even for future Devon Meadows residents who work in Casey Fields South, as the Devon Meadows floorspace captures expenditure that is associated with being a resident, whilst the Casey Fields South floorspace will capture their spending as a worker.

7. Opportunities & Recommendations

The following section outlines the land use configuration for the site based on land suitability, demand forecasts and PSP Guidelines

7.1 Key Opportunities

The analysis in this report has found that the key opportunities in the CFS/DM precincts are as follows:

1. There is strong policy support for Casey Fields South in particular to develop into a Regionally Significant Industrial Precinct. The intent under MICLUP highlights the importance of reserving long-term opportunities for economic growth and business innovation in employment precincts, whilst the SEEC strategy articulates the need for local employment opportunities – to the extent of 4,400 jobs by 2061 in Casey Fields South.

2. Knowledge based services and advanced/niche manufacturing/research hubs are becoming increasingly common in multi-purpose employment precincts across Melbourne and Sydney. These do not compete with or replace the need for core-industrial precincts or commercial activity centres, but offer a unique blend of large lots, strong amenity and good access to surrounding industries. Casey Fields South has the potential to satisfy all of the above.

3. From an industry perspective this region's major growth prospects are in manufacturing (food, health, machinery), transport/logistics and professional services (IT, business). The region has all the assets (road, rail, ports, proximity to other economic regions) it needs to be nationally competitive for those industry growth opportunities, so it is more about how the region's lands are planned and managed moving forward that will determine the extent of growth/success.

4. There are a diverse range of existing, emerging and planned employment precincts in this region. All going to plan, by the 2050s, this region will have most bases covered. A region-wide analysis of all precincts has found that ultimately (at end state), the region will be stronger for industrial precincts and Commercial Activity Centres, but somewhat weaker when it comes to large multipurpose employment precincts that can specialise in business parks and research facilities.

5. In terms of the Casey Fields South Precinct itself, a full suitability analysis of the land has found that it is suitable for most land uses except heavy industry (light industry can still work) due to proximity to nearby residential uses. It is recommended that heavy industry therefore be diverted into the nominated SSIPs in the region. Business parks/research facilities and service industry are particularly well suited to this precinct, so the precinct should be branded for them in the long run instead, with some potential flexibility for light industry and freight uses. The flexibility is necessary because some business park/research facilities often need an element of niche-manufacturing capability.

6. The Casey Fields South Precinct – given its large size – would benefit from a visible focal point in/near the centre of the PSP area. This multi-functional node should include conveniences,

meeting/conference spaces, restaurants/cafes, and also a shared workspace which would a provide a natural home for the local small business/start-up community to work close to home but also encourage entrepreneurial collaboration with some of the larger firms that will settle into the surrounding broad-hectare employment land. The land in and around this node is where the focus on improved amenity should be.

7. In Devon Meadows, there is an opportunity to develop a residential neighbourhood anchored by a Neighbourhood Activity Centre of 7,000 to 8,000sqm anchored by a 3,000sqm full-line supermarket. That centre will have a residential orientation, and include local delis, butchers, bakers etc. plus small scale population serving businesses such as local accountants, conveyancers, real estate agents.

7.2 Land use requirements

In order to maximise those opportunities, a range of land use /precinct elements need particular attention. The analysis in Section 3 found the following to be major considerations for the potential land use opportunities in the PSP area.

TABLE 9: LAND USE LOCATION REQUIREMENTS (REPRODUCED FROM SECTION 3)

Industry group	Land requirements	Location/access requirements
Business Parks / Research Facilities	Commercial/ industrial zoning, decent amenity, high quality information/ communications technology infrastructure	Access to tertiary educated skills, access to research and innovation services, public and./or private transport access
Service Industry	Competitively priced land, small lots, industrial zoning	Central to customers, good road access
Light Industry	Small to medium buffer zones, industrial zoning, provision of utilities & information/communications technology infrastructure	Truck access, proximity to freight routes
Freight	Large sites, flat land, industry zoning, competitively priced land, ready site access/ egress	B-double truck access, access to key freight routes, direct access to ports/ rail/ intermodal hub

Casey Fields South already possesses most of these attributes, but to fully meet the above requirements, it is recommended that for:

Core (Business Park, Research Facilities)

- Improve amenity and sustainable transport outcomes in key parts of the Casey Fields South precinct, particularly around the central core for future business park tenants
- Improve ICT infrastructure around that area
- Reinforce links back to regional tertiary institutions both from a skills as well as a research perspective

- Zone for Commercial
- Optimise private and public transport access

Core (Service Industry)

- In the interim, keep land competitively priced for service industry (should naturally be the case)
- Encourage some pockets of subdivision to occur for smaller lots for service industry
- That land should be zoned industrial

Periphery (Light Industry, Freight)

- Truck access particularly to freight routes/major hubs. This means that these land uses would be best suited to the edges of the precinct that have the direct access to major arterials
- Small buffer zones for industry away from residential areas
- Large, flat sites for freight
- Zone for industry

7.3 Employment Configuration Recommendations (CFS only)

Given the economic opportunities and land use requirements outlined for Casey Fields South, there are three overarching strategies for the VPA to pursue.

Option 1: Business Park & Research Focus

Under this strategy, the precinct focuses heavily on ensuring that the amenity of the area reflects one in which white collar workers would want to work in.

The amenity is still distinct however, from an Activity Centre or traditional CBD in that the built form is much lower density, and the FSR (Floorspace Ratio) is lower per site as the attraction here would be for large campus style building as opposed to the verticality one would expect in a Dandenong or even Cranbourne (future) Activity Centre.

At full development, the further evolution of the precinct may eventually necessitate consideration of some medium-high density residential at the precinct's core if it is to gain the levels of amenity required to attract more knowledge workers. Note that given that medium-high density residential is unlikely to be feasible until residential areas such as Devon Meadows have fully developed (and matured), this is not something that the VPA/Council needs to plan or zone for in the next 30 to 40 years. Indeed, giving the market signals for residential development of the land now would also disrupt precinct's ability to attract commercial developments.

Option 2: General Employment Precinct

Under this strategy, the precinct scatters its branding to everything from business parks/research facilities to service industry to light industry and freight activities. In this case, the land would be kept relatively flexible and zoning/design outcomes potentially change depending on what the future demand from the market might be.

The built form would be similar to a traditional industrial-business park hybrid precinct with the omission of any heavy/noxious industries.

Option 3: Hybrid Approach

A hybrid approach could also be sensible in Casey Fields South, as the precinct is large as so a one-size-fits-all approach may not result in the most optimal outcome for all sites in the PSP area.

In this case it is recommended that higher amenity design outcomes be focused along the core of the precinct, capitalising on a commercial core outlined in Section 7.1. At full development, this higher amenity core may then also possess some elements of medium-high density residential. The edges of the precinct can then be better prioritised for light industry and freight, that benefit from access to main roads/arterials/ freight routes in the region.

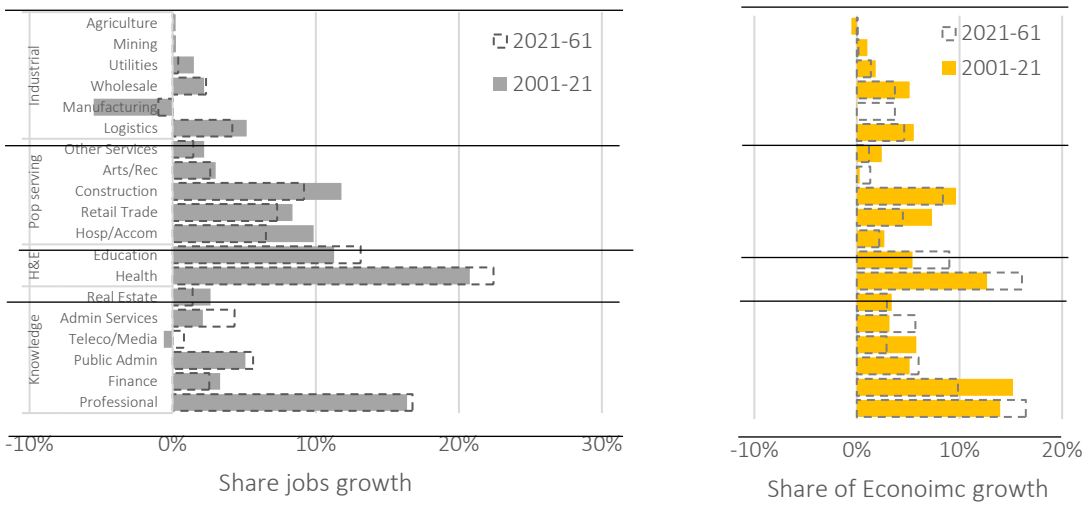
Ultimately, the most regionally significant role this precinct can play is in the large business parks-research facilities spectrum of uses – which the broader region could potentially lack by end state. Even sites that are initially allocated to light industry/freight could still potentially transition towards the business park type uses in time if required – retaining an extra degree of flexibility.

Appendix A: Macroeconomic Trends

Knowledge-based services will be the core economic driver

Like many other cities, Melbourne's economy has undergone significant structural change over the past few decades. Previously dominated by manufacturing and industrial activities, it has been transformed into one more reliant on population and knowledge-intensive activities and services. Over the last 20 years, knowledge sectors have represented 29 per cent of jobs growth and 47 per cent of economic growth. Conversely, traditional industrial jobs only represent 4 per cent of new jobs, and contributed 13 per cent of economic growth.

FIGURE 15: MELBOURNE'S HISTORIC AND FUTURE STRUCTURAL EMPLOYMENT AND ECONOMIC CHANGE



Source: SGS Economics and Planning, 2020

Knowledge-based services include research and development, design, engineering, marketing, advertising, and creative industries as well as more traditional jobs such as lawyers, bankers, financiers, doctors, and management consultants. This shift to a knowledge-based economy is partly driven by an increasing need from all sectors to access analytical and creative services to boost productivity. At the same time, business functions that were traditionally provided in-house are increasingly seen as non-core functions and instead provided by external specialist firms. A flow-on effect is increased office spaces in industrial areas and retail areas, and more specialised businesses.

Heavily linked to the trend toward knowledge-based services has been the rise of advanced manufacturing and increased trade and decentralisation pathways as industries look towards more value-added activities. This has continued to transform the manufacturing and industrial sectors. These key trends include:

- The **rise of advanced manufacturing** is driven by manufacturing businesses taking advantage of high-technology or knowledge-intensive inputs as an integral part of their manufacturing process.

This requires access to expert knowledge, with the survival of the manufacturing industry heavily reliant on the ability to continually develop and enhance manufacturing activities. A flow-on effect is the value-adding potential of pre-and post-production services. This has allowed manufacturing to shift from offering a purely product-focused, transactional customer relationship, to providing a complete service offering that bundles both products and services to better meet customer needs in a long-term customer relationship.

- Increased trade and decentralised distribution pathways arising from improved communication technology that allows direct contact between customers and producers. There are new opportunities for trading services which do not rely upon a traditional supply chain, such as service-based business (e.g. in the IT sector) which can now connect to customers across the globe. Large growth is likely to occur in industries associated with freight and logistics which will be required to move goods around these distributed supply chains, requiring good access to transport networks.
- Increasing spatial interactions within supply chain. Supply chains differ between businesses and industries. Certain businesses, particularly those involved in just-in-time delivery, value proximity to their clients or distributors. As an example, for refrigerated deliveries of perishable goods, a mid-point between suppliers (or markets) and the clients they supply is important for timely delivery and quality assurance. How the goods are distributed, or how customers access a business, will affect where they locate and what accessibility characteristics they require. Previous SGS work has found that wholesale trade industry has particularly strong links to the professional, scientific and technical services industry and the financial and insurance services industry, with spatial concentration of freight and logistics type jobs near to major centres of professional services jobs. Industries that locate within employment lands also support each other.

Health care will be the single largest growth sector

This growth is driven by both a growing and ageing population as well as technological advancements. The health care sector will have two growth areas, firstly local health services which spread out and follow population and secondly, regional services increasingly clustered around existing nodes as specialisation drives innovation.

While Casey Fields South may not be dominated by traditional health care services such as medical clinics and aged care homes, it's a regionally significant industrial precinct, and relatively close proximity to key health precincts (such as Monash Health Dandenong), which means it may be well placed to take part in the health care supply chain in the distant future.

New niche sectors will fill the traditional manufacturing gap

Traditional manufacturing is increasingly moving offshore to take advantage of cheaper labour markets and greater economies of scale. Remaining manufacturing subsectors are broadly in perishable products or advanced/innovative sectors which require skilled labour. Infrastructure to support the new on-line economy, such as distribution centres and warehouses present with an opportunity to capitalise on its proximity to the freeway network and a potential airport in the SEEC.

The increasing movement towards agglomeration economies

Agglomeration economies describe the benefits that flow to firms from locating in clusters that have a high density of economic activity. These benefits include:

- Economies of scale and scope, that is a larger customer base in an area allows firms to develop efficiencies by operating at scale and to focus their expertise and gain efficiencies via specialisation.

- A deep and diverse pool of clients, employers and employees provides a competitive marketplace and frees people and firms from relying on a single or limited client or employer base. This allows them to better align their specific skills and improves productivity.
- Technological spillovers, either directly through collaboration between firms and strong supply chains or indirectly, when skilled labour moves between firms and transfers knowledge.

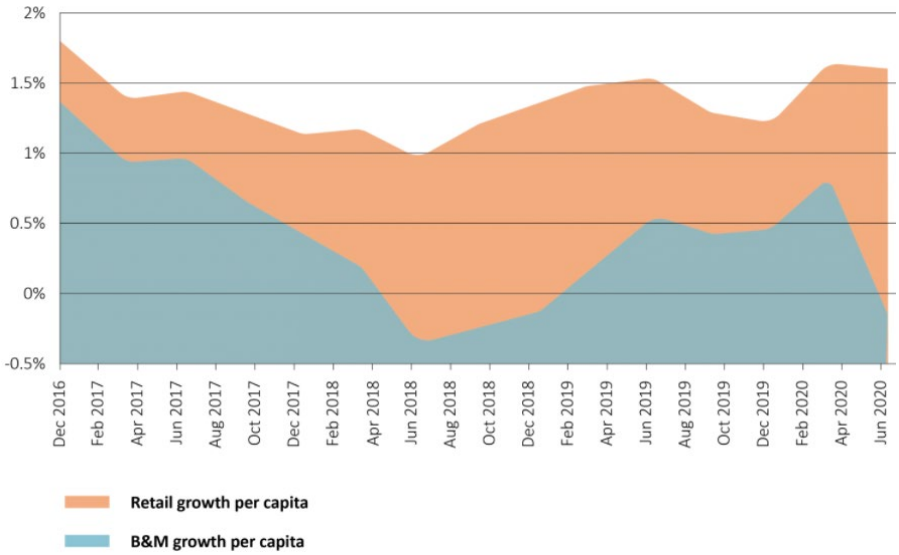
There are likely agglomeration economies present in the freight and logistics industries in future, as niche employment clusters develop in the precincts. Improving public realm and advocating for improved transport links, via increased precinct road access and a freight and logistics-focused airport, will allow future businesses to capitalise on agglomeration benefits.

The physical retail landscape is shifting towards more localised and 'experiential' shopping

With the steady rise of on-line retail (see and), consumers are beginning to demand more novel experiences from physical retailing that they cannot get from on-line retail.

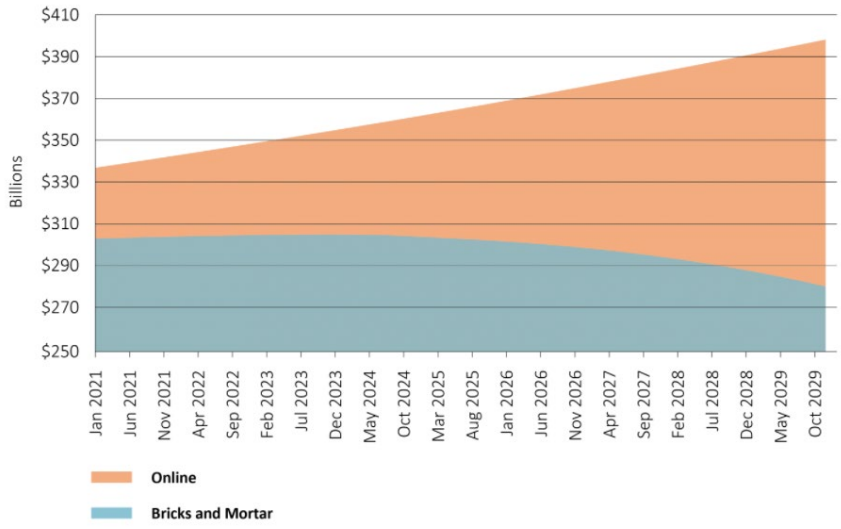
- Local retail centres such as strip centres are becoming more diversified to provide local consumers a convenient way to access essential goods and services
- Shops in larger, standalone retail centres are moving towards more experiential shopping, where personalised customer services are provided. More specialised boutiques, as opposed to larger department stores, are becoming commonplace as people are able to get the 'department store experience' on-line, and are more likely to visit a large centre to purchase more niche products.
- Big-box stores are transforming to e-commerce warehouses, seeing rise to department stores such as Kmart becoming fulfilment centres, where workers can assemble local deliveries and are available for consumers to click and collect only.

FIGURE 16: ANNUALISED PER CAPITA GROWTH IN RETAIL EXPENDITURE – TOTAL VERSUS BRICKS AND MORTAR



Source: ABS, SGS calculations

FIGURE 17: PROJECTED TOTAL RETAIL EXPENDITURE – AUSTRALIA



Source: ABS, SGS calculations

Way of work is evolving

Key office and professional services employment trends are seeing changes in the way people work and the location of professional services in areas that offer the greatest agglomeration benefit. Traditionally paid work was carried out in established workplaces; however work is increasingly flexible, and people are looking to new types of workspaces such as co-working spaces. These alternative workspaces typically congregate in central city areas for their potential to offer critical mass, opportunities for skills and knowledge transfer, and accessibility to attract skilled workers. Professional services tend to locate in areas of greatest agglomeration benefit, with dense employment centres providing access to larger customer base, opportunities for increased specialisation, a deep and diverse pool of clients/employers/employees, and technological (or knowledge) spillovers.

Other key trends affecting the SEEC, include a disrupted supply chain, automation, future uncertainty, climate change, bottom-up community enterprises, and growth in micro and small businesses. These have a significant influence on the Victorian Government Priority sectors:

- Construction technologies
- Creative industries
- Defence technologies
- Food and fibre
- International education
- Medical technologies and pharmaceuticals
- Professional services
- Retail, transport distribution, logistics and postal
- Space technologies
- Visitor economy.

CSIRO global megatrends:

- **Adapting to climate change:** Natural disasters will cost the Australian economy as the world faces more volatile climate and unprecedented weather events.
- **Leaner, cleaner and greener:** Increased focus on solutions to resource constraints through synthetic biology, alternatives, recycling, and net-zero energy transition.
- **Escalating health imperative:** Health challenges posed by an ageing population and growing burden of chronic disease. Reports indicate high to very high levels of psychological distress and heightened risk of infectious disease and pathogens resistant to modern antibiotics.
- **Geopolitical shifts:** Uncertainty characterised by disrupted global trade, geopolitical tensions, and growing defence investment.
- **Diving into digital:** Pandemic-fuelled boom in digitalisation which changed the activity of people. Now 40 percent of Australians work remotely, and this is expected to increase.
- **Increasingly autonomous:** Explosion in artificial intelligence (AII) discoveries and application across industry sectors.
- **Unlocking the human dimensions:** Strong consumer and social push for decision makers to consider trust, transparency, fairness, and environmental/social governance.

These macroeconomic trends are expected to shape Devon Meadows and Casey Fields South both organically and through policy. Employment trends in manufacturing and industrial employment, population-serving industries, and retail are particularly relevant to the study areas. Employment opportunities within the precincts will be affected by how successful businesses are orientated towards growth and priority sectors.

As we discuss below, the impact of COVID 19 in terms of the way work is done is still playing out. It seems likely, however, that the pandemic will have accelerated pre-existing trends rather than permanently disrupted them. Some structural features of the metropolitan economy may remain largely unaffected, for example, the dominance of the central city in advanced business services. With a more dispersed worker population, made possible through greater use of work from home, the central city's accessibility advantage in the labour market has become stronger[5].

The Future of Employment Lands

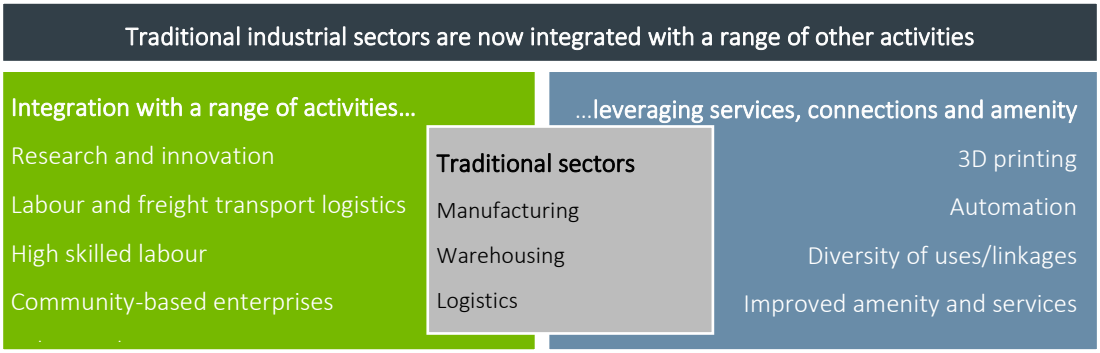
Given these structural attributes, the role of employment lands in the metropolitan economy is shifting. Current state policy defines the role and function of activity centres, industrial precincts, health and education precincts, and national employment and innovation clusters (NEIC). The nature of different precinct types also means they are anticipated to accommodate different types of jobs.

Many traditional industrial businesses now include higher-tech functions, and subsequently, employ higher-skilled workers. This is occurring in parts of the South East region (for example, Southern SSIP, Moorabbin Airport, Scoresby); where there is a higher proportion of highly skilled workers compared to

[5] See https://www.infrastructurevictoria.com.au/wp-content/uploads/2021/11/The-post-pandemic-commute.pdf

historic industrial areas. There are an increasing proportion of businesses employing people in traditional, industrial sector jobs as well as knowledge-intensive research and headquarter functions at a single site. These types of businesses are typically located in highly accessible precincts where workers enjoy high levels of amenity and access to services.

FIGURE 18: MODERN INDUSTRIAL PRECINCTS



Source: SGS Economics and Planning, 2022

Integration of a range of activities is also being seen in small- to medium-enterprises making use of smaller lots that combine office, warehouse/distribution and research and development functions on the one site (for example, in Cremorne) or where trades businesses are leveraging this mixed use, small lot model to grow their business (Cranbourne West). Some businesses will still require very large lots; they are more capital-intensive with high gross value added, meaning they accommodate fewer jobs per hectare. This is particularly the case in the warehouse, freight and logistics (linked to e-commerce) where automation is a key characteristic.

Some precincts in the new economy have embraced closed-loop environmental management. Energy generation, water recycling and waste recovery are a key selling point, reinforcing community involvement and environmental resilience for future-proof precincts (e.g. Tonsley in South Australia, Erskine Park in Western Sydney). There are instances where this is being explored even further, in the design of goods based on upcycling, recycling to return material to the economy, and using fewer resources in the initial process, challenging traditional linear economic flows.[6] In light of recent challenges to Australia's resilience (drought, bushfires and floods, and now COVID-19), the importance of access to (or creation of) local manufacturing inputs, getting the greatest return from resources over their lifetime (in many forms), and preparedness for future shocks has been underlined more strongly than ever before.

Impacts and uncertainty from COVID-19

The short and lasting impacts of COVID are still uncertain and dependent on how the pandemic continues to unfold over the coming years and the response from Local, State and Federal Government. The following outlines current and potential long-term implications for key sectors relevant to Devon Meadows and Casey Fields South.

[6] Loop Circular Economy Platform, *On the Circular Economy*, 2019, Available from URL: https://www.poweringthechange.org/on-circular-economy.

TABLE 10: COVID-19 IMPLICATIONS

Local manufacturing – COVID19 has affected global supply chains, leading to increased input costs and shortages. Potential Impacts ▪ Could increase as businesses want greater certainty for their supply chains. This means that there would be less imports and more domestic production. ▪ This would increase the demand for employment floorspace as manufacturers increase production.	**Retail** – COVID19 has exacerbated the shift away from 'bricks and mortar' models and more towards on-line sales, largely from spending from older demographics. Potential Impacts ▪ This could reduce the demand for conventional retail space but open up more demand for retail/ wholesale type spaces well suited to on-line delivery. ▪ May change the way retail is offered, with increased demand for niche retail experiences. ▪ Heightened importance of local retail hubs	**Warehouse and logistics** – COVID19 has led to a shift away from 'just in time' supply chains Potential Impacts ▪ This could mean that businesses hold much more stock, across numerous distribution locations than is currently the case. This would include the demand for additional warehouse floorspace.
Population - Under a slow recovery, there could be a million less than projected people in Victoria in 2046. Potential Impacts ▪ Less population growth in Melbourne would reduce residential development which in turn could impact on the number population serving jobs. ▪ This may also lead to worker shortage across sectors due to lower migration levels. ▪ The demand for employment floorspace may decrease.	**Health services** - Investment in research, pharmaceutical and supply production to hospitals and other related service has been a focus during this pandemic. Potential Impacts ▪ Continued investment in these sectors to ensure Australia remains resilient will encourage further jobs and employment floorspace in this sector.	**Work and lifestyle -** Households have desired larger homes to account for working from home. Potential Impacts ▪ This could result in more people living and possibly working from the South East Growth Area. ▪ Increased opportunities for co-working spaces. ▪ This could decrease the demand for employment floorspace in the central city and increase local economy opportunities ▪ Potential growth in the night-time economy, as people desire greater work-life balance.

Source: SGS Economics and Planning, 2022

The continual effects of COVID-19 continue to be uncertain, with the possibility of intermittent COVID outbreaks in the near future. The 2022 Victorian Budget has suggested that "risks to Victoria's economic outlook remain greater than normal"[7]. However, for Devon Meadows and Casey Fields South, what may occur in the short term is unlikely to be of much significance given the long-term growth trajectory to full development that is expected.

However, during the course of the pandemic a number of other things have changed in the Australian economy, including:

- The raised profile and importance of local manufacturing, particularly of essential products that are of bio-security significance. Regionally significant industrial precincts like the one in Casey Fields South are candidates for any future local manufacturing hubs to develop.

[7] ABC News (2022): If the economy is booming, why is there also fear of recession ahead of the 2022 election?

- The realisation of the benefits of work from home from a work-life balance perspective. While office space will still be needed, it does change where families can choose to both live and work if they are commuting less during the work week.
- The decline in trading relationship with China as Australia's number one export market. While new markets are likely to be found, those other trading partners have different economic structures to the unique Chinese economy. The composition of goods, services and labour traded are also likely to change, thereby affecting the types of businesses that will emerge over coming decades.
- Growth in on-line retail has accelerated. Freight routes and distribution centres are now recognised as important locations from the perspective of food and resource security.

These elements are difficult to quantify, but do represent some opportunities for Regionally Significant Industrial Precincts such as Casey Fields South. Local manufacturing, different/new export markets, freight and distribution centres may be the sectors where new opportunities emerge.

Economic impacts and opportunities from climate change

Climate change risks

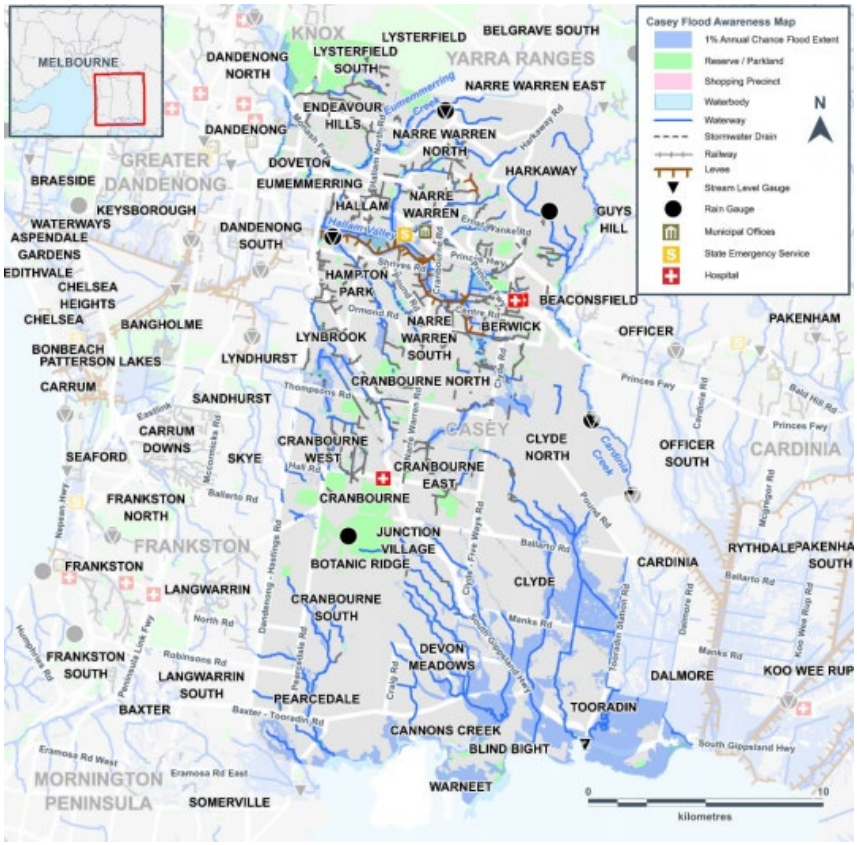
Climate change brings significant risks to industry in employment precincts including increased frequency and severity of fire, extreme weather, flooding, water shortages, hot days/heat waves, rising sea levels and storm surges[8]. In terms of the increased risk of flooding, employment lands near waterways and creeks will need to be adequately designed in consideration of future risks. Scarcity of water (due to drought) and/or other key resources (e.g. energy shortages) will cause disruptions to business operations.

Extreme heat events can increase fire hazards whilst reducing suitable days for certain types of work in the summer, particularly considering the health risks posed to on-site workers. As outlined in the *PSP Planning Guidelines* (2021), urban heat island effects will need to be adequately considered and designed into new precincts.

The flood map below shows a number of waterways through the subject site with some flood risk. City of Casey floods in 2010, 2011 and 2012 resulted in damage, road closures and rehousing (SES, 2020). VicPlan mapping also identifies an urban floodway zone through Casey Fields South.

[8] Climate Ready Victoria 2015

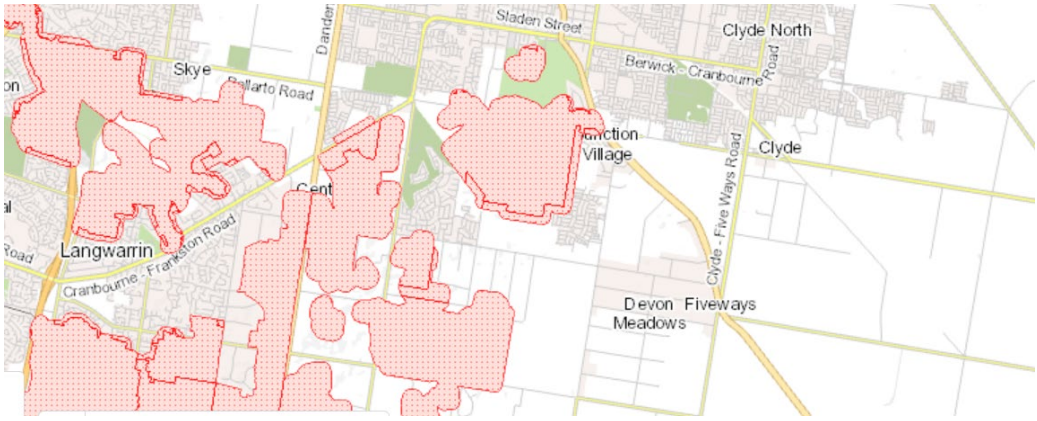
FIGURE 19: SES FLOOD MAP



Source: SES, 2020

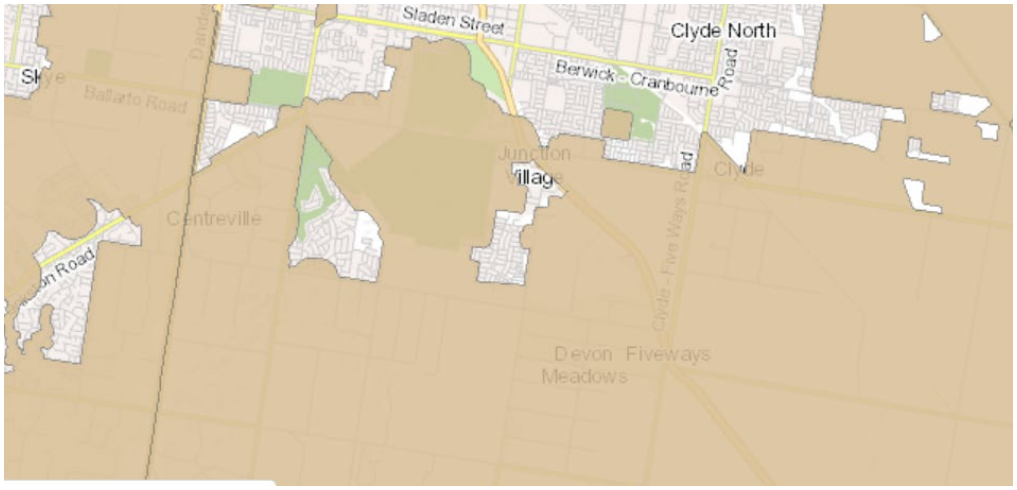
VicPlan mapping shows the PSP area does not intersect with the Victorian Bushfire Management Overlay (BMO) as compared to the nearby Botanic Gardens. However, the PSP is in a designated bushfire prone area and therefore will need to be considered in future planning of the area.

FIGURE 20: BMO MAP



Source: DELWP, 2022

FIGURE 21: BUSHFIRE PRONE AREAS



Source: DELWP, 2022

Climate adaption opportunities

Climate change also provides major prospects. Victoria's Climate Change Strategy outlines a transition to a low-carbon economy which creates a range of economic opportunities for new products and industries that can be capitalised on. Many prominent economists see the transition to a low carbon economy as an opportunity Australia should be capitalising on, with the transition an opportunity to grow employment and incomes[9]. In the long run, waste reduction, material efficiency and the circular economy offer significant business prospects. The space for renewable energy technology, including bioproducts, carbon capture use and storage, transport electrification, hydrogen products, solar, wind, energy productivity offers a win-win situation for manufacturers and the successful transition of existing industries. As well, the development of a more sustainable and ecologically closed loop industrial and employment precinct could also support emissions targets and help attract new innovative businesses.

Economic impact of a potential new airport

A new airport in the SEEC has the potential to provide significant economic benefits. Given the current uncertainty and the long-term nature of the proposal, the region should not rely on its delivery. But it is a major opportunity to unlock access to global markets if, and when, it is delivered.

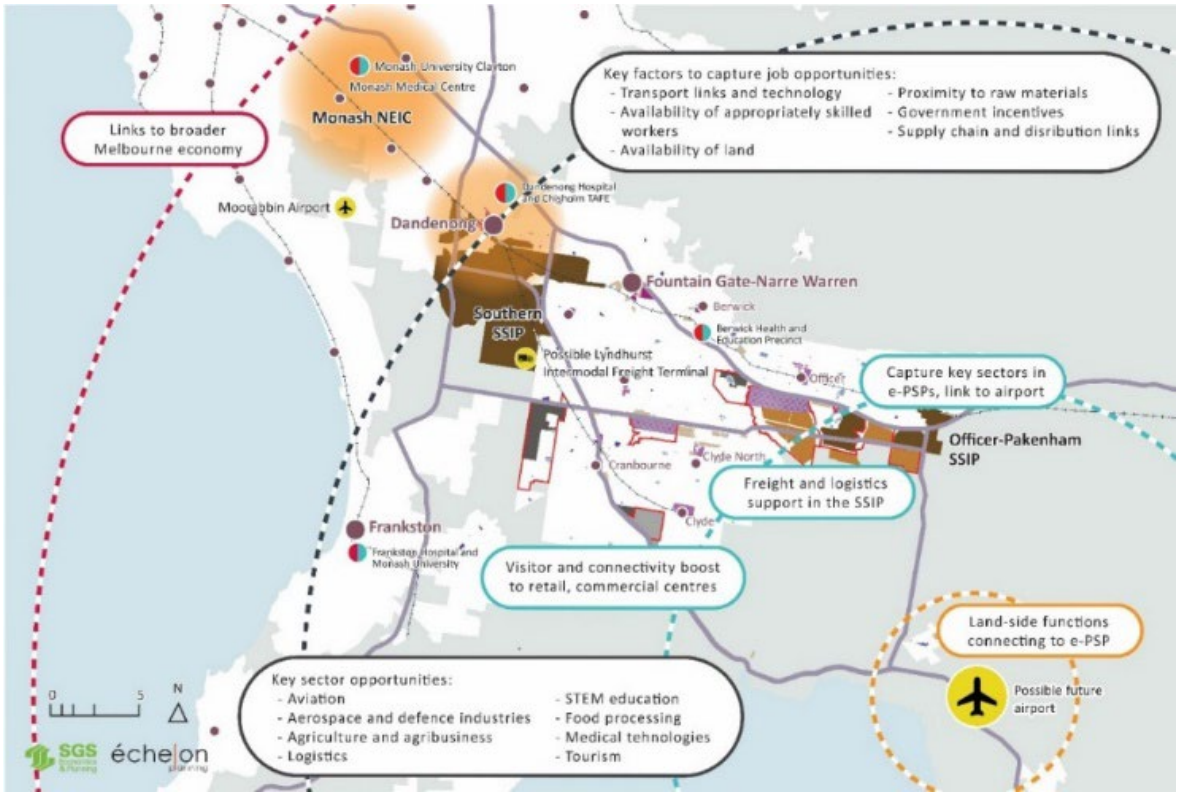
Potential employment role of an airport

In 2016, there were 23,600 jobs at Melbourne Airport and surrounds. 75 per cent of these jobs were in the industrial sector.[10] In and around Sydney Airport, 60 per cent of the 18,000 jobs were industrial in 2016. This includes freight and logistical services.

The following provides an overview of how the potential opportunities might spatially impact the SEEC.

[9] https://theconversation.com/one-issue-matters-more-to-top-economists-than-any-other-this-election-climate-change-180948
[10] A 2015 report by MacroPlan Dimasi found that the Essendon Fields and Airport West (Essendon Airport and Essendon Technology Precinct) contained around 9,176 jobs, accounting for 26.8 percent of jobs in the Moonee Valley LGA, and 27.6 percent of all workers who live in the LGA.

FIGURE 22: POTENTIAL SOUTH EAST AIRPORT OPPORTUNITIES



Source: VPA, 2022

TABLE 11: AIRPORT IMPLICATIONS

Key sector opportunities		Key push and pull factors for capturing job opportunities
▪ Aviation ▪ Aerospace and Defence Industries ▪ Advanced manufacturing ▪ Agriculture/ Agribusiness ▪ STEM Education	▪ Logistics ▪ Food processing ▪ Tourism ▪ Medical technologies	▪ Transport links and technology ▪ Availability of appropriately skilled employees: ▪ Availability of land: ▪ Proximity to raw materials ▪ Government incentives ▪ Supply chain and distribution links

Appendix B: Regional Economic Analysis

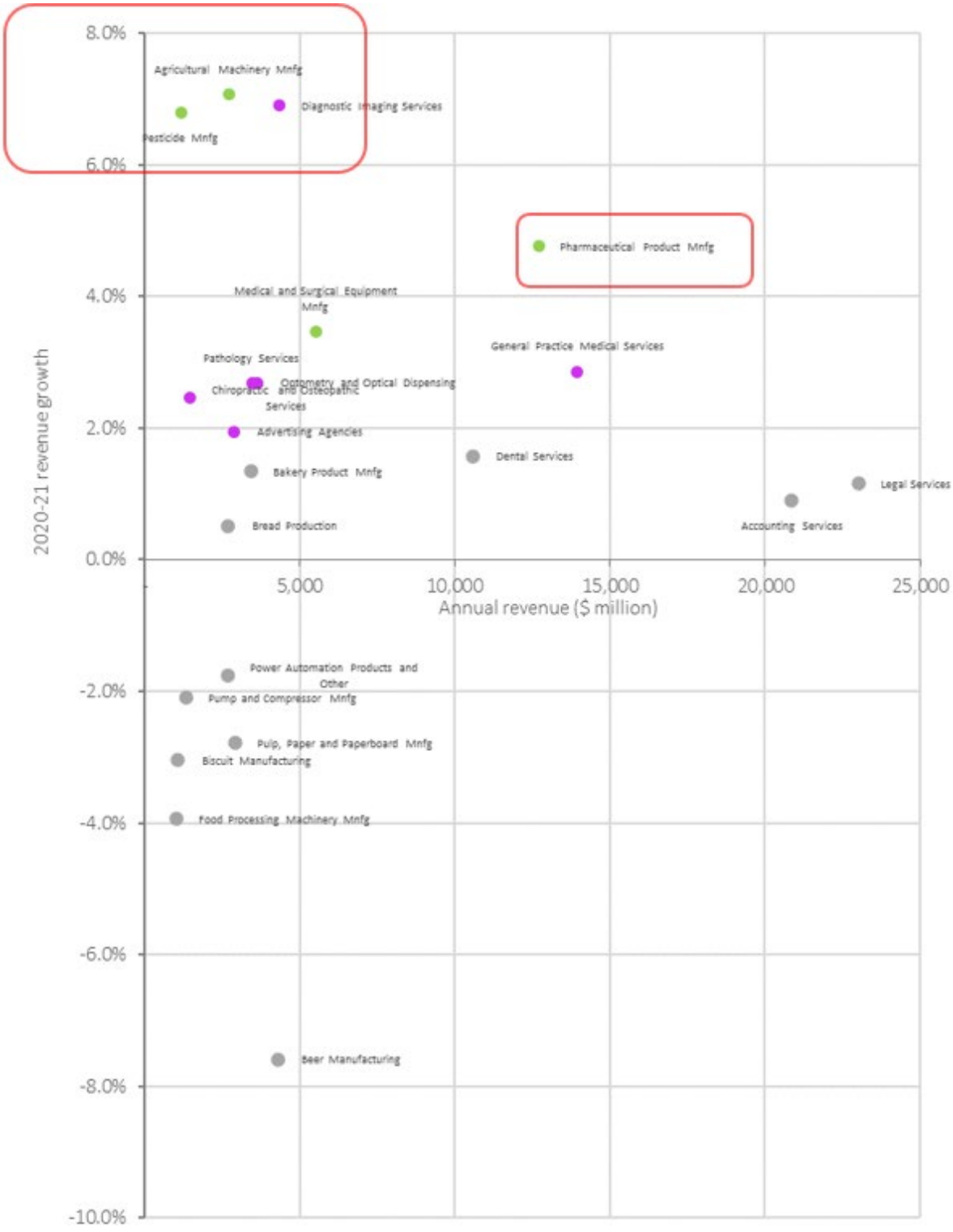
Industry growth across Victoria

In order to better understand industries likely to invest in the Officer South PSP's SSIP and RSEA areas, industrial and commercial sub-industries have been examined in terms of revenue size and growth. The following chart illustrates those industries with high growth, as calculated by IBISWorld.

These industries are shown mainly at the ABS ANZSIC 4 digit level or slightly more granular, as per IBISWorld industry classifications. Purple dots show commercial industries (largely service related industries that could occupy the RSEA) while green dots show industrial industries (mostly manufacturing and production related). Grey dots are industries of less interest due to lower growth rates under 2% per annum.

The chart shows that industries such as agricultural manufacturing (machinery and pesticides), pharmaceutical manufacturing and medical/surgical equipment manufacturing are growing quickest for potential industrial uses, whilst in the commercial sectors, a variety of medical type uses are most prominent.

FIGURE 23: INDUSTRIES BY TOTAL REVENUE AND P.A. REVENUE GROWTH OVER THE 2016-2021 PERIOD



Source: IBISWorld, 2021

Key transport and connections

The Southern region has some significant competitive advantages over other metropolitan regions, including easy access to Moorabbin Airport and the Port of Hastings. A potential intermodal freight terminal at Lyndhurst that could support the Devon Meadows and Casey Fields South precincts and the regional distribution network, combined with a possible South East Airport, would elevate the region's accessibility significantly. In this context, the South East Airport could also present a game-changing opportunity for the region to link the Southern Region, Gippsland, and the Latrobe Valley to global markets.

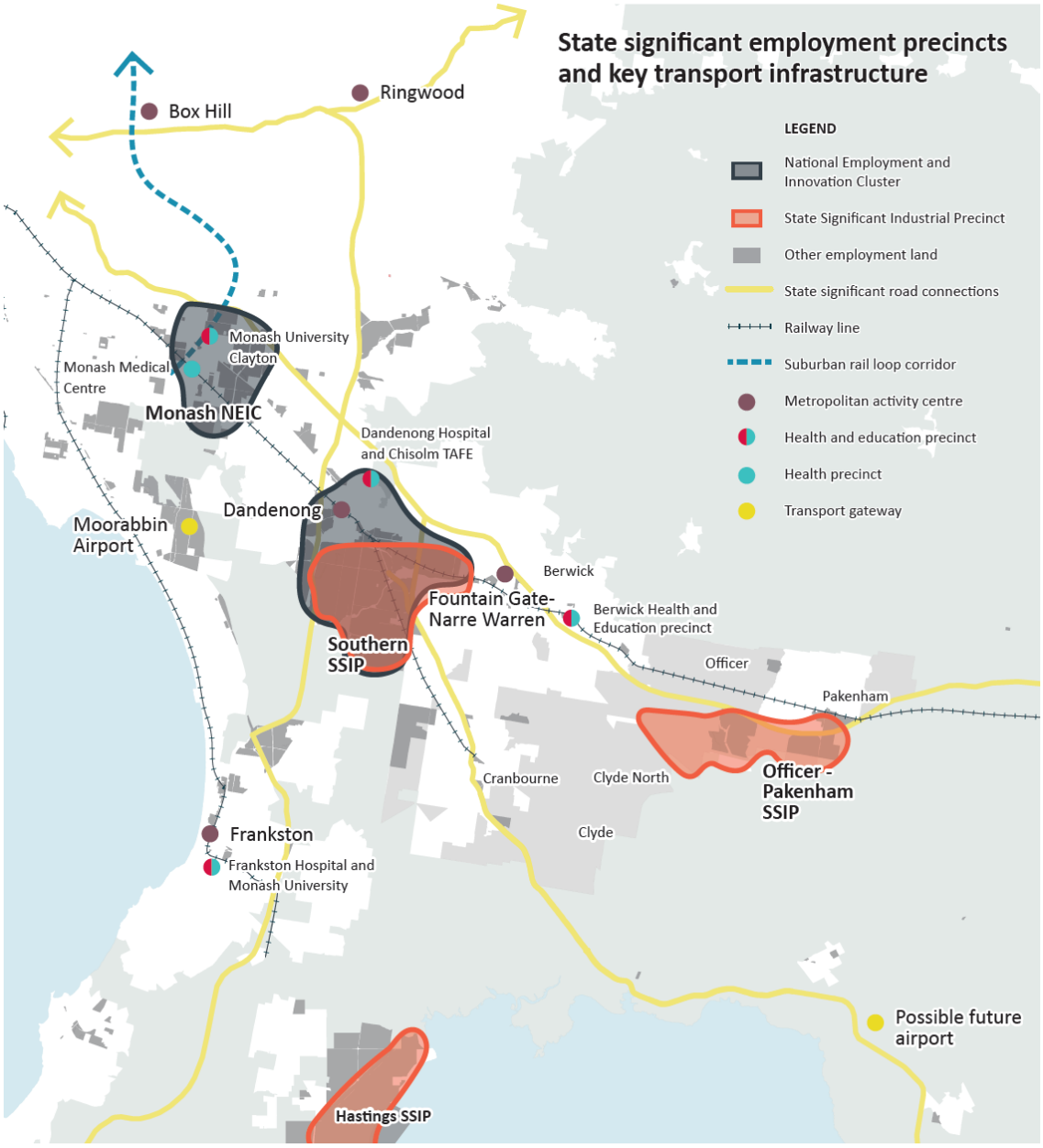
There are good road and rail connections across the Southern region. Eastlink, the Monash Freeway, Mornington Peninsula Freeway, the Princess Highway and Freeway, Nepean Highway, Western Port Highway and South Gippsland Highway provide important connections throughout the region and beyond to other regions, including regional Victoria and Gippsland. Three rail lines provide connections to Frankston and Stony Point, Cranbourne, and Pakenham.

Nearby, the region is also enhanced by strong connections to the Frankston Major Activity Centre (MAC) and Health and Education Precinct, the Monash National Employment and Innovation Cluster (NEIC) and Monash Medical Centre Health and Education Precinct. The region is strongly linked to the Port of Melbourne via the Cranbourne and Pakenham train lines (part of the Principal Freight Network). Other transport gateways include Moorabbin Airport and the Port of Hastings.

Transport infrastructure is a key enabler of business investment and access to jobs, and is crucial for the success of the Southern Metropolitan Region. Improving east-west connections between Frankston, Dandenong, and the South East growth area (for both workers and freight) will improve productivity and deliver economic success in the region over the long term.

The economic relationship between the LGA of Casey and the Gippsland region also needs to be strengthened. The proximity of Casey to agricultural areas in South Gippsland, the Mornington Peninsula and Western Port mean that it is well-placed to link to these economies, supporting the development of niches in food manufacturing and related value-adding industries.

FIGURE 24: KEY NODES, TRANSPORT AND PORTS



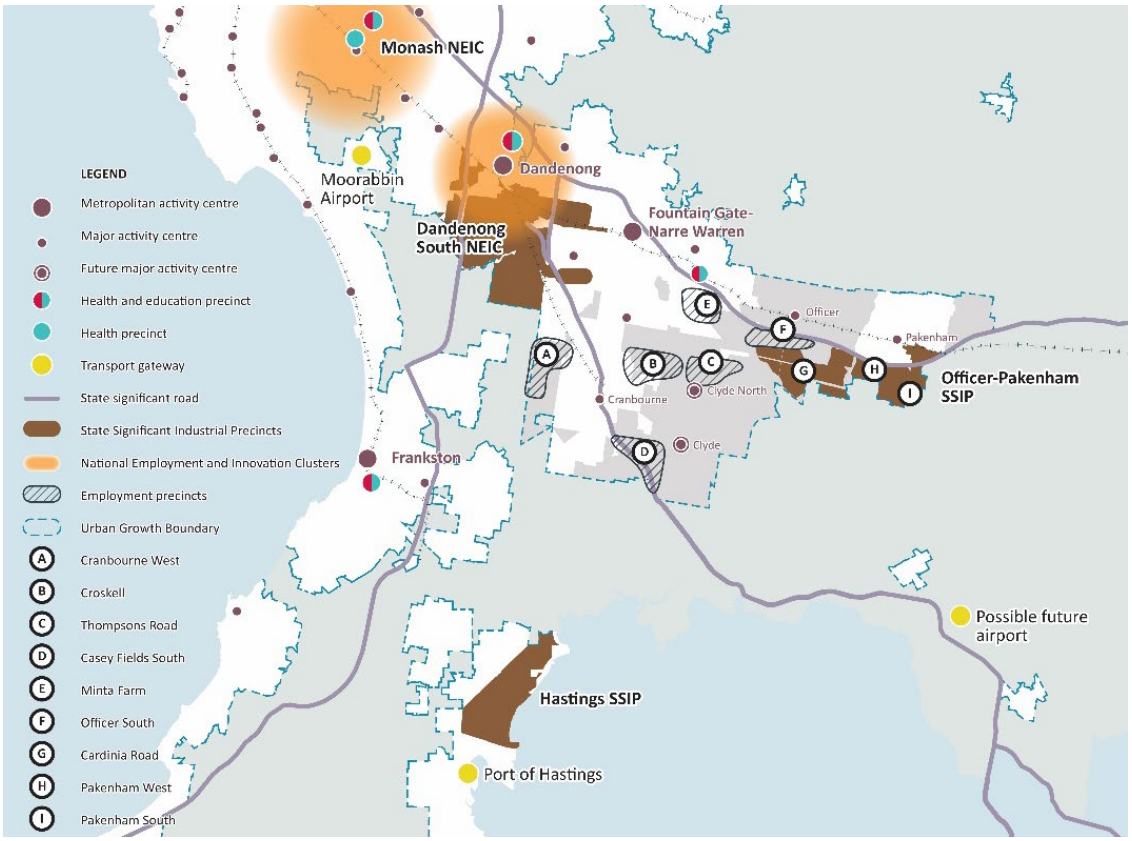
Source: SGS Economics and Planning, and Echelon Planning, 2020.

Key employment nodes in this corridor

This region has a wide range of locations that cater to business and employment. This includes the Dandenong and Narre Warren Metropolitan Activity Centres, 12 Major Activity Centres and three, existing and planned, State Significant Industrial Precincts (SSIPs) (Southern, Officer-Pakenham and Hastings). It's modelled that these combined areas will represent 44 per cent of all regional jobs. Beyond that, there are also many smaller activity centres and commercial and industrial precincts across the region. The Southern SSIP represents the most extensive job cluster (32 per cent of all current SEEC jobs). Other prominent job locations include Dandenong and Narre Warren MACs and Cranbourne, Berwick, and Pakenham Major Activity Centres.

However, this corridor will see structural changes to its essential employment precincts as the broader region matures; Officer-Pakenham SSIP is set to replace the Southern SSIP as the region's largest employment cluster within the next 40 years, as envisioned by the SEEC strategy. The Dandenong National Employment and Innovation will also transition to be the most prominent business district in the South-East Economic Corridor.

FIGURE 25: SEEC CURRENT EMPLOYMENT LOCATIONS



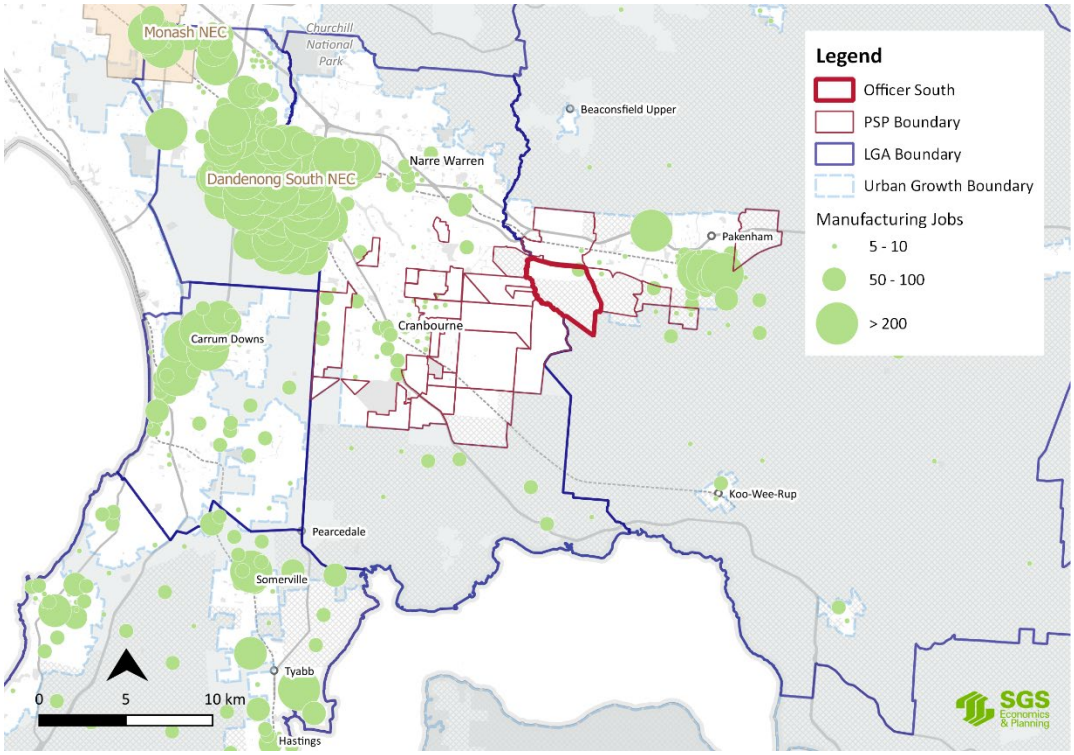
Source: SGS Economics and Planning, and Echelon Planning, 2020.

Employment clusters in this region

We now focus the analysis on the South East Region of Melbourne. The figures over the next few pages provide industry specific breakdowns of employment clusters in the region. Key observations include:

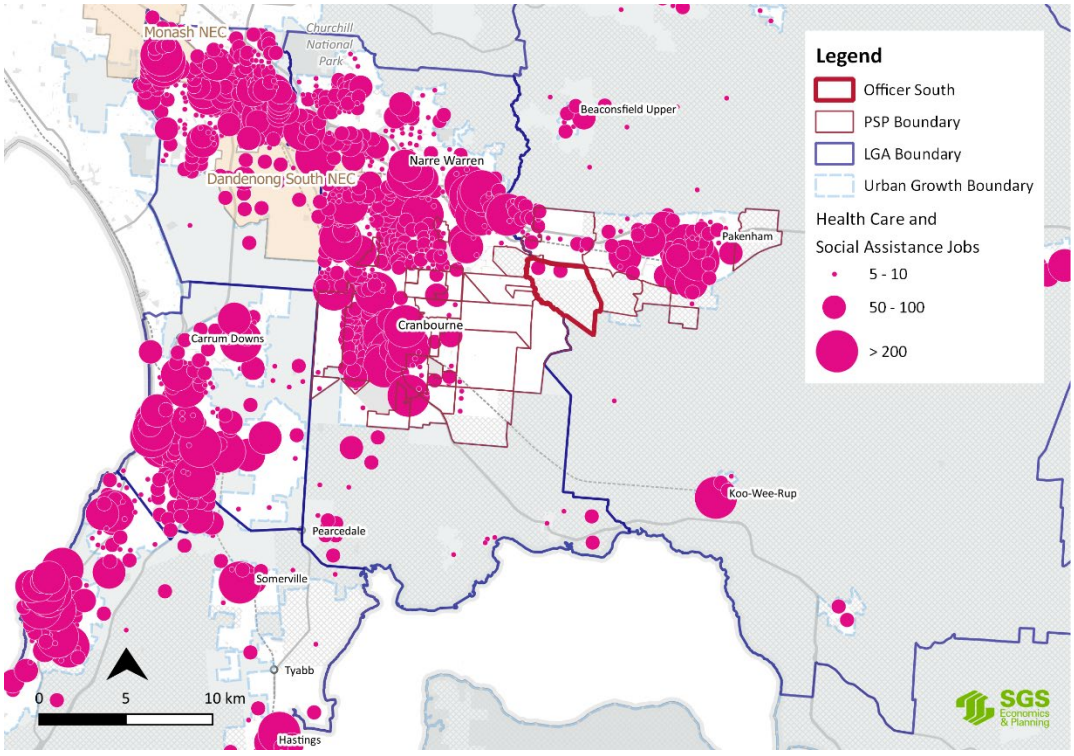
- Manufacturing clusters in Dandenong South, Monash NEIC, Frankston/Carrum Downs and emerging in Pakenham South/East. This region hosts one of the major manufacturing hubs in Australia. The Dandenong South precinct's IN2Z sub-precinct in particular contains many heavy industries with expansive supply chains. That precinct is expected to exhaust its land supply over the next decade, with few options for expansion given it is bound by the Urban Growth Boundary. Monash NEIC and Carrum Downs in Frankston are also at capacity. Officer/Pakenham SSIP is now emerging as the next logical expansion area for new businesses and as well as expanding businesses who are unable to remain in the other precincts.
- Health care and social assistance has a significant presence across the region – although many of the direct jobs are not specifically in industrial precincts. Nonetheless, health in particular has a long supply chain when it comes to providing the final medical services and products, and both industrial and commercial businesses are significant contributors.
- Utilities also have a major presence in the region. Although not always major employers given the facilities take up vast amounts of land and capital, they nonetheless have important connections to industry including energy, water and waste disposal. This region has strong local circular economy opportunities given most of these components are all found in the corridor.
- Transport, postal and warehousing along with wholesaling are the other major occupant industries of employment lands in this region. Not surprising given the strong presence of transport connections, residential population (in the urban areas) and primary industries (in the rural lands out to Gippsland).
- In terms of agriculture, there is a strong presence of fruit, vegetable and livestock farming in this region alone (with more in Gippsland). One of the advantages of having a Green Wedge, is that Green Wedge land is still productive for those industries and are still part of the supply chain in employment lands (more on supply chains in Section 3.4).
- Finally professional services is also highly significant, with the main subindustries in terms of presence in the region being architecture and engineering and to lesser extents, legal, accounting and market research. Note that these activities are distinct from commercial activities might locate near activity centres when they are population serving, with architecture and engineering in particular being far more business serving. Those activities are often better suited to employment precincts such as Officer South.

FIGURE 26: EMPLOYMENT CLUSTERS ACROSS OFFICER SOUTH PSP: MANUFACTURING 2021

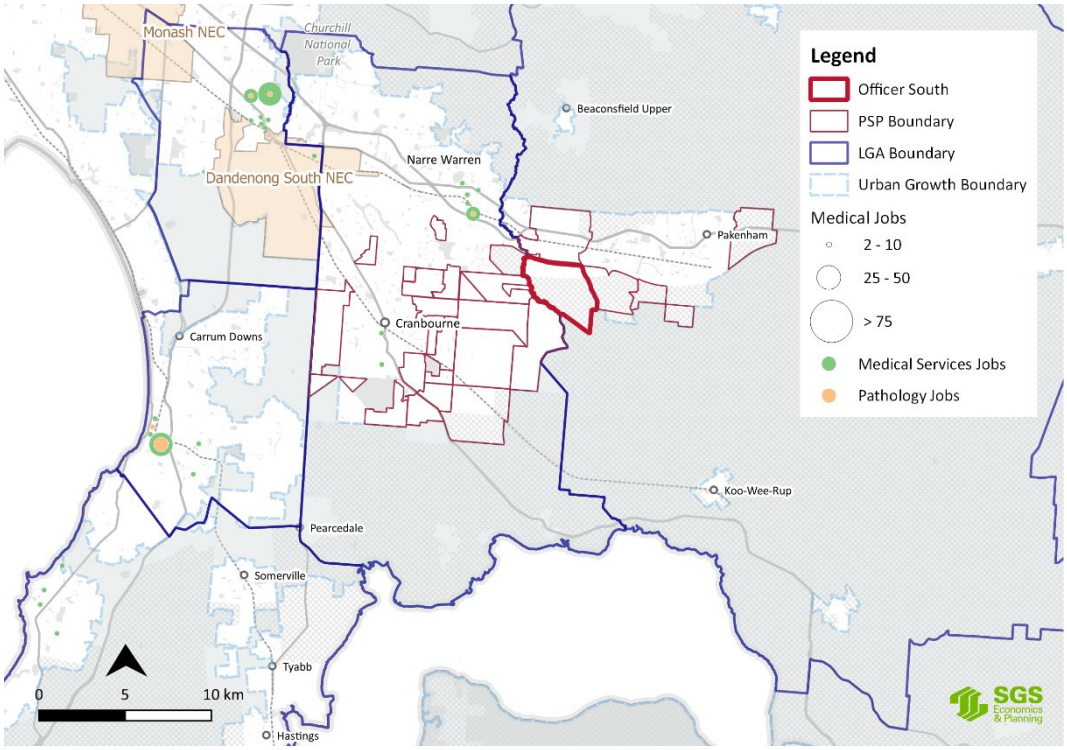


Source: SGS Economics and Planning, 2021.

FIGURE 27: EMPLOYMENT CLUSTERS ACROSS OFFICER SOUTH PSP: HEALTH CARE AND SOCIAL ASSISTANCE JOBS

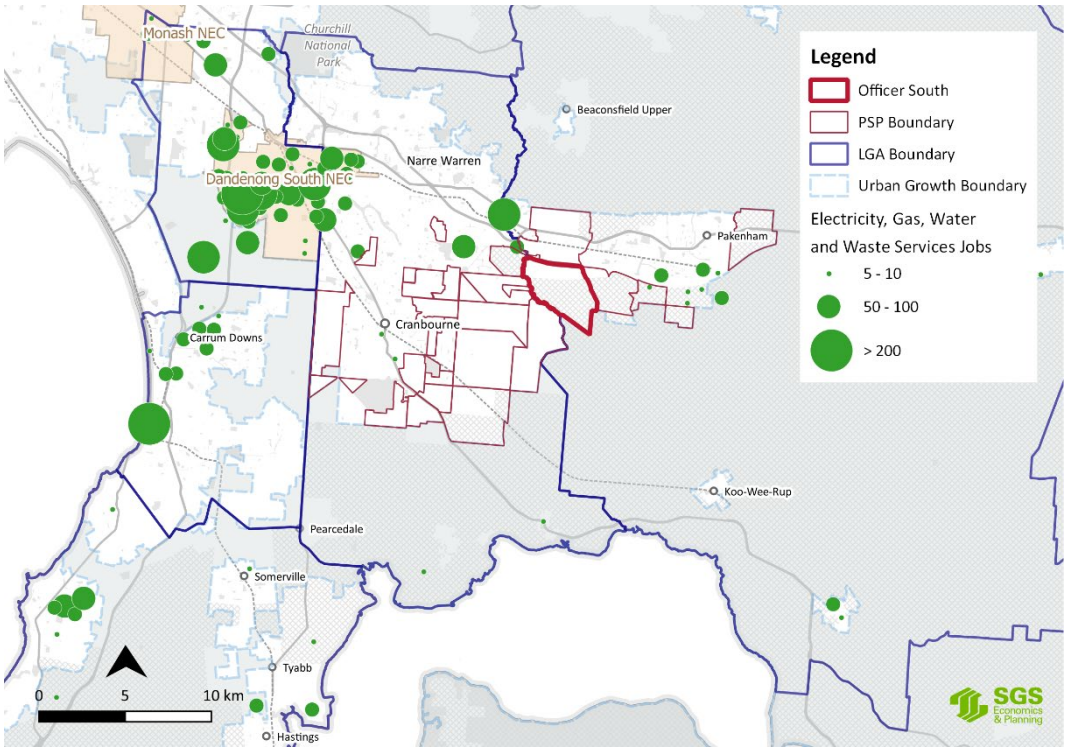


Source: SGS Economics and Planning, 2021.



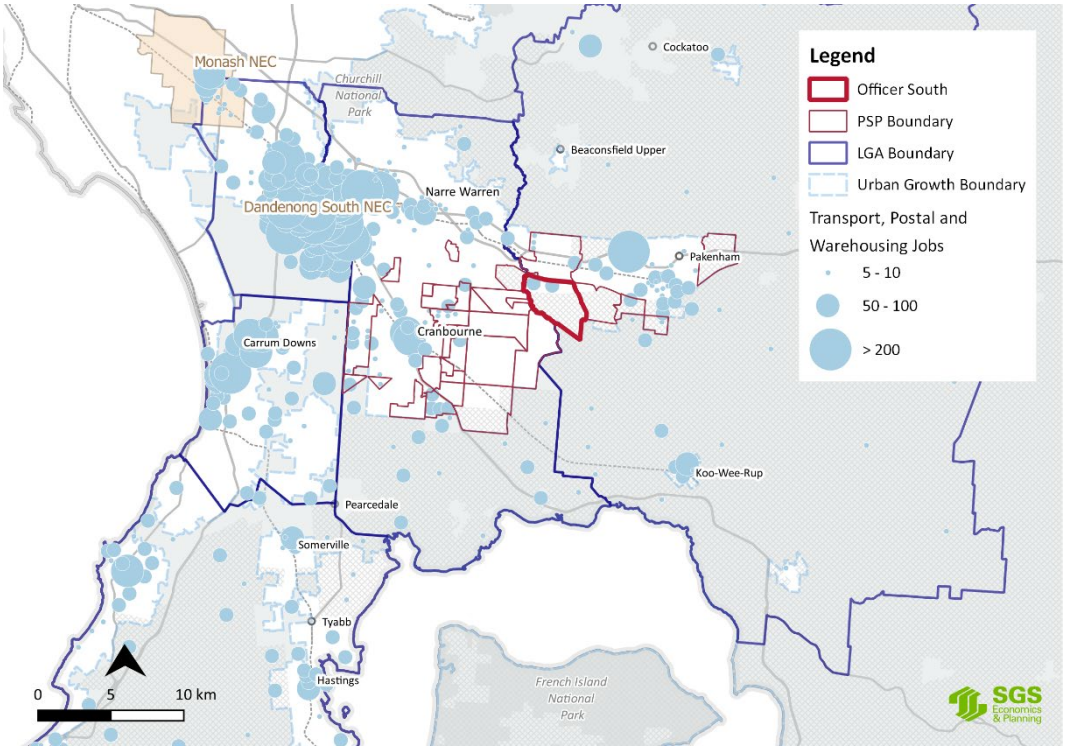
Source: 2016 Census.

FIGURE 28: EMPLOYMENT CLUSTERS ACROSS OFFICER SOUTH PSP: UTILITY JOBS



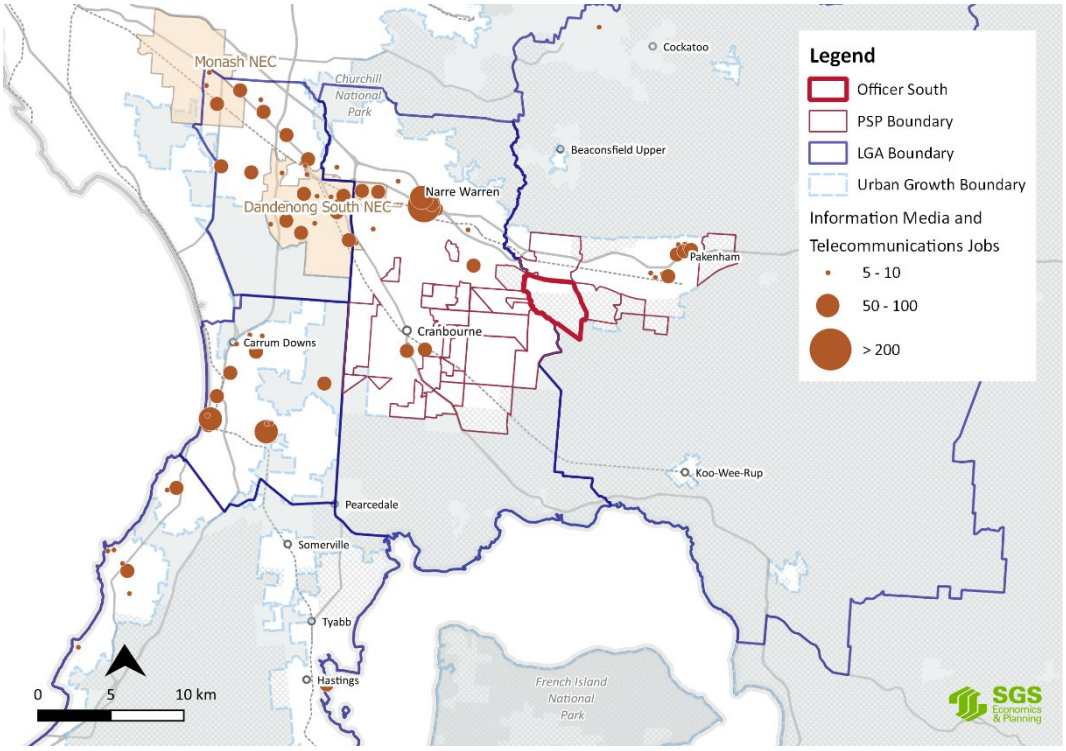
Source: SGS Economics and Planning, 2021.

FIGURE 29: EMPLOYMENT CLUSTERS ACROSS OFFICER SOUTH PSP: TRANSPORT, POSTAL AND WAREHOUSING JOBS



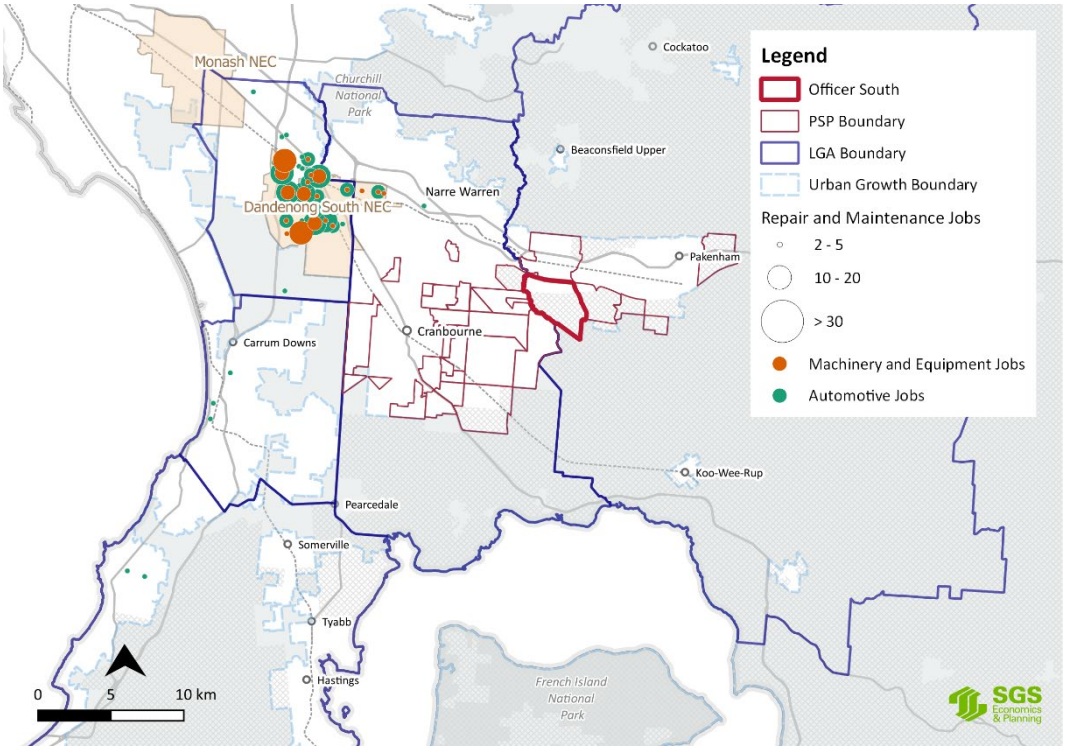
Source: SGS Economics and Planning, 2021.

FIGURE 30: EMPLOYMENT CLUSTERS ACROSS OFFICER SOUTH PSP: INFORMATION MEDIA JOBS



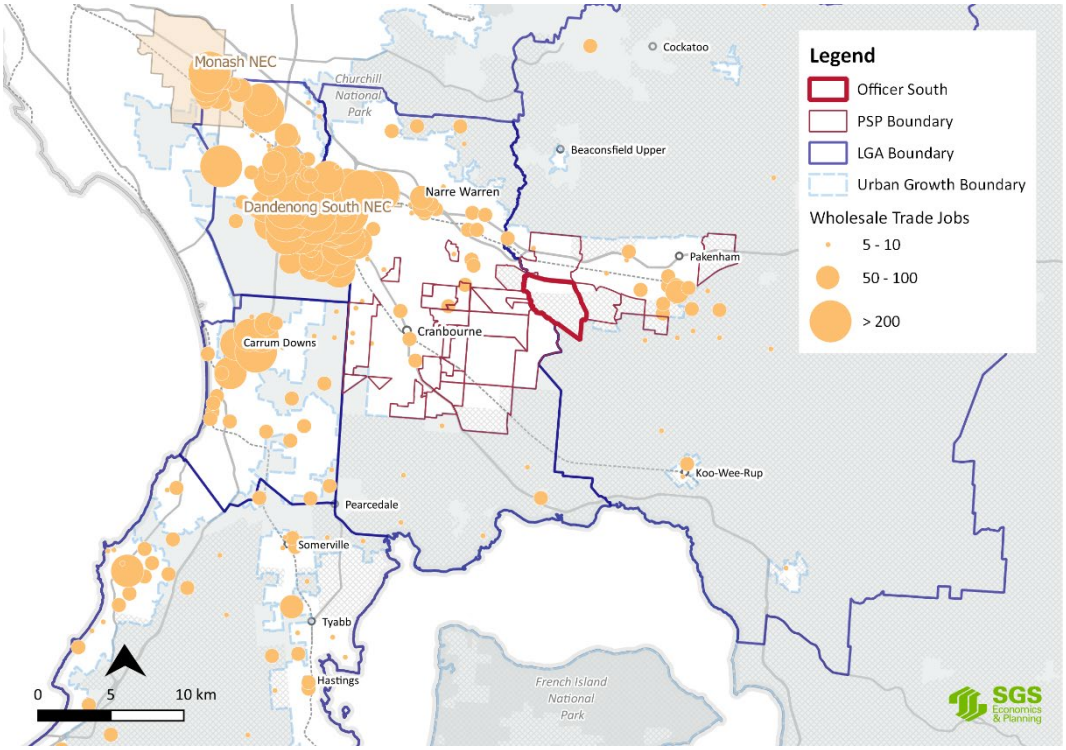
Source: SGS Economics and Planning, 2021.

FIGURE 31: EMPLOYMENT CLUSTERS ACROSS OFFICER SOUTH PSP: REPAIR AND MAINTENANCE JOBS



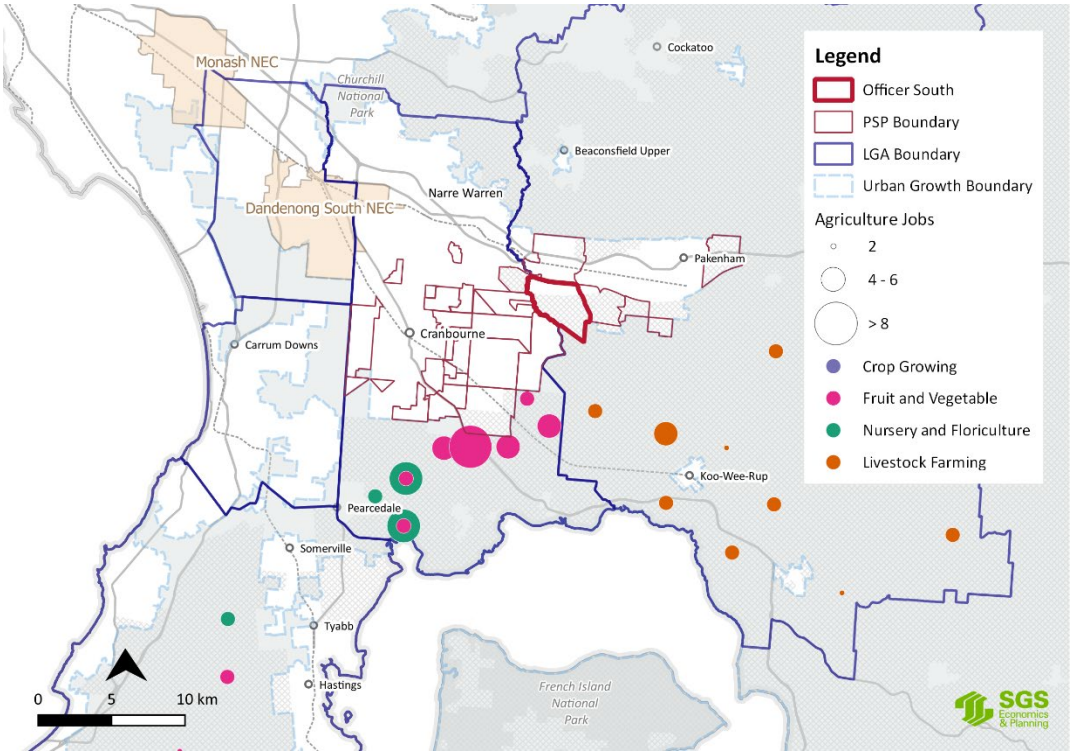
Source: 2016 Census.

FIGURE 32: EMPLOYMENT CLUSTERS ACROSS OFFICER SOUTH PSP: WHOLESALE TRADE JOBS



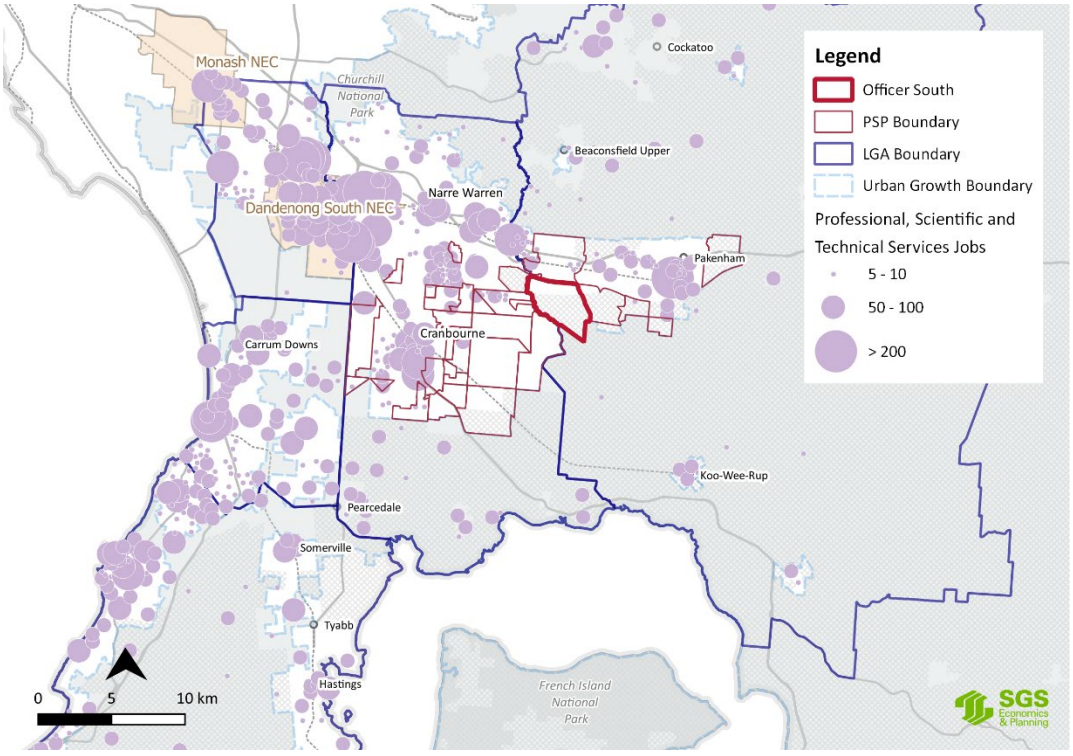
Source: SGS Economics and Planning, 2021.

FIGURE 33: EMPLOYMENT CLUSTERS ACROSS OFFICER SOUTH PSP: AGRICULTURE JOBS BASED ON 2016 CENSUS

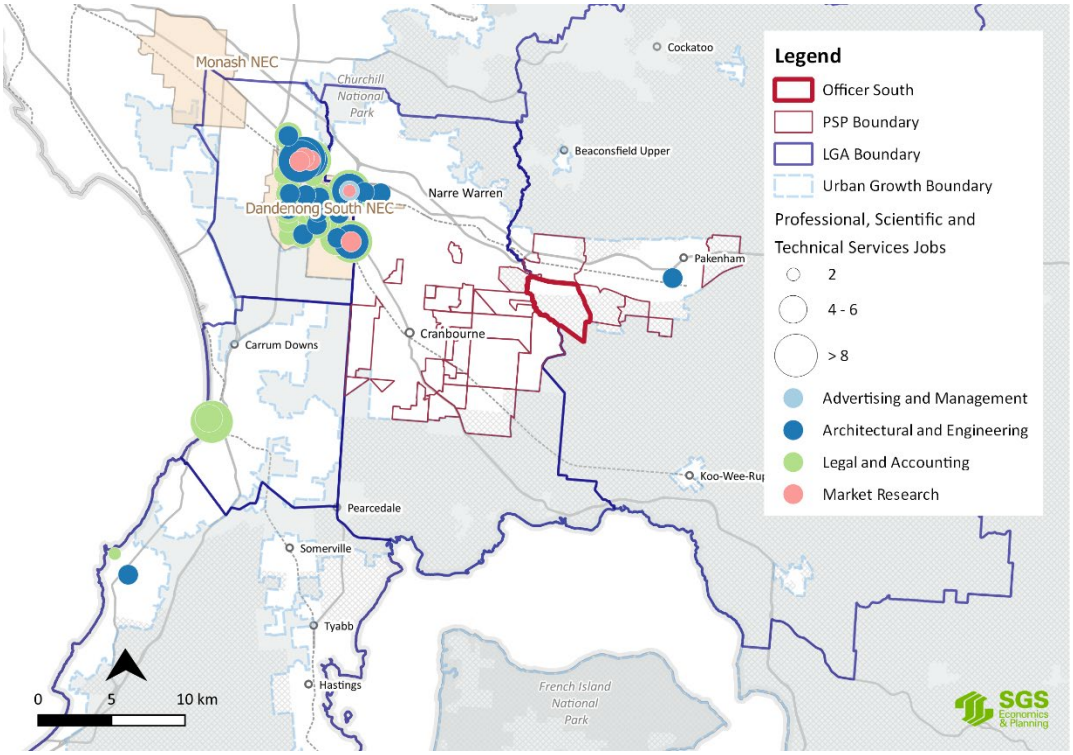


Source: 2016 Census.

FIGURE 34: EMPLOYMENT CLUSTERS ACROSS OFFICER SOUTH PSP: PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES JOBS



Source: SGS Economics and Planning, 2021.



Source: 2016 Census.

Cross industry linkages

Many of the same industry clusters mapped in Section 3.3 are highly likely to populate employment lands in the Officer/Pakenham SSIP given the other precincts in the region are at close to full capacity. However it is also worth considering the supply chain industries that those industry clusters are an input as well as an output for.

Figure 36 shows the inter-industry linkages across Melbourne's economy, whilst Figure 37 shows the linkages for the South East Region[11]. They are broadly similar, and as one would expect, many of linkages are matched to the same industries. However, there are a few notable exceptions in the industrial sectors:

- Manufactured outputs make their way into many industries, but in this region is particularly strong for providing inputs into agriculture and mining. This suggests that activities in primary industries from Cardinia all the way out to Gippsland will drive demand for manufactured products – and therefore – industrial land in the Officer/Pakenham SSIP.
- This region also manufactures products for Information technology and professional services. Presently, those 'knowledge' sectors are most prominent in Dandenong MAC and the Monash NEIC. But as this growth corridor emerges in those sectors, so too will demand for commercial land near industrial precincts such as Officer South. The land north of Lecky Road in the Officer South PSP area would be one such candidate for such professional services.
- Manufactured products also make their way into the transport and logistics industries. This includes both the rolling stock involved in transportation of goods as well as the manufactured products that are being shipped and exported.
- Wholesaling and logistics support a strong network of knowledge industries including finance, professional services and real estate. Some activities may be collocated into industrial precincts, but the rest will create demand for office floorspace in business parks and commercial precincts in centres such Officer and Pakenham.

[11] Note this region comprises the LGAs of Greater Dandenong, Casey, Cardinia and Frankston.

FIGURE 35 INTER-INDUSTRY LINKAGES – GREATER MELBOURNE

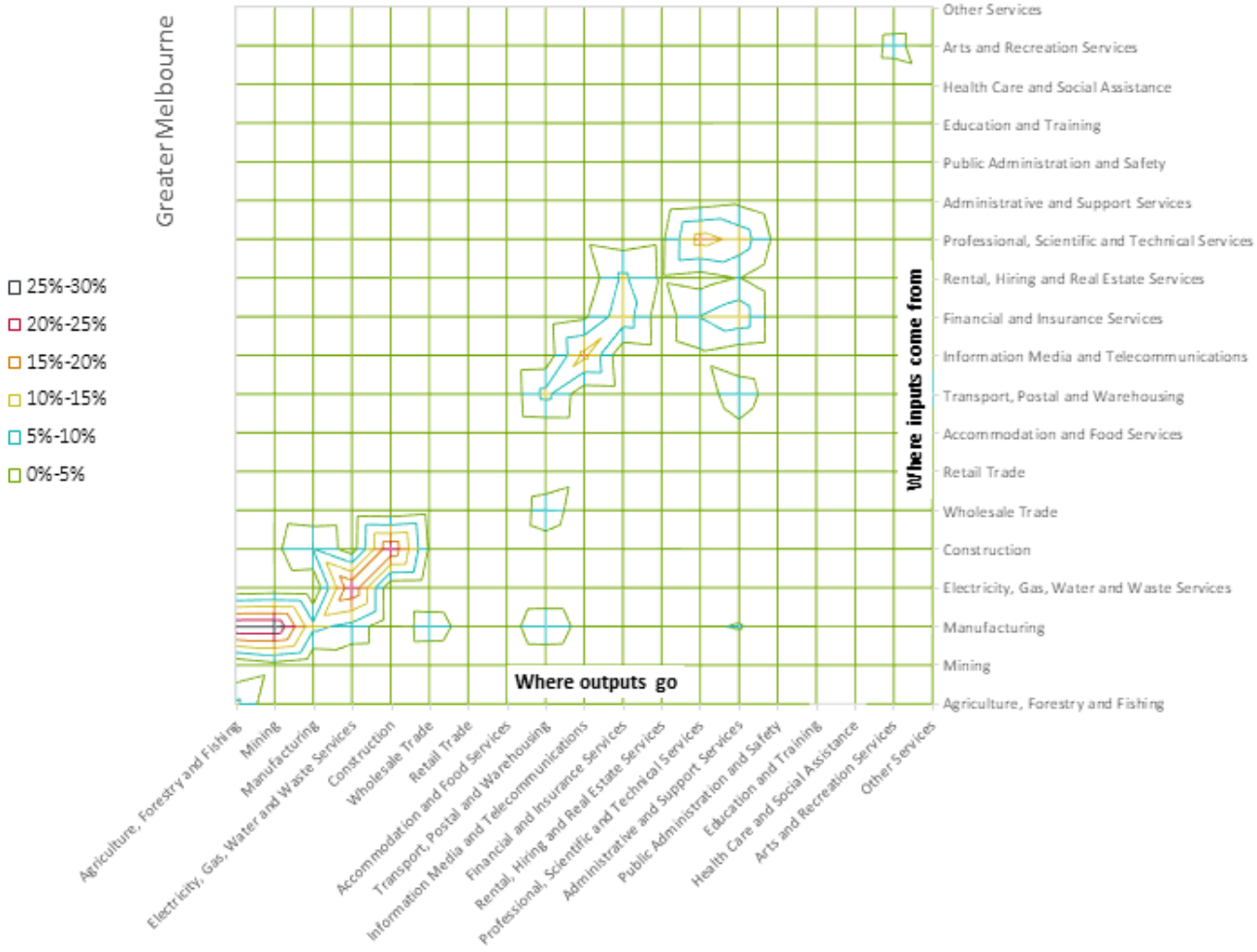
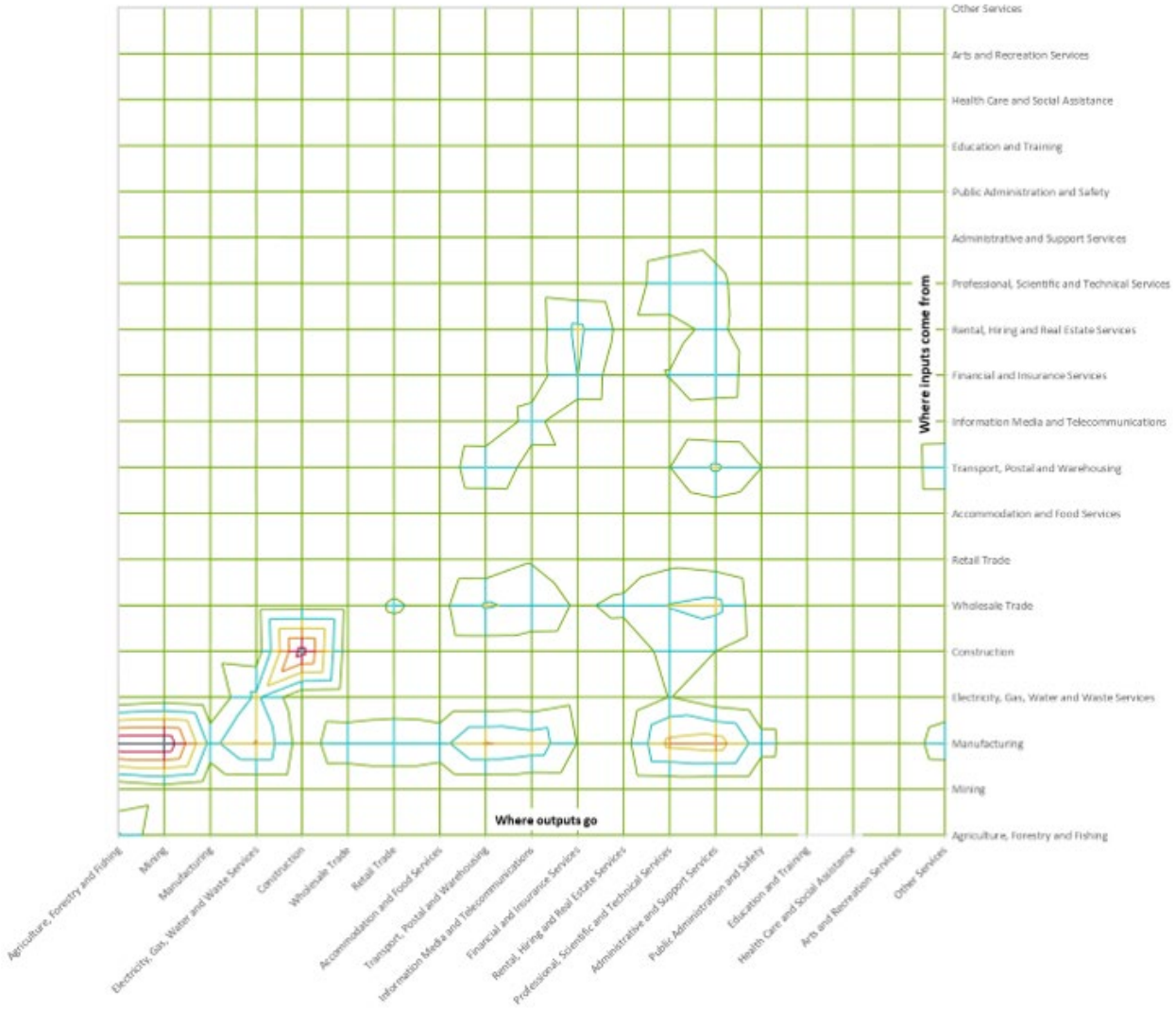


FIGURE 36 INTER-INDUSTRY LINKAGES – SOUTH-EAST REGION



Appendix B: Business Typologies

Business Typologies and Key Sectors to Target

Throughout this strategy, key sectors and industries are examined that could be expanded, targeted, or attracted into the SEEC. The data analysis often presents in four Broad Industry Categories (BIC):

4. knowledge intensive
5. population serving
6. health and education
7. traditional industry.

These four categories are based on ANZSIC categories, which the ABS use to classify jobs into groups, summarised in the table below.

TABLE 12: BUSINESSES AND SECTORS

	ANZSIC Industry	Typical land use forms	Business type	Examples
KNOWLEDGE INTENSIVE	▪ Professional, Scientific and Technical Services ▪ Financial and Insurance Services ▪ Public Administration and Safety ▪ Information Media and Telecommunications ▪ Administrative and Support Services ▪ Rental, Hiring and Real Estate Services	▪ Office ▪ Business/office parks	▪ Institutions with a local service focus, controlled locally ▪ SMEs with an interstate and international export focus ▪ SMEs with local sales focus - business to business ▪ Big businesses with local sales focus - business to business and with HQs elsewhere	▪ Local Council ▪ Specialist consultants ▪ Accountants/financial advisors ▪ Labour hire firms ▪ Banks (HQ) ▪ Software providers
HEALTH AND EDUCATION	▪ Health Care and Social Assistance ▪ Education and Training	▪ Shop/office ▪ Dispersed institutional facilities ▪ Major specialised institutional facility	▪ Institutions with a local service focus, controlled locally ▪ Institutions with a regional service focus, controlled locally	▪ Primary and secondary education ▪ Child care, Preschools ▪ Other social assistance ▪ Medical services ▪ Residential care ▪ Tertiary education and research ▪ Hospitals, pathology, imaging, allied health, other health services

POPULATION SERVING	▪ Accommodation and Food Services ▪ Retail Trade ▪ Construction ▪ Arts and Recreation Services ▪ Other Services	▪ Retail - Main street ▪ Retail - Big box ▪ Bulky goods retail ▪ Specialised facilities ▪ Urban services ▪ Short term accommodation	▪ SMEs with a local sales focus-business to customer ▪ Big businesses with local sales focus - business to customer ▪ SMEs with local sales focus – B2B or business to customer	▪ Smaller retail stores ▪ Large retail (e.g. Kmart, supermarkets) ▪ Homemaker centres, garden centres ▪ Theatres, stadiums ▪ Construction firms ▪ Hotels
TRADITIONAL INDUSTRY	▪ Transport, Postal and Warehousing ▪ Manufacturing ▪ Wholesale Trade ▪ Electricity, Gas, Water and Waste Services ▪ Mining ▪ Agriculture, Forestry and Fishing	▪ Local light industrial and urban support ▪ Manufacturing Light ▪ Freight and logistics ▪ Urban services	▪ New businesses ▪ Big businesses with interregional, interstate, and international sales focus – HQs elsewhere ▪ SMEs with an inter-regional export focus ▪ Big businesses with interregional, interstate, and international sales focus – HQs elsewhere ▪ SMEs with an interstate and international export focus ▪ SMEs with an inter-regional export focus	▪ Start-ups ▪ Off-shoots from existing businesses ▪ Exporting manufacturers ▪ Logistics firms

Source: SGS Economics and Planning, 2020.

Appendix C: Employment forecasting scenarios approach

Economic Forecasting Approach Overview

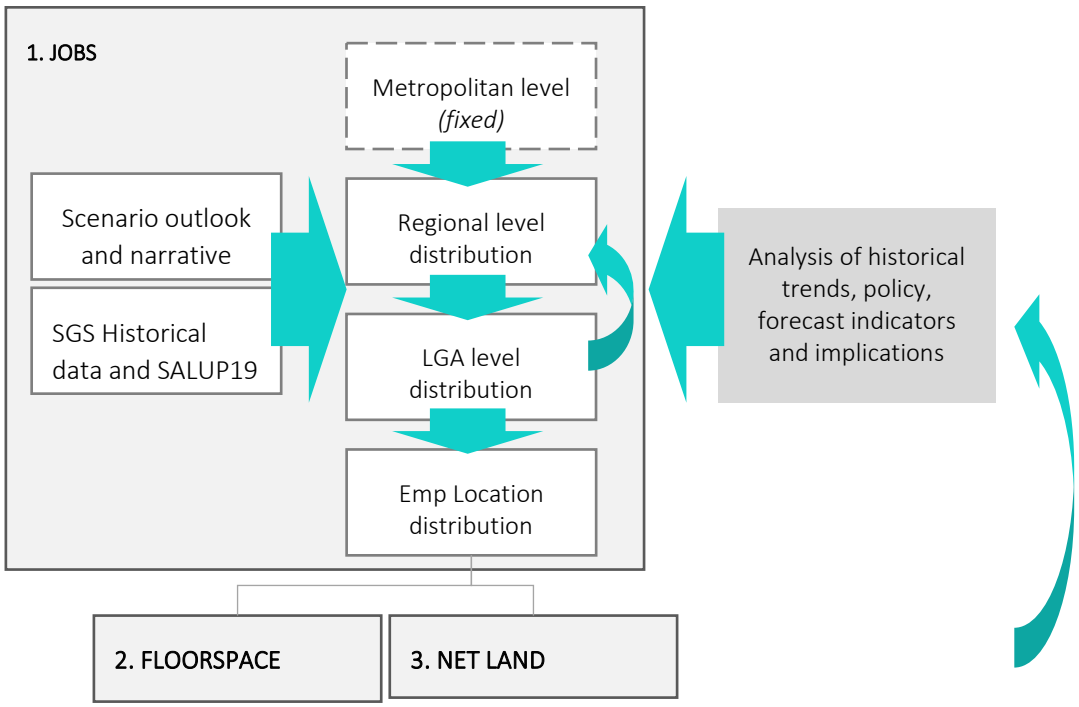
Longer-term forecasts were developed to understand employment and land area requirements in DM and CFS. Forecasts over several decades are useful, but should be viewed as a range to be considered due to economic uncertainty and dynamism.

The projections used in this project assume that the long-term economic outlook is realised in line with the visions laid out in the SEEC. This means that past trends will shift and the region will capture a greater proportion of total employment growth than experienced historically.

The diagram below illustrates the approach taken to refine forecasts and land requirements. Job forecast by four broad industries are created for the region, LGAs and employment locations. Jobs are then translated into estimates of floorspace and net land.

A review and feedback loop process is then used to refine assumptions to ensure forecasts align with the economic outlook and vision for the SEEC and the local area.

FIGURE 37: SCENARIO REDISTRIBUTION PROCESS



Source: SGS Economics and Planning, 2022

Spatial Framework

A spatial framework for the scenario process was established using the SGS Small Area Model zones (SAM zones). There are 20,000 SAM zones across Victoria. SAM zones are based off ABS Statistical Area 1s[12], further disaggregation to account for locations of potential future growth.

The spatial framework for the model has four levels:

- Greater Melbourne
- Plan Melbourne Regions (Inner, Inner South East, Wester, Northern, Eastern and Southern)
- Southern LGAs (Cardinia, Casey, Greater Dandenong, Frankston, Mornington Peninsula and Kingston)
- 35 employment locations across the three SEEC LGAs defined using SAM zones. These locations included the Metro and Major Activity Centres, SSIP, RSIP and future e-PSPs locations (including DM and CFS). A 'balance' location for each LGA was also defined to capture smaller local centres, and dispersed employment and economic activity.

Employment Forecast

Long term employment forecasts for the SEEC and e-PSPs were developed as follows:

Historical employment trends

SGS has assembled a historical employment dataset by (19) ANZSIC industry categories at the SAM zone level for 2001 to 2016 for all of Victoria. The basis of this dataset is ABS Census – Place of Work data by ANZSIC industry and ABS Destination Zones from the 2001, 2006, 2011 and 2016 Census. SGS has spatially aligned each Census period to the SAM Zones and made adjustments to address undercount[13] in the raw Census data due to people incorrectly filling out Census forms or misclassifications. This has been done by reallocating various undefined categories and benchmarking back to the ABS Labour Force Survey[14]which is the most accurate estimate of total employment for Victoria. The undercount in ABS Census data various by industry and location and Census period but in 2016 it was about 20 percent for place of work jobs.

This data is then aggregated to each level and location of the spatial framework and into four broad industry categories (BICs) as defined in Table 12 below.

Initial growth distribution

Long term Greater Melbourne, Plan Melbourne regions and SEEC LGA forecasts are initially defined based on SGS small area land use projection model. These macro employment projections align with 2019 Victoria in Future population demographics, and associated workforce capacity, and broader macro-economic employment trends consistent with those outlined in the economic outlook section of this context report. An initial employment location estimate is based on historical growth shares.

[12] Statistical Area 1 is part of the Australian Bureau of Statistics, Australian Statistical Geography Standard (ASGS), Cat 1270.0.55.001.
[13] Details associated with undercount in the ABS Census is discussed in ABS Cat 2940.0
[14] ABS Labour Force Survey (Cat 6291.0.55.003)

Process to adjust initial growth distribution

The initial employment distribution is then reviewed and refined at each spatial level to reflect the economic outlook and SEEC vision. This is done by adjusting employment growth shares by the four BICs at each spatial level and for each 10 year period to 2060.

Adjustments are made to increase and redistribute employment growth into the SEEC and each employment location with consideration of economic trends, drivers, constraints, investment, and policy. These considerations vary by BIC and location. For example, Traditional Industrial employment growth is largely allocated to existing and future industrial precincts with consideration of capacity, relative attributes, and infrastructure investment. Population Serving employment is allocated to existing and future centres, employment locations and to 'balance' consistent with existing trends and local level requirements.

This is a top down approach, which does not consider detailed precinct or site constraints, feasibility, design, or market factors. However, the holistic framework (where all jobs and locations are accounted for) ensures the scenario always remains within a realistic range (i.e. growth for any one location cannot be divorced of the surrounding economy context and broader economic trends).

Adjustments are further validated through review of available policy targets/estimates (including approved PSP employment estimates and MICLUP), growth levels and rates in comparison to historical trends, growth levels and rates compared to other locations, and density and industry composition.

TABLE 13: ANZSIC INDUSTRY TO BROAD INDUSTRY CATEGORY CONCORDANCE

ANZSIC 1d code	ANZSIC Industry (1 digit) names	BIC code	SGS Broad Industry Category
A	Agriculture, Forestry and Fishing	TI	Traditional Industrial
B	Mining	TI	Traditional Industrial
C	Manufacturing	TI	Traditional Industrial
D	Electricity, Gas, Water and Waste Services	TI	Traditional Industrial
E	Construction	PS	Population services
F	Wholesale Trade	TI	Traditional Industrial
G	Retail Trade	PS	Population services
H	Accommodation and Food Services	PS	Population services
I	Transport, Postal and Warehousing	TI	Traditional Industrial
J	Information Media and Telecommunications	KE	Knowledge services
K	Financial and Insurance Services	KE	Knowledge services
L	Rental, Hiring and Real Estate Services	KE	Knowledge services
M	Professional, Scientific and Technical Services	KE	Knowledge services
N	Administrative and Support Services	KE	Knowledge services
O	Public Administration and Safety	KE	Knowledge services
P	Education and Training	HE	Health and education
Q	Health Care and Social Assistance	HE	Health and education
R	Arts and Recreation Services	PS	Population services
S	Other Services	PS	Population services

Floorspace Requirements

Employment forecasts are then translated into floorspace implications as follows:

Employment by Industry is converted to Broad Land Use Categories

Employment forecasts by the four BICs is expanded into the full (19) ANZSIC industries based on baseline shares from the SGS small area projection model. This employment by industry is then converted into SGS Broad Land Use Categories (BLUC) using a conversion matrix.

SGS BLUCs better align with actual land use forms rather than industrial sectors. For example, the 'retail industry' could be located in a shopping mall, strip shopping centre, bulky goods centre or a business park, as part of head office type functions. Similar splits occur for all industries. The SGS BLUC are presented in the table below.

The BLUC can also be approximately aligned to the four BIC codes discussed earlier, while this is not a direct concordance given the industry/land use points raised above and reflected in the matrix.

TABLE 14: SGS BROAD LAND USE CATEGORIES

BLUC code	Broad Land Use Category	Description	BIC code*	Broad Industry Category*
O	Office	Office buildings	KE	Knowledge services
D	Local services	Primary and secondary education, lower level health, social and community services, trades construction, other 'nomads'	HE	Health and education
S	Institutional anchors	Tertiary level education, health, and community services	HE	Health and education
RB	Retail	Large shopping complexes and main street retail	PS	Population services
RBG	Bulky goods retail	Typically, large, one-story buildings surrounded by car-parking,	PS	Population services
LL	Light industrial	Car service and repair; joinery, construction and building supplies; and domestic storage, small scale production with lower noise and emission levels than heavy manufacturing	TI	Traditional Industrial
FL	Freight and logistics	Warehousing and distribution activities. Includes buildings with a number of docking facilities; 'hard stand' areas with trucks or goods awaiting distribution; and large storage facilities	TI	Traditional Industrial
LSI	Local service Industrial	Similar to light industrial, but smaller-scale, typically with street frontage which advertises the businesses. Wide range of businesses that service other business (components, maintenance and support) and Subregional populations. Typically does not interfere with the amenity of the neighbourhood via pollution.	TI	Traditional Industrial

Source: SGS Economics and Planning, 2022

* Typical BIC code, noting exact alignment should consider the full conversion matrix in Table 14.

A base ANZSIC to BLUC conversion matrix is defined based on extensive land use audits completed by SGS across both Melbourne and Sydney over the last 10 years. This is then adjusted to reflect the industry to land use outcomes that are consistent with the economic outlook and locational characteristics of the precinct.

The following presents the default conversion matrix used for the SEEC region and baseline forecasts.

TABLE 15: ANZSIC INDUSTRY TO BLUC CONVERSION MATRIX

ANZSIC Industry		Local services	Freight and logistics	Light industrial	Heavy industrial	Office	Retail	Bulky goods retail	Institutional anchors	Total
A	Agriculture	0%	30%	30%	25%	10%	0%	5%	0%	100%
B	Mining	0%	30%	30%	30%	10%	0%	0%	0%	100%
C	Manufacturing	0%	5%	30%	45%	20%	0%	0%	0%	100%
D	Utilities	0%	5%	5%	85%	5%	0%	0%	0%	100%
E	Construction	10%	5%	50%	30%	5%	0%	0%	0%	100%
F	Wholesale	0%	90%	3%	2%	0%	0%	5%	0%	100%
G	Retail Trade	0%	5%	2%	0%	5%	70%	18%	0%	100%
H	Hosp/Accom	20%	0%	0%	0%	5%	65%	10%	0%	100%
I	Logistics	0%	95%	3%	0%	2%	0%	0%	0%	100%
J	Telco/Media	10%	0%	10%	30%	40%	5%	0%	5%	100%
K	Finance	2%	2%	2%	2%	65%	25%	0%	2%	100%
L	Real Estate	5%	0%	0%	0%	65%	30%	0%	0%	100%
M	Professional	0%	2%	2%	1%	85%	5%	0%	5%	100%
N	Admin Services	5%	2%	5%	5%	55%	2%	2%	25%	100%
O	Public Admin	30%	0%	0%	0%	40%	0%	0%	30%	100%
P	Education	50%	0%	0%	0%	10%	0%	0%	40%	100%
Q	Health	35%	0%	10%	0%	10%	5%	0%	40%	100%
R	Arts/Rec	30%	0%	25%	0%	5%	10%	0%	30%	100%
S	Other Services	5%	10%	45%	0%	15%	25%	0%	0%	100%

Source: SGS Economics and Planning, 2020

The following presents the conversion matrix used for the preferred scenario for DM and CFS. The conversion matrix has considered:

- No heavy industry would be situated in the study area as sufficient capacity exists in surrounding SSIP areas into the long term. Heavy industry requires large lots, access to resources, and be located further away from residential areas, as such, the employment lands of the two precincts are not presented as desirable for heavy industry.
- Freight, logistics, and light industry are likely to play a significant role in CFS. As other industrial land matures and reaches capacity, businesses will desire cheap and available land for lighter activity, for example warehousing and distribution purposes or small-scale manufacturing.
- A large proportion of employment land is situated near residential areas, which is a primary constraint. And so, local service industrial will be a heavy component in the RSIP of Casey Fields South. These can include automobile repairers, suppliers and equipment hiring services that have limited impacts on the amenity of a residential precinct.
- A small number of retail jobs due to the size of the proposed activity centres.
- Precincts will not likely incorporate significant commercial/office activity. Office land-uses tend to have a co-function with industrial activity. E.g. office as a secondary function for businesses operating in CFS.

TABLE 16: ANZSIC INDUSTRY TO BLUC CONVERSION MATRIX

	BLUC	Local services	Freight and logistics	Light industrial	Local service industrial	Office	Retail	Bulky goods retail	Institutional anchors	Total
	ANZSIC Industry									
A	Agriculture	0%	50%	50%	0%	0%	0%	0%	0%	100%
B	Mining	0%	100%	0%	0%	0%	0%	0%	0%	100%
C	Manufacturing	0%	30%	30%	30%	0%	10%	0%	0%	100%
D	Utilities	0%	20%	20%	50%	0%	10%	0%	0%	100%
E	Construction	0%	25%	25%	50%	0%	0%	0%	0%	100%
F	Wholesale	0%	40%	5%	40%	0%	5%	0%	10%	100%
G	Retail Trade	0%	20%	5%	20%	0%	0%	15%	40%	100%
H	Hosp/Accom	0%	0%	30%	0%	0%	0%	30%	40%	100%
I	Logistics	0%	45%	5%	50%	0%	0%	0%	0%	100%
J	Telco/Media	0%	10%	40%	45%	5%	5%	0%	0%	100%
K	Finance	0%	0%	0%	40%	56%	50%	10%	0%	100%

L	Real Estate	0%	50%	0%	40%	0%	0%	10%	0%	100%
M	Professional	0%	0%	20%	0%	80%	80%	0%	0%	100%
N	Admin Services	0%	30%	0%	30%	50%	40%	0%	0%	100%
O	Public Admin	0%	0%	50%	0%	40%	50%	0%	0%	100%
P	Education	25%	15%	10%	35%	5%	10%	0%	0%	100%
Q	Health	20%	20%	20%	30%	5%	10%	0%	0%	100%
R	Arts/Rec	0%	30%	0%	40%	0%	10%	10%	10%	100%
S	Other Services	0%	0%	0%	50%	0%	0%	50%	0%	100%

Source: SGS Economics and Planning, 2022

Once employment is converted into BLUC it is converted into an estimate of net floorspace requirements based on standard job to floorspace ratios. Job to floorspace ratios are based on extensive land use audits completed by SGS across both Melbourne and Sydney over the last 10 years. They have also been reviewed against job to floorspace ratios included in MICLUP and in the City of Melbourne Census of Land Use and Employment – adjusting for the local context associated with future e-PSP locations.

A mid-point ratio has been used for the core scenario. However, the follow table also includes a range for each BLUC. This highlights the high variability for some land use types which should be further considered as actual development occurs and more detailed local precinct planning and research is completed.

TABLE 17: BLUC JOB TO NET FLOORSPACE RATIOS (SQUARE METRES)

BLC Code	BLC Name	Low	Low-Mid	Medium	Mid-High	High
D	Local services	75	63	50	48	45
FL	Freight and logistics	250	225	200	150	100
LL	Light industrial	150	125	100	75	50
LSI	Local service industrial	250	225	200	150	100
O	Office	30	28	25	23	20
RB	Retail	40	35	30	28	25
RBG	Bulky goods retail	70	65	60	55	50
S	Institutional anchors	60	55	50	35	20

Source: SGS Economics and Planning, 2022

For comparison and context, the following presents the MICLUP and existing City of Melbourne CLUE ratios

TABLE 18: MICLUP AND CLUE JOB TO FLOORSPACE RATIOS

	ANZSIC Industry	Job to floorspace
G	Retail Trade	30
H	Accommodation and Food Services	26
J	Information Media and Telecommunications	24
K	Financial and Insurance Services	19
L	Rental, Hiring and Real Estate Services	34
M	Professional, Scientific and Technical Services	22
N	Administrative and Support Services	25
O	Public Administration and Safety	19
S	Other Services	43

Source: MICLUP (2020)

CLUE Industries	Job to floorspace
Admin and Support Services	22
Business Services	19
Finance and Insurance	16
Information Media and Telecommunications	26
Other Services	243
Public Administration and Safety	25
Real Estate Services	26
Rental and Hiring Services	95
Education and Training	56
Health Care and Social Assistance	22
Retail Trade	39
Food and Beverage Services	19
Arts and Recreation Services	301
Accommodation	145
Agriculture and Mining	32
Manufacturing	64
Electricity, Gas, Water and Waste Services	20
Construction	32
Wholesale Trade	39
Transport, Postal and Storage	271
All employment	**57**

Source: 2015 City of Melbourne CLUE

Net Land Area Requirements

Employment forecasts are also converted to net land area requirements based on floor area ratios (FAR). A FAR considers how floorspace relates to land requirements and can reflect a range of actual built forms. For example:

- A FAR of 0.8 could represents a single-story building covering 80 percent of the land area, or a two story building covering 40 percent of the land area.
- A FAR of 2.0 could represent a two-story building covering the entire land area, or an eight story building covering 25 percent of the land area.

The FAR ratios have been estimated based on review of existing ratios for comparable precincts, such as the Southern SSIP and other RSIPs across Melbourne. A mid-point ratio has been used for the core scenario. However, the follow table also includes a range for each BLUC. This highlights the high variability for some land use types which should be further considered as actual development occurs and more detailed local precinct planning and research is completed.

TABLE 19: BLUC FLOOR AREA RATIOS

BLC Code	BLC Name	Low	Low-mid	Medium	Mid-High	High
D	Local services	0.3	0.4	0.4	0.6	0.6
FL	Freight and logistics	0.3	0.2	0.2	0.3	0.3
LL	Light industrial	0.3	0.3	0.3	0.5	0.5
LSI	Local service industrial	0.3	0.2	0.2	0.3	0.3
O	Office	0.4	0.6	0.6	1.0	1.0
RB	Retail	0.4	0.5	0.5	1.0	1.0
RBG	Bulky goods retail	0.2	0.3	0.3	0.5	0.5
S	Institutional anchors	0.1	0.3	0.3	0.5	0.5

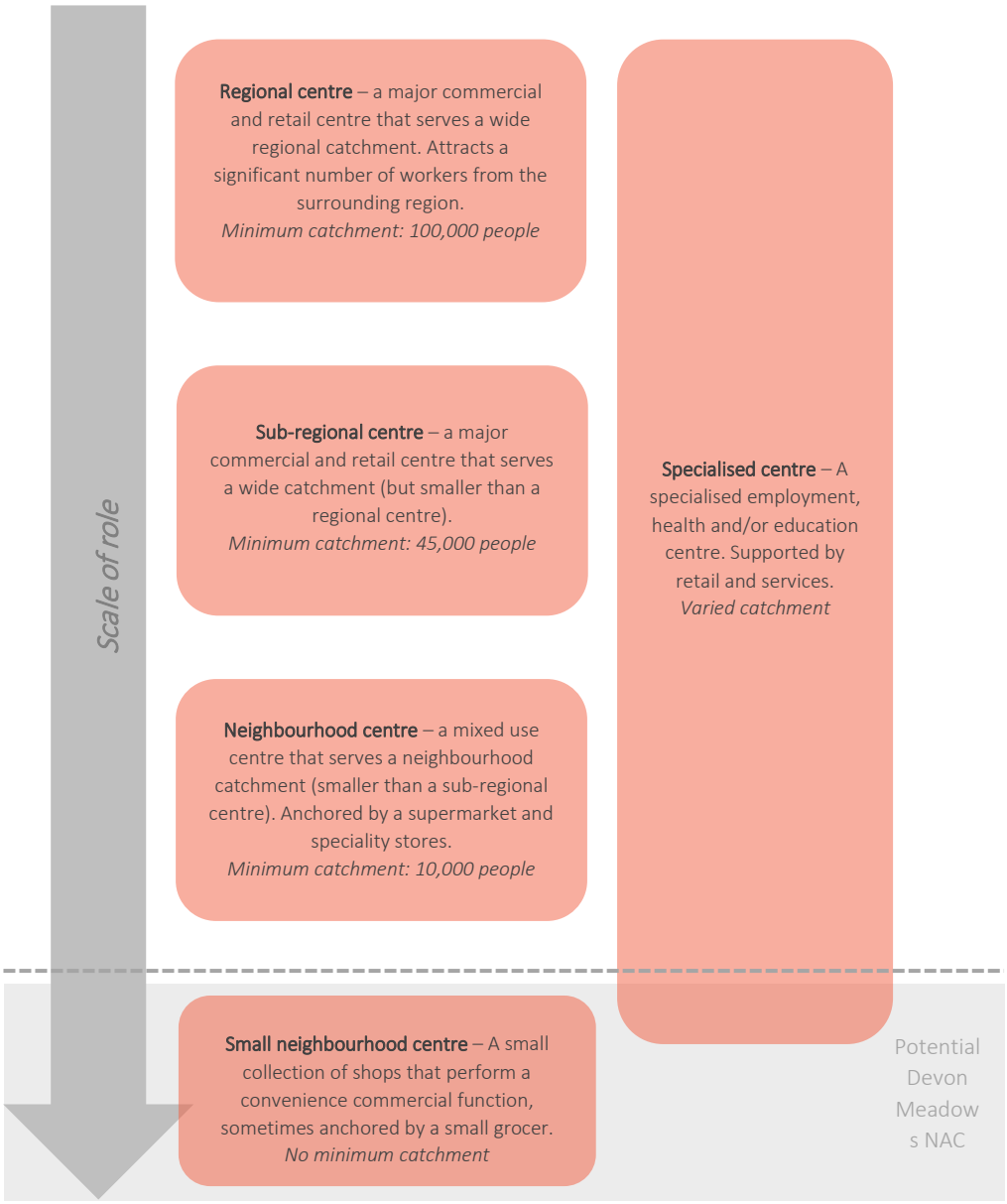
Source: SGS Economics and Planning, 2020

Appendix C: Activity Centre Considerations

Economic Function and Role

Given its likely status as a Neighbourhood Centre in the City of Casey's retail hierarchy, Figure 39 below charts its position within the broader activity centre network.

FIGURE 38: POSITION OF SMALL ACTIVITY CENTRES IN THE REGIONAL ACTIVITY CENTRE HIERARCHY



Source: SGS Economics and Planning (2022)

Owing to its likely status as a Small Neighbourhood Centre, the potential Devon Meadows NAC will support the realisation of the PSP Guidelines 2.0, Plan Melbourne's '20-minute neighbourhood' and the development of sustainable communities in four key ways. These are:

Accessibility: This type of neighbourhood centre ensures that residents are able to access retail and services to cater to their day-to-day needs within walking distance. This is particularly important for those who are mobility impaired or are constrained in other ways, including the elderly, people with a disability, people in carer roles and people who do not own, or cannot drive, a car.

Physical activity: Ensuring all residents in this neighbourhood have access to an activity centre in close proximity encourages walking and cycling, which can have significant health benefits.

Land use mix: This centre will also an opportunity to provide for land use mix in an otherwise solely residential part of the ePSP. This can introduce greater variation in activity, particularly across the day and week, as well as variation in built form and building types along with a focal point for the local urban fabric. This not only promotes a greater mix of people on the street but creates a more vibrant neighbourhood, facilitating more passive interaction and social encounters, and strengthening neighbourhood connections.

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