ESSENTIAL ECONOMICS

Casey Corridor Growth Area

Economic Development and Employment Analysis

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By

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EXECUTIVE SUMMARY

1) Background

Introduction

The Growth Areas Authority (GAA) has commissioned this economic development and employment analysis to assist in the preparation of Precinct Structure Plans (PSPs) for four localities in the City of Casey, namely:

- C21 Business Park (PSP No. 11)
- Clyde North (PSP No. 13)
- Cranbourne North Stage 2 (PSP No. 16)
- Botanic Ridge (PSP No. 10).

The Study is also to provide direction on the delivery of local employment within each PSP, including the identification of ways of increasing local employment opportunities, especially in white collar employment. These recommendations are required in order to improve the levels of employment self-sufficiency and employment self-containment.

Employment self-sufficiency

Employment self-sufficiency is the number of jobs in an area divided by the total number of people living in the area that are employed in the labour force (ie making sure there are sufficient numbers of jobs in the area).

Employment self-containment

Employment self-containment is the number of people who live and work in the defined local area divided by the total number of people living in that area that are engaged in the workforce (ie making sure that the jobs in the area are suited to the people living locally).

The directions presented in this report are provided in the context of benchmarks, or targets, that have been prepared by GAA in relation to local employment generation, occupational mix, and retail planning.

GAA targets

Employment outcomes are assessed against the following GAA targets:

- 1 new job to be created at the regional level (defined as an area of 10km x 10km) for every new household
- An aspirational target of 100% self-sufficiency at the regional level
- A target of at least 70% of jobs to be located within a surrounding 'sub-region' (defined as 5km x 5km)
- A target of 30% of new jobs to be located within the surrounding 'neighbourhood area' (defined as 1.6km x 1.6km)

- A target of 50% of new growth area residents taking up jobs within the surrounding 'region' (approximately within 10km from place of residence).
- Attract a more diverse working population into growth areas, so that the ratio of white-collar to blue-collar employment approaches the metropolitan average of approximately 75:25
- Encourage a progressive alignment between the growth areas and metropolitan Melbourne as a whole with respect to a range of employment indicators such as the proportion of the employed resident labour force in managerial and professional positions, the proportion of the employed resident labour force with higher education qualifications, and so on.

In undertaking the analysis, reference is also made to:

- The *GAA Local Employment Model*, which has been developed by the GAA as a basis for planning the delivery of jobs to serve the employment needs of the local population; and
- The *GAA Retail Planning Model*, which has been developed by the GAA to assist in planning for an appropriate provision of accessible retail facilities serving local communities in the growth areas.

Scope of analysis

The economic analysis has been conducted at the *regional level*, using data relating to the Casey-Cardinia corridor as a whole (consisting of the municipalities of Casey (C) and Cardinia (S)). *Local level analysis* has also been undertaken, using data for the Casey (C) – Cranbourne and Casey (C) – Berwick statistical local areas (SLAs).

In terms of timing, the analysis has been conducted for the period 2009 to 2031.

Urban Growth Boundary

The analysis adopts a development outlook to 2031. During this period it is anticipated that urban development will occur both inside the current Urban Growth Boundary (UGB) and on land contained within the proposed draft UGB. The draft UGB was released on 17th June 2009, and proposed to extend the UGB in the Casey-Cardinia corridor to include approximately an additional 3,790 hectares of land for urban development (including some areas of land where development is severely constrained due to environmental or other factors). The extended UGB would generate opportunities for further population growth, as well as opportunities to plan for new employment precincts.

The projected development outlook is based on Victoria in Future 2008 to 2026, with the data extrapolated by Essential Economics to 2031. Development of land outside the current UGB is subject to approval of an amendment to the UGB which is proposed to occur later in 2009.

Relevant development projections are as follows:

- *Victoria in Future 2008* (VIF2008) anticipates that Casey will grow by approximately 52,120 dwellings and Cardinia by 33,430 dwellings in the period 2008 to 2026. This is a net increase of 85,560 dwellings in the growth corridor as a whole.
- The *Urban Development Program Annual Report 2008* estimates the broadhectare lot capacity to be approximately 54,450 lots, consisting of:
  - 33,210 lots in Casey (on land where a Precinct Structure Plan has been approved, and on land where a PSP is required)

  - 21,240 lots in Cardinia (including land where a PSP is approved and land where a PSP is required)

- Based on these figures, Casey and Cardinia have a combined 10-11 years of broad hectare residential land supply within the existing UGB.

In order to absorb the dwelling growth anticipated by VIF2008, it is anticipated that approximately 31,110 dwellings are expected to be developed outside the current UGB by 2026 (ie the anticipated demand for 85,560 dwellings less the estimated supply of 54,450 lots within the UGB).

Some development will occur in the established areas in the Casey-Cardinia corridor. The Urban Development Program 2008 identifies potential for approximately 1,690 dwellings to be developed in the established areas of the corridor, including approximately 890 dwellings in Casey). Over time, additional redevelopment sites are expected to be identified as further strategic planning work is undertaken.

2) Employment Performance in the Corridor

Population

Significant population growth is occurring in the Casey-Cardinia growth corridor, with the residential population expected to increase from 320,820 persons in 2009 to reach 562,800 persons by 2031. This represents a net increase of +241,980 persons.

These population projections are based on figures contained in *Victoria In Future 2008*, which is produced by the Department of Planning and Community Development (DPCD). The VIF2008 data is available for the period until 2026, and indicative projections have been prepared by Essential Economics for the period 2026-2031.

VIF2008 assumes that the current UGB will be adjusted to provide additional land for urban development. This is consistent with *Melbourne @ 5 Million* and *Delivering Melbourne's Newest Sustainable Communities*.

Employment performance

The Casey-Cardinia corridor performs poorly in terms of the GAA targets relating to employment self-sufficiency and employment self-containment:

- The analysis shows that *employment self-sufficiency* across the corridor was approximately 44% in 2006 (56,260 jobs for an employed labour force of 127,870 persons), and this compares with the GAA target of 100% self-sufficiency at the regional level.

- The level of *employment self-containment* is estimated at 34% in 2006 (with 40,500 jobs in the corridor held by local residents of Casey and Cardinia), and this compares with the GAA target of 50% self-sufficiency at the regional level.

Employment requirements

Casey-Cardinia currently has approximately 65,120 jobs in 2009, assuming that travel to work patterns have remained broadly similar since 2006. An additional 48,860 jobs would be created over the period 2009 to 2031 if the current employment patterns continue.

If the GAA employment target for employment self-sufficiency was to have been met, Casey-Cardinia would currently have a total of 147,910 jobs. Thus, there is a current employment deficit (in 2009) of 82,790 jobs when compared against GAA targets.

Over the period 2009 to 2031 there is projected demand for an additional 111,140 jobs if the GAA target is to be met in 2031.

Overall, a *total of 193,390 jobs will need to be created over the period 2009 to 2031* if the GAA target relating to employment self-sufficiency is to be met. This consists of a current deficit of 82,790 jobs (in 2009), and a need to provide jobs for the increase in the employed labour force of 111,140 persons (over the period until 2031).

Moreover, *an additional 89,240 jobs in the corridor will need to be held by local residents* over the period 2009 to 2031 in order to meet the GAA target relating to employment self-containment. This figure consists of a current (2009) deficit of 33,670 jobs that are held by local residents, plus the projected requirement for an additional 55,570 jobs held by local residents over the period 2009 to 2031.

With a current (2009) deficit of 66,600 white-collar jobs when compared against the GAA target, and a projected need for an additional 83,360 white-collar jobs over the period 2009 to 2031, the total *requirement is for 149,960 new white-collar jobs* in order to meet the GAA target for 2031.

Clearly, the magnitude of the challenge in providing new jobs to serve the needs of the Casey-Cardinia corridor is significant. A large number of new jobs need to be created within the corridor, and these jobs need to reflect the employment skills of the local population if targets relating to employment self-sufficiency and employment self-containment are to be met.

Importantly, if the GAA targets are <u>not achieved</u>, the implication is that employed residents in Casey and Cardinia will continue to travel outside the corridor to seek work, with subsequent economic costs in the form of vehicle emissions, travel time costs, infrastructure requirements and loss of leisure time.

The extension to the UGB provides an important opportunity to address the existing and projected deficit in local employment opportunities. However, the extended urban area will generate new employment demands that will also need to be met as the area develops.

3) Market Demand Factors

An assessment of market indicators shows that the corridor is currently only of minor importance as a location for industrial and commercial investment and development. In the industrial market, land consumption is just 16ha per annum, and there is sufficient land at this rate to provide over 30 years supply. However, it is anticipated that industrial activity will increase in the region as transport and other infrastructure constraints in parts of the metropolitan area make local development more attractive. Industrial development will have to increase markedly if the GAA targets for local employment creation are to be satisfied.

The situation is similar in the commercial land market, where the corridor has very little in the way of dedicated office development, with most office employment activities occurring as part of integrated warehouse-office or semi-industrial developments. This situation is likely to remain the same, at least in the short-term, with the main opportunity for major new commercial development likely to involve public sector investment in Central Dandenong as part of the revitalisation strategy for that centre.

This situation highlights the need for intervention in the form of strategies which would serve to increase the level of local commercial office development, both within the PSP areas and in the wider region, so that the GAA employment targets are to be met.

4) Future Employment Opportunities

The Casey-Cardinia area and environs (which include the southern part of Dandenong) can accommodate an estimated 109,000 to 169,000 additional jobs, including those that can be accommodated on new employment land identified in these areas, and those in activity centres and in the form of home-based business. Within the Corridor the employment opportunities are identified as approximately 79,000 to 125,000 additional jobs.

The projected employment opportunities can be compared with an estimated requirement for approximately 193,390 jobs to be created over the period 2009 to 2031 in order to account for the current employment deficit in 2009 and the employment generation requirements over the period 2009-2031, and to meet the GAA target for employment self-sufficiency.

If the GAA targets are to be met, 149,960 white collar jobs will need to be created within the corridor by 2031 in order to address the current deficit and serve the employment needs of new residents.

Overall, there is considerable opportunity for employment generation on the areas of land that have already been identified for employment purposes. However, these areas of land are insufficient to accommodate the scale of employment demand implicit in the GAA employment targets. Importantly, the identified employment precincts will also accommodate jobs that will be held by residents from other municipalities who travel into the Casey-Cardinia region, while some of the major employment opportunities will be located outside the corridor.

In summary, new opportunities for employment generation need to be identified in locations that can assist in achieving the GAA targets in relation to employment self-sufficiency and employment self-containment.

In this regard, the GAA has identified the opportunity for a large new employment precinct in the expanded UGB in the form of an east-west employment corridor on the south side of Thompsons Road. The corridor would extend generally from Narre Warren – Cranbourne Road in the west, to the eastern edge of the extended UGB (in the environs of Cardinia Creek). Southwards, the precinct would extend as far as the transmission line easement. The total land area is estimated at approximately 930 hectares, with development opportunities to be explored through the Growth Area Framework planning process. The precinct has potential to accommodate 20,000-30,000 jobs, depending upon the employment mix.

A further opportunity exists to create another new employment corridor along the South Gippsland Highway in Cranbourne and Devon Meadows, as an extension of the Ballarto Road Employment Area identified in the Cranbourne East PSP. Depending upon its size, this precinct could accommodate up to approximately 5,000 new jobs. Further analysis of this area is required to assess the delivery of biodiversity outcomes (refer *Delivering Melbourne's Newest Sustainable Communities*, p71 and p76).

5) Issues and Implications

The regional analysis highlights the following main issues:

1 Current indicators of employment self-sufficiency and self-containment for the Casey-Cardinia corridor are well below the GAA targets.

2 Having regard for the strong population growth anticipated for the region, and the existing employment 'deficit', a very significant increase in the number of jobs within the corridor will need to be achieved in order to meet the GAA targets.

3 There are substantial areas of land within the corridor and in the immediate environs that have been planned for employment uses; however, these areas of land are insufficient to accommodate the scale of job growth required to meet the GAA targets.

4 It is important that the identified employment opportunities in the corridor are secured, and that new areas are also identified to support localised employment demands and to improve local employment self-sufficiency and self-containment. In this context, additional areas of employment land will need to be identified in the Growth Area Framework planning process to support the proposed changes to the UGB.

5 In relation to the identified PSP areas, one of the implications is the need to identify land for employment purposes that is well-located with respect to future residential development precincts and new transport infrastructure. In this regard, the location of the draft UGB is important, as is the designation of Thompsons Road as a major east-west transport route. Both of these factors highlight the opportunity of providing a significant new employment precinct on the southern side of Thompsons Road if this land is brought into the urban growth area due to the proposed extension to the UGB. Another opportunity is evident in relation to the introduction of a new employment precinct on the South Gippsland Highway.

6 As described above, significant opportunities for employment generation are evident with the draft changes to the UGB. These opportunities include the creation of a new employment area on Thompsons Road; the creation of a new employment area on the South Gippsland Highway; and the identification of a new Major Activity Centre to serve the extended urban area. Together, these opportunities have potential to generate in the order of 40,000 jobs, or possibly more.

7 The analysis highlights the need to encourage home-based employment to maximise local employment levels, where possible. Strategies may relate to the planning of residential estates in order to include some dwellings which are specifically designed to cater for home offices and/or storage areas for contractors etc.

8 The analysis shows that there is insufficient scope to accommodate the number of new white collar jobs required to meet the GAA target. Moreover, other aspects also need to be considered. For example, much of the identified scope for additional white collar employment relates to development opportunities in Cranbourne West, Cardinia Road Employment Precinct, and the Casey Technology Park; yet these precincts might not be developed to their full extent until well beyond 2031. Indeed, in some of these precincts very little office development is likely to occur for some years, having regard for the existing market conditions (which do not favour commercial office development) and the planning horizons involved (which likely extends beyond 2031).

9 In these circumstances, much of the additional white collar employment demand will need to be accommodated in activity centres in the form of small-scale development, or in major precincts that are already underway, such as Fountain Gate CBD.

10 Broad analysis of the commercial and industrial property markets indicates that the Casey-Cardinia corridor is currently not a significant location for either commercial office development or for major industrial development.

11 In terms of commercial office development, the wider southern region is a minor location for office development, and development opportunities are likely to be confined to Central Dandenong in the short to medium term due to State Government incentives.

12 The Dandenong South industrial area is the most significant location for industrial development in the wider region and, according to the Urban Development Program 2008, over 30 years supply of industrial land exists in the Casey-Cardinia corridor at current absorption rates.

13 Overall, the conclusion is that opportunities for major commercial office development are not likely to eventuate for some time in the corridor. When these opportunities do arise, there is likely to be some competition between precincts such as Fountain Gate, Casey Technology Park, C21 Business Park and the Cardinia Road Employment Precinct to attract these types of uses. Cranbourne Town Centre will also be expected to attract some office development, and smaller activity centres throughout the corridor may also attract a small share of this commercial office activity.

14 Industrial development is already being attracted to the Pakenham Industrial Estate, and development is likely to continue to occur in newly-released employment lands with good access to the Pakenham Bypass. However, the supply of land for industrial and related development is very large, and recently-rezoned land in Dandenong South will compete for a share of investment.

15 Over time there is likely to be competition within the corridor, for example between C21 Business Park and precincts in Cardinia; in this regard it will be important for each precinct to differentiate itself – for example with C21 Business Park highlighting the amenity of the area in order to attract campus-style development or similar.

6) Employment Planning for the PSP Areas

C21 Business Park Precinct

Development Outcomes

The C21 Precinct Structure Plan is yet to formally commence and hence detailed planning is yet to take place. However, based on current market conditions and site constraints related to the delivery of a Business Park (refer discussion in Chapter 8 of this report), the anticipated land uses are anticipated to include:

- Employment uses: 85 hectares
- Residential development: 174 hectares
- Encumbered land (floor-prone land, Princes Freeway interchange, etc): 31 hectares

The 85 hectares of land for employment uses would consist of approximately 60,000m^2 of dedicated office space in the form of a corporate office park, and with other campus-style uses integrated into the precinct.

The corporate office park would require approximately 5-10 hectares of land, depending upon factors such as:

- The intensity of land use and average site coverage
- The likely mix between purpose-built office developments (which would be more likely to be single-storey developments), and speculative office buildings accommodating smaller tenants (which would more likely be multi-storey developments)
- The eventual tenant demand and the mix between corporate uses and lower-density campus developments.

This land allocation (5-10 hectares) is significant in the context of the land areas involved in other office parks such as University Hill, Tally Ho, etc.

The remaining 75-80 hectares would be available for a wider mix of employment uses, focussing on opportunities for high quality campus-style tenants.

The identification of potential development options has been undertaken with reference to other major new and/or planned commercial precincts (eg University Hill, Kalkallo/Merrifield, etc), and the expectation that the precinct could accommodate a highly intensive corporate office precinct with up to approximately 60,000m^2 of office floorspace. The remainder of the land is envisaged to accommodate a wider mix of campus-style developments that might have a significant office component, but would also incorporate a wider range of low-intensity uses. A key issue would be the need to ensure that the profile of the precinct as a high quality corporate office park is maintained.

The precinct structure planning process for C21, due to commence in the near future, will ultimately determine the actual land use make up of the precinct. At this stage the GAA expects that the land will attract large office and mixed use components, given the site constraints and amenity of the locality, which does not lend itself to conventional industrial development.

Activity centre requirements

The provision of a neighbourhood activity centre is recommended for the C21 Business Park precinct, with total floorspace in the order of 3,000-5,000m^2. The centre would serve the surrounding residential catchment (4,000 residents), as well as the workers in the employment precinct.

Flexibility is required in determining the retail floorspace size of this centre as detailed structure planning is yet to be undertaken, and the centre will ultimately serve a surrounding residential neighbourhood as well as the employees in the surrounding precinct.

Employment outcomes

The C21 Business Park precinct has potential to support approximately 5,210 jobs, comprising 4,875 jobs in the office/business park component, an estimated 75 jobs in the activity centre, a further 80 jobs in medical and community based facilities, and an estimated 180 home-based jobs.

When compared against the estimated employed resident labour force of 1,840 persons (reflecting underlying labour force participation and with an allowance for unemployment of 6%), the precinct performs very well in terms of providing employment opportunities for local residents, with an employment self-sufficiency rate of 280%.

Clyde North

Development outcomes

- Total developable area (residential): 314 hectares
- Lot yield of approximately 15 lots per hectare, or 4,710 dwellings
- Population outcome at full development: 13,200 persons

Activity centre requirements

The proposed activity centre network to serve the Clyde North precinct consists of:

- One large NAC located central to the precinct, anchored by two supermarkets.
- A local centre on Grices Road (location to be determined).
- Shop(s) located elsewhere in the precinct, with locations to be determined.

Total retail floorspace potential in Clyde North is estimated at approximately 9,000m^2, although noting that detailed analysis will be undertaken at the planning permit stage.

Employment outcomes

The Clyde North PSP has potential to support approximately 1,390 jobs, comprising 330 jobs in activity centres, 20 jobs in the employment land, a further 430 jobs in community facilities, schools, etc, and an estimated 610 home-based jobs.

When compared against the estimated employed resident labour force of 6,080 persons, this represents an employment self-sufficiency rate of approximately 23% (ie 1,390 jobs for an employed labour force of 6,080 persons), which is below the 30% GAA target.

Residents in Clyde North will have access to a number of employment precincts in the wider region, including:

- C21 Business Park, immediately to the north of the precinct
- The substantial employment precinct planned for the Officer-Pakenham corridor, which will be easily accessible along Thompsons Road
- The potential employment land on the south side of Thompsons Road, subject to the extension of the urban growth boundary
- Employment lands associated with the expansion of Casey Central
- The service business precinct on the north side of Thompsons Road, in Cranbourne North (Stage 1)
- Major employment generation in the Casey Technology Park.

Achieving the GAA targets

The following issues are of importance in improving the performance of the Clyde North precinct in terms of generating local employment opportunities:

- Encourage a well-designed neighbourhood activity centre which is a vibrant focus for business activity, thereby improving the opportunities for retail and other commercial developments. Small-scale office development should be attracted to the centre over time; however, it is noted that these opportunities are likely to be restricted to shop-front type uses (eg real estate agents, banks, etc), at least in the short-term.

- Allocate land, as proposed, for a small employment land precinct in order to provide opportunities for a wider range of business activities, including for example small scale service industries, workshops, showrooms and so on.

- Encourage a variety of home designs which include some that cater to home-based businesses, and which include home offices, storage sheds, etc.

- Provide support for the introduction of a new major industrial area on the south side of Thompsons Road, in the event that the draft extension to the urban growth area is finalised. This employment precinct would take advantage of the role of Thompsons Road as a major through-route, and would provide opportunities for business development to serve the employment needs of residents in Clyde North, as well as people living in the extended urban growth area to the south.

- Encourage the development of the C21 business precinct as planned, although noting that this development is not likely to proceed in the short-term, and will only be fully developed in the longer term.

Cranbourne North Stage 2

Development outcomes

- Total developable area (residential): 137 hectares

- An approximate lot yield of 15 lots per hectare, with a mix of conventional and medium density residential development

- Total dwellings: 2,060 lots

- Population at full development: 5,800 persons

Activity centre requirements

The proposed activity centre network to serve the Cranbourne North (Stage 2) precinct consists of one NAC with total retail floorspace of approximately 4,000m^2, noting that detailed analysis will need be undertaken at the planning permit stage.

Employment outcomes

The Cranbourne North (Stage 2) precinct has potential to support approximately 2,245 jobs, comprising 130 jobs in activity centres, a further 90 jobs in community facilities, schools, etc, an estimated 270 home-based jobs, and 1,750 jobs created in the service business precinct on Thompsons Road.

When compared against the estimated employed resident labour force of 2,670 persons, this represents an employment self-sufficiency rate of approximately 84% (ie 2,245 jobs for an employed labour force of 2,670 persons). However, it is important to appreciate that this estimate *includes* the service business precinct on Thompsons Road, in which an estimated 1,750 jobs will be created.

Residents in the Cranbourne North (Stage 2) precinct will have access to a number of employment areas in the wider region, including:

- Casey Central
- Casey Technology Park
- C21 Business Park
- Cranbourne Town Centre
- Fountain Gate-Narre Warren CBD
- The substantial employment precinct planned for the Officer-Pakenham corridor, which will be easily accessible along Thompsons Road
- The potential employment land on the south side of Thompsons Road, subject to the finalisation of the draft new urban growth boundary.

Achieving the GAA targets

The following issues are of importance in improving the performance of the Cranbourne North Stage 2 precinct in terms of generating local employment opportunities:

- Encourage a well-designed neighbourhood activity centre which is a vibrant focus for business activity, thereby improving the opportunities for retail and other commercial developments. Opportunities for office development are likely to be restricted to shop-front type uses (real estate agent, bank, etc), having regard for the size of the centre and its location close to Casey Central.
- Encourage a variety of home designs which include some that cater to home-based businesses, and which include home offices, storage sheds, etc.
- Provide support for the development of the service industry precinct on Thompsons Road (associated with Amendment C113).
- Encourage the development of the C21 business precinct as planned, although noting that this development will only be fully developed in the longer term.

Botanic Ridge

Development outcomes

According to detained work undertaken by GAA, the Botanic Ridge precinct has potential to generate approximately 4,000 residential dwellings when fully developed. The residential population at full development is estimated at 11,200 persons.

Activity centres in Botanic Ridge will also serve the Devon Meadows community, which may expand under the draft UGB, and from the broader rural community in Cranbourne South.

Activity centre requirements

The proposed activity centre network to serve the Botanic Ridge precinct consists of:

- One NAC with total retail floorspace in the order of approximately 5,000-6,000m^2, anchored by a full-line supermarket
- The existing convenience retailing at Junction Village.
- At least one smaller convenience centre located elsewhere in the precinct; potential locations include a central position with respect to the precinct as a whole, and the intersection of Browns Road and Pearcedale Road.

The actual size and form of centres will be confirmed through detailed analysis at the planning permit stage.

Employment outcomes

The Botanic Ridge precinct has potential to support approximately 870 jobs, comprising 240 jobs in activity centres, a further 110 jobs in community facilities, schools, etc, and an estimated 520 home-based jobs.

When compared against the estimated employed labour force of 5,160 persons, this represents an employment self-sufficiency rate of approximately 17% (ie 870 jobs for an employed resident labour force of 5,160 persons), which is low in comparison with the GAA target of 30%.

An important consideration, however, is that a new employment precinct is planned on the South Gippsland Highway, to the east of Botanic Ridge. This land has potential to generate employment opportunities for the Botanic Ridge population.

Residents in the Botanic Ridge precinct will have access to a number of employment areas in the wider region, including:

- The new planned employment precinct on the South Gippsland Highway, to the east of Botanic Ridge
- Employment opportunities at Cranbourne Town Centre
- Employment opportunities in the employment area on Ballarto Road/South Gippsland Highway (Cranbourne East)
- Cranbourne West industrial/business park.

Achieving the GAA targets

The following issues are of importance in improving the performance of the Botanic Ridge precinct in terms of generating local employment opportunities:

- Encourage a well-designed neighbourhood activity centre which is a vibrant focus for business activity, thereby improving the opportunities for retail and other commercial developments.
- Support the establishment of new local centres to serve the central and western parts of the precinct.
- Encourage a variety of home designs which include some that cater to home-based businesses, and which include home offices, storage sheds, etc.
- Provide support for the introduction of a new employment precinct on the South Gippsland Highway to the west of Botanic Ridge, in the event that the draft extension to the urban growth area is finalised.

This employment precinct would provide opportunities for business development to serve the employment needs of residents in Botanic Ridge, as well as people living in the extended urban growth area to the south.

- Examine the potential for a smaller employment area on the south side of Ballarto Road in the north-west of the precinct.
- Encourage development opportunities in Cranbourne Town Centre which provide employment opportunities for the wider region, including residents in Botanic Ridge.

7) Findings and Recommendations

The following table presents a summary of the recommendations that are made with respect to the regional-level analysis which is relevant to the corridor as a whole, and those that are made with respect to the PSP areas that are the focus of this study.

Recommendations are provided in the form of a list of *objectives* and the associated *actions* that need to be undertaken in order to meet the objectives.

Table 1: Recommendations

Objectives		
	Actions	
Regional-level recommendations:		
1	***Ensure that identified major employment precincts are retained for employment use***	
	1.1	Retain land that is designated for future employment uses.
	1.2	Support the early development of employment precincts through a range of strategies, including incentives for new investment, promotion of the region for new development, and delivery of required infrastructure.
	1.3	Identify new areas of land for employment development, including for example potential areas of land in the extended urban growth area (south of Thompsons Road and South Gippsland Highway).
2	***Improve employment self-sufficiency and self-containment***	
	2.1	Ensure that employment opportunities are realised throughout the corridor in order to encourage higher levels of employment self-sufficiency.
	2.2	Identify regional and sub-regional employment nodes which offer opportunities for a diversity of employment outcomes including industrial, semi-industrial service business, showroom and other development opportunities.
	2.3	Maximise employment opportunities in activity centres, including planning for an office component in each centre.
	2.4	Encourage home-based employment, and provide opportunities for home-based businesses to grow into small and medium enterprises.
	2.5	Review the GAA benchmarks relating to employment self-sufficiency and self-containment over time to ensure that they remain relevant to the corridor and are an appropriate basis for employment planning.
3	***Encourage an improvement in the white collar to blue collar occupation ratio***	
	3.1	Encourage a more diversified housing product, including high quality housing to attract managers, professionals and business owners.
	3.2	Encourage the development of the commercial office sector in the corridor, including major dedicated office precincts, small-scale offices in activity centres and home-based employment, as well as offices associated with industrial activities.
	3.3	Provide support to local education and training in order to raise the qualifications and skills of the existing and future resident labour force.
	3.4	Review the GAA benchmark relating to the distribution of employment by occupation type over time to ensure that they remain relevant to the corridor and are an appropriate basis for employment planning.
4	***Match job creation to the qualifications and skills of the resident labour force***	
	4.1	Ensure that employment opportunities for white collar occupations are available in order to meet the potential changes in the skills and qualifications of the local workforce.
	4.2	Encourage small business development in activity centres.
	4.3	Encourage opportunities for major commercial office development in identified precincts such as Fountain Gate-Narre Warren CBD, Casey Technology Park and C21 Business Park.

Objectives
Actions

5 Ensure the delivery of transport infrastructure

5.1 Support the identification of Thompsons Road as a major new east-west link the supports business development in the region and provides important linkages between the major employment precincts of Dandenong South and the Officer-Pakenham corridor.

5.2 Pursue opportunities for new employment precincts on Thompsons Road, for example the identified service business precinct in Cranbourne North and the potential for a large new employment area (of approximately 1,000ha) on the south side of Thompsons Road in Clyde North (subject to finalisation of the new UGB and completion of the Growth Area Framework Plans).

5.3 Advocate for public sector investment in transport infrastructure upgrades, including public transport services.

6 Promote the corridor for business and industrial development

6.1 Promote the Casey-Cardinia corridor as a location for major new industrial developments, highlighting the land development opportunities, transport infrastructure, access to a local workforce and other attributes.

6.2 Promote the corridor as a location for major new commercial office projects, highlighting opportunities for development at the Fountain Gate-Narre Warren CBD, the Casey Technology Park, and C21 Business Park (noting that this is likely to be a longer-term opportunity).

6.3 Provide support for small business development throughout the corridor, with most of this activity likely to occur in activity centres and service business precincts.

6.4 Advocate for major new investment from the state government.

Local-level recommendations:

7 Improve levels of employment self-sufficiency and self-containment

7.1 Ensure that opportunities for local employment within each precinct are maximised by allocating sufficient business zoned land to accommodate potential business development in excess of the identified retail and commercial demands, while also recognising the need to reflect the role of the activity centre in the retail hierarchy. The allocation of business zoned land should be consistent with the GAA targets.

7.2 Ensure that, where the job targets are not met within the precinct, employment opportunities are identified in the immediate sub-region.

7.3 Encourage home-based employment.

8 Encourage attractive and well-designed activity centres

8.1 Promote good design for new neighbourhood activity centres in the identified precincts.

8.2 Encourage linkages between the C21 activity centre and the associated business and office park within the precinct, and encourage the co-location of business services.

8.3 Encourage active centres which cater for on-street activities (eg street dining) and which provide appropriate services for local employees and small businesses.

8.4 Where practical, introduce small business incubators, or alternatively aim to deliver a wide range of supporting services, particular for home-based businesses.

9 Provide for a range of business development opportunities

9.1 Designate land to the south of Clyde North (on the southern side of Thompsons Road) as a location for a significant new employment precinct (subject to the finalisation of the new UGB and completion of the Growth Area Framework Plans).

9.2 Support the designation of land in Cranbourne North (on the north side of Thompsons Road) as a service business precinct.

9.3 Encourage the future development of the Casey Central MAC to provide a wide range of business development opportunities.

9.4 Designate the land bounded by Ballarto Road and the South Gippsland Highway as an employment precinct for a mix of commercial and industry uses. Explore the potential for this to be a substantial new precinct through the Growth Area Framework planning process (refer 9.5 below).

Objectives	Actions	
	9.5	Designate a new employment precinct on the South Gippsland Highway to the west of the Botanic Ridge precinct (and to the south of the employment precinct associated with Cranbourne East PSP).
	9.6	Support the retention of the C21 Business Park for commercial offices and campus-style development, although noting that this is likely to be a longer-term opportunity.
10	***Encourage home-based employment***	
	10.1	New residential estates should include some provision for home-based businesses, for example with extended storage areas (eg large garages), dedicated home-office space, and high quality internet access.
	10.2	Encourage local councils to provide a range of business support services for home-based businesses, for example by supporting local networking events, centralising the provision of relevant information, and providing local administrative services (eg secretarial services).
	10.3	Support the provision of serviced offices where there is sufficient demand.
	10.4	Support the growth of home-based businesses into small enterprises, by ensuring sufficient locally-available premises.
11	***Diversify the housing product***	
	11.1	Promote a wide range of housing types in new residential estates, while ensuring that target yields are met.
	11.2	Encourage high quality housing construction and design, and where possible identify areas where executive style homes are to be encouraged.

INTRODUCTION

1 BACKGROUND

The Growth Areas Authority (GAA) has commissioned this economic development and employment analysis to assist in the preparation of Precinct Structure Plans (PSPs) for four localities in the City of Casey, namely:

- C21 Business Park (PSP No. 11)
- Clyde North (PSP No. 13)
- Cranbourne North Stage 2 (PSP No. 16)
- Botanic Ridge (PSP No. 10)

These areas are identified in Figure 1 (refer page 9).

1.1 Objective

As described in the Brief, the objective of the Study is -

> "*To provide a holistic analysis of the current employment and retail needs of the area, the relationship between these four areas in the provision of all employment land and between existing, proposed and forecast retail activity centres".* (Project Brief, p2)

Having regard for this objective, the Study is to:

1. Analyse the growth corridor context of job deficiency, economic opportunities and generational changes in the Casey - Cardinia growth corridor
2. Prepare estimates of demand for employment land
3. Identify the drivers of regional employment change in the medium- to long-term
4. Recommend an activity centre network for each of the four PSPs
5. Assess the performance of each PSP in providing local jobs at activity centres, employment precincts, home-based employment and other locations.

The Study is also to provide direction on the delivery of local employment within each PSP, including the identification of ways of increasing local employment opportunities, especially in white collar employment. These recommendations are required in order to improve the levels of employment self-sufficiency and employment self-containment.

Employment self-sufficiency

Employment self sufficiency is the number of jobs in an area divided by the total number of people living in the area that are engaged in the workforce (ie making sure there are sufficient numbers of jobs in the area).

Employment self-containment

Employment self containment is the number of people who live and work in the defined local area divided by the total number of people living in that area that are engaged in the workforce (ie making sure that the jobs in the area are suited to the people living locally).

1.2 Approach

In meeting the study objective the analyses is provided at two levels:

1. **Regional level**: The population and resident labour force situation – current and forecast – is provided initially at the regional level, and this comprises the municipalities of Casey and Cardinia. This component provides an overview of regional population and labour force trends, and provides the growth context for the more specific second-level analyses, as noted below.

2. **Local level**: The more detailed assessments of the situation in regard to socio-economic and demographic features are undertaken at the Statistical Local Level (SLA) and in this context the analysis is provided for the Casey (C) – Cranbourne and Casey (C) – Berwick SLAs. The socio-economic and demographic context for these SLAs is taken as an indicator for the socio-economic and demographic complexion of the PSP areas.

The relevant geographic boundaries at the regional and local level are illustrated in the relevant chapters. The timeframe for the data analysis and projections is the period 2009 to 2031.

The intent of this approach is to understand the population and labour force situation at the regional level, while having closer regard for likely trends at the local level, and applying these assessments to the individual PSPs.

1.3 GAA Benchmarks

The directions presented in this report are provided in the context of benchmarks that have been prepared by the GAA in relation to local employment generation, occupational mix, and retail planning, as described in the following sections.

Broad Employment Targets and Principles

A broad set of targets has been developed by the GAA to assist in planning for Melbourne's growth areas. These targets relate to:

- The extent to which the number of local jobs that are generated in or near newly developing residential suburbs meets the requirements of the local population (ie *employment self-sufficiency*, as described in section 1.1):
  - 1 new job to be created at the regional level (defined as an area of 10km x 10km) for every new household
  - An aspirational target of 100% self-sufficiency at the regional level
  - A target of at least 70% of jobs to be located within a surrounding 'sub-region' (defined as 5km x 5km)
  - A target of 30% of new jobs to be located within the surrounding 'neighbourhood area' (defined as 1.6km x 1.6km).
- The extent to which the provision of local jobs is matched to the incoming residents so that people work locally (ie *employment self-containment*, as described in section 1.1):
  - A target of 50% of new growth area residents taking up jobs within the surrounding 'region' (approximately within 10km from place of residence).

- Improvements in *employment diversity*, and particularly the balance of white-collar and blue-collar employment in growth areas:
  - Attract a more diverse working population into growth areas, so that the ratio of white-collar to blue-collar employment approaches the metropolitan average of approximately 75:25
  - Encourage a progressive alignment between the growth areas and metropolitan Melbourne as a whole with respect to a range of employment indicators such as the proportion of the employed resident labour force in managerial and professional positions, the proportion of the employed resident labour force with higher education qualifications, and so on.

Other principles developed by the GAA relate to the localisation of employment activity, including the encouragement of small neighbourhood activity centres (NACs) within 1km from all homes, ensuring an appropriate distribution of sub-regional and major employment nodes (so that 80-90% of houses are within 5km of sub-regional employment nodes), and other aspects relating to the design of activity centres and employment areas.

Local Employment Model

The *Growth Areas Local Employment Provision Model* has been developed by the GAA as a basis for planning the delivery of jobs to serve the employment needs of the local population. The model, which is applied at various geographic levels, can be described as follows:

- Neighbourhood modelling:
  - Each neighbourhood consists of a 1.6km square block (ie 256 hectares)
  - Dwelling yields are based on an average of 15 lots per hectare (ie 2,880 dwellings)
  - Population outcomes are based on an average of 2.8 persons per household (ie population of approximately 8,060 persons)
  - An estimated 10% of households each generate one home-based employee (ie 288 home-based jobs)
  - Each neighbourhood generates one neighbourhood activity centre (NAC)
  - An allocation of 5ha of employment land is associated with each NAC (where possible)
  - Each NAC consists of 5,000m^2 of retail floorspace, and 4,000m^2 for office and other non-retail floorspace
  - Employment outcomes for the activity centre are based on estimated floorspace-employment ratios of approximately 30m^2 per job (total employment of approximately 330 jobs)
  - The employment land generates employment at a ratio of 35 jobs per hectare (total of approximately 175 jobs)
  - Each neighbourhood generates demand for one medical centre, one childcare centre, one community centre, a kindergarten, a primary school and a retirement village – each of these generate employment at adopted typical ratios (total of approximately 140 jobs)
  - Each neighbourhood contributes to demand for a secondary school (three neighbourhoods are required for each secondary school).

  On the basis of this approach, each neighbourhood should generate opportunities for approximately 940 jobs to serve the population of approximately 8,060 people. The employment target is 1 job per household (or 2,880 jobs), with 33% provided locally at the neighbourhood level.

- Sub-regional modelling:
  - A total of nine neighbourhoods make up a sub-region, in which 7.5 of the neighbourhoods are residential in nature, and 1.5 are employment-based
  - Employment outcomes consist of 7.5 times the neighbourhood outcomes listed above, plus one MAC and opportunities for jobs generated in the employment land
  - The MAC takes up 20 hectares and generates employment at a rate of 70 jobs per hectare
  - The remainder of the employment land generates employment at a rate of 25 jobs per hectare.

  Overall, sub-regions are expected to generate approximately 17,500 jobs, serving the local employment target of 21,600 (ie a self-containment rate of approximately 80%).

- Regional modelling:
  - Regions consist of 36 neighbourhoods, or 4 sub-regions
  - A region consists of 28 residential neighbourhoods, plus 6 neighbourhoods of employment use, plus 2 neighbourhoods of special use
  - Estimates for employment use are based on the same approach as for the sub-regions, but with an allowance for a PAC of 80 hectares, generating employment at 70 jobs per hectare
  - The special use area is estimated to generate employment at 10 jobs per hectare.

  Overall, regions are expected to generate approximately 66,000 jobs, serving a local employment target of 80,640 jobs. This represents a self-containment rate of 82%.

It is important to appreciate that the Growth Areas Local Employment Model is intended as a guiding tool to analyse the employment performance of PSPs and the wider regions. In Part B of this study, the local employment model is used to analyse the expected performance of each PSP in achieving the stated employment targets.

Retail Planning Model

The *Growth Areas Retail and Supermarket Demand Model* has been developed by the GAA to assist in planning for an appropriate provision of accessible retail facilities serving local communities in the growth areas. The model can be described as follows:

- Total retail demand:
  - Each neighbourhood consists of a 1.6km square block (ie 256 hectares)
  - Dwelling yields are based on an average of 15 lots per hectare (ie 2,880 dwellings)
  - Population outcomes are based on an average of 2.8 persons per household (ie population of approximately 8,060 persons)
  - Total retail expenditure is calculated on the basis of an average $12,000 per capita
  - An estimated 28% of total retail expenditure is captured at the neighbourhood level
  - Retail shops trade at an average of $5,500/m^2 overall.

  On this basis, each neighbourhood unit can potentially support approximately 4,900m^2 of retail floorspace. The calculations are shown in the table below.

Table 2: Growth Areas Retail Demand Model – Total Retail Floorspace Demand

Item	Calculation	Value
Dwellings	Land area 256ha x 75% developable x 15 lots/hectare	2,880 dwellings
Population	Average household size 2.8 persons	8,060 persons
Retail expenditure	Average $12,000 per capita pa	$96.7 million pa
Retained at NAC	28% of retail expenditure	$27.1 million pa
Supportable retail floorspace	Average turnover of $5,500/m2	4,900 m2

Source: Growth Areas Authority

- Supermarket floorspace demand:
  - Population outcomes for each neighbourhood unit are as per the total retail demand model (ie 8,060 persons)
  - Total supermarket expenditure is calculated on the basis of an average $3,670 per capita
  - Local supermarkets achieve a market share of approximately 75% of residents' supermarket expenditure
  - Supermarkets trade at an average of $7,500/m^2 overall.

  On this basis, each neighbourhood unit can potentially support approximately 2,960m^2 of supermarket floorspace. The calculations are shown in the table below.

Table 3: Growth Areas Retail Demand Model – Supermarket Floorspace Demand

Item	Calculation	Value
Population	Refer Table 1	8,060 persons
Supermarket expenditure	Average $3,670 per capita pa	$29.6 million pa
Captured locally	75% of sueprmarket expenditure	$22.2 million pa
Supportable supermarket floorspace	Average turnover of $7,500/m2	2,960 m2

Source: Growth Areas Authority

The Retail Model has been developed with reference to a number of measures relating to average retail expenditure, average turnover levels, etc, which have been prepared by various consultants including Essential Economics, MacroPlan, and Deep End.

The centre size and supermarket provision indicated in the model are intended to provide guidance in planning for activity centres. The actual size of centres and supermarkets will be determined through detailed assessments undertaken at the planning permit stage.

In Part B of this report, estimates of supportable retail floorspace and supermarket provision for each of the PSP areas are made using an approach which reflects the GAA retail planning model.

1.4 Scope of Analysis

The economic analysis has been conducted at the *regional level*, using data relating to the Casey-Cardinia corridor as a whole (consisting of the municipalities of Casey (C) and Cardinia (S)). *Local level analysis* has also been undertaken, using data for the Casey (C) – Cranbourne and Casey (C) – Berwick statistical local areas (SLAs).

In terms of timing, the analysis has been conducted for the period 2009 to 2031.

1.5 Changes to the Urban Growth Boundary

The analysis adopts a development outlook to 2031. During this period it is anticipated that urban development will occur both inside the current Urban Growth Boundary (UGB) and on land contained within the proposed draft UGB. The draft UGB was released on 17th June 2009, and proposed to extend the UGB in the Casey-Cardinia corridor to include approximately an additional 3,790 hectares of land for urban development (including some areas of land where development is severely constrained due to environmental or other factors). The extended UGB would generate opportunities for further population growth, as well as opportunities to plan for new employment precincts.

The projected development outlook is based on Victoria in Future 2008 to 2026, with the data extrapolated by Essential Economics to 2031. Development of land outside the current UGB is subject to approval of an amendment to the UGB which is proposed to occur later in 2009.

Relevant development projections are as follows:

- *Victoria in Future 2008* (VIF2008) anticipates that Casey will grow by approximately 52,120 dwellings and Cardinia by 33,430 dwellings in the period 2008 to 2026. This is a net increase of 85,560 dwellings in the growth corridor as a whole.
- The *Urban Development Program Annual Report 2008* estimates the broadhectare lot capacity to be approximately 54,450 lots, consisting of:
  - 33,210 lots in Casey (on land where a Precinct Structure Plan has been approved, and on land where a PSP is required)
  - 21,240 lots in Cardinia (including land where a PSP is approved and land where a PSP is required)
- Based on these figures, Casey and Cardinia have a combined 10-11 years of broad hectare residential land supply within the existing UGB.

In order to absorb the dwelling growth anticipated by VIF2008, it is anticipated that approximately 31,110 dwellings are expected to be developed outside the current UGB by 2026 (ie the anticipated demand for 85,560 dwellings less the estimated supply of 54,450 lots within the UGB).

Some development will occur in the established areas in the Casey-Cardinia corridor. The Urban Development Program 2008 identifies potential for approximately 1,690 dwellings to be developed in the established areas of the corridor, including approximately 890 dwellings in Casey). Over time, additional redevelopment sites are expected to be identified as further strategic planning work is undertaken.

1.6 Report Outline

This report is presented in the following Chapters:

Part A: Economic and Employment Analysis

Chapter 2:	Regional context analysis
Chapter 3:	Local context analysis
Chapter 4:	Drivers of demand for employment land
Chapter 5:	Employment opportunities in the region
Chapter 6:	Issues and implications for PSP planning

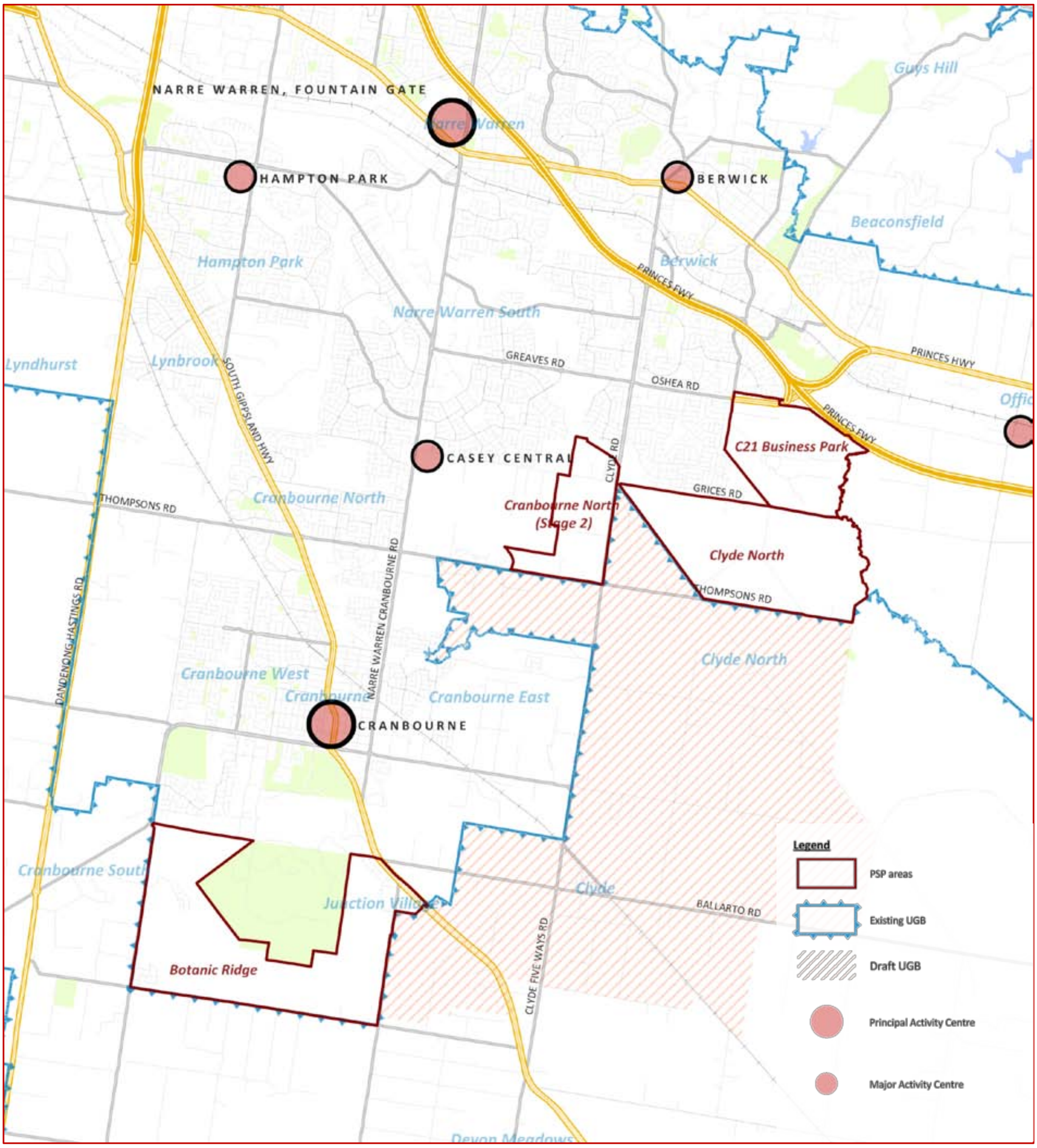
Part B: Precinct Structure Plans

Chapter 6:	Methodology for PSP analysis
Chapters 7-10:	Precinct Structure Plans

Part C: Findings and Recommendations

Chapter 11:	Conclusions and recommendations

Figure 1: Location of Precinct Structure Plan Areas



Produced by Essential Economics with MapInfo and StreetPro

PART A:
ECONOMIC AND EMPLOYMENT ANALYSIS

2 REGIONAL CONTEXT ANALYSIS

This Chapter presents an overview of the regional context within which the economic development and employment analysis is being undertaken for the four PSPs located in the Casey region (as identified in the Introduction and in Figure 1).

Section 2.1 describes the regional study area which is the focus for these analyses, while Section 2.2 describes recent and forecast trends in population numbers in the region.

Section 2.3 presents data relating to employment trends, while section 2.4 describes the region's current performance (using 2006 Census data) in terms of employment *self-sufficiency*, employment *self-containment* and the *white collar – blue collar* occupation balance. Section 2.4 presents projections of the future labour force numbers and employment requirements, including requirements for local job provision and occupational structures if the GAA targets (refer Chapter 1) are to be met.

2.1 Regional Study Area

The objective for this project is to identify potential economic development and employment outcomes for each of the PSPs in Casey (as presented later in Part B).

In order to arrive at these precinct-level outcomes it is necessary to examine the regional trends in terms of resident population and labour force growth, and this is undertaken in this Chapter at the municipal level for both the City of Casey and the Shire of Cardinia which, combined, form the Casey-Cardinia growth corridor. The location of these two municipalities is shown in Figure 2.

Analysis of data for the City of Greater Dandenong has also been undertaken where relevant, as Dandenong is a significant job provider for residents in the surrounding region (including the Casey-Cardinia growth corridor). Comparison is also made, where relevant, with other growth regions and with metropolitan averages.

In the subsequent Chapter 3, consideration is given to demographic and socio-economic patterns and trends at the more localised level in Casey, and this involves the Statistical Local Areas (SLAs) of Casey-Cranbourne and Casey-Berwick which are two of the four SLAs in Casey. The location of these two SLAs is also shown in Figure 2.

2.2 Population Trends and Projections

Current, 2009

In 2009, the City of Casey has an estimated resident population (ERP) of 250,650 persons, according to estimates published in *Victoria in Future 2008*, prepared by the Department of Planning and Community Development (DPCD). Between 2001 and 2009, Casey's ERP increased by a net total of +69,090 persons, representing an average annual growth rate of +4.1%.

Over the same period, 2001 to 2009, Cardinia's ERP increased from 47,010 persons to 70,170 persons, representing a net increase of +23,160 persons at an average annual growth rate of +5.1%.

The Casey-Cardinia growth corridor as a whole has a total population of 320,820 persons in 2009, with 78% of the resident population living in Casey. Population growth has occurred at an average rate of 4.3% pa for the growth corridor as a whole, or a net increase of 92,250 persons since 2001.

2001 – 2008 by SLA

DPCD population projections by SLA are not yet available. However, Table 4 shows the ERPs by SLA for both Casey and Cardinia for the period 2001 to 2008, using relevant ABS data.

Over that period, population expansion in Casey was largely driven by significant population growth in the following Statistical Local Areas (SLAs):

- Berwick SLA: expanded from 67,800 persons in 2001 to 96,700 persons in 2008, averaging +5.2% pa.
- Cranbourne SLA: expanded from 51,460 persons in 2001 to 73,590 persons in 2008, averaging +5.2% pa.
- South SLA: expanded from 11,390 persons in 2001 to 15,560 persons in 2008, averaging +4.6% pa.

In the neighbouring Cardinia Shire, strong population growth occurred in:

- Pakenham SLA, where population numbers increased from 17,990 persons in 2001 to 33,630 persons in 2008, and averaged +9.3% pa.

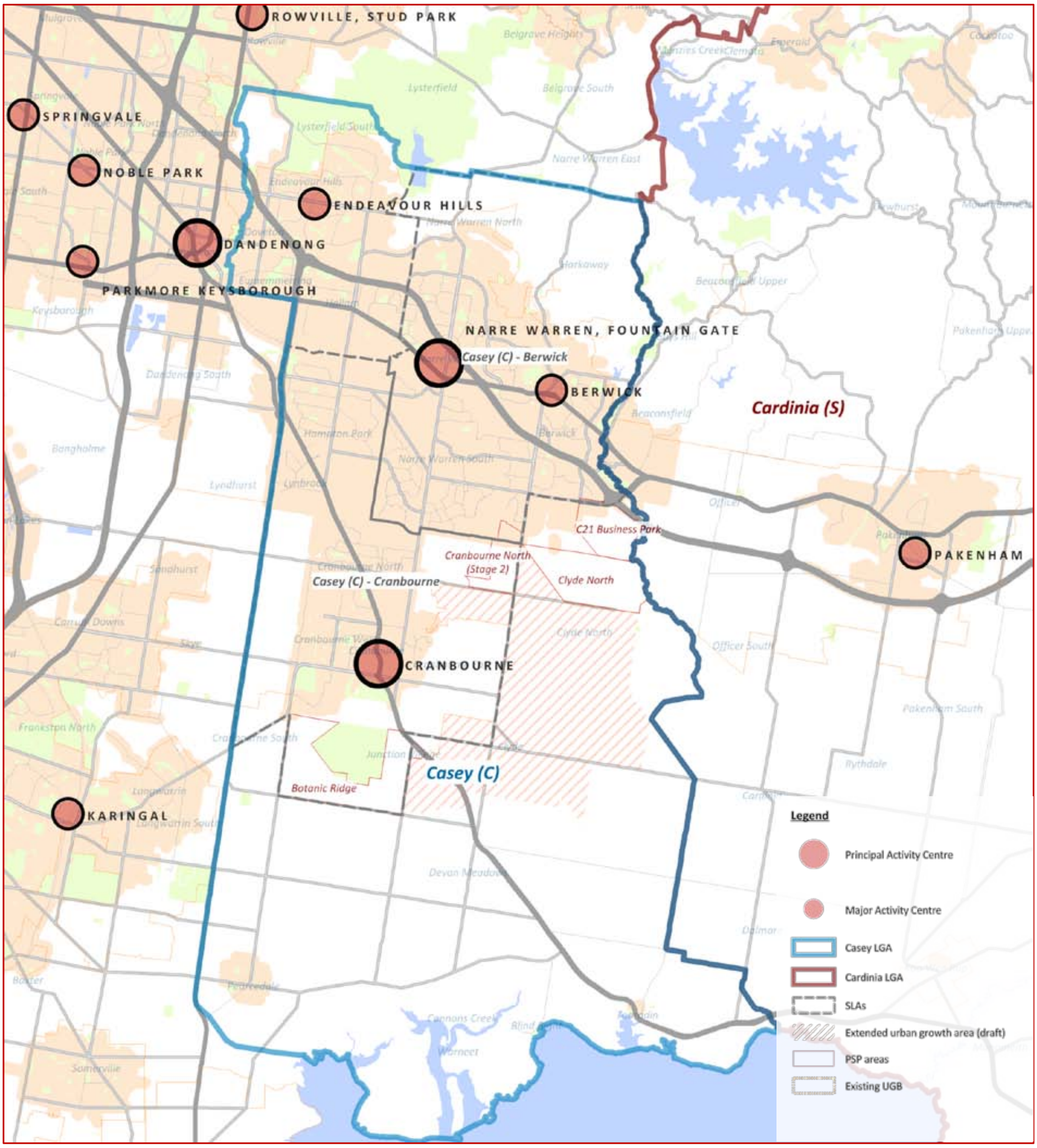
These population trends by SLA are summarised in Table 4.

Table 4: Estimated Resident Population, City of Casey and Shire of Cardinia, by SLA, 2001-2008

Statistical Local Area	2001	2002	2003	2004	2005	2006	2007	2008p	Change 2001-08	AAGR 2001-08
Casey (C) - Berwick	67,800	73,820	80,220	84,220	87,560	90,570	93,330	96,700	28,900	5.2%
Casey (C) - Cranbourne	51,460	54,040	57,490	60,800	63,310	65,960	69,330	73,590	22,130	5.2%
Casey (C) - Hallam	50,920	51,350	51,670	51,860	52,110	51,860	51,970	52,480	1,570	0.4%
Casey (C) - South	11,390	11,560	11,750	12,330	12,940	13,850	14,450	15,560	4,180	4.6%
Total - Casey	***181,560***	***190,760***	***201,120***	***209,200***	***215,920***	***222,240***	***229,080***	***238,340***	***56,770***	***4.0%***
Cardinia (S) - North	23,860	24,090	24,230	24,370	24,500	24,720	24,750	25,090	1,230	0.7%
Cardinia (S) - Pakenham	17,990	18,990	21,070	23,810	25,950	28,410	30,530	33,630	15,640	9.3%
Cardinia (S) - South	5,160	5,170	5,220	5,210	5,280	5,420	5,480	5,600	440	1.2%
Total - Cardinia	***47,010***	***48,250***	***50,520***	***53,390***	***55,730***	***58,560***	***60,750***	***64,310***	***17,300***	***4.6%***
Total Casey-Cardinia	**228,570**	**239,010**	**251,640**	**262,590**	**271,650**	**280,800**	**289,830**	**302,650**	**74,070**	**4.1%**

Source: ABS Regional Population Growth, Australia Cat. No. 3218.0
Note: AAGR = Annual Average Growth Rate
P = provisional figure
Figures rounded

Figure 2: Location of Casey and Cardinia Municipalities and Relevant Statistical Local Areas



Produced by Essential Economics with MapInfo and StreetPro

Population Projections

For the period 2009 to 2031, the City of Casey is forecast to experience an increase in resident population from 250,650 persons to 374,420 persons, representing an average annual growth rate of +1.8% pa. Net population increase over the period is forecast at +124,320 persons.

These forecasts are based on population projections published by the Department of Planning and Community Development (DPCD) in *Victoria in Future 2008* (*VIF2008*). The VIF2008 projections are available at the municipal level for the period 2006 to 2026, and Essential Economics have extrapolated the data for the period 2026-2031.

VIF2008 assumes that the current UGB will be adjusted to provide additional land for urban development. This is consistent with *Melbourne @ 5 Million* and *Delivering Melbourne's Newest Sustainable Communities*.

Population projections for 2009 to 2031 are shown in Table 5.

Over the period 2009 to 2031, Cardinia Shire is forecast to experience an increase in resident population from 70,170 persons in 2009 to 187,830 persons by 2031. This represents net growth of +117,660 persons and an average annual growth rate of +4.9%.

Overall, population numbers in the Casey-Cardinia growth corridor are expected to increase from 320,820 persons in 2009 to reach 562,800 persons in 2031, or a net increase of +241,980 persons and representing an average annual growth rate of +2.6%. Approximately 51% of the net growth is projected to occur in Casey.

Table 5 presents a comparison of projected population growth in each of the growth areas for the period 2009 to 2031. Comparison is also made for the period 2009 to 2026, noting that the VIF2008 projections are only available for this period, and broad projections have been prepared for the period 2026 to 2031.

The figures show that Casey – with an additional 124,320 persons over the period 2009 to 2031 – is expected to experience the third largest population growth of any of Melbourne's growth areas, even with the adoption of a declining rate of growth after 2026.

The growth rate predicted for Casey (1.8% pa) is the lowest of the growth areas, is similar to that projected in Hume (+2.3% pa), while the higher anticipated growth rate in Cardinia is similar to that projected for Melton (+4.1% pa) and Wyndham (+4.0% pa). Other comparisons can be made with the metropolitan average (+1.4% pa) and with the lower growth anticipated for nearby established regions such as Greater Dandenong (+0.9% pa).

Table 5: Population Projections, Casey and Cardinia Municipalities, 2009 to 2026

	2009	2016	2021	2026	2031	2009-2026		2009-2031	
						Change	AAGR	Change	AAGR
Casey (C)	250,650	311,480	350,150	370,040	374,970	+119,390	+2.3%	+124,320	+1.8%
Cardinia (S)	70,170	100,000	118,040	147,830	187,830	+77,660	+4.5%	+117,660	+4.6%
Casey-Cardinia Corridor	**320,820**	**411,480**	**468,190**	**517,870**	**562,800**	**+197,050**	**+2.9%**	**+241,980**	**+2.6%**
Comparison regions:									
Other growth areas:									
Hume (C)	169,770	203,570	225,250	250,940	279,940	+81,170	+2.3%	+110,170	+2.3%
Melton (S)	99,690	143,660	171,800	198,090	224,090	+98,400	+4.1%	+124,400	+3.8%
Whittlesea (S)	147,810	195,810	226,300	247,850	263,850	+100,040	+3.1%	+116,040	+2.7%
Wyndham (C)	143,010	202,620	241,720	277,390	310,890	+134,380	+4.0%	+167,880	+3.6%
Other comparisons:									
Greater Dandenong (C)	134,060	141,340	148,270	156,680	165,680	+22,620	+0.9%	+31,620	+1.0%
Melbourne SD	3,947,730	4,396,920	4,704,720	5,000,050	5,278,150	+1,193,850	+1.4%	+1,330,420	+1.3%

Source: DPCD, Victoria in Future 2008; Essential Economics
Note: Figures rounded
AAGR: Annual Average Growth Rate

2.3 Employment Analysis

This section presents statistics relating to the numbers of employed residents in the Casey-Cardinia corridor, their journey-to-work patterns, and their occupations. Information is also provided in relation to the number of jobs located in the growth corridor.

This data is drawn from the ABS 2006 Census of Population and Housing, and is used in section 2.4 to assess the performance (in 2006) of the growth corridor in terms of the GAA targets relating to employment self-sufficiency, employment self-containment and the occupational mix of the employed labour force.

Employed Labour Force

According to Census data, 100,670 residents in the City of Casey were employed in 2006, while the employed resident labour force in Cardinia Shire was 27,200.

In 2006, the total number of employed residents in the corridor as a whole was 127,870 persons.

Journey-to-Work Patterns of Growth Corridor Residents

Analysis of Census data has been undertaken to examine the travel patterns of employed residents in the City of Casey and Cardinia Shire. The main conclusions are as follows:

- Approximately 34% of employed residents in the corridor (or 40,500 residents) work elsewhere within the corridor; for residents in Casey, the figure is 30%, while a higher 48% of Cardinia residents work within the corridor. (Note that these percentage figures exclude those who did not state their employment location).
- An additional 19% of residents in Casey-Cardinia (or 22,630 residents) are employed in Greater Dandenong, highlighting the important role that Dandenong plays as an employment location, particularly for blue-collar employment (23%) and for residents in Casey (21% overall, and 26% of blue collar employees).

- Approximately 37% of employed residents in white-collar occupations are employed within the region, compared with 28% for blue-collar occupations.
- Approximately 11% of blue-collar workers have no fixed work address.

This information is presented in Table 6 and Table 7.

Table 6: Location of Work for Employed Residents in Casey-Cardinia, 2006 – Number of Residents

Place of employment	Residents in Casey (C)				Residents in Cardinia (S)				Residents in Casey-Cardinia			
	White Collar	Blue Collar	NS	Total	White Collar	Blue Collar	NS	Total	White Collar	Blue Collar	NS	Total
Casey	17,667	7,977	212	25,856	2,474	1,085	15	3,574	20,141	9,062	227	29,430
Cardinia	1,392	717	21	2,130	5,806	3,055	81	8,942	7,198	3,772	102	11,072
Casey-Cardinia	**19,059**	**8,694**	**233**	**27,986**	**8,280**	**4,140**	**96**	**12,516**	**27,339**	**12,834**	**329**	**40,502**
Greater Dandenong	10,235	9,258	256	19,749	1,603	1,238	40	2,881	11,838	10,496	296	22,630
Melbourne (C)	4,718	629	71	5,418	813	108	13	934	5,531	737	84	6,352
Other	21,807	13,994	484	36,285	5,000	2,638	64	7,702	26,807	16,632	548	43,987
No Fixed Address	1,286	3,650	67	5,003	417	1,339	20	1,776	1,703	4,989	87	6,779
Not Stated	2,235	2,837	1,161	6,233	496	643	252	1,391	2,731	3,480	1,413	7,624
Total	**59,340**	**39,062**	**2,272**	**100,674**	**16,609**	**10,106**	**485**	**27,200**	**75,949**	**49,168**	**2,757**	**127,874**

Source: ABS Census 2006 Journey to Work (JTW) unpublished data
Note: NS – Not stated/inadequately described

Table 7: Location of Work for Employed Residents in Casey-Cardinia, 2006 - % of Employed Residents

Place of employment	Residents in Casey (C)				Residents in Cardinia (S)				Residents in Casey-Cardinia			
	White Collar	Blue Collar	NS	Total	White Collar	Blue Collar	NS	Total	White Collar	Blue Collar	NS	Total
Casey	31%	22%	19%	27%	15%	11%	6%	14%	28%	20%	17%	24%
Cardinia	2%	2%	2%	2%	36%	32%	35%	35%	10%	8%	8%	9%
Casey-Cardinia	33%	24%	21%	30%	51%	44%	41%	48%	37%	28%	24%	34%
Greater Dandenong	18%	26%	23%	21%	10%	13%	17%	11%	16%	23%	22%	19%
Melbourne (C)	8%	2%	6%	6%	5%	1%	6%	4%	8%	2%	6%	5%
Other	38%	39%	44%	38%	31%	28%	27%	30%	37%	36%	41%	37%
No Fixed Address	2%	10%	6%	5%	3%	14%	9%	7%	2%	11%	6%	6%
Not Stated	-	-	-	-	-	-	-	-	-	-	-	-
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: ABS Census 2006 Journey to Work (JTW) unpublished data
Note: NS – Not stated/inadequately described

Jobs in the Growth Corridor

Analysis of Census data has been undertaken to examine the number of jobs in the City of Casey and Cardinia Shire and the travel patterns of those working within the corridor. The main conclusions are as follows:

- According to information from the ABS for 2006, approximately 56,260 jobs are located in the Casey-Cardinia corridor, comprising approximately 42,440 jobs in the City of Casey, and an additional 13,820 jobs in Cardinia Shire.
- Approximately 38,300 jobs in the corridor are in white-collar occupations (or 68% of all jobs in the corridor), consisting of approximately 29,320 white-collar jobs in Casey, and 8,990 white-collar jobs in

Cardinia. Approximately 12,810 blue-collar jobs are located in Casey, with a further 4,720 blue-collar jobs in Cardinia.

- Approximately 72% of all jobs located in the Casey-Cardinia growth corridor are taken by local residents in the corridor, and these figures are similar for white-collar and blue-collar occupations.
- More localised employment patterns are evident in Cardinia Shire, where approximately 80% of jobs are held by residents in the Casey-Cardinia corridor, and 65% of jobs are held by local residents in Cardinia Shire.
- Approximately 8% of jobs in Casey are held by Cardinia residents, while 15% of all jobs in Cardinia are held by Casey residents.

This information is presented in Table 8 and Table 9.

Table 8: Location of Residence for People Employed in Casey-Cardinia, 2006 – Number of Jobs

Place of residence	Jobs in Casey (C)				Jobs in Cardinia (S)				Jobs in Casey-Cardinia			
	White Collar	Blue Collar	NS	Total	White Collar	Blue Collar	NS	Total	White Collar	Blue Collar	NS	Total
Casey	17,667	7,977	212	25,856	1,392	717	21	2,130	19,059	8,694	233	27,986
Cardinia	2,474	1,085	15	3,574	5,806	3,055	81	8,942	8,280	4,140	96	12,516
Casey-Cardinia	**20,141**	**9,062**	**227**	**29,430**	**7,198**	**3,772**	**102**	**11,072**	**27,339**	**12,834**	**329**	**40,502**
Other LGAs	9,168	3,734	92	12,994	1,781	943	9	2,733	10,949	4,677	101	15,727
No usual address	9	10	0	19	7	5	0	12	16	15	0	31
Total	**29,318**	**12,806**	**319**	**42,443**	**8,986**	**4,720**	**111**	**13,817**	**38,304**	**17,526**	**430**	**56,260**

Source: ABS Census 2006 Journey to Work (JTW) unpublished data
Note: NS – Not stated/inadequately described

Table 9: Location of Residence for People Employed in Casey-Cardinia, 2006 - % of Jobs

Place of residence	Jobs in Casey (C)				Jobs in Cardinia (S)				Jobs in Casey-Cardinia			
	White Collar	Blue Collar	NS	Total	White Collar	Blue Collar	NS	Total	White Collar	Blue Collar	NS	Total
Casey	60%	62%	66%	61%	15%	15%	19%	15%	50%	50%	54%	50%
Cardinia	8%	8%	5%	8%	65%	65%	73%	65%	22%	24%	22%	22%
Casey-Cardinia	**69%**	**71%**	**71%**	**69%**	**80%**	**80%**	**92%**	**80%**	**71%**	**73%**	**77%**	**72%**
Other LGAs	31%	29%	29%	31%	20%	20%	8%	20%	29%	27%	23%	28%
No usual address	-	-	-	-	-	-	-	-	-	-	-	-
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: ABS Census 2006 Journey to Work (JTW) unpublished data
Note: NS – Not stated/inadequately described

White collar – Blue collar Employment

Analysis of 2006 Census data for the City of Casey shows that approximately 56,340 residents (or 60% of the employed resident labour force) hold jobs in white collar occupations, while 39,060 residents (or 40%) hold blue collar jobs. Note that these percentages exclude those residents who did not state their occupation in the 2006 Census questionnaire.

In Cardinia the figures are 16,610 residents in white collar occupations (62%) and 10,110 residents in blue collar occupations (38%).

Across metropolitan Melbourne an average of 76% of jobs are in white collar occupations (excluding those who did not state their occupations).

Over time little change has occurred in the proportions of employed residents in white collar and blue collar occupations, as shown in Table 10. For example, in the period 1996 to 2006 the proportion of Casey residents employed in white collar jobs has increased from 56% to 58%, while in Cardinia the proportion has increased from 59% to 60%. Note that these time series figures refer to the *enumerated population* (ie counted at home on Census night) rather than the *usual resident population*, and for this reason they differ from the data described above in relation to 2006.

In Melbourne as a whole there has been a more marked increase in white collar employment, with the share of all jobs in white collar occupations increasing from 67% in 1996 to 71% in 2006.

The fundamental conclusions are:

- Casey and Cardinia have a greater proportion of blue-collar employees compared with metropolitan averages; and
- This situation has changed little since 1996.

Table 10: Resident Labour Force by Occupation, 1996 - 2006

	1996	2001	2006
Casey			
White collar	56%	56%	58%
Blue collar	44%	44%	42%
Cardinia			
White collar	59%	59%	60%
Blue collar	41%	41%	40%
Melbourne			
White collar	67%	69%	71%
Blue collar	33%	31%	29%

Source: ABS Census of Population and Housing 1996, 2001, 2006 (enumerated population)
Note: excludes those who did not state their occupation

In terms of the number of jobs located within the corridor, analysis of Journey to Work data in 2006 (where occupations were stated) shows that approximately 29,320 jobs in Casey (70% of all jobs) were in white-collar occupations, with 12,810 jobs (30%) in blue collar occupations.

In Cardinia, approximately 8,990 jobs were in white collar occupations (66% of all jobs) with approximately 4,720 jobs (34%) in blue collar occupations.

Overall, approximately 69% of jobs in the corridor were in white collar occupations in 2006, and this compares with the GAA benchmark of 75% of white collar jobs.

2.4 Current Employment Performance

This section uses the data in Tables 6 to 9 to present an analysis of the current performance of the Casey-Cardinia growth corridor in terms of meeting the GAA benchmarks relating to:

- Employment self-sufficiency;
- Employment self-containment; and
- White-collar and blue-collar employment.

The analysis has been undertaken for 2006, using data from the Census of Population and Housing relating to the number of employed residents, and Journey to Work (JTW) data (from the Census) relating to local job provision.

Employment Self-Sufficiency

Information presented in section 2.3 shows that a total of 42,440 jobs were located in the City of Casey in 2006, with a further 13,820 jobs located in Cardinia Shire. The total number of jobs in the corridor was therefore 56,260.

With a total of 100,670 employed residents (refer Table 6), and 42,510 local jobs available, Casey had an employment self-sufficiency rate of 42% in 2006, while the level of employment self-sufficiency was 51% in Cardinia Shire.

Overall, the Casey-Cardinia corridor had an employment self-sufficiency rate of 44% in 2006. This is well below the GAA's aspirational target of 100% self-sufficiency at the regional level, and is also below the target of at least 70% self-sufficiency at the sub-regional level.

Table 11: Employment Self-Sufficiency, 2006

Location	Employed labour force	Jobs	Self-sufficiency rate
Actual, 2006:			
Casey	100,670	42,440	42%
Cardinia	27,200	13,820	51%
Casey-Cardinia corridor	***127,870***	***56,260***	***44%***
Target (100% self-sufficiency)		127,870	100%
Deficiency		-71,510	

Source: ABS Census 2006; Essential Economics; refer text

In terms of the number of jobs provided locally, the analysis shows that in 2006 there was an employment "gap" or deficit of approximately 71,510 jobs that should be provided locally if the GAA's aspirational target was to have been met.

Employment Self-Containment

Information presented in section 2.3 shows that approximately 25,860 Casey residents held jobs within the City of Casey. When compared against the total number of employed residents in Casey (100,670 persons), and having regard for those people who did not state their employment location, the analysis shows that the level of employment self-containment in the City of Casey was approximately 27% in 2006.

Approximately 8,940 Cardinia residents held jobs within Cardinia Shire, indicating that the level of employment self-containment in Cardinia Shire was approximately 35% in 2006.

Overall, 40,500 jobs in the corridor were held by people living within the corridor, and this represents an employment self-containment level of 34% in 2006.

The GAA target is for an employment self-containment level of 50% for new growth areas. Having regard for the number of employed residents in 2006 (127,870 persons), this implies that a total of 63,930 residents in the Casey-Cardinia growth corridor should be employed locally within the corridor. With 40,500 jobs held by local residents in 2006, a local employment "gap" or deficit of 23,430 jobs is evident.

Table 12: Employment Self-Containment, 2006

Location	Employed labour force	Jobs held within local area	Self-containment rate*
Actual, 2006:			
Casey	100,670	25,860	27%
Cardinia	27,200	8,940	35%
Casey-Cardinia corridor	***127,870***	***40,500***	***34%***
Target (50% self-containment)		63,930	50%
Deficiency		-23,430	

Source: ABS Census 2006; Essential Economics; refer text
Note: * calculation of self-containment rate excludes people who did not state their employment location

White Collar – Blue Collar Employment

The GAA target is for employment in white-collar occupations to approach the metropolitan average of approximately 75%.

This implies that the number of jobs in white collar occupations in 2006 should be approximately 95,900 in the growth corridor as a whole (ie 127,870 x 75%), implying a significant deficit of 57,590 jobs when compared against the current number of jobs in white collar occupations (38,310 jobs in 2006). Note that this calculation does not account for people who did not state their occupation at the time of the 2006 Census.

Table 13: Employment by Occupation, 2006

Location	Employment/jobs	White collar	Blue collar	White collar : Blue collar
Actual, 2006 (jobs):				
Casey	42,440	29,320	12,810	70:30
Cardinia	13,820	8,990	4,720	66:34
Casey-Cardinia corridor	***56,260***	***38,310***	***17,530***	***69:31***
Target (75% white collar)		95,900	31,970	75:25
Deficiency		-57,590		

Source: ABS Census 2006; Essential Economics; refer text
Note: calculations excludes people who did not state their occupation

A summary of employment performance, with comparisons against the relevant GAA targets, is provided in Table 14 below.

Table 14: Employment Performance in the Growth Corridor, 2006

Location	Casey	Cardinia	Growth corridor
Actual 2006:			
Employed residents 2006	100,670	27,200	127,870
Jobs	42,440	13,820	56,260
Employed locally	25,860	8,940	40,500
White-collar jobs	29,320	8,990	38,310
GAA targets (applied to 2006):			
Jobs (100% self-sufficiency)	100,670	27,200	127,870
- Deficiency in 2006	-58,230	-13,380	-71,610
Employed locally (50% self-containment)	50,330	13,600	63,930
- Deficiency in 2006	-24,470	-4,660	-23,440
White-collar employment (75%)	75,500	20,400	95,900
- Deficiency in 2006	-46,180	-11,410	-57,590

Source: Essential Economics; refer text

2.5 Future Labour Force and Employment Requirements

This section presents analysis of the future employment requirements in the Casey-Cardinia growth corridor, having regard for projected population growth and the increasing numbers of employed residents. Comparison is made against relevant GAA targets relating to employment self-sufficiency, employment self-containment and the white collar – blue collar occupational distribution.

Labour Force Projections

Projections of resident labour force numbers in Casey and Cardinia for the period 2009 to 2031 are shown in Table 15.

In 2009 Casey has an estimated 123,320 residents in the labour force, and this number is forecast to increase to 184,490 persons in 2031, representing a net increase of +61,170 residents in the labour force over the period.

For Cardinia, the resident labour force totals an estimated 34,030 persons in 2009 and this number is expected to reach 91,100 persons by 2031, representing a net increase of +57,070 persons in the resident labour force.

In total, the Casey-Cardinia region can expect to see the resident labour force increase by approximately +118,000 persons in the period 2009 to 2031. This figure is a measure of the number of jobs required to be generated if these residents are to find work, either in the respective municipalities or in other parts of Melbourne or beyond.

Normally, estimates of resident labour force size are based on the size of the population aged 16 years and above, and by applying an appropriate labour force participation rate. However, when forecasting future growth in the labour force and where population forecasts by age group are not available (noting that the *VIF2008* population forecasts are not yet available for age cohorts), an estimate of the *crude* labour force participation rate (LFPR) must be prepared. This crude LFPR is based on the simple equation of the resident labour force expressed as a share of *total* population at the 2006 Population Census. For example, in respect to Casey the crude LFPR rate in 2006 was 49.2%, and for Cardinia the crude LFPR was 48.5% at the 2006 Census. These LFPRs are assumed to apply for the forecast period to 2026, noting that changes may occur in the LFPR over time due to changes in age structure and other demographic and socio-economic factors.

While changes in the LFPR can be expected over time, the broad estimates indicate that *in the order of* 118,000 new jobs would need to be generated in Casey-Cardinia by 2031.

Even allowing for unemployment (say, averaging 6% over the forecast period, and noting that the current unemployment rate in the corridor is approximately 5% as at December 2008), *in the order of* +111,000 new jobs (net) would be required in order to meet the employment requirements of this expanding regional population in Casey-Cardinia by 2031.

Table 15: Projected Resident Labour Force, Casey and Cardinia Municipalities, 2009 to 2026

Location	2009	2016	2031	Change 2009-2031
Casey (C)				
Population (1)	250,650	311,480	374,970	+124,320
Labour Force (LFPR 49.2%) (2)	123,320	153,250	184,490	+61,170
Employed labour force (6% unemployment)	115,920	144,060	173,420	+57,500
Cardinia (S)				
Population (1)	70,170	100,000	187,830	+117,660
Labour Force (LFPR 48.5%) (2)	34,030	48,500	91,100	+57,070
Employed labour force (6% unemployment)	31,990	45,590	85,630	+53,640
Total Casey-Cardinia Labour Force	**157,350**	**201,750**	**275,590**	**+118,240 (Rounded: +118,000)**
Employed labour force (6% unemployment)	**147,910**	**189,650**	**259,050**	**+111,140 (Rounded: +111,000)**

Source: ABS Census 2006; refer Table 5
Note: Crude Labour Force Participation Rate: resident labour force as share of resident population. Crude LFPR for 2006 applied to forecast population levels. Crude LFPR for Casey 49.2% and for Cardinia 48.5%, based on ABS Population Census 2006; refer text for explanation.

The above forecast showing a requirement by 2031 for 118,000 new jobs in Casey-Cardinia (or approximately 111,000 or so new jobs when allowance for unemployment at 6% is allowed) forms an important part of the assessments in this report in regard to population growth, economic development and the provision of jobs at the PSP level in Casey.

GAA Target for Job Growth 2009 to 2031

According to the analysis presented in Table 15, approximately 111,000 or so new jobs will need to be generated over the period 2009 to 2031 to meet the employment requirements of the population in the corridor.

This forecast can be compared against an estimate of job generation required if the GAA target for regional employment provision is met. According to the GAA target, a new job should be created for every new household in the growth area.

Reference to *VIF2008* forecasts (and with projections made for the period 2026 to 2031) shows that approximately an additional 96,440 new households are expected to be developed in the Casey-Cardinia growth corridor for the period 2009 to 2031, comprising approximately an additional 50,290 new households in Casey and an additional 46,150 new households in Cardinia.

A summary of this information in shown in Table 16, and Table 17 presents a comparison of the job requirement estimates presented in Table 15 against the GAA targets. The comparison is illustrated in Figure 3, which shows the additional job requirements and targets for the period 2009 to 2031.

Table 16: Job Requirements According to GAA Targets (Equivalent to Number of New Households) 2009-2031

Location	2009	2016	2031	2009-2026
Casey (C)	85,210	108,430	135,500	+50,290
Cardinia (S)	25,010	36,500	71,160	+46,150
Casey-Cardinia Corridor	**110,220**	**144,930**	**206,660**	**+96,440**

Source: *Victoria in Future 2008*, changes in occupied private dwellings

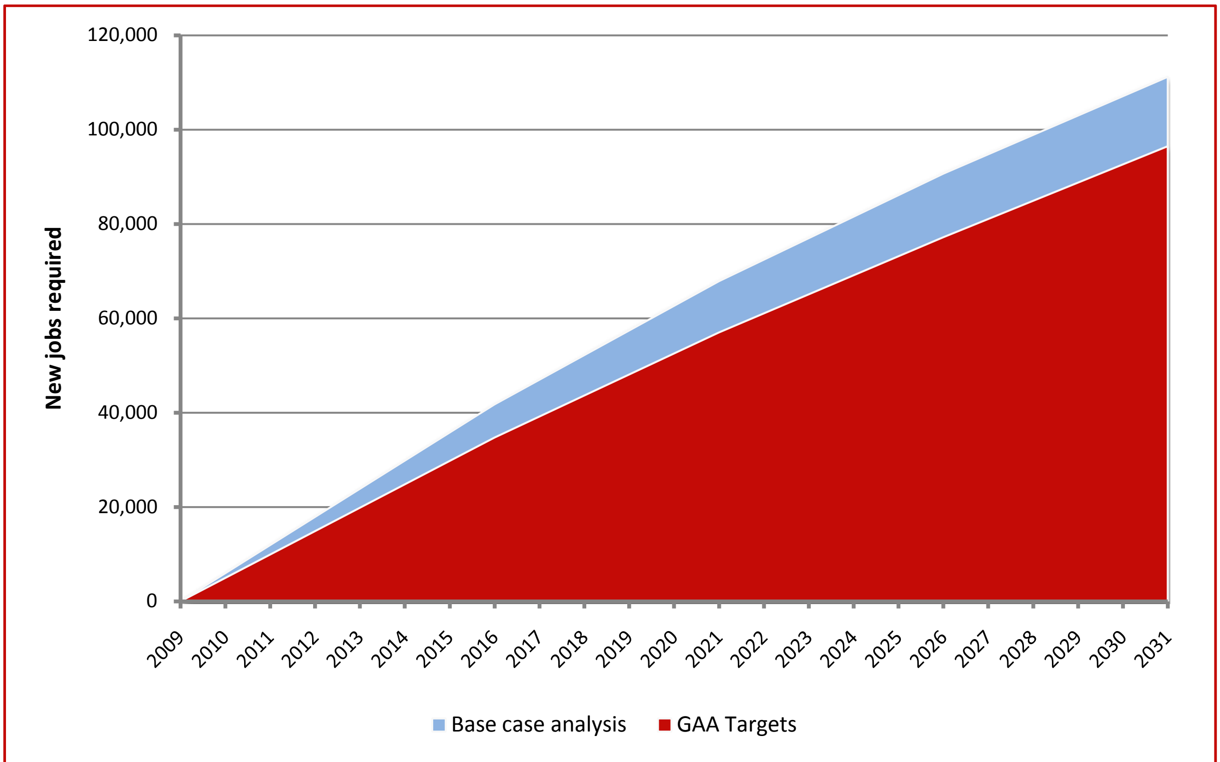
Table 17: Comparison of Employment Projections against GAA Targets, for Casey-Cardinia Corridor

Job Requirements and GAA Targets	2009-2016	2016-2031	Total
Job requirement projections (from Table 15)	+41,740	+69,400	+111,140
GAA targets for jobs required	+34,710	+61,730	+96,440

Source: refer Table 15, Table 16

The analysis suggests that the adoption of the GAA targets might mean that there would be an *under-provision* of new jobs to meet the employment requirements of residents in the corridor. However, it is emphasised that the difference between the two projections is only in the order of 15%, and the employment projections shown in Table 15 are based on the application of a crude participation rate, which may be expected to decline over time as the population ages.

Figure 3: Comparison of Employment Requirements and GAA Growth Targets, 2009 to 2031



Source: refer Table 17

Application of GAA Targets

Projections have been prepared for the key indicators including the total number of jobs in the Casey-Cardinia corridor, the number of jobs held by local residents, and the proportion of jobs in white collar occupations. These projections have been made on the following basis:

1. Continuation of employment patterns from 2006, including patterns of travel to work and the distribution of employment between white collar and blue collar occupations
2. Application of GAA targets relating to employment self-sufficiency, employment self-containment, and employment in white collar occupations.

The analysis is presented in Table 18 and Table 19, with the results illustrated in Figure 4.

The main points to note are described below:

2009

- In 2009, an estimated 65,120 jobs are located in the Casey-Cardinia corridor, assuming that the employment patterns evident from the 2006 Census have continued. Of these jobs, an estimated 46,850 jobs are held by residents in Casey and Cardinia.
- There are currently approximately 48,870 jobs in Casey, and 16,250 jobs in Cardinia, assuming that employment patterns have remained constant since 2006.
- If the distribution of employment by occupation is maintained from 2006, approximately 44,330 jobs are in white collar occupations, comprising 33,760 white collar jobs in Casey, and 10,570 white collar jobs in Cardinia.
- These estimates for 2009 indicate that the number of jobs within the corridor has increased by approximately 8,860 jobs over the period 2006 to 2009, with an additional 6,350 jobs held by local residents of Casey and Cardinia.
- If the GAA targets are applied to the estimated resident labour force, the corridor would have a total of 147,910 jobs, reflecting the aspirational target for employment self-sufficiency of 100%. This means that there is a current deficit of 82,790 jobs compared against the GAA targets.
- The GAA targets also imply that a total of 20,040 jobs would need to have been created over the period 2006 to 2009, whereas only 8,860 jobs were created if the 2006 employment patterns continued.
- According to the GAA targets, approximately 73,960 local residents should be employed within the corridor, reflecting the target of 50% employment self-containment. This means that there is a current deficit of 27,110 jobs held by local residents, compared with the base case estimates for 2009.
- The GAA occupation target implies that 110,930 jobs are in white collar occupations in 2009, and this reflects a deficit of 66,600 white collar jobs when compared against the base case estimates for 2009.

2031

- In 2031, an estimated 113,980 jobs would be located in the Casey-Cardinia corridor, assuming that the employment patterns evident from the 2006 Census continue until that time. Of these jobs, an estimated 82,050 jobs would be held by residents in Casey and Cardinia.
- In 2031, approximately 73,110 jobs would be located in Casey and 43,510 jobs would be in Cardinia, assuming that the 2006 employment patterns remain constant.

- If the distribution of employment by occupation is maintained from 2006, approximately 78,810 jobs would be in white collar occupations, comprising 50,510 white collar jobs in Casey, and 28,300 white collar jobs in Cardinia.
- These estimates for 2031 indicate that the number of jobs within the corridor will increase by approximately 48,860 jobs over the period 2009 to 2031, with an additional 35,200 jobs held by local residents of Casey and Cardinia.
- If the GAA targets are applied to the estimated resident labour force in 2031, the corridor would have a total of 259,050 jobs, reflecting the aspirational target for employment self-sufficiency of 100%. This means that there would be a deficit of 145,070 jobs compared against the base case.
- The GAA targets also imply that a total of 111,140 jobs would need to have been created over the period 2009 to 2031, whereas only 48,860 jobs would be created if the 2006 employment patterns continue.
- According to the GAA targets, approximately 129,530 local residents will need to be employed within the corridor, reflecting the target of 50% employment self-containment. This means that there would be a deficit of 47,480 jobs held by local residents, compared with the base case estimates for 2031.
- The GAA occupation target implies that 194,290 jobs would be in white collar occupations in 2031, and this reflects a deficit of 48,880 white collar jobs when compared against the base case estimates for 2031.

Overall, a *total of 193,390 jobs will need to be created over the period 2009 to 2031* if the GAA target relating to employment self-sufficiency is to be met. This consists of a current deficit of 82,790 jobs (in 2009), and a need to provide jobs for the increase in the employed labour force of 111,140 persons (over the period until 2031).

Moreover, *an additional 89,240 jobs in the corridor will need to be held by local residents* over the period 2009 to 2031 in order to meet the GAA target relating to employment self-containment. This figure consists of a current (2009) deficit of 33,670 jobs that are held by local residents, plus the projected requirement for an additional 55,570 jobs held by local residents over the period 2009 to 2031.

With a current (2009) deficit of 66,600 white-collar jobs when compared against the GAA target, and a projected need for an additional 83,360 white-collar jobs over the period 2009 to 2031, the total *requirement is for 149,960 new white-collar jobs* in order to meet the GAA target for 2031.

Clearly, the magnitude of the challenge in providing new jobs to serve the needs of the Casey-Cardinia corridor is significant. A large number of new jobs need to be created within the corridor, and these jobs need to reflect the employment skills of the local population if targets relating to employment self-sufficiency and employment self-containment are to be met.

The implications arising from these benchmarks and projected employment growth to 2031 are identified in the following section 2.6.

Table 18: Calculation of Future Employment Requirements, and Application of GAA Targets, 2006 to 2031

Location	2006			2009			2031		
	Casey	Cardinia	Total	Casey	Cardinia	Total	Casey	Cardinia	Total
Actual / base case*:									
Employed residents	100,670	27,200	127,870	115,920	31,990	147,910	173,420	85,630	259,050
Jobs	42,440	13,820	56,260	48,870	16,250	65,120	73,110	43,510	113,980
Employed locally	25,860	8,940	40,500	29,780	10,510	46,850	44,550	28,140	82,050
White-collar jobs	29,320	8,990	38,310	33,760	10,570	44,330	50,510	28,300	78,810
Applying GAA Targets:									
Jobs	100,670	27,200	127,870	115,920	31,990	147,910	173,420	85,630	259,050
Employed locally	50,330	13,600	63,940	57,960	16,000	73,960	86,710	42,820	129,530
White-collar jobs	75,500	20,400	95,900	86,940	23,990	110,930	130,070	64,220	194,290
Deficiencies:									
Jobs	-58,230	-13,380	-71,610	-67,050	-15,740	-82,790	-100,310	-42,120	-145,070
Employed locally	-24,470	-4,660	-23,440	-28,180	-5,490	-27,110	-42,160	-14,680	-47,480
White collar jobs	-46,180	-11,410	-57,590	-53,180	-13,420	-66,600	-79,560	-35,920	-115,480

Source: Essential Economics
Note: * Base case assumes continuation of current patterns relating to travel-to-work and broad occupation type

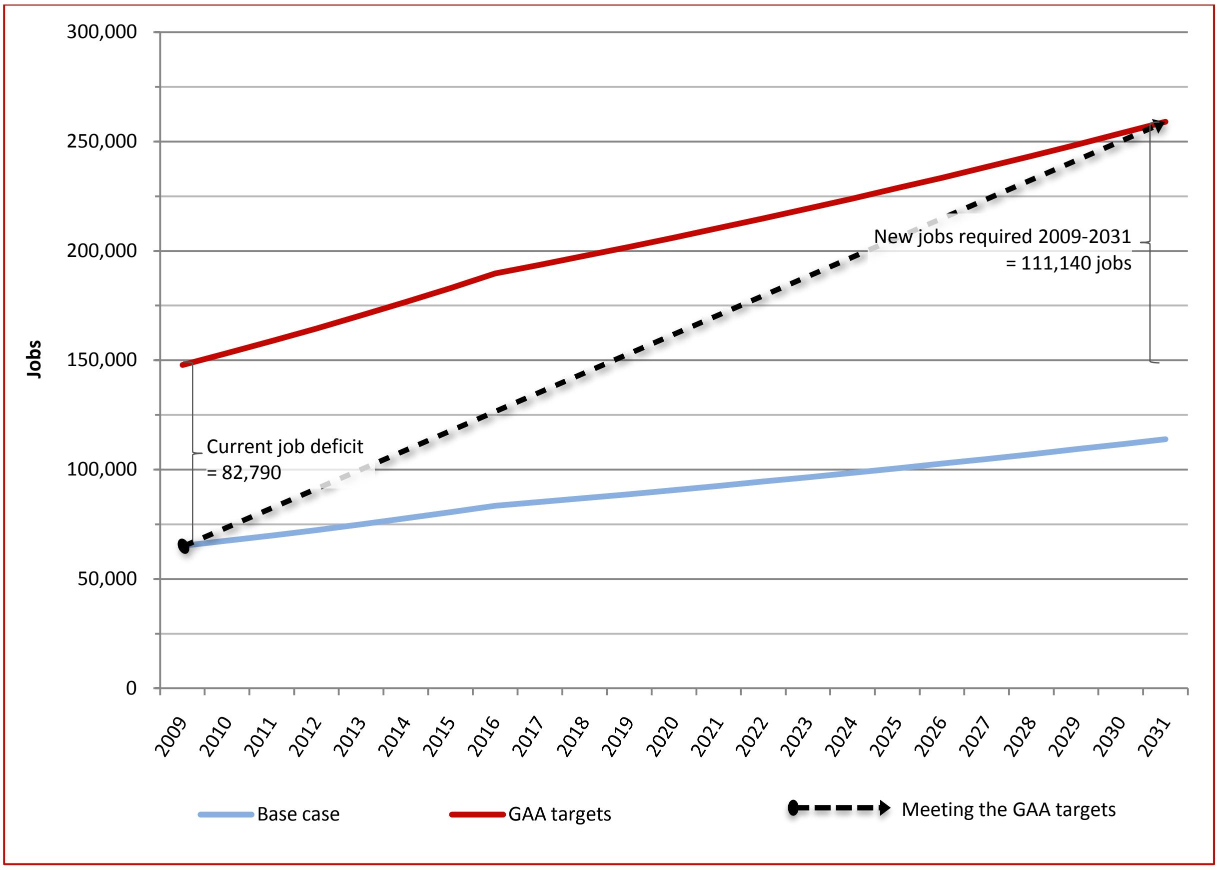
Table 19: Growth in Employment Requirements, 2006 to 2031

Location	2006-2009			2009-2031		
	Casey	Cardinia	Total	Casey	Cardinia	Total
Base case:						
Jobs	+6,430	+2,430	+8,860	+24,240	+27,260	+48,860
Employed locally	+3,920	+1,570	+6,350	+14,770	+17,630	+35,200
White-collar jobs	+4,440	+1,580	+6,020	+16,750	+17,730	+34,480
GAA targets:						
Jobs	+15,250	+4,790	+20,040	+57,500	+53,640	+111,140
Employed locally	+7,630	+2,400	+10,020	+28,750	+26,820	+55,570
White-collar jobs	+11,440	+3,590	+15,030	+43,130	+40,230	+83,360
Deficiencies:						
Jobs	-8,820	-2,360	-11,180	-33,260	-26,380	-62,280
Employed locally	-3,710	-830	-3,670	-13,980	-9,190	-20,370
White-collar jobs	-7,000	-2,010	-9,010	-26,380	-22,500	-48,880

Source: Essential Economics
Note: * Base case assumes continuation of current patterns relating to travel-to-work and broad occupation type

The analysis is illustrated in Figure 4, which shows the extent of employment growth that will be required over the period 2009 to 2031 in order to address both the current deficit of jobs, and the additional jobs required as the population expands.

Figure 4: Job Requirements, Base Case and Assuming GAA Targets are Met, 2009 to 2031



Source: refer Table 14, Table 15

2.6 Conclusion

This regional overview shows that significant population growth is occurring in the Casey-Cardinia growth corridor. The residential population in the corridor is expected to increase from 320,820 persons in 2009 to reach 562,800 persons by 2031. This represents a net increase of +241,980 persons and an average annual growth rate of +2.6% over the period. This growth rate is significant when compared with the annual growth rate of +1.3% projected for metropolitan Melbourne. An additional +124,320 persons are projected to live in Casey by 2031.

Analysis of relevant employment data shows that the Casey-Cardinia corridor performs poorly in terms of the GAA targets relating to employment self-sufficiency, employment self-containment and the occupational distribution of the employed labour force.

The analysis shows that *employment self-sufficiency* across the corridor was approximately 44% in 2006 (56,260 jobs for an employed labour force of 127,870 persons), and this compares with the GAA target of 100% self-sufficiency at the regional level.

The level of *employment self-containment* is estimated at 34% in 2006 (with 40,500 jobs in the corridor held by local residents of Casey and Cardinia), and this compares with the GAA target of 50% self-sufficiency at the regional level.

Casey-Cardinia is forecast to experience a net increase of +118,000 persons in the labour force over the period 2009 to 2031, with around 61,000 of these persons (or 52%) living in Casey. With an allowance for unemployment averaging around 6%, this represents a requirement for approximately +111,000 new jobs to be created to serve local labour force demands over the period 2009 to 2031.

Overall, a *total of 193,390 jobs will need to be created over the period 2009 to 2031* if the GAA target relating to employment self-sufficiency is to be met. This consists of a current deficit of 82,790 jobs (in 2009), and a need to provide jobs for the increase in the employed labour force of 111,140 persons (over the period until 2031).

Moreover, *an additional 89,240 jobs in the corridor will need to be held by local residents* over the period 2009 to 2031 in order to meet the GAA target relating to employment self-containment. This figure consists of a current (2009) deficit of 33,670 jobs that are held by local residents, plus the projected requirement for an additional 55,570 jobs held by local residents over the period 2009 to 2031.

With a current (2009) deficit of 66,600 white-collar jobs when compared against the GAA target, and a projected need for an additional 83,360 white-collar jobs over the period 2009 to 2031, the total *requirement is for 149,960 new white-collar jobs* in order to meet the GAA target for 2031.

Clearly, the magnitude of the challenge in providing new jobs to serve the needs of the Casey-Cardinia corridor is significant. A large number of new jobs need to be created within the corridor, and these jobs need to reflect the employment skills of the local population if targets relating to employment self-sufficiency and employment self-containment are to be met.

Importantly, if the GAA targets are not achieved, the implication is that employed residents in Casey and Cardinia will continue to travel outside the corridor to seek work, with subsequent economic costs in the form of vehicle emissions, travel time costs, infrastructure requirements and loss of leisure time.

3 LOCAL CONTEXT ANALYSIS

This Chapter identifies the demographic and socio-economic situation at the local level in Casey, based on statistics for the Casey-Cranbourne and Casey-Berwick SLAs at the ABS 2006 Population Census. This information is subsequently used as an indicator to demonstrate potential for influencing new directions in employment patterns in the PSPs, especially in regard to the extent of self-sufficiency, self-containment, and mix of occupations (ie, in broad terms of white collar and blue collar).

3.1 Local Study Area

The local study area selected for this assessment comprises:

- Casey-Cranbourne SLA, and
- Casey-Berwick SLA.

The two SLAs have been selected for assessment as they are situated in the general area in which the four PSP areas are located, and are locations where substantial recent development has occurred. Figure 5 shows the locations of the two SLAs.

The identified SLAs do not entirely contain the PSP areas; for example, Clyde North and the C21 Business Park are located in the Casey (C) – South SLA. Nonetheless, the SLAs of Cranbourne and Berwick are likely to be representative of the future demographic and employment profile of the population living in the PSPs, and are therefore appropriate areas to be assessed.

3.2 Population

At 2009, the Casey - Cranbourne SLA has a resident population estimated at 86,000 persons, and the Casey - Berwick SLA has an estimated 89,000 persons.

As official forecasts have not yet been prepared at the SLA level in metropolitan Melbourne, the consultants have prepared SLA forecasts based on official forecasts at the municipal level, combined with the previous SLA forecasts published in *Victoria in Future 2004* (VIF2004) by the former Department of Sustainability and Environment (DSE).

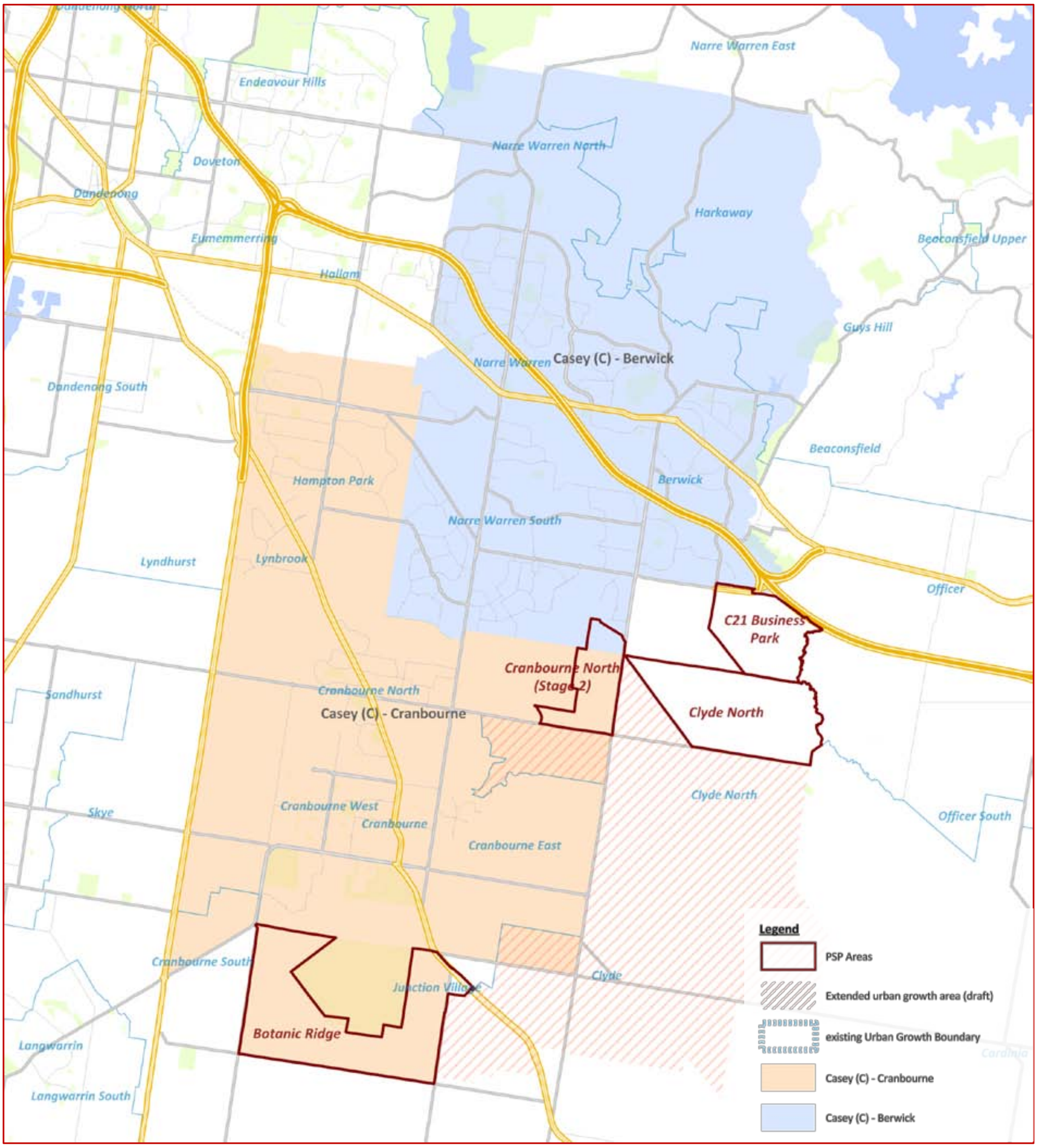
Thus, Casey data has been used to derive projections for SLAs in Casey by estimating the proportion of Casey population that each SLA is likely to secure between 2006 and 2036. This proportion is derived by applying VIF2004 modelling for the period, and which is adjusted to reflect 2006 ERP data. That is, by allocating the same proportion of Casey population growth to each SLA as was anticipated at the time VIF2004 forecasts were prepared.

Using this methodology, the population of Casey – Cranbourne SLA is forecast to expand from 70,790 persons in 2006 to 206,510 persons in 2036. Over the period this represents an increase of +135,720 persons and an annual average growth rate of +3.6%. The population of Casey (C) – Berwick is forecast to expand from 84,950 persons in 2006 to 120,580 persons in 2036. Over the period this represents an increase of +35,630 persons and an annual average growth rate of +1.2%

Note that future release of VIF2008 data is expected to provide official population forecasts at an SLA level for the period up to 2031, and therefore the projections included in this report should be regarded as preliminary.

Preliminary population projections are presented in Table 20.

Figure 5: Casey-Cranbourne SLA and Casey-Berwick SLA



Prepared by Essential Economics with MapInfo and StreetPro

Table 20: Preliminary Population Projections, Casey LGA and SLAs, 2006-2036

Location	2006	2009	2011	2016	2021	2026	2031	2036	Change 2006-2036	AAGR 2006-2036
Casey (C) - Berwick	84,950	89,410	92,940	98,230	101,050	98,650	106,160	120,580	+35,630	+1.2%
Casey (C) - Cranbourne	70,790	86,250	96,430	119,120	141,850	156,430	181,820	206,510	+135,720	+3.6%
Casey (C) - Hallam	52,090	55,010	57,130	60,080	62,920	63,320	69,760	79,230	+27,140	+1.4%
Casey (C) - South	14,400	19,980	24,130	34,060	44,330	51,650	62,570	71,070	+56,670	+5.5%
Casey (C)	**222,230**	**250,650**	**270,630**	**311,490**	**350,150**	**370,050**	**420,310**	**477,390**	**+255,160**	**+2.6%**

Source: DSE, Victoria in Future 2004; ABS Regional Population Growth, Australia Cat. No. 3218.0; DPCD, Victoria in Future 2008; Essential Economics
Note: Figures rounded
AAGR: Annual Average Growth Rate

3.3 Employment Self-Sufficiency

In 2006, the number of employed residents in Cranbourne SLA was 28,830 persons, while 9,760 jobs were located within the SLA. On these figures, Cranbourne SLA had a job self-sufficiency ratio of 33% in 2006, which can be considered relatively low compared with SLAs in the inner and middle suburbs of Melbourne.

In 2006, Berwick SLA had an employed resident labour force of 44,090 persons, and provided 17,140 jobs; this represents a job self-sufficiency ratio of 40%.

The GAA target is for an employment self-sufficiency level of at least 30% when measured at the neighbourhood level, and at least 70% when measured at the sub-regional level.

In the SLAs of Cranbourne and Berwick, which can be considered as sub-regions for the purpose of this analysis, the figures indicate that the GAA targets are not met. Indeed, in Cranbourne SLA the neighbourhood self-sufficiency target of 30% is barely met.

3.4 Employment Self-Containment

In 2006, approximately 27,000 Cranbourne SLA residents were employed, with almost 4,000 of these individuals working locally (i.e. within the Cranbourne SLA). This represents an employment self-containment ratio of 15% for Cranbourne SLA in 2006.

The self-containment ratio for Berwick SLA was 21% in 2006, with approximately 8,650 residents (out of 40,440 employed residents) filling local jobs within Berwick SLA.

Even when looking at a more regional level, only approximately one out of every five workers (23%) residing within the combined Cranbourne SLA and Berwick SLA district worked in this same area in 2006.

Low levels of employment self-containment can lead to a variety of issues, such as:

- Additional time and money costs associated with commuting long distances to work
- The added strain on the transport system in handling these travel demands
- Pollution and energy demands caused by transportation requirements
- Potential neighbourhood security problems

- Expenditure leakages out of the local economy.

An appropriate response in planning for the employment needs of the sub-regional population is:

1. To ensure that local employment precincts are planned in which opportunities for job creation can occur; and
2. To encourage appropriate employment-matching so that local residents have opportunities to fill jobs that are located in the surrounding area.

The self-containment ratios for the SLAs under study – at 15% for Cranbourne, 21% for Berwick, and approximately 23% for the combined region – are well below the GAA target for self-containment of 50%. However, it should be noted that the GAA target is intended to apply at the *regional* level, which in this case is better reflected in the analysis presented in Chapter 1.

3.5 Industry Structure

Industries in which Cranbourne SLA and Berwick SLA Residents Work

Cranbourne SLA's resident labour force has increased by approximately 50% over the period 1996-2006 (from 19,020 to 27,850 employed labour force participants). This represents a growth rate of 4% pa in the employed resident labour force.

Over the past decade, a notable increase has occurred in Cranbourne SLA residents employed in the tertiary sector (+8,830 resident labour force participants or growth of 3.9% pa), with particularly strong growth occurring in retail trade (+1,380 resident labour force participants or growth of 5.1% pa) and health and community services (+1,170 resident labour force participants or growth of 7.2% pa).

The number of Cranbourne SLA residents employed in the secondary sector also increased significantly (+2,810 resident labour force participants of growth of +3.7%), albeit from a lower base than the tertiary sector. The strongest secondary growth sector was construction (+1,110 labour force residents or growth of 6.3% pa).

The number of Cranbourne SLA labour force participants employed in the primary sector contracted by 1.2% between 1996 and 2006 (a loss of 40 resident labour force participants).

The situation in Berwick SLA is broadly similar to Cranbourne SLA, yet stronger growth rates have been achieved across the board. Berwick SLA's resident labour force has increased considerably over the period 1996-2006, effectively doubling from 20,690 persons to 41,140 employed labour force participants. This represents a growth rate of 7.1% pa in the employed resident labour force.

Both the tertiary and secondary sectors have grown at 7.2% pa and, like Cranbourne SLA, growth has been particularly strong in retail trade (+3,140 resident labour force participants or growth of 8.2% pa) and health and community services (+2,220 resident labour force participants or growth of 9.8% pa).

In view of this situation, as both the Cranbourne SLA and Berwick SLA labour forces have expanded, they have retained their strong base in traditional 'blue collar' industries. However, growth in the tertiary sector indicates that a gradual shift towards a stronger white collar occupational representation is occurring in these SLAs.

An important implication is that future employment precincts serving the Cranbourne and Berwick populations need to have regard for these trends, with opportunities for office developments and other types of jobs that are typically associated with white collar occupations. In this regard it is important to recognise that an increasingly considerable component of white collar employment is associated with industrial activities.

Jobs Located in Cranbourne SLA and Berwick SLA

As mentioned previously, 9,760 jobs were located in Cranbourne SLA in 2006, representing an increase of 2,360 jobs compared to 2001 (ABS Journey to Work data).

Over the past five years, a significant increase has occurred in the number of tertiary jobs located in Cranbourne SLA (+1,950 jobs or growth of 5.8% pa). Despite this increase, the proportion of tertiary jobs (out of total job provision) has remained steady between 2001 and 2006.

While the number of jobs in Cranbourne SLA's secondary sector increased by 290 between 2001 and 2006, the proportion of secondary sector jobs (out of total job provision) remained steady over the period. An increase in the proportion of construction jobs located in Cranbourne SLA counterbalanced a decline in the proportion of manufacturing jobs over the five-year period.

In 2006 Berwick SLA provided 17,020 jobs; this represents an increase of 4,940 jobs compared to 2001 (ABS Journey to Work data).

Similar to Cranbourne SLA, the past five years has seen a significant increase in the number of tertiary jobs located in Berwick SLA (+4,780 jobs or growth of 8.1% pa). The increase has raised the proportion of tertiary jobs (out of total job provision) from 83% in 2001 to 87% in 2006.

This job provision data shows a steady white and blue collar employment provision in Cranbourne SLA over the past five years, with a slightly higher swing away from blue collar to white collar in Berwick SLA. Overall in 2006, one out of seven jobs located in both Cranbourne SLA and Berwick SLA was associated with the traditional blue collar primary and secondary industries.

3.6 White Collar – Blue Collar Employment

A review of Journey to Work (JTW) data for 2006 (where an occupation is identified) shows that:

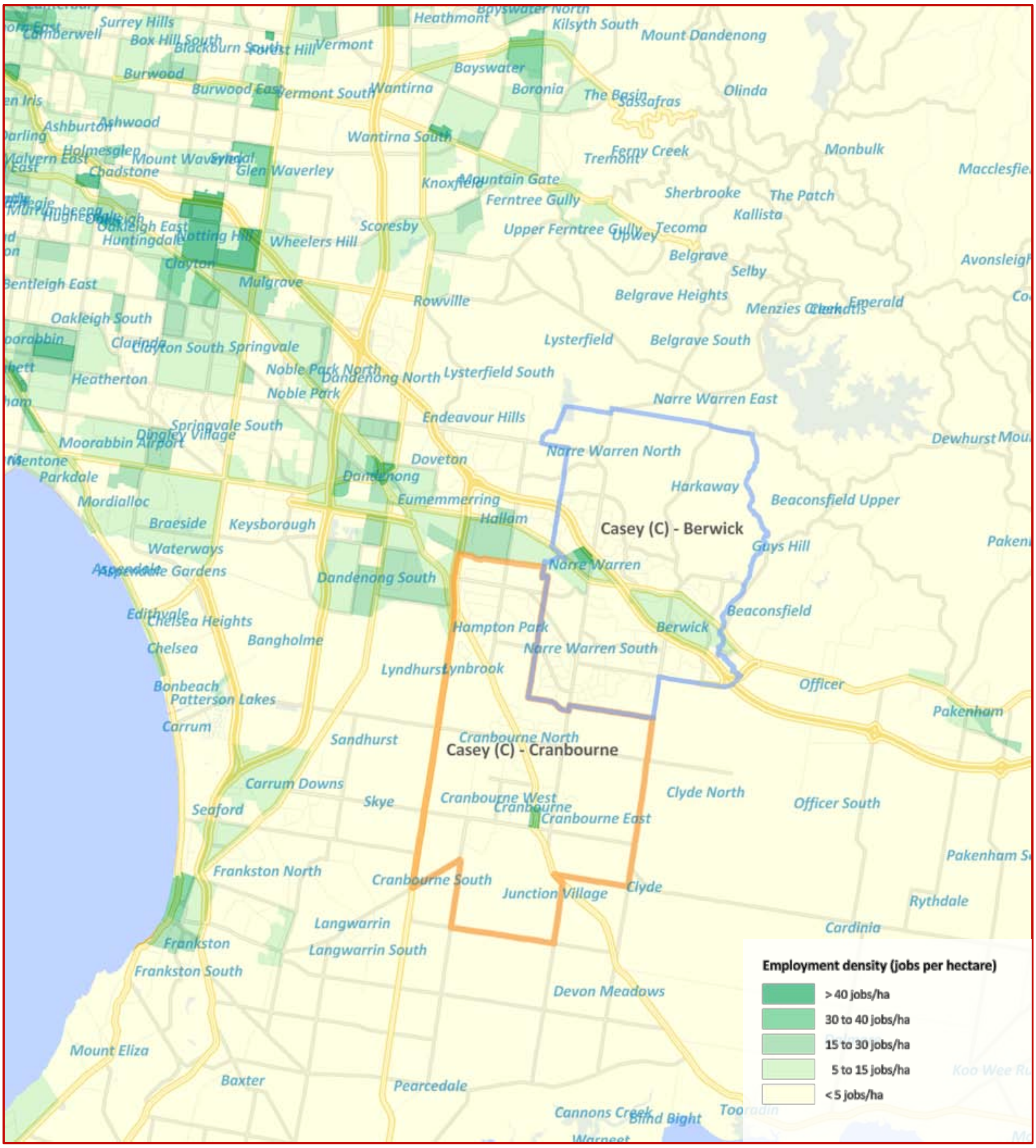
- Approximately 68% of jobs (or 6,530 jobs) located in Cranbourne SLA are associated with white collar occupations (managers, professionals, clerical, community and sales) and approximately 32% of jobs (or 3,040 jobs) are associated with blue collar occupations (technicians and trades, machinery operators and drivers, and labourers).
- Approximately 76% of jobs (or 12,830 jobs) located in Berwick SLA are associated with white collar occupations (managers, professionals, clerical, community and sales) and approximately 24% of jobs (or 4,090 jobs) are associated with blue collar occupations (technicians and trades, machinery operators and drivers, and labourers).

Overall, the analysis indicates that the Berwick SLA more closely approximates the preferred GAA target of 75% of jobs in white collar occupations compared with the situation in Casey.

A particular feature of the local employment situation that is likely to influence these results is the location of significant employment districts in the Berwick SLA, including the Narre Warren/Fountain Gate activity centre and adjoining business park, and the Berwick business precinct. Figure 6 illustrates this by showing the employment density (jobs per hectare) across the south-eastern part of Melbourne, while Figure 7 presents the same information in terms of the distribution of jobs across the region.

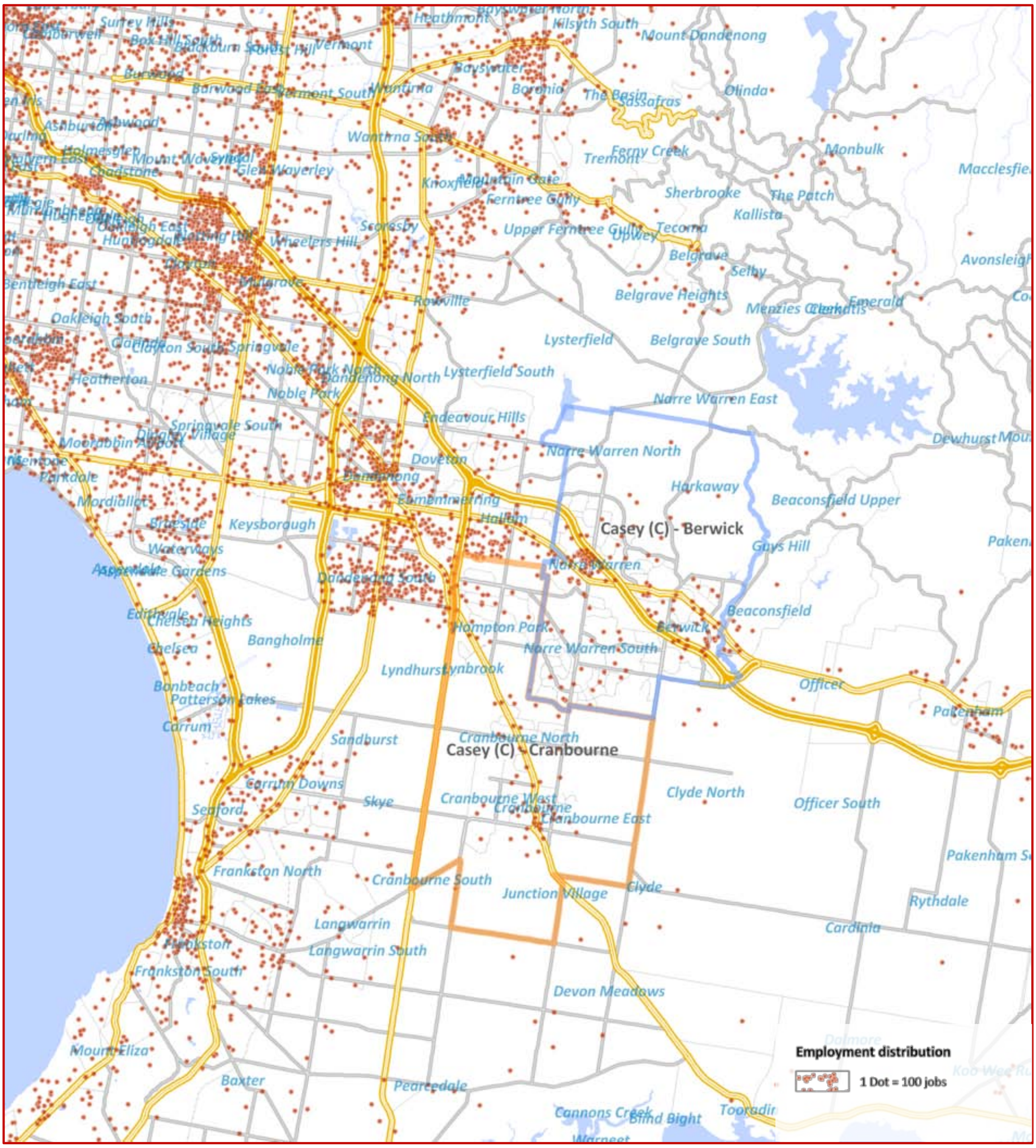
In Cranbourne, the town centre is the only significant employment focus, and this explains the poorer performance in terms of the numbers of locally-available jobs, particularly in white-collar sectors.

Figure 6: Employment Density in South-Eastern Melbourne (Jobs/Hectare)



Produced by Essential Economics with MapInfo, StreetPro and ABS Journey to Work data, 2006

Figure 7: Employment Distribution in South-Eastern Melbourne (Location of Jobs)



Produced by Essential Economics with MapInfo, StreetPro and ABS Journey to Work data, 2006

3.7 Education Attainment

Cranbourne SLA residents have generally lower levels of educational achievement compared to residents of Berwick SLA and the City of Casey as a whole; however, levels of educational achievement in all of these regions are significantly lower than metropolitan Melbourne averages.

For example, in 2006 Cranbourne SLA had 14.7% of residents holding a post-school qualification completing degree and above level education, compared to 22.9% for Berwick SLA, 20.0% for Casey LGA and 36.3% for metropolitan Melbourne.

Cranbourne SLA has a particularly high proportion of residents holding Certificate qualifications. For example in 2006, 43.8% of post-school qualifications held by Cranbourne SLA residents were at Certificate level (compared to 39.3% for Berwick SLA, 39.7% for Casey LGA and 26.1% for metropolitan Melbourne), and this highlights the continuing importance of trades skills in the Cranbourne area.

When trends for 1996-2006 are considered, Cranbourne SLA has seen a small shift away from Certificate qualifications towards diploma and degree or above qualifications. In Berwick SLA the shift has been away from Certificate qualifications towards degree or above qualifications, which is broadly similar to trends observed across metropolitan Melbourne.

Over the 10-year period to 2006, the following trends in educational attainment are observed:

- An increase of +3.6% in the proportion of the Cranbourne SLA population with a degree or higher qualifications compared with +5.1% for Berwick SLA, +4.5% for Casey LGA and +5.8% for metropolitan Melbourne
- An increase of +1.7% in the proportion of the Cranbourne SLA with diploma qualifications compared with -0.2% for Berwick SLA, +1.4% for Casey LGA and -0.4% for metropolitan Melbourne
- A decline of -2.7% in the proportion of the Cranbourne SLA with Certificate qualifications compared with -3.8% for Berwick SLA, -2.2% for Casey LGA and -1.7% for metropolitan Melbourne.

3.8 Income Levels

ABS Census data from 2006 reveals the following information:

- Income levels in Casey LGA are broadly similar to metropolitan Melbourne averages.
- Income levels in the Cranbourne SLA are generally lower than metropolitan Melbourne, while Berwick SLA has slightly higher income levels than the metropolitan benchmark.
- In 2006, Cranbourne SLA's median weekly individual income was $465, compared with $534 for Berwick SLA, $479 for Casey LGA as a whole, and $480 for Metropolitan Melbourne.
- Growth in income measures (individual and household income) for the period 1996-2006 for Cranbourne SLA residents occurred at a slightly lower rate than the Casey LGA average and is considerably below the metropolitan Melbourne average.

3.9 Employment Location and Travel to Work Patterns

Journey to Work (JTW) data from 2006 shows the following information:

Cranbourne SLA

- Approximately three-quarters (73%) of the employed resident labour force in Cranbourne SLA travelled outside the City of Casey to work. Greater Dandenong accounted for 13% of employed Cranbourne residents, while 5% of residents were employed in Cardinia Shire.
- Approximately 16% of Cranbourne SLA labour force participants were employed within the same SLA.
- The remaining 11% were employed in other locations in the City of Casey (ie Berwick, Hallam and South SLAs).
- The number of Cranbourne SLA residents working in Berwick SLA increased by 11% pa over the period 2001 to 2006.

Berwick SLA

- Approximately two-thirds (67%) of the employed resident labour force in Berwick SLA travelled outside the City of Casey to work. Greater Dandenong accounted for 11% of employed Cranbourne residents, while just 1% of residents were employed in Cardinia Shire.
- A further 23% of Berwick SLA labour force participants were employed within the same SLA.
- The remaining 10% were employed in other locations within Casey LGA (ie Cranbourne, Hallam and South SLAs).
- The number of Berwick SLA residents working in Cranbourne SLA has increased by 9% pa between 2001 and 2006.

Overall, these figures show that residents in Cranbourne and Berwick generally travel beyond the region to work. Major employment locations include Hallam (within the corridor) and Greater Dandenong (outside the corridor), both of which are significant locations for industrial and related employment.

3.10 Labour Force Growth Estimates

Based on population growth data presented in Table 20, long-term estimates for labour force growth have been prepared for Cranbourne SLA and Berwick SLA. These estimates assume that the existing 'crude' labour force participation rates will remain constant over the forecast period.

The forecasts show that between 2009 and 2036, Cranbourne SLA's labour force is forecast to expand by approximately 58,330 persons, while Berwick SLA's labour force is forecast to expand by approximately 15,620 people over this period.

These estimates are summarised in Table 21.

In terms of employed persons (with the application of an average unemployment rate of 6% over the 2009-2036 period), the analysis indicates that approximately 54,830 new jobs will need to be created to serve the needs of Cranbourne SLA residents, while an additional 14,690 new jobs will be required to meet the employment needs of Berwick SLA residents.

Overall, a total of 69,520 jobs will need to be created to serve the employment needs of residents in Cranbourne and Berwick SLAs.

Table 21: Labour Force projections, Selected Locations 2009-2036

Location	2009	2011	2016	2026	2036	Change 2009-2036
Casey (C) - Cranbourne SLA						
Population[1]	86,250	96,430	119,120	156,430	206,510	+120,260
Labour Force (LFPR 48.5%)[2]	41,830	46,770	57,770	75,870	100,160	+58,330
Employed labour force (6% unemployment)	39,320	43,960	54,300	71,320	94,150	+54,830
Casey (C) - Berwick SLA						
Population[1]	89,410	92,940	98,230	98,650	120,580	+31,170
Labour Force (LFPR 50.1%)[2]	44,790	46,560	49,210	49,420	60,410	+15,620
Employed labour force (6% unemployment)	42,100	43,770	46,260	46,450	56,790	+14,690
Cranbourne SLA and Berwick SLA Labour Force	**86,620**	**93,330**	**106,980**	**125,290**	**160,570**	**+73,950 (Rounded: +74,000)**
Cranbourne SLA and Berwick SLA Employed Labour Force	**81,420**	**87,730**	**100,560**	**117,770**	**150,940**	**+69,520 (Rounded: +69,000)**

Source: (1) Refer Table 2.1; (2) ABS Census 2006

Note: Crude Labour Force Participation Rate: resident labour force as share of resident population. Crude LFPR for 2006 applied to forecast population levels. Crude LFPR for Cranbourne SLA 48.5% and for Berwick SLA 50.1%, based on ABS Population Census 2006.

3.11 Property Prices

A review of Valuer General data relating to house price trends for selected locations shows that for the period 1996-2007, median house prices in Cranbourne (+9.9% pa), Casey LGA (+9.2% pa) and Cranbourne North (+8.4%pa) increased at a slower rate than for metropolitan Melbourne overall (10.0% pa).

In terms of median house prices for 2007:

- Cranbourne ($240,000) and Casey LGA ($280,000) remain considerably more affordable compared to metropolitan Melbourne ($375,000).
- The smaller suburb of Cranbourne South ($455,000) was approximately 20% above the metropolitan average ($375,000), and this reflects the larger properties that have generally been available at that location.
- The price differential in Cranbourne South has reduced considerably over the past decade, noting that Cranbourne South median house prices were 55% higher than median metropolitan Melbourne house prices in 1997.

In summary, these trends highlight Cranbourne's role, in a metropolitan context, as a provider of low cost housing options for those entering the property market (1st home buyers) and those seeking to upgrade to larger accommodation (2nd home buyers, families etc), and this is reflected in the type of residential product being developed in these markets over recent times.

Median house price data is shown in Table 22 and Figure 8.

Table 22: Median House Prices, Selected Locations, 1996-2007

	Cranbourne	Cranbourne East	Cranbourne North	Cranbourne South	Cranbourne West	City Of Casey	Metropolitan Melbourne
1996	$85,000	na	$100,500	$205,000	na	$106,000	$131,000
1997	$92,000	na	$104,000	$212,500	$87,000	$110,000	$142,000
1998	$94,500	na	$105,000	$213,250	$90,000	$115,000	$155,000
1999	$104,000	$163,000	$115,000	$250,000	$135,950	$130,000	$174,000
2000	$116,500	$162,500	$127,000	$276,500	$154,200	$145,000	$190,000
2001	$128,000	$177,000	$140,000	$295,000	$164,000	$163,750	$225,000
2002	$146,500	$199,000	$165,000	$392,500	$167,000	$189,300	$260,000
2003	$179,500	$225,000	$192,000	$393,750	$192,000	$221,500	$295,000
2004	$204,000	$283,500	$211,500	$380,000	$210,000	$240,000	$311,000
2005	$210,000	$270,000	$225,000	$473,500	$215,000	$250,000	$320,000
2006	$225,000	$273,500	$221,250	$500,000	$225,000	$260,000	$347,000
2007	$240,000	$278,000	$244,500	$455,000	$238,000	$280,000	$375,000
Change 1996-2007	**+$155,000**	**na**	**+$144,000**	**+$250,000**	**na**	**+$174,000**	**+$244,000**
AAGR 1996-2007	**+9.9%**	**+6.9%(1)**	**+8.4%**	**+7.5%**	**+10.6%(2)**	**+9.2%**	**+10.0%**

Source: Valuer General – A Guide to Property Values, 2008
Note: AAGR: Annual Average Growth Rate
(1) 1999-2007
(2) 1997-2007

Valuer General data also provides information on median sales prices for vacant house blocks. This data shows that for the period 1996-2007, strong growth in land prices has been recorded in Cranbourne North (15.3% pa), Cranbourne (13.6% pa) and Casey LGA (12.1%), and this compares to 9.0%pa for metropolitan Melbourne over this period.

In terms of median vacant block prices for 2007:

- Cranbourne ($132,000) remained below the metropolitan Melbourne average ($142,500), although the differential between the metropolitan averages had closed significantly over the past decade or so, indicating a strong increase in demand for residential land in Cranbourne.

- Median vacant land prices in Casey LGA ($158,000) have now edged above the metropolitan average, further highlighting recent strong demand in the area.

- Growth in prices in Cranbourne South (+5.8%) has been significantly below municipal and metropolitan averages over the past decade; however, the 2007 median price ($180,750) is approximately 25% above metropolitan average (well down from the 75% differential in 1996).

Overall, the trends observed for vacant land prices in Casey indicate that although the median price now exceeds the metropolitan average by approximately 11%, areas in Cranbourne are still below the metropolitan average and thus foreshadow continuing demand from 1st home buyers and young families.

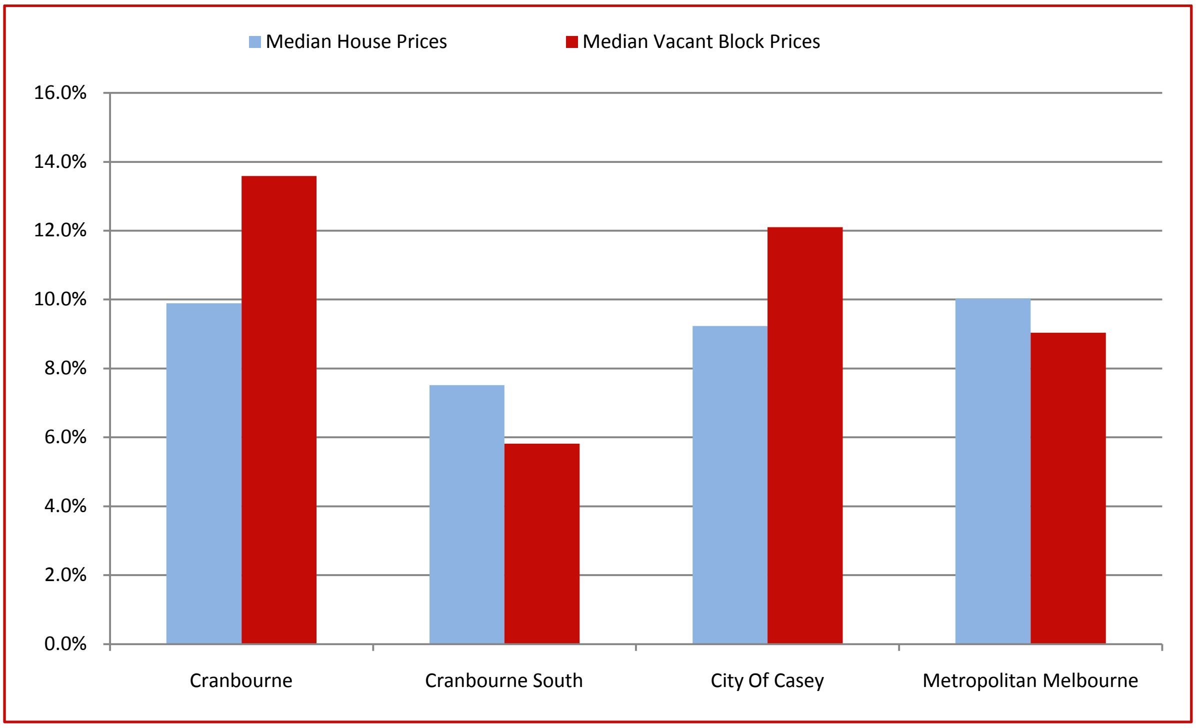
Median vacant house block price data is included in Table 23 and Figure 8.

Table 23: Median Vacant Block Prices, Selected Locations, 1996-2007

Year	Cranbourne	Cranbourne East	Cranbourne North	Cranbourne South	Cranbourne West	City Of Casey	Metropolitan Melbourne
1996	$32,500	na	$32,000	$97,000	na	$44,950	$55,000
1997	$35,000	na	$32,840	$102,000	na	$46,200	$58,950
1998	$38,000	na	$44,000	$110,000	na	$50,000	$61,000
1999	$53,500	$50,000	$43,500	$120,250	$43,000	$56,000	$64,900
2000	$47,000	$48,225	$45,500	$138,500	$45,000	$61,000	$66,000
2001	$52,000	$56,000	$48,000	$155,000	$48,400	$66,000	$74,000
2002	$81,500	$67,000	$69,000	$180,000	$57,000	$82,000	$89,950
2003	$105,000	$95,000	$130,750	$180,000	$73,000	$115,000	$118,000
2004	$119,000	$120,000	$133,000	$180,000	$110,000	$137,000	$135,000
2005	$121,500	$120,500	$135,000	$189,000	$105,000	$139,000	$137,000
2006	$125,000	$109,000	$144,500	$170,500	$152,000	$145,000	$139,000
2007	$132,000	$115,000	$153,000	$180,750	$120,000	$158,000	$142,500
Change 1996-2007	**+$99,500**	**na**	**+$121,000**	**+$83,750**	**na**	**+$113,050**	**+$87,500**
AAGR 1996-2007	**+13.6%**	**11.0%(1)**	**+15.3%**	**+5.8%**	**13.7%(1)**	**+12.1%**	**+9.0%**

Source: Valuer General – A Guide to Property Values, 2008
Note: AAGR: Annual Average Growth Rate
(1) 1999-2007

Figure 8: Average Annual Growth in Median House and Vacant Block Prices, for Selected Locations, 1996-2007



Source: Valuer General – A Guide to Property Values, 2008

3.12 Conclusion

This local level demographic and socio-economic overview shows that significant population growth is expected to occur in Casey – Cranbourne SLA between 2006 and 2036, while Casey – Berwick SLA will experience a growth rate in line with the metropolitan Melbourne average. When combined, population levels in Cranbourne SLA and Berwick SLA are expected to increase from 175,660 persons in 2009 to reach 327,090 persons by 2036. This represents a net increase of +151,430 persons and an average annual growth rate of 2.3% over the period. This is a very significant growth rate in the context of the 1.4% pa projected for metropolitan Melbourne.

In terms of resident labour force numbers, Cranbourne SLA and Berwick SLA are forecast to generate a net increase of approximately 74,000 persons in the resident labour force, with almost 58,500 persons (or 79%) living in Cranbourne SLA.

The requirement for new jobs to meet the increasing size of the local resident labour force is significant. The future location of these jobs is equally significant, especially in circumstances where the planning strategy is to locate as many of these jobs close to where population growth is occurring, thus reducing journey-to-work travel time and costs and contributing to other community benefits.

Cranbourne SLA and Berwick SLA have self-sufficiency ratios of 33% and 40%, respectively. These are relatively low self-sufficiency ratios, and would be improved through the further creation of local employment opportunities.

The GAA target is for an employment self-sufficiency level of at least 30% when measured at the neighbourhood level, and at least 70% when measured at the sub-regional level. These targets are not met for the Berwick and Cranbourne SLAs, each of which could be considered as employment sub-regions. Indeed, in Cranbourne SLA the neighbourhood self-sufficiency target of 30% is barely met.

Cranbourne SLA and Berwick SLA both suffer from relatively low employment self-containment within their boundaries, with self-containment ratios of 15% and 21% respectively. This means that more than five out of every six workers living in Cranbourne SLA and almost four out of every five workers living in Berwick SLA commute out of these areas for their employment. Even when looking at the wider study area, almost four out of every five workers (77%) living in the combined Cranbourne SLA and Berwick SLA district leave this area to commute to work.

These self-containment ratios are well below the GAA target for self-containment of 50% that is applied at the regional level.

With the population of the study area (and particularly in Cranbourne SLA) projected to continue to grow at a significant rate over the next 25 to 30 years, employment self-containment issues within these areas will need to be addressed through the provision of new employment precincts that are matched to the local skills base in order to avoid potential environmental, economic and social consequences.

Other points of interest relating to employment arising in this chapter are:

- Cranbourne SLA and Berwick SLA have retained their strong base in traditional 'blue collar' industries. However, growth in the tertiary sector indicates a gradual shift towards a stronger white collar resident labour force is occurring in these SLAs. Similarly, a trend is occurring toward tertiary sector jobs in both Cranbourne SLA and Berwick SLA.

- Approximately 68% of jobs (or 6,530 jobs) located in Cranbourne SLA and approximately 76% of jobs (or 12,830 jobs) located in Berwick SLA are associated with white collar employment (managers, professionals, clerical, community and sales).

- These trends in occupations are likely to reflect the relative household income levels. Analysis shows that Cranbourne SLA income levels are generally lower than metropolitan Melbourne, while Berwick SLA has slightly higher income levels than the metropolitan benchmark.
- Property market indicators show that Cranbourne and Berwick continue to be relatively affordable locations to purchase property, and this emphasises the role of these suburbs as options for 1st home buyers and those seeking to upgrade their housing to accommodate a growing family. While this assists in supporting the rapid population growth in the region, it also highlights the need to diversify the housing product if a greater share of high-skilled employees, managers and business owners are to be attracted to live in the area.

4 DRIVERS OF DEMAND FOR EMPLOYMENT LAND

This Chapter identifies the main *drivers* of demand for employment land at both the regional level (ie, in the corridor) and at the local level. These drivers are the factors which influence the direction, type and extent of economic development and employment at the regional and local levels.

With a good appreciation of these factors, it is possible to provide estimates of future economic activity and employment that may be attracted to locate in the PSP areas in Casey, and to identify the actions necessary to achieve positive outcomes in terms of job provision to meet labour force requirements.

The drivers considered in this Chapter relate to:

1. Population and labour force growth
2. Business location preferences
3. Market demand indicators.

Each of these aspects is considered in the following sections.

4.1 Population and Labour Force Growth

In the period 2009 to 2031, the resident population in the Casey-Cardinia corridor is expected grow by 241,980 persons, comprising growth of 124,320 persons in Casey and 117,660 persons in Cardinia.

This population growth will give rise to growth in resident labour force numbers and demand for local employment provision. Analysis in section 2.5 shows the following implications for the period 2009 to 2031:

- A current deficit of 82,790 jobs compared against the GAA target for employment self-sufficiency
- A requirement for an additional 111,140 new jobs over the period 2009 to 2031 in order to meet the GAA target for 2031
- Overall, an additional 193,930 jobs to be created over the period 2009 to 2031 (an average of approximately 8,800 new jobs per annum)
- An additional 89,240 jobs in the corridor to be held by local residents over the period 2009 to 2031 (an average of approximately 4,050 jobs pa).

Clearly, the magnitude of the challenge in providing new jobs to serve the needs of the Casey-Cardinia corridor is significant. A large number of new jobs need to be created within the corridor, and these jobs need to reflect the employment skills of the local population if targets relating to employment self-sufficiency and employment self-containment are to be met.

These estimates relate to the expected population and employment growth within the existing UGB. The proposed expansion to the UGB provides opportunities to identify new areas of employment land, while also leading to population growth and the need for additional local employment opportunities.

4.2 Business Location Preferences

Business location preferences have a very significant influence on the demand for employment land on a geographic basis. The underlying influence of business location decisions is in evidence with reference to the main employment locations which have developed in metropolitan Melbourne over many years.

In this regard, the Melbourne Central Business District and environs (which include St Kilda Road, Southbank and Docklands) are the focus for a wide range of private and public sector activities, and therefore jobs. The role of the CBD as an employment location has historic roots, and has also been reinforced by a strong desire on the part of these businesses to have a central location in proximity to markets and suppliers.

With the continuing growth of metropolitan Melbourne, new employment foci have emerged over time. As a result, major employment centres are to be found in suburban locations. Examples in the commercial/office sector include Box Hill, Hawthorn, and Camberwell, while examples in manufacturing and associated transport and warehousing activities include Altona, Braeside, Laverton North, Moorabbin, Somerton, and Dandenong.

These location patterns change with time, especially as new road and public transport infrastructure is introduced and as new locational options open up (such as the release of unencumbered and affordable greenfields land on the metropolitan periphery), and as businesses seek out optimal locations for their activities in terms of proximity to their labour force, markets and suppliers.

In order to more specifically identify the drivers of business location decisions, decision-making factors are identified for a range of sectors:

Industrial Development (small-scale)

Demand drivers for small-scale industrial property include:

- Availability of small to medium sized subdivided lots
- Competitive lease terms
- Access to major arterial road network and linkages to ports, airports etc
- Efficient access to (often regionally-based) suppliers, customers and markets
- Access to labour, typically a mix of blue (manual) and white collar (management, administration, marketing) occupations
- Access to business support services – and this is often more important for some of the smaller tenant types, who may seek such services in the immediate area
- Actual product offered can be a significant factor, depending upon the flexibility of layout, storage areas, office space, ability to expand, etc
- Competition from alternative development sites

Industrial Development (large-scale)

Demand drivers for large-scale industrial property are similar to those listed above, but with an emphasis on factors that include:

- Availability of sufficiently sized lots, with very good access to transport linkages
- Competitive lease terms
- Efficient access to (often national or international-based) suppliers, customers and markets
- Access to labour, typically a mix of blue (manual) and white collar (management, administration, marketing) occupations
- Access to business support services and linkages with other suppliers
- Competition from other major development sites, which might be located interstate of even overseas
- Assistance in establishment costs and planning
- Lots in industrial areas that are suitably separated from residential and other high amenity areas (eg schools)
- Lots in areas that have high amenity suited to corporate industrial activities
- Flat land that can be developed inexpensively, without the need for significant cut and fill.

Commercial Office Location

The following factors are considered important influences on the commercial office market:

- Existence of an established office market
- Competition from other office locations
- Opportunities for business clustering and interdependence
- Access to labour, especially residents employed in white-collar or office-type occupations
- Availability of suitably sized floorspace and configuration
- Competitive lease costs and terms
- Communications infrastructure, including high-speed broadband connections
- Good access to public transport
- Good access to the main road network
- Visibility and highway frontage
- Availability of retail and other business support services
- High amenity setting in terms of building design, landscaping, natural environment, etc
- Minimal conflicts with surrounding uses, especially residential

Retail Location

Retail business location decisions are influenced by the following factors:

- Accessibility and visibility to a suitably-sized population catchment
- Size of trade area population and exposure to tourists and other visitors
- Opportunity to serve passing trade
- Co-location/integration with other retail activities
- Site size and ease of development
- Ability to integrate with and utilise major transport, community and social infrastructure
- Competition from existing centres and proposed centres
- Policy support and planning certainty

Home-Based Businesses

The following factors influence the home-based business market:

- Appropriate housing stock with office or study (or flexibility of design)
- Access to business support services (eg accountants, printers)
- High-speed internet access
- Supportive local government policies (eg allowing limited business signage in residential areas)
- Access to temporary office space, meeting rooms and small-scale conference facilities

4.3 Market Indicators for Commercial and Industrial Development

Key market indicators are provided in the sections below in order to give an indication of underlying demand in the industrial and commercial property markets.

Industrial Development

Relevant market indicators presented in this section include:

- Industrial land supply and consumption rates , based on information from the Urban Development Program 2008
- Building permit activity, from the Building Commission
- Industrial sales activity, from the Victorian Valuer General.

Industrial Land Supply

The Urban Development Program (UDP) 2008 was released in May 2008, and provides information on the amount of vacant and occupied industrial land in metropolitan Melbourne, Geelong and the Surf Coast.

According to UDP data, the Casey-Cardinia growth area contains a total of approximately 907 hectares of industrial land, with almost all of this located in the Industrial 1 Zone. The industrial land supply is distributed almost equally between Casey (449ha) and Cardinia (458ha).

A stock of 407ha of industrial zoned land is currently vacant (with a net developable area of 342ha), representing a vacancy rate of 45%. Most of the vacant land is located in Cardinia Shire (295ha gross area).

The supply of vacant industrial land in the growth corridor is relatively small in comparison with Hume (1,029ha of vacant industrial land) and Mornington (1,073ha of vacant land associated mainly with Hastings Port). Greater Dandenong has a stock of 368ha of vacant industrial land (255ha net developable area).

In addition to the stock of zoned land, Casey has an estimated 332 hectares (net) of future industrial land, most of which comprises the Cranbourne West employment precinct. Note that this figure does not include the land affected by Amendment C113 to the Casey Planning Scheme, which applies the Industrial 3 Zone to a 50ha piece of land fronting Thompsons Road in Cranbourne North. Amendment C113 facilitates the development of this land in accordance with the *Cranbourne North Service Business Precinct Development Plan*.

An additional 1,081 hectares (net) of future industrial land has been identified for the Pakenham Industrial Node, and – outside the corridor – an additional 462 hectares (net) of future industrial land has been identified in Greater Dandenong.

Average Industrial Land Consumption

The average annual consumption of industrial land in Casey-Cardinia is approximately 16ha per annum over the period 2004-2008, representing approximately 4% of total industrial land consumption in metropolitan Melbourne. Demand is stronger in Casey, where consumption has averaged 12ha per annum since 2004 (refer Table 24).

As shown in Table 24, industrial land demand in Casey-Cardinia is relatively low in comparison with locations such as Greater Dandenong (approx 50ha per annum), Hume (55-60ha pa) and Wyndham (55-60ha pa).

Table 24: Average Annual Consumption of Industrial Land (ha), 2000-2008

Location	2000-2005	2004-2008	2007-2008	% of metro 2007-2008
Casey (C)	8.7	12.1	11.4	3.2%
Cardinia (S)	5.0	4.0	3.9	1.1%
Casey-Cardinia	**13.7**	**16.1**	**15.3**	**4.3%**
Comparisons:				
Greater Dandenong (C)	52.7	49.8	52.5	14.9%
Total Pakenham Industrial Node	2.8	3.4	2.2	0.6%
Total South region	102.3	100.0	85.9	24.6%
Other growth areas:				
Hume (C)	48.1	56.3	61.0	17.4%
Wyndham (C)	43.7	58.4	55.4	15.8%
Melton (C)	9.0	3.3	6.9	2.0%

Source: DSE, Urban Development Program 2008
Note: South Region consists of Glen Eira, Bayside, Kingston, Gr Dandenong, Casey, Cardinia, Frankston and Mornington

As shown in Table 25, most industrial development is on land in the Industrial 1 Zone, although this reflects the existing zoning pattern and may not necessarily reflect the preferences of industry or local opportunities these firms may otherwise be seeking.

Table 25: Average Annual Consumption of Industrial Land by Zone (ha), 2004 to 2008

Location	Industrial 1 Zone	Industrial 2 Zone	Industrial 3 Zone	Business 3 Zone	Total
Casey	9.3	-	0.3	2.5	12.1
Cardinia	4.0	-	-	-	4.0
Pakenham Industrial Node	3.4	-	-	-	3.4
South Industrial Node	25.2	19.4	3.4	15.1	63.1

Source: DSE, Urban Development Program 2008
Note: South Industrial Node consists of Dandenong, Dandenong South and Hallam.

Building Activity

Table 26 presents a summary of building permit approvals for new industrial buildings in the Casey-Cardinia corridor, as recorded by the Building Commission.

The analysis shows:

- An average of approximately 26 new building permits per annum were received over the period 2001 to 2008, with an average value of $12.3 million per year.
- A more significant level of industrial permit activity has occurred in Casey (C), with an average of 17 permits per annum, compared with 9 permits pa in Cardinia (S).
- Activity in Casey peaked in 2006 and 2007, and this is understood to have been associated with industrial development in Lyndhurst.

Table 26: Building Permits for New Industrial Buildings, Cardinia and Casey, 2001-2008

Year	Casey (C)		Cardinia (S)		Total Corridor	
	No.	**Value**	**No.**	**Value**	**No.**	**Value**
2001	17	$ 5.1m	7	$ 0.6m	24	$ 5.7m
2002	11	$ 3.2m	9	$ 2.6m	20	$ 5.9m
2003	20	$ 7.4m	17	$ 2.8m	37	$ 10.2m
2004	11	$ 3.2m	8	$ 1.6m	19	$ 4.8m
2005	10	$ 2.2m	11	$ 2.9m	21	$ 5.1m
2006	34	$ 22.3m	3	$ 2.4m	37	$ 24.7m
2007	27	$ 21.1m	10	$ 6.7m	37	$ 27.7m
2008	9	$ 9.4m	6	$ 4.6m	15	$ 14.0m
Total 2001-2008	**139**	**$ 73.9m**	**71**	**$ 24.2m**	**210**	**$ 98.1m**
Average 2001-2008	17	$ 9.2m	9	$ 3.0m	26	$ 12.3m

Source: Building Commission of Victoria – Pulse database.

Industrial Sales Activity

Industrial sales activity for the period 2000 to 2007 is summarised in Table 27, and is based on information from the DSE publication *A Guide to Property Values*.

The main conclusions to be drawn from the data are as follows:

- A total of approximately 620 industrial property sales were recorded over the period 2000 to 2007, at an average of approximately 78 sales per annum.
- The majority of sales were for factories (320 sales or 40 sales pa) and for vacant land (184 sales or 23 sales pa).
- Property sales activity is greatest in Casey, where an average of 60 sales pa were recorded over the period (or 77% of all sales in the corridor).
- Sales activity has been relatively stable over time, with peaks in activity occurring in 2002 (93 sales) and 2005 and 2006 (96 sales in 2005 and 92 sales in 2006).

Table 27: Industrial Sales, Cardinia and Casey, 2000-2007

	Cool Store	Abattoir	Factory	Quarry	Unspecified	Warehouse /showroom	Warehouse	Vacant	Total
					2000				
Cardinia	0	1	0	0	1	0	1	2	5
Casey	1	0	25	0	3	0	1	15	45
Total	***1***	***1***	***25***	***0***	***4***	***0***	***2***	***17***	***50***
					2001				
Cardinia	1	1	1	0	2	0	0	7	12
Casey	0	0	23	0	2	2	0	21	48
Total	***1***	***1***	***24***	***0***	***4***	***2***	***0***	***28***	***60***
					2002				
Cardinia	0	0	6	0	3	0	0	5	14
Casey	0	0	42	0	5	0	6	26	79
Total	***0***	***0***	***48***	***0***	***8***	***0***	***6***	***31***	***93***
					2003				
Cardinia	0	0	7	1	5	0	1	3	17
Casey	1	0	33	0	2	4	3	14	57
Total	***1***	***0***	***40***	***1***	***7***	***4***	***4***	***17***	***74***
					2004				
Cardinia	0	0	3	2	1	0	0	8	14
Casey	0	0	41	0	3	0	5	14	63
Total	***0***	***0***	***44***	***2***	***4***	***0***	***5***	***22***	***77***
					2005				
Cardinia	0	0	7	0	1	1	0	11	20
Casey	1	0	31	0	3	4	10	27	76
Total	***1***	***0***	***38***	***0***	***4***	***5***	***10***	***38***	***96***
					2006				
Cardinia	0	0	13	0	2	0	3	11	29
Casey	0	0	41	0	4	4	4	10	63
Total	***0***	***0***	***54***	***0***	***6***	***4***	***7***	***21***	***92***
					2007				
Cardinia	1	0	18	0	6	1	0	5	31
Casey	0	0	29	0	5	3	6	5	48
Total	***1***	***0***	***47***	***0***	***11***	***4***	***6***	***10***	***79***
					2000-2007				
Total	***5***	***2***	***320***	***3***	***48***	***19***	***40***	***184***	***621***
Cardinia	2	2	55	3	21	2	5	52	142
Casey	3	0	265	0	27	17	35	132	479
Average	***1***	***0***	***40***	***0***	***6***	***2***	***5***	***23***	***78***
Cardinia	0	0	7	0	3	0	1	7	18
Casey	0	0	33	0	3	2	4	17	60

Source: A Guide to Property Prices (various)

Conclusion

Overall, the analysis presented above shows that the Casey-Cardinia corridor is not currently a significant location in terms of its stock of or demand for industrial land, particularly when compared against the very significant stocks of land and consumption rates evident in major industrial nodes such as Greater Dandenong, Hume and Wyndham. These comparison regions have annual consumption rates that are over three times greater than is evident in the Casey-Cardinia corridor.

Based on current consumption rates, the corridor as a whole has approximately a 20-year supply of zoned industrial land, and over 30 years supply of land when future industrial areas are taken into account. Importantly, however, industrial land take-up is expected to increase substantially as major new industrial precincts are planned and brought on line. Moreover, an expected increase in traffic congestion on the Princes Highway corridor due to rapid population growth is likely to raise the attractiveness of local business development opportunities in the Casey-Cardinia corridor.

In the context of the significant requirement for local employment opportunities in the Casey-Cardinia growth corridor (as described in Chapter 2), the industrial precincts in the region will play an important role as locations for local employment growth in the corridor.

Commercial Development

Relevant market indicators presented in this section include:

- A summary of office market sub-regions, including stock levels, vacancy rates and projects under construction or proposed
- Building permit activity, from the Building Commission
- Commercial sales activity, from the Victorian Valuer General.

Market Summary

A summary of key office market indicators is presented in Table 28, and has been drawn from analysis prepared by Charter Keck Cramer (Research Insights, March 2007). The main points to note are as follows:

- The south-east office market sub-region – in which the Casey-Cardinia corridor is located, but which extends to Cheltenham, Moorabbin, Caulfield, Dandenong and Frankston – is the most under-developed region for major commercial office development, with just 3% of the total building stock (noting that this data relates to office developments that are greater than 1,000m^2). It is likely that most of this stock is present in Central Dandenong.
- Only 38,500m^2 of new commercial office development was planned or under-construction in the south-east region in 2007.
- Vacancy rates in the south-east sub-region are relatively high, at 9-10% (compared with an average of 7.5-8.5%), indicating a relative lack of demand for new construction activity.

Other comments in relation to the commercial office market are as follows:

- Commercial office functions are increasingly being incorporated into industrial and semi-industrial buildings, and the information in Table 28 may not truly reflect the extent of office activities that occur in the outer south-east region.

- Analysis undertaken by Essential Economics and others indicates that up to approximately 15% of the building area of new industrial developments can comprise activities that typically require a white-collar workforce. This aspect is considered in assessing the potential employment outcomes in identified employment precincts later in Chapter 5.

- The most likely location for major office development in the short- to medium-term is Central Dandenong, where transport infrastructure is available and where there is significant public sector commitment to new office construction projects. While analysis undertaken in 2005-6 indicated a lack of underlying demand for office development in Central Dandenong (refer *Central Dandenong Retail and Commercial Revitalisation Strategy*), recent investments and incentives introduced by the State government add to the likelihood of such development occurring.

- Major commercial office development is likely to be significantly affected by the current economic downturn and the increased difficulty in securing finance for major development projects. In this environment, the likelihood of major new commercial office developments proceeding is likely to be low in the short term. Most of the opportunities are likely to be associated with government intervention (eg securing offices for regional departments) or the introduction of government incentives.

Table 28: Melbourne Office Markets by Sub-Region (Buildings greater than 1,000m^2), 2007

Sub-region	Main Suburbs	No. of Buildings	Total Stock	Total Vacancy	Under Construction/ Proposed	Vacancy Rate	Occupied Stock	% of Total Stock
Central City	CBD, Docklands, Southbank, St Kilda Road	740	4,907,400m2	402,400m2	274,000m2	8.0-9.0%	4,505,000m2	64%
City Fringe	Port Melbourne, South Melbourne, East Melbourne, Carlton, Richmond	276	892,800m2	62,000m2	135,300m2	6.0-7.0%	830,800m2	12%
Inner East	Camberwell, Hawthorn, Kew Balwyn, Malvern, South Yarra	222	605,800m2	27,000m2	31,200m2	3.5-4.5%	578,800m2	8%
North & West	Moonee Ponds, Preston, Footscray, Essendon, Heidelberg	98	252,100m2	20,000m2	49,200m2	7.0-8.0%	232,100m2	3%
Outer East	Box Hill, Burwood East, Mulgrave, Notting Hill, Blackburn, Glen Waverley	249	736,400m2	65,000m2	132,200m2	8.0-9.0%	671,400m2	10%
South East	Cheltenham, Moorabbin, Caulfield, Dandenong, Berwick, Frankston	105	246,700m2	23,000m2	38,500m2	9.0-10.0%	223,700m2	3%
Total		**1,690**	**7,641,200m2**	**599,400m2**	**660,400m2**	**7.5-8.5%**	**7,041,800m2**	**100%**

Source: Charter Keck Cramer – Research Insight (2007)

Building Activity

Table 29 presents a summary of building permit approvals for new commercial buildings in the Casey-Cardinia corridor, as recorded by the Building Commission.

The analysis shows:

- An average of approximately 116 new building permits per annum were received over the period 2001 to 2008, with an average value of $43.9 million pa.
- A more significant level of industrial permit activity has occurred in Casey (C), with an average of 68 permits per annum, compared with 48 permits pa in Cardinia (S).
- In terms of construction value, activity in the corridor peaked in 2004 with a total of $54.8 million in activity, while a total of $53.4m of activity occurred in 2008.
- Growth in building permit activity has been strong in Pakenham, with the value of construction increasing rapidly from around $5m in 2002 to over $20m in 2008.

Table 29: Building Permits for New Commercial Buildings, Cardinia and Casey, 2001-2008

Year	Cardinia		Casey		Total	
	No.	Value	No.	Value	No.	Value
2001	8	$ 1,783,960	34	$ 23,028,600	42	$ 24,812,560
2002	26	$ 5,124,640	40	$ 21,502,260	66	$ 26,626,900
2003	58	$ 6,472,510	86	$ 45,755,510	144	$ 52,228,020
2004	32	$ 5,590,610	73	$ 49,236,110	105	$ 54,826,720
2005	40	$ 14,389,210	83	$ 37,924,230	123	$ 52,313,440
2006	66	$ 10,764,890	97	$ 26,120,180	163	$ 36,885,070
2007	87	$ 13,673,650	74	$ 36,706,560	161	$ 50,380,210
2008	68	$ 21,281,880	58	$ 32,161,680	126	$ 53,443,560
Total 2001-2008	385	$ 79,081,350	545	$ 272,435,130	930	$ 351,516,480
Average 2001-2008	48	$ 9,885,170	68	$ 34,054,390	116	$ 43,939,560

Source: Building Commission of Victoria – Pulse database.

Commercial Office and Vacant Commercial Land Sales

Commercial sales activity for the period 2000 to 2007 is summarised for Casey and Cardinia in Table 30, and is based on the DSE publication *A Guide to Property Values*. The information shows the number of property transactions for commercial property and for vacant commercial land.

The main conclusions to be drawn from the data are as follows:

- A total of 195 commercial property transactions were recorded in Casey and Cardinia over the period 2000 to 2007, at an average of approximately 24 sales per annum.
- Most of the sales activity has been for vacant commercial land, with a total of 142 sales (73% of all transactions).
- Commercial property sales activity is greater in Casey, where an average of 123 sales were recorded over the period, representing an average of 15 transactions pa (or 62% of all sales in the corridor).

- Sales activity in the corridor has shown some increase over time, with the number of transactions increasing from 12 in 2000 to 36 in 2007.

Table 30: Commercial Office and Vacant Commercial Land Sales, Cardinia and Casey, 2000-2007

	Office	Office building	Vacant commercial	Total
		2000		
Cardinia	1	0	5	6
Casey	1	1	4	6
Total	***2***	***1***	***9***	***12***
		2001		
Cardinia	0	0	4	4
Casey	7	3	10	20
Total	***7***	***3***	***14***	***24***
		2002		
Cardinia	2	0	9	11
Casey	1	1	7	9
Total	***3***	***1***	***16***	***20***
		2003		
Cardinia	2	1	6	9
Casey	4	1	9	14
Total	***6***	***2***	***15***	***23***
		2004		
Cardinia	6	2	3	11
Casey	1	2	11	14
Total	***7***	***4***	***14***	***25***
		2005		
Cardinia	1	0	4	5
Casey	1	1	24	26
Total	***2***	***1***	***28***	***31***
		2006		
Cardinia	1	0	8	9
Casey	4	3	8	15
Total	***5***	***3***	***16***	***24***
		2007		
Cardinia	1	1	15	17
Casey	2	2	15	19
Total	***3***	***3***	***30***	***36***
		2000-2007		
Total	***35***	***18***	***142***	***195***
Cardinia	14	4	54	72
Casey	21	14	88	123
Average	***4***	***2***	***18***	***24***
Cardinia	2	1	7	9
Casey	3	2	11	15

Source: A Guide to Property Prices (various)

Conclusion

Overall, the analysis shows that the Casey-Cardinia corridor is a relatively minor location for commercial office activity when compared against the more significant office precincts in central Melbourne and the eastern suburbs. While major office developments are rare in the Casey-Cardinia corridor, a substantial proportion of office space is located as part of integrated office-warehouse or semi-industrial developments. In addition, small-scale activity occurs as part of the ongoing expansion of activity centres serving the regional population.

The current outlook for major new commercial office development in the Casey-Cardinia corridor is relatively weak, with significant incentives providing Central Dandenong with an advantage for new public-sector space over the short- to medium-term. Nevertheless, east-west transport constraints are likely to make office development a more viable proposition in the corridor over the longer-term, particularly as the size of the resident labour force with relevant skills and qualifications reaches a critical mass that makes commercial office projects attractive.

4.4 Conclusion

The magnitude of the challenge in providing new jobs to serve the needs of the Casey-Cardinia corridor is significant. The analysis indicates that *193,930 new jobs will need to be located inside the corridor over the period 2009 to 2031* if the GAA targets are to be achieved. This estimate includes the current under-supply of jobs in the corridor (in comparison with the GAA targets), as well as the additional jobs needed to serve the future population over the period 2009 to 2031.

Analysis also shows that an additional 89,240 jobs in the corridor will need to be held by local residents over the period 2009 to 2031 in order to meet the GAA target relating to employment self-containment. An additional 149,960 white-collar jobs will need to be generated in order to address the current deficit and meet the GAA target for 2031

The emphasis, therefore, is on encouraging employment growth within the corridor, and especially relating to industries which provide white collar occupations.

An assessment of market indicators shows that the corridor is currently only of minor importance as a location for industrial and commercial development. In the industrial market, land consumption is just 16ha per annum, and there is sufficient land at this rate to provide over 30 years supply. However, it is anticipated that industrial activity will increase in the region as transport and other infrastructure constraints in parts of the metropolitan area make local development more attractive. Industrial development will have to increase markedly if the GAA targets for local employment creation are to be satisfied.

The situation is similar in the commercial land market, where the corridor has very little in the way of dedicated office development, with most office employment activities occurring as part of integrated warehouse-office or semi-industrial developments. This situation is likely to remain the same, at least in the short-term, with the main opportunity for major new commercial development likely to involve public sector investment in Central Dandenong as part of the revitalisation strategy for that centre.

This highlights the need for intervention in the form of strategies which would serve to increase the level of local commercial office development, both within the PSP areas and in the wider region, so that the GAA employment targets are to be met. Part B of this report identifies ways in which local employment can be achieved, while Part C provides a range of suggested employment strategies relevant to the wider region.

5 EMPLOYMENT GENERATION OPPORTUNITIES

This Chapter provides an assessment of land that has been identified to accommodate additional employment activities in Casey and Cardinia, and in other localities that are relevant to the growth corridor, including for example employment generation opportunities in Dandenong. Estimates are made of the potential employment capacity in these identified precincts, based on the application of typical employment generation ratios, and with reference to more detailed studies and analysis where available.

These estimates of the potential for additional employment in identified employment precincts are augmented by consideration of potential future employment in activity centres and in home-based locations. An indication is also made of the extent to which these employment opportunities would be in white collar or blue collar occupations.

With this background, it is possible to broadly identify total future <u>supply</u> of employment land and the jobs that may be generated in Casey-Cardinia and its environs (and with a broad indication of type) that can assist in accommodating a share of the <u>demand</u> for employment created by expanding residential areas in Casey, including the four PSPs which are the subject of this report.

The analysis of employment supply presented in this Chapter is only intended to present a broad estimate of the <u>capacity to meet the employment demands of the regional population</u>. Importantly, estimates have not been made for <u>all</u> potential types of economic activity, such as community and leisure activities that occur in dedicated facilities outside activity centres, or for some of the smaller service business precincts that exist or might be developed in the future. The analysis also does not consider the potential employment outcomes associated with agricultural activities that occur outside the urban area.

The emphasis in this chapter is on providing a broad analysis of the capacity of the identified precincts to accommodate new employment, according to the areas of land available and typical employment densities. The analysis is <u>not</u> intended as a detailed examination of the likely take-up of employment land based on market conditions in the major sectors.

5.1 Major Employment Precincts

Major employment precincts have been identified through planning undertaken by the GAA and by the relevant municipalities in the south-eastern region of Melbourne. Some of these identified major employment precincts are already in development, while other areas have been planned for but require additional implementation through the preparation of precinct structure plans, planning scheme amendments and other actions.

A number of major sources of future industrial/employment land are located within the Casey-Cardinia corridor, and some other precincts are located outside the growth area but within the immediate surrounding region. These precincts are described below, with a broad analysis of the potential employment outcomes that could be expected to be generated in these precincts.

<u>Casey Technology Park</u>

The Casey Technology Park is located in Berwick and is principally aimed at attracting ‘knowledge-based’ businesses to the region through strong synergies with the nearby Berwick Hospital, Chisholm Institute and Monash University.

The identification of the technology park, and its relationship with employment generation in the Casey CBD and the C21 employment corridor (including the C21 Business Park), is described in *Casey C21*, which provides Council's vision for the future development of the municipality.

Casey C21 identifies a structural change in the way regions develop, with a far greater emphasis on knowledge and information and associated service industries (refer Casey C21, Volume 2, p21). According to the strategy, the successful regions of the future will be those that manage to create a cluster of modern high technology activity, thereby attracting a knowledge-intensive workforce with specialist skills.

In order to attract these types of activity, regions need to provide the right investment environments, with well-designed business park precincts being critically important to attract new knowledge-intensive industries. The precinct at Berwick, involving Monash University, Chisholm Institute and the health precinct, is intended to become the basis for the Casey C21 jobs strategy.

Casey C21 identifies an opportunity to create at least 10,000 jobs in the Casey Technology Park precinct in the long term.

Current employment in the precinct is in the order of approximately 1,700 employees, based on detailed Journey to Work data from the ABS Census 2006. This implies that the precinct has the potential to generate approximately an additional 8,000 or so new jobs, and representing a significant concentration of employment on the site (approximately 110 hectares of land). An estimated 85% of employment is expected to be in white collar occupations, having regard for the types of uses likely to be attracted to the site in its 'knowledge-intensive' roles.

For the purposes of this analysis, the following employment potential is identified:

Table 31: Additional Employment Potential, Casey Technology Park

White collar jobs	Blue collar jobs	Total job potential
6,800-8,500	1,200-1,500	8,000-10,000

Source: Essential Economics Pty Ltd; refer text

C21 Business Park

The C21 Business Park was originally conceived as a location to accommodate businesses, manufacturing facilities and services that would support the high intensity and knowledge-based activity that was to be attracted to the Casey Technology Park (CTP). The plan recognised that creative precincts such as that intended for the CTP typically require a wide range of support services, often with larger land area requirements and potentially involved highly technical manufacturing processes, distribution services, and other business support.

Circumstances have changed since the development of the Casey C21 Strategy; in particular, very significant tracts of land have been identified in the Officer-Pakenham corridor to accommodate a wide range of commercial and industrial land uses. This competing land is well-located with regard to transport infrastructure, and can be developed relatively cheaply given that it is generally very flat and unencumbered. In contrast, the C21 Business Park is encumbered by its topography (with a hill in a central position on the site) and the location of flood-prone land to the east. Moreover, the rate of development in the Casey Technology Park has been relatively slow due to the underlying market fundamentals described in section 4.3. The potential development options for the C21 precinct are discussed in more detail in Chapter 8.

Employment outcomes for C21 will depend upon the final form of the precinct plan; for the purposes of this analysis of the potential number of jobs that could be accommodated on the site range from:

1. No employment precinct (ie fully developed as residential land); to
2. High intensity development option, with a commercial office core, surrounded by a business park accommodating a wider range of business activities, and with a smaller residential precinct to the west.

Employment generation for the first option is zero; for the second option, the following assumptions are made:

- A commercial office precinct accommodating approximately 60,000m^2 of commercial office floorspace (and taking up approximately 5-10ha of land), with an employment outcome of 20m^2/job to reflect the high density nature of an office development (total jobs 3,000) and a focus on white-collar employment;
- A business park on the remainder of the site (approximately 185ha), generating employment at an average density of approximately 20 jobs per hectare to reflect a variety of industrial uses and with consideration to the topography of the site (total jobs 3,600) and with a focus on blue-collar employment (85%).

For the purposes of this analysis, the following estimates of employment potential are provided:

Table 32: Additional Employment Potential, C21 Business Park

White collar jobs	Blue collar jobs	Total job potential
0-3,800	0-2,800	0-6,600

Source: Essential Economics Pty Ltd; refer text

It is noted that, as this precinct his yet to undergo a Precinct Structure Planning process, the actual amount of employment land requires further refinement.

<u>Fountain Gate-Narre Warren CBD</u>

The Fountain Gate-Narre Warren CBD is identified as the Casey CBD in *Casey C21*, and its future development is now guided by the Fountain Gate-Narre Warren CBD Incorporated Plan (2006).

The centre is planned to become a significant economic resource for the municipality and the wider region, and is designated as a Principal Activity Centre (one of two identified for the corridor - the other is at Cranbourne Town Centre).

Development proposed for the centre includes:

- Substantial increase in retail activity in the Retail Core, Town Centre and Urban Heart precincts, with associated commercial uses (pending the outcomes of the Priority Development Panel)
- Continuation of restricted retail immediately to the east of Narre Warren North Road
- High intensity development of the business park precinct over time, to include commercial office, personal services, service businesses, and some residential uses
- Light industry to continue in identified precincts.

The Incorporated Plan identifies a very significant increase in retail floorspace provision over the life of the plan, involving an additional 130,000m^2. This would support approximately 3,000 or so additional jobs. Further expansion of retail activity is likely to occur over the longer term.

No specific floorspace allocation is identified in the Plan for commercial office development.

Overall, if the planned development of the CBD is achieved, the employment outcome is likely to be in the range 15,000-20,000 jobs, noting that Casey C21 identifies eventual employment at approximately 20,000 persons. These jobs will include further retail development as well as intensive commercial development in the business park precinct.

Current employment levels are approximately 6,000, so the expected additional employment is forecast to be in the range 9,000-14,000. The majority of employment (estimated at 70%) is likely to be in white collar occupations (retail jobs are classified as white collar occupations).

For the purposes of this analysis, the following estimates of employment potential are provided:

Table 33: Additional Employment Potential, Fountain Gate-Narre Warren CBD

White collar jobs	Blue collar jobs	Total job potential
4,200-9,800	1,800-4,200	6,000-14,000

Source: Essential Economics Pty Ltd; refer text

<u>Cranbourne West</u>

The Cranbourne West Precinct Structure Plan provides for a total of 331 hectares of employment land across the following uses:

- Industrial: 179 hectares
- Business Park / light industrial & servicing: 111 hectares
- Mixed Use: 29 hectares
- Commercial / Office Park: 12 hectares

According to analysis undertaken by MacroPlan (*Cranbourne West Urban Growth Plan Employment Land Sizing*, 2009), the development outcomes are likely to involve a mix of:

- Business park
- Office park
- Industrial
- Mixed use/service

A number of scenarios have been developed to reflect different intensities of development and a variety of mixed forms between these broad land use types, with employment outcomes ranging from 8,390 jobs to 19,690 jobs.

Estimates have been made of the likely occupational distribution of jobs for each type of land development, as summarised below.

Table 34: Additional Employment Potential, Cranbourne West

White collar jobs	Blue collar jobs	Total job potential
5,600-14,200	2,790-5,490	8,390-19,690

Source: Essential Economics Pty Ltd; refer text

South Gippsland Highway (Cranbourne East PSP)

The Cranbourne East Precinct Structure Plan identifies land at the intersection of South Gippsland Highway and Ballarto Road for employment activities, consisting of approximately 34 hectares.

According to the Cranbourne East PSP, the employment-generating potential of this land is estimated at approximately 1,000 jobs, based on the application of an average employment ratio of 30 jobs per hectare.

For the purposes of this report, a range of potential employment outcomes is adopted, with the employment ratio ranging from 25 jobs per hectare to 35 jobs per hectare.

An estimated split between white collar and blue collar jobs is provided in the Table below, reflecting the expected types of businesses likely to be attracted to the South Gippsland Highway precinct.

Table 35: Additional Employment Potential, Cranbourne East PSP

White collar jobs	Blue collar jobs	Total job potential
350-500	500-700	850-1,200

Source: Essential Economics Pty Ltd; refer text

Cranbourne North Service Business Precinct (Amendment C113)

Amendment C113 facilitates the development of land on the northern side of Thompsons Road in Cranbourne North as a service business precinct, and applies the Industrial 3 Zone to the land.

The employment-generating potential of this land is estimated at approximately 1,250 to 1,750 jobs, based on the size of the land (approximately 50ha), and the application of an average employment ratio ranging from 25 jobs per hectare to 35 jobs per hectare.

An estimated split between white collar and blue collar jobs is provided in the Table below, reflecting the expected types of businesses likely to be attracted to the precinct.

Table 36: Additional Employment Potential, Cranbourne North Service Industry Precinct

White collar jobs	Blue collar jobs	Total job potential
500-700	750-1,050	1,250-1,750

Source: Essential Economics Pty Ltd; refer text

Cardinia Road Employment Precinct

The Cardinia Road Employment Precinct is the largest of the precincts being developed and contains some 600ha of gross land. The Cardinia Road Employment Precinct Structure Plan (MacroPlan, 2008) indicates that 350 ha of this land is developable, of which 230 ha or (66%) is designated for industrial purposes, with other areas of land accommodating mixed industry and services, commercial activities and retail/commercial activity in activity centres. Total employment is estimated at 15,230 or so jobs at full development.

For the purposes of this analysis, a range of employment outcomes is adopted, as shown below. Occupation distribution by type is based on more detailed estimates of employment outcomes prepared by MacroPlan (ie for industrial, commercial and activity centre employment areas) at the following rates:

- Activity centre: 100% white collar
- Commercial: 85% white collar
- Mixed industry/service: 65% white collar
- Industry: 30% white collar

Table 37: Additional Employment Potential, Cardinia Road Employment Precinct

White collar jobs	Blue collar jobs	Total job potential
9,000-12,000	3,000-4,000	12,000-16,000

Source: Essential Economics Pty Ltd; refer text

Officer Employment Precinct

The Officer Employment Precinct contains approximately 770 hectares of land identified as future industrial land and has been nominated for employment uses.

A broad calculation of employment outcomes has been prepared on the following assumptions:

- Developable land @70% = 540 hectares
- Average employment generation of approximately 18 jobs/hectare (this reflects typical low density industrial development) = 9,720 jobs
- Estimated 25% white collar employment

For the purposes of this analysis, a range of employment outcomes are provided, as shown in the table below:

Table 38: Additional Employment Potential, Officer Employment Precinct

White collar jobs	Blue collar jobs	Total job potential
2,000-3,000	6,000-9,000	8,000-12,000

Source: Essential Economics Pty Ltd; refer text

Pakenham Industrial Precinct

The Pakenham Industrial Precinct includes land currently zoned for industrial purposes (being developed as the SouthEast Business Park) and future industrial land identified to the south of the Pakenham Bypass.

The existing zoned land contains approximately 190 ha of land (gross) and is already in development as the SouthEast Business Park (150 hectares). It is anticipated that the main focus of this precinct will be industrial activities, although some provision is made for bulky goods retailing.

The future industrial area comprises approximately 350 hectares of land (gross), or an estimated 250 hectares of developable land.

Estimates of employment generation are based on an average of 18-20 jobs/ha for the industrial land component (with the higher rate reflecting the area's location in relative proximity to the Pakenham urban area, and an expectation for some showroom and service industry employment), and with the addition of an estimated 500 retail jobs associated with the bulky goods retail centre.

Table 39: Additional Employment Potential, Pakenham Industrial Precinct

White collar jobs	Blue collar jobs	Total job potential
1,600-2,400	2,400-3,600	4,000-6,000

Source: Essential Economics Pty Ltd; refer text

Dandenong South Expansion

The Urban Development Program identifies approximately 810 hectares of land for future industrial activities in Dandenong South; this land has since been rezoned to Industrial 1 Zone through Amendment C87 to the Greater Dandenong Planning Scheme.

The Dandenong South Structure Plan (SGS Economics and Planning) identifies potential for approximately 23,000-35,000 new jobs "*depending on the nature of industrial development and associated business services, retail, personal services and hospitality workers*" (Structure Plan, p20).

An estimated split between white collar and blue collar jobs is provided in the Table below.

Table 40: Additional Employment Potential, Dandenong South Expansion

White collar jobs	Blue collar jobs	Total job potential
5,750-8,750	17,250-26,250	23,000-35,000

Source: Essential Economics Pty Ltd; refer text

Vacant Industrial Land

Vacant parcels of industrial land exist in Greater Dandenong (total of 370 hectares), Cranbourne (110 hectares, with the majority located in Hallam) and Cardinia (295 hectares, but mainly consisting of the Pakenham Industrial Precinct which is described above). The total land area (excluding part of the Pakenham Industrial Precinct already considered above) is estimated at approximately 620 hectares.

This land has potential to accommodate a range of additional jobs, including those in industrial activities, service industries, commercial activities, retailing and so on.

A broad estimate of the employment potential on this land has been prepared, on the basis of an average employment density ranging from approximately 18 to 25 jobs per hectare, and with a ratio of white collar to blue collar occupations of approximately 35:65. The results are shown in the Table below.

Table 41: Additional Employment Potential, Vacant Industrial Land

White collar jobs	Blue collar jobs	Total job potential
3,850-5,250	7,150-9,750	11,000-15,000

Source: Essential Economics Pty Ltd; refer text

New areas of industrial land are likely to be identified in association with the proposed changes to the UGB. Two opportunities have been identified, as follows:

1. A large new employment corridor on the south side of Thompsons Road in Clyde. The corridor would extend generally from Narre Warren – Cranbourne Road in the west, to the eastern edge of the extended UGB (in the environs of Cardinia Creek). Southwards, the precinct would extend as far as the transmission line easement. The total land area is estimated at approximately 930 hectares, with development opportunities to be explored through the Growth Area Framework planning process.

2. A new employment corridor along the South Gippsland Highway in Cranbourne and Devon Meadows, as an extension of the Ballarto Road Employment Area identified in the Cranbourne East PSP. Further analysis of this area is required to assess the delivery of biodiversity outcomes (refer *Delivering Melbourne's Newest Sustainable Communities*, p71 and p76).

Although detailed analysis has not been undertaken for these precincts, there is potential for the employment area in Clyde to accommodate 20,000-30,000 jobs, depending upon the employment mix. The Cranbourne South precinct may accommodate up to around 5,000 jobs, depending upon its size.

<u>Summary</u>

The major employment precincts are summarised in Table 42, including the location and type of development envisaged, the land area involved, and an estimate of the potential employment to be generated within the precinct.

Overall, the analysis shows potential for approximately 82,000 to 137,000 jobs to be created in the identified major employment precincts.

An important consideration is that the jobs in these precincts will also – to some degree – serve the employment needs of a wider regional labour force that includes Greater Dandenong, Knox, Frankston, Mornington Peninsula, parts of Yarra Ranges, Baw Baw, and so on. An estimated 29,000-44,000 of these job creation opportunities are related to employment potential in Greater Dandenong, rather than locations within the Casey-Cardinia corridor.

Also relevant is the expectation that additional employment land would be identified during the growth area planning to be undertaken in association with the proposed changes to the UGB.

Table 42: Employment generating potential in Major Employment Precincts

Site/location	Land Uses	Area	Employment outcomes (jobs)
Casey Technology Park (CTP)	High tech development in health and allied sectors	100ha	8,000-10,000 jobs
C21 Business Park	Identified to provide support for CTP and other employment regions. Has potential for higher density development.	200ha	0-6,300 jobs
Fountain Gate-Narre Warren CBD	Office and related businesses in Business Park component; retail and commercial businesses in Retail Core, Town Centre, Urban Heart.		6,000-14,000 jobs
Cranbourne West	Business employment land identified in structure plan.	330ha	8,390-19,690 jobs
South Gippsland Hwy	Land identified for mixed use employment.	34ha	850-1,200 jobs
Cranbourne North	Service Business Precinct	50ha	1,250-1,750 jobs
Cardinia Road Employment Precinct	Diverse mix of uses including industrial, mixed business, commercial and retail.	350ha	12,000-16,000 jobs
Officer Employment Precinct	Wide range of industrial-related employment activities.	540ha	8,000-12,000 jobs
Pakenham Industrial Precinct	Industrial, diverse activities, bulky goods	440ha	4,000-6,000 jobs
Dandenong South Expansion Area	Expansion of industrial area, emphasis on industrial/logistics uses, with potential for some white collar employment	810ha	23,000-35,000 jobs
Vacant Industrial Land	Expansion of existing industrial area	620ha	11,000-15,000 jobs
Total			**82,490 – 136,940**
Total within Corridor			**52,890 – 92,940**

Source: Various sources; Essential Economics

5.2 Activity Centres and Other

Opportunities for employment generation in addition to industrial and office developments will be associated with an expansion of investment in existing and planned activity centres in the surrounding region.

Estimates of the potential for additional retail floorspace development serving the population in the City of Casey and Cardinia Shire are based on the application of broad estimates of average demand for retail floorspace on a per capita basis, using data previously prepared by Essential Economics (*Retail Floorspace Forecasts for Metropolitan Melbourne, 2006 to 2030*, Essential Economics, 2007).

The report forecast that average retail floorspace demand would be in the order of 2.3m^2 per capita by 2020. If applied to the expected population growth in the Casey-Cardinia corridor for the period 2009 to 2031 (+241,980 persons, refer section 2.2), this would translate to potential for approximately an additional 560,000m^2 of retail floorspace.

Based on typical employment generation ratios, this amount of additional floorspace would support in the order of 14,000 extra jobs in the retail sector. Excluding the identified employment potential in Fountain Gate-Narre Warren CBD (approximately 3,000 jobs, as described in section 5.1), the retail potential in other activity centres (including major development in Officer, Casey Central, etc) is estimated at approximately 11,000 jobs.

Activity centres are also the location for non-retail commercial activities that typically comprise approximately 25% of the total floorspace provision in centres. On this basis, there is potential for approximately an additional 185,000m^2 or so of non-retail floorspace in activity centres, with potential to generate approximately 10,000 new jobs.

Overall, development in activity centres has potential to lead to the creation of approximately 24,000 new jobs in the retail and associated sectors over the period 2009 to 2031, or approximately 21,000 new jobs when the growth at Fountain Gate-Narre Warren is excluded. Almost all of these jobs would be in white collar occupations.

Based on activity centre employment patterns, a sizeable proportion of these jobs would be held by local residents in the corridor, although a proportion of these jobs would be held by residents from surrounding regions.

5.3 Home-Based Employment

In addition to the identified employment generation opportunities in identified employment precincts and in activity centres, a share of employment will be associated with those without a fixed place of work, and those who work from home. Estimates of home-based business employment vary considerably, but most studies estimate that this component of the employed labour force accounts for approximately 5-10% of total employment. Sectors of employment also vary considerably, ranging from trades services to small consulting firms, personal services, and so on.

Examination of Census data shows that the proportion of employed persons who stated that they “worked from home” on census night was approximately 3.4% in Casey and approximately 7.6% in Cardinia. These figures provide broad support for an estimate for home-based employment of approximately 5-10%, noting that the proportion of employed people working from home was lower in established suburbs.

On the basis that approximately 5-10% of the resident labour force will be employed at home, this represents a total of approximately 5,500-11,000 jobs over the period 2009-2031 (ie 5-10% of the total increase in the employed resident labour force of 111,000 in Casey-Cardinia over that period).

It is likely that a combination of occupation types is relevant for home-based employment, with occupations ranging from technicians and trades services (eg for building contractors etc), to white collar occupations such as professional consultants, tax analysts and personal service workers.

5.4 Employment Generation Potential in Identified Locations

The total identified opportunity for employment generation to serve the Casey-Cardinia corridor over the period 2009 to 2031 is estimated at approximately 109,000 to 169,000, with the following breakdown by broad occupation type:

- 62,150 to 94,700 jobs in white collar occupations
- 46,840 to 74,240 jobs in blue collar occupations

The number of jobs located within the Casey-Cardinia corridor is estimated at approximately 79,000 to 125,000 jobs, with an estimated 30,000 to 44,000 of the identified jobs (or approximately 28% of the total) located in the City of Greater Dandenong.

A summary is provided in Table 43, and employment locations are illustrated in Figure 9.

Table 43: Summary of Employment Generation Potential

Location	White collar	Blue collar	Total
Major employment precincts	39,650-68,600	42,840-68,340	82,490-136,940
Activity centres	18,900-18,900	2,100-2,100	21,000-21,000
Home based employment	3,600-7,200	1,900-3,800	5,500-11,000
Total	**62,150-94,700**	**46,840-74,240**	**108,990-168,940**
Within the Corridor	**54,090-82,800**	**25,300-42,140**	**79,390-124,940**

Source: Essential Economics Pty Ltd; refer text

Importantly, this estimate does not include consideration of all job creation opportunities; in particular, the analysis does not specifically consider the potential for job creation at community-level facilities such as schools, medical facilities, child-care, and so on. To some extent a share of these jobs are accounted for in the estimate of non-retail employment generation at activity centres in the region.

Another important point is that these employment opportunities will also need to – at least partly – serve the labour force requirements of people living outside the Casey-Cardinia corridor, including people in Baw Baw, Bass Coast and other out-board municipalities, and in in-board locations such as Kingston, Frankston, Greater Dandenong, Knox, and so on.

Also relevant is the expectation that additional employment land would be identified during the growth area planning to be undertaken in association with the proposed changes to the UGB. Two precincts have been identified, as discussed in section 5.1. Although detailed analysis has not been undertaken for these precincts, there is potential for the employment area in Clyde to accommodate 20,000-30,000 jobs, depending upon the employment mix. The Cranbourne South precinct may accommodate up to around 5,000 jobs, depending upon its size.

5.5 Summary of Employment Demand and Potential Supply

Taking into account the existing and future land areas identified for employment, an estimated 109,000-169,000 persons could be accommodated in workplaces in the Casey-Cardinia region and the immediate environs. This supply of employment land must be compared with the demand for regional employment, as analysed in Chapter 2.

As indicated in Section 2.5, approximately 111,000 new jobs will need to be created over the period 2009 to 2031 to meet the demand for employment in Casey-Cardinia and to meet the GAA targets in relation to employment self-sufficiency.

Overall, an estimated 193,930 jobs will need to have been created over the period 2009 to 2031 in order to account for the current employment deficit as well as the employment generation requirements over the period 2009-2031.

If the GAA targets are to be met, and to resolve the current deficit, an additional 149,960 white collar jobs will need to be created within the corridor over the period 2009 to 2031.

As indicated in this Chapter, the Casey-Cardinia area and environs (which include the southern part of Dandenong) can accommodate an estimated 109,000 to 169,000 additional jobs, including those that can be accommodated on new employment land identified in these areas, and those in activity centres and in the form of home-based business. Within the Corridor the employment opportunities are identified as approximately 79,000 to 125,000 additional jobs.

Overall, there is considerable opportunity for employment generation on the areas of land that have already been identified for employment purposes. However, these areas of land are insufficient to accommodate the scale of employment demand implicit in the GAA employment targets. Importantly, the identified employment precincts will also accommodate jobs that will be held by residents from other municipalities who travel into the Casey-Cardinia region, while some of the major employment opportunities will be located outside the corridor.

The underlying conclusion is that there is a need to ensure that employment opportunities identified above are achieved, and new areas of employment land will need to be identified in order to accommodate additional employment outcomes and to meet the GAA targets.

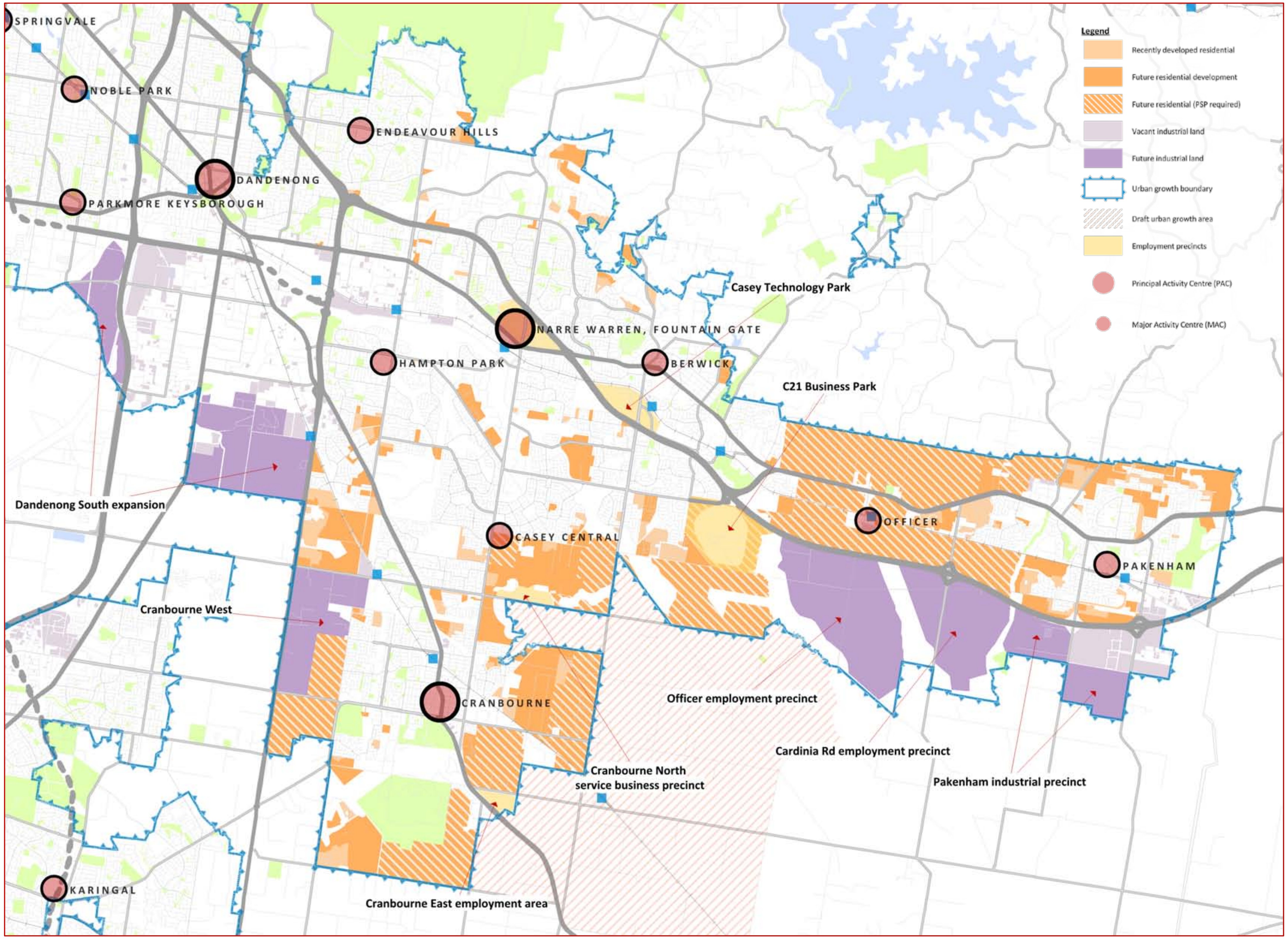
A summary of the demand and supply of employment opportunities in the corridor is presented in Table 44.

Table 44: Employment Demand-Supply Summary, 2009-2031

	White collar	Blue collar	Total
Employment (jobs) demand (refer section 2.5):			
Current deficit compared to GAA targets	+66,600	+16,190	+82,790
Plus required growth 2009-2031	+83,360	+27,780	+111,140
Total requirement 2009-2031 (including initial deficit)	*+149,960*	*+43,970*	*+193,930*
Employment (jobs) supply:			
In wider region (refer text)	62,150-94,700	46,840-74,240	108,990-168,940
Within corridor	54,090-82,800	25,300-42,140	79,390-124,940

Source: Essential Economics Pty Ltd; refer text

Figure 9: Employment Generation Potential



Source: Prepared by Essential Economics with MapInfo and Streetpro

6 ISSUES AND IMPLICATIONS FOR PRECINCT PLANS

This Chapter identifies the main issues that arise from this assessment of employment patterns associated with economic development in the Casey-Cardinia region, with implications for employment identified for the four PSPs in Casey which are the subject of this report.

1) Local economic indicators

Analysis of local economic and employment data shows that very low levels of employment self-sufficiency are evident in Cranbourne SLA (33%) and Berwick SLA (40%). These figures are well below the GAA target self-sufficiency rate of 70% at the sub-regional level.

Employment self-containment is just 15% in Cranbourne, 21% in Berwick, and 23% for the combined area; these figures are well below the GAA target of 50% (noting that this target applies at the regional level).

Occupational patterns show a lower share of residents employed in white collar occupations (60% in Casey and 62% in Cardinia) compared with the metropolitan average of approximately 76%. Importantly, little change has occurred in the proportion of the resident employed labour force in white collar occupations since 1996.

These figures highlight the importance of accommodating local employment development within the PSP areas in order to improve employment self-sufficiency and self-containment.

Another implication relates to the need to offer a more diverse range of housing products in order to attract a diverse residential population, which would include a higher proportion of business owners and managers. This is likely to assist in meeting the GAA targets in relation to occupation types.

2) Employment requirements

The analysis shows that the demand for new jobs to serve the Casey-Cardinia corridor over the period 2009 to 2031 consists of:

- 111,140 new jobs to serve population and employment growth over the period; and
- 82,790 jobs to address the current employment (jobs) deficit in comparison with the GAA target for employment self-sufficiency.

Overall, a significant increase of 193,930 jobs will need to be located inside the corridor over the period 2009 to 2031 if the GAA targets are to be achieved.

If the GAA targets are to be met, the employment requirement is for approximately 149,960 white collar jobs and 43,970 blue collar jobs in order to address the current deficits and to reflect population and employment growth over the period 2009 to 2031.

3) Employment generation opportunities within the Corridor

The analysis identifies potential for approximately 79,000 to 125,000 jobs to be generated within the Corridor, although this is intended only as a broad estimate of the employment creation potential, and does not include all the potential jobs that might be created, for example in community service positions in schools, hospitals etc (ie not in activity centres).

Having regard for the projected employment demand, it is important that the identified employment opportunities in the corridor are secured, and that new areas are also identified where possible to support localised employment demands and to improve local employment self-sufficiency and self-containment.

In relation to the identified PSP areas, one of the implications is the need to identify land for employment purposes that is well-located with respect to future residential development precincts and new transport infrastructure. In this regard, the location of the extended urban growth boundary (draft) is important, as is the designation of Thompsons Road as a major east-west transport route. Both of these factors highlight the opportunity of providing new employment land on the southern side of Thompsons Road if this land is brought into the urban growth area.

The analysis also highlights the need to encourage home-based employment to maximise local employment levels, where possible. Strategies may relate to the planning of residential estates in order to include some dwellings which are specifically designed to cater for home offices and/or storage areas for contractors etc.

4) Employment generation opportunities outside the Corridor

Potential exists for approximately a further 29,000 to 44,000 jobs to be created in Greater Dandenong associated with the ongoing development of the Dandenong South industrial estate, and on remaining vacant industrial land. Other employment opportunities in Central Dandenong have not been specifically examined, but are likely to add to this figure. In the short-term, public sector office development can be expected, while in the longer term private investment can be expected to be attracted to the centre.

5) Employment by occupation type

Potential to accommodate an additional 54,000 to 83,000 white collar jobs has been identified in the analysis, and this compares with the identified demand for an additional 149,960 new white collar jobs to meet the GAA target for 2031 and address the current deficit of white collar jobs.

Thus, the analysis shows that opportunities for white collar employment need to be pursued, including new office precincts as well as activity centre development and industrial areas which have an office component. Importantly, other aspects also need to be considered. For example, much of the identified scope for additional white collar employment relates to development opportunities in Cranbourne West (up to 14,000 white collar jobs), Cardinia Road Employment Precinct (up to 12,000 white collar jobs), and the Casey Technology Park (up to 8,500 white collar jobs); but these precincts might not be developed to their full extent until well beyond 2031. Indeed, in some of these precincts very little office development is likely to occur for some years, having regard for the existing market conditions and the planning horizons involved.

In these circumstances, much of the additional white collar employment demand will need to be accommodated in activity centres in the form of small-scale development, or in major precincts that are already underway, such as Fountain Gate CBD.

6) Commercial and industrial development in the Corridor

Broad analysis of the commercial and industrial property markets indicates that the Casey-Cardinia corridor is currently not a significant location for either commercial office development or for major industrial development. In terms of commercial office development, the wider southern region is a minor location for office development, and development opportunities are likely to be confined to Central Dandenong in the short- to medium-term due to State Government incentives. The Dandenong South industrial area is the most significant location for industrial development in the wider region and, according to the Urban Development Program 2008, over 30 years supply of industrial land exists in the Casey-Cardinia corridor at current absorption rates.

Overall, the conclusion is that opportunities for major commercial office development are not likely to eventuate for some time in the corridor. When these opportunities do arise, some competition is likely between precincts such as Fountain Gate, Casey Technology Park, C21 Business Park and the Cardinia Road Employment Precinct to attract these types of uses. Cranbourne Town Centre will also be expected to attract some office development, and smaller activity centres throughout the corridor may also attract a small share of this commercial office activity.

Industrial development is already being attracted to the Pakenham Industrial Estate, and development is likely to continue to occur in newly-released employment lands with good access to the Pakenham Bypass. However, the supply of land for industrial and related development is very large, and recently-rezoned land in Dandenong South will compete for a share of investment. Over time competition is likely to arise within the corridor, for example between C21 Business Park and precincts in Cardinia; in this regard it will be important for each precinct to differentiate itself – for example with C21 Business Park highlighting the amenity of the area in order to attract campus-style development or similar.

PART B:
PRECINCT STRUCTURE PLANS

7 METHODOLOGY

Chapters 8 to 11 provide assessments which identify employment potential in, or associated with, each of the following PSPs in Casey:

- PSP No. 11 C21 Business Park
- PSP No. 13 Clyde North
- PSP No. 16 Cranbourne North (Stage 2)
- PSP No. 10 Botanic Ridge

The analysis presented in each of these Chapters adopts the following broad methodology (noting that the analysis for the C21 Business Park precinct has a focus on examining the potential for employment land outcomes):

1. Estimate the likely residential outcomes in each precinct, including estimates of dwelling yields and resident population.
2. Estimate the potential demand for local retail facilities, based on the following approach:
   a. Estimate the average per capita retail expenditure by residents in each precinct, based on current benchmarks and with real growth in average spending applied over a fifteen year period (to reflect the possible timeframe of the full development of each precinct).
   b. Apply average per capita spending estimates to the projected population at capacity in order to calculate total retail expenditure by residents in each precinct.
   c. Calculate the potential supportable retail floorspace, based on the expenditure projections (above), and adopting a relevant average turnover level per square metre of retail floorspace.
   d. Estimate the extent to which retail floorspace would be retained within the precinct.
   e. Calculate total local retail floorspace provision from above.
   f. Estimate the potential for accommodating major tenants such as local supermarkets, based on a supermarket capacity analysis approach.
3. Estimate the potential to accommodate non-retail activities in activity centres.
4. Identify an appropriate activity centre network for the precinct on the basis of the analysis of retail and non-retail floorspace potential and having regard for the location of centres in the surrounding region.
5. Prepare calculations of local employment generation, having regard for the retail and non-retail activities in centres (from above), and having regard for other opportunities for employment-land. Consideration is also given to employment at community facilities (schools, medical facilities, etc) and home-based employment.
6. Identify the potential for local residents to access employment precincts located beyond the precinct.
7. Apply the GAA local employment model (refer section 1.3) to assess the performance of the PSP in generating local employment opportunities.
8. Identify ways in which the opportunities for local employment to serve residents in the PSPs can be maximised, and the GAA targets achieved.

The analysis is undertaken with reference to the *GAA Local Employment Generation Model*, which is described in section 1.3, and which provides targets in relation to local employment opportunities and employment at the sub-region and regional levels.

The approach in calculating supportable retail floorspace and supermarket provision is similar to that employed in the *GAA Retail Planning Model*. The Retail Planning Model is described in section 1.3.

The timeframe for the analysis is the period 2009 to 2025 (ie approximately a fifteen year period), which is considered to be an appropriate period over which the PSPs will be developed.

It is important to appreciate that the activity centre floorspace estimates prepared for each precinct are provided as broad indications of the potential scale of development. The actual size of centres and their components (including supermarkets) will be subject to more detailed analysis at the planning permit stage.

8 C21 BUSINESS PARK

8.1 Background to C21 Business Park

The C21 Business Park was originally conceived during the preparation of *Casey C21* as a location to accommodate businesses, manufacturing facilities and services that would support the high-intensity and knowledge-based activity that was to be attracted to the Casey Technology Park (CTP) in Berwick. The plan recognised that creative precincts such as that intended for the CTP typically require a wide range of support services, often with larger land area requirements and potentially involved highly technical manufacturing processes, distribution services, and other supporting business activities.

The strategic significance of the C21 precinct was recognised in relation to its accessible location in close proximity to the Princes Freeway; the potential for synergies to be created between the C21 precinct, the CTP, and other major activity nodes (including, for example, industrial hubs in Dandenong and Hallam); and the large residential labour force in the Casey-Cardinia growth corridor.

However, circumstances have changed since the preparation of *Casey C21* in 2002; in particular, very significant tracts of land have been identified in the Officer-Pakenham corridor to accommodate a wide range of commercial and industrial land uses. This competing land is well-located with regard to transport infrastructure, and can be developed relatively cheaply given that it is generally very flat and unencumbered. In many ways the employment land in the Officer-Pakenham corridor better reflects the strategies and principles contained in Melbourne 2030 (which was prepared after the completion of Casey C21), especially in relation to the ability to provide public transport access. In contrast, the C21 Business Park is encumbered by both its topography (with a hill in a central position on the site) and the location of flood-prone land to the east. Although the interchange at O'Shea Road provides it with easy access to the Princes Freeway, the C21 Business Park is not well-served by public transport services; in particular, it is not served by heavy rail infrastructure.

In these circumstances, the intentions for the C21 Business Park, as described in Casey C21, are likely to be overly-ambitious, having regard for market pressures and property market competition from other developments.

Furthermore, the expansion of the UGB south of Thompsons Road has been identified by the GAA as providing the opportunity for a large new employment corridor in this location, on land which is unencumbered, relatively flat and easy to develop. This new precinct would build on the proposed freight routes through Casey-Cardinia, and would generate significant new employment opportunities.

8.2 Opportunities for Employment Land

In planning for the future development of the C21 precinct, the following matters have been considered:

- There is a need to maximise employment retention within the Casey-Cardinia growth corridor, having regard for expected employment demands to 2031 and beyond (refer Chapter 2 and Chapter 5).
- C21 Business Park has good accessibility and high levels of exposure, and is in a strategic location on the Princes Highway. However, it is not on the rail line.
- The existing options for high intensity commercial development in Casey include:
  - Fountain Gate-Narre Warren CBD, which is likely to attract small-scale development in association with the continued growth of the retail function of the centre; and

- Casey Technology Park, which has an identified niche in knowledge-intensive industries and those associated with the existing education and health functions.

In this context, an opportunity exists for the C21 Business Park to develop (at least in part) as a dedicated commercial office precinct which aims to attract high intensity multi-storey and high quality campus-style development.

- The timeframe for development of the C21 Business Park is likely to be the longer-term, particularly given the existing and future opportunities elsewhere in Casey (Fountain Gate-Narre Warren, Berwick, Cranbourne Town Centre) and elsewhere in the region (Central Dandenong, Officer-Pakenham corridor, Pakenham Town Centre).
- The topography of the land also lends itself to high quality residential development, with good views to the south and the east. Importantly, this represents an opportunity to diversify and enhance the housing product in the region, and attract people with business development and managerial skills who may influence the location and extent of office investment in the local area.

8.3 Land Development Options

Having regard for the factors described in section 8.2, and given that the C21 Precinct Structure Plan is yet to commence detailed planning, the land use make up is envisaged to consist of:

- Employment uses: 85 hectares
- Residential development: 174 hectares
- Encumbered land (floor-prone land, Princes Freeway interchange, etc): 31 hectares

The 85 hectares of land for employment uses would consist of approximately 60,000m^2 of dedicated office space in the form of a corporate office park, and with other campus-style uses integrated into the precinct.

The corporate office park would require in the order of 5-10 hectares of land, depending upon factors such as:

- The intensity of land use and average site coverage
- The likely mix between purpose-built office developments (which would be more likely to be single-storey developments), and speculative office buildings accommodating smaller tenants (which would more likely be multi-storey developments)
- The eventual tenant demand and the mix between corporate uses and lower-density campus developments.

This land allocation (5-10 hectares) is significant in the context of the land areas involved in other office parks such as University Hill (12ha) and Tally Ho (18ha), and also reflects the location of the precinct in the outer south-eastern suburbs.

The remaining 75-80 hectares would be available for a wider mix of employment uses, focussing on opportunities for high quality campus-style tenants.

The identification of potential development options has been undertaken with reference to other major new and/or planned commercial precincts (eg University Hill, Kalkallo/Merrifield, etc), and the expectation that the precinct could accommodate a highly intensive corporate office precinct with up to approximately 60,000m^2 of office floorspace. The remainder of the land is envisaged to accommodate a wider mix of campus-style developments that might have a significant office component, but would also incorporate a wider range of low-intensity uses. A key issue would be the need to ensure that the profile of the precinct as a high quality corporate office park is maintained.

Under this development scenario, an estimated 174 hectares (gross) would be available for residential development, with the eastern part of the precinct encumbered by flood-prone land.

It is noted that the preference of Casey Council is for the entire precinct to be retained for employment purposes. The ultimate land use make up will be determined through the Precinct Structure Planning process.

8.4 Population Outcomes

Estimated dwelling and population outcomes are calculated on the following basis:

- With a gross land area of 174 hectares available for residential development, approximately a net 130 hectares (or 75%) would be developable for residential dwellings, comprising 85 hectares of land in the south-eastern part of the precinct and 45 hectares in the western part of the precinct.
- The south-eastern portion of the residential precinct would be suited for larger residential lots given the flood-prone nature of this land and other environmental constraints; an average lot density of approximately 10 lots per hectare is appropriate in this location.
- The western part of the precinct would be appropriate for an average lot density of 15 lots per hectare.
- On the basis of these average yields, the following residential outcomes are expected:
  - 770 dwellings in the south-eastern part of the precinct
  - 675 dwellings in the western part of the precinct
  - A total of 1,445 dwellings
- With an average household size of 2.8 persons per household (adopted by the GAA as an appropriate figure to plan growth areas over the period 2009 to 2030), the total population outcome is estimated at approximately 4,000 persons at full development. Note that this estimate is intended only as a broad indicator, as the average household size is likely to fluctuate greatly over the course of the development (and subsequently) as the family structure of the resident population changes over time, for example with the birth of children and their later departure from the family home.

These estimates are shown in Table 45.

Table 45: Estimated Population Outcomes, C21 Business Park

Item	C21 Business Park
Gross land area	174 ha
Area available for residential development (@75%)	130.5 ha
Average lot yield (derived average across whole precinct)	11 lots/ha
Residential lot production	1,445 lots
Average household size	2.8 pph
Population at capacity - residents	4,000 persons

Source: Essential Economics; TRACT

8.5 Retail Demand

Retail Expenditure

Average retail expenditure by residents in the precinct is projected to be in the order of $14,750 per capita in 2025 (expressed in constant 2008 dollars).

This estimate is based on a current benchmark average retail spending level of approximately $11,450 per capita in 2008, which has been derived from average retail expenditure in suburbs such as Cranbourne North and Berwick. Real growth in per capita retail spending has been applied, but at conservative rates which reflect uncertainty in economic performance in the short-term.

On the basis of these estimates, total retail expenditure by residents in the C21 Business Park precinct is projected to be approximately $59 million per annum at population capacity (in constant 2008 dollars).

Average Retail Trading Levels

There is little research to assist in determining an appropriate average trading level for neighbourhood retailing, particularly when projecting into the future. Previous work undertaken by Essential Economics for the Cranbourne East PSP adopted a figure of $5,500 in 2026 (stated in 2007 dollars), and Deep End, in work undertaken in the Hume Corridor, have also adopted this figure in preparing projections for the year 2015/16 (quoted in 2008 dollars).

For the C21 Business Park, an average trading level of $5,750/m^2 has been adopted for the year 2025, which has been calculated by taking the figure of $5,500/m^2 in 2016, and applying a small amount of real growth over the period 2016-2025.

Supportable Retail Floorspace

Estimates of total supportable retail floorspace have been derived by dividing the total retail expenditure by residents in the precinct by the estimated average turnover level for neighbourhood retailing, as noted above.

On the basis of these estimates, total retail floorspace supported by residents in the C21 Business Park precinct would be in the order of 10,300m^2.

Locally Retained Retail Floorspace

A substantial majority of retail demand will be met by retail shopping facilities located in the wider region, including Eden Rise (which is currently expanding to include a second supermarket and additional specialty stores), Casey Central, Fountain Gate, Berwick and other centres located further afield.

A share of retail floorspace demand would be retained within the precinct in order to support neighbourhood and local retailing. For the purpose of this analysis, an estimated 27% of retail demand by residents in the precinct would be retained locally. This figure is based on previous work prepared by Essential Economics looking at the distribution of retail demand across the retail hierarchy.

On this basis, residents in the C21 Business Park precinct will generate demand for an estimated 2,800m^2 of retail floorspace to be provided in activity centres within the precinct. This figure is provided as an indication of total retail demand, given that the precinct is yet to undergo detailed planning, and the actual residential and employment outcomes may change.

A summary of the analysis of supportable retail floorspace in precinct is shown in Table 46.

Table 46: Retail Floorspace Demand Analysis, C21 Business Park

Item	C21 Precinct
Population at capacity (persons)	4,000 persons
Retail expenditure	
Average per capita retail expenditure (pa)	$14,750 /cap
Total retail expenditure	$59.0 m
Retail floorspace demand	
Average retail turnover performance	$5,750 /m2
Total supportable retail floorspace	10,300 m2
Retail demand supported locally, %	27%
Local retail floorspace provision	2,800 m2

Source: Essential Economics; MDS MarketInfo 2007

Supermarket Floorspace Provision

Successful neighbourhood activity centres typically contain a supermarket and a range of food and non-food retail specialty stores, supported by some non-retail tenants such as shopfront offices (real estate, travel agent, local offices, etc) and civic and community uses.

Supermarkets are almost always the most important component of a neighbourhood centre due to their ability to attract a large number of regular customers, their large store size as a proportion of the total centre, and their significant contribution to total centre turnover.

Various benchmarks can be used to calculate the opportunity for supermarket floorspace development. For example, research by Deep End found that in a range of neighbourhood centres in Melbourne's growth areas, supermarkets constituted approximately 50% of total centre floorspace. The same research found that, having regard for the trade areas served by these centres, the average provision of supermarket floorspace is approximately 0.3m^2 per capita.

For the purposes of planning the centre network in the identified PSPs, supportable supermarket floorspace has been assessed with reference to the following approaches:

1. Undertake a sensitivity analysis, based on average supermarket floorspace provision per capita ranging from 0.25m^2/capita to 0.35m^2/capita; and

2. Undertake a more detailed supermarket capacity analysis to determine supportable local supermarket provision in the precinct.

Sensitivity analysis

Although the research undertaken by Deep End identified average supermarket floorspace provision at approximately 0.3m^2 per capita, the actual provision of supermarket floorspace in neighbourhood catchments is likely to vary significantly, depending upon factors such as the quality of centre design, the range of supermarkets in higher-order centres in the surrounding area, the proximity and convenience of alternative supermarkets, the location of neighbourhood centres with respect to travel patterns to work, and other factors.

Because of the uncertainty in assessing average supermarket provision, a sensitivity analysis has been adopted to calculate supermarket demand on the basis that average provision would range between 0.25m^2/cap and 0.35m^2/cap.

This analysis is presented in Table 47, and indicates that the C21 Business Park precinct would support approximately 1,000-1,400m^2 of supermarket floorspace located within the precinct.

It is important to note that this estimate represents the supermarket floorspace potential generated by residents in the precinct, and does not reflect the opportunity to serve a local employment population.

Table 47: Analysis of Supermarket Floorspace Provision – Sensitivity Analysis, C21 Precinct

Item	C21 Precinct
Population at capacity	4,000 persons
Sensitivity 1: @ 0.25 m2/cap	
Supermarket floorspace provision in C21 Precinct	1,000 m2
Sensitivity 2: @ 0.35 m2/cap	
Supermarket floorspace provision in precinct	1,400 m2

Source: Essential Economics; Deep End

Supermarket capacity analysis

A further analysis of the potential to support local supermarket floorspace has been undertaken using the following methodology:

- Prepare estimates of total retail expenditure on food, liquor and groceries (FLG), which is the core market served by supermarkets (and typically generates approximately 94% of total supermarket turnover).
- Estimate the share of FLG spending which would typically be directed to supermarkets, rather than to food specialty stores, markets and so on. This estimate is based on data from the ABS publication Retail Industry Australia 1998-99 (Cat No 8624.0).
- Estimate the share of supermarket FLG spending that is likely to be retained in the C21 Business Park precinct, having regard for the locations of other centres in the surrounding region, travel to work patterns and so on. An important consideration for the C21 precinct is the likely location of a neighbourhood activity centre in the Clyde North precinct to the south (refer Chapter 9).
- Make allowance for supermarket turnover generated from the sale of non-FLG merchandise (small kitchenware and housewares, for example).
- Make allowance for a share of turnover to be derived from residents beyond the precinct. This element is likely to be significant for the C21 Business Park precinct because of the potential for supermarket spending by in-coming workers who live beyond the precinct.
- Apply an average supermarket turnover performance measure (turnover per square metre floorspace) in order to derive an estimate of the amount of supermarket floorspace that could be supported in the precinct.

The analysis is presented in Table 48, and shows that an estimated 1,600m^2 of supermarket floorspace would be supported in the C21 Business Park precinct.

Table 48: Supermarket Capacity Analysis, C21 Precinct

Item	C21 Precinct
Population	4,000 persons
FLG expenditure /cap	$4,390 /cap
Total FLG expenditure	$17.6 m
FLG expenditure directed to supermarkets, %	75%
Total supermarket FLG expenditure	***$13.2 m***
% retained in precinct	60%
Total retained supermarket FLG expenditure	***$7.9 m***
Plus general merchandise @6%	$0.5 m
Total supermarket turnover potential generated locally	$8.4 m
Plus turnover from beyond precinct	40%
Total supermarket turnover potential	**$14.0 m**
Average trading level	$8,500 /m2
Supermarket floorspace potential	**1,600 m2**

Source: Essential Economics; MDS MarketInfo 2007

Summary

According to the analysis presented in this Chapter, the C21 Business Park precinct will support approximately **3,000m^2** of retail floorspace, consisting of approximately **1,600m^2** of supermarket floorspace and **1,400m^2** of specialty retail floorspace.

These estimates are provided as a broad indication of the potential scale of the centre and its supermarket provision, as detailed planning has yet to commence. The actual floorspace demand is likely to be in the range **3,000-5,000m^2**.

8.6 Activity Centre Requirements

The analysis supports the provision of a small neighbourhood activity centre in the C21 Business Park precinct, with total floorspace of approximately 3,000-5,000m^2. The centre would serve the surrounding residential catchment (4,000 residents), as well as the workers in the employment precinct.

In planning the proposed activity centre in the C21 precinct, a number of factors need to be considered:

1. The centre will act as a local activity centre for the surrounding residential population, noting that the residential population is estimated to be approximately 4,000 persons.

2. Potential exists for more significant retail floorspace provision than would normally be supported by a residential population of this size, due to expenditure by workers in the associated employment precinct (estimated at 4,875 persons, as shown in section 8.7).

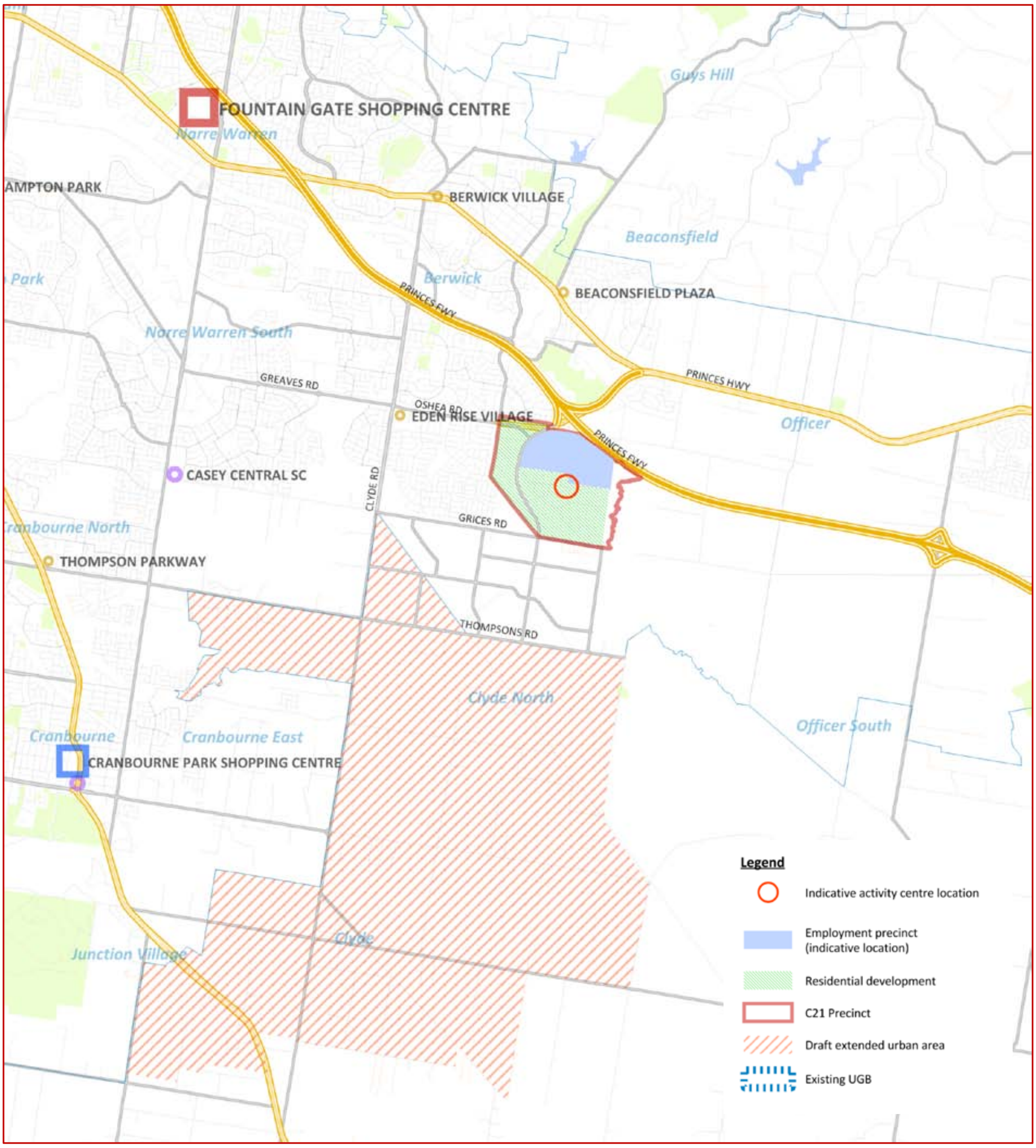
3. The retail mix of the centre is envisaged to include a mid-sized supermarket of approximately 1,600m^2, and a range of specialties that reflects the likely expenditure patterns of residents and the local workforce. This might include, for example, a higher proportion of takeaway food and café/restaurants to serve a lunchtime market.

4. Although the analysis does not identify supportable non-retail floorspace, it is likely that a range of business services would be attracted to the centre, including for example copy/printing services, accountancy, stationery supplies, post office, banks, ATMs and so on.

5 A favoured location for the centre is a central position that is accessible for residents and workers in the precinct. However, the actual location will need to respond to the road network that is planned for the precinct, especially main roads that provide good exposure and accessibility for businesses. Other issues relating to the location of the centre include the topography of the site and access arrangements for residents in the western part of the precinct.

An indicative plan for the precinct is shown in Figure 10 below.

Figure 10: C21 Precinct Indicative Plan



Produced by Essential Economics with MapInfo and StreetPro

8.7 Employment Generated in the Precinct

An estimate of the potential employment generated in the C21 Business Park precinct is shown in Table 49, and is compared against the forecast size of the employed resident labour force in order to assess the performance of the precinct in providing local jobs to the residential population. The broad approach in undertaking this analysis is as follows:

1. When fully developed, the precinct is assumed to comprise 60,000m^2 of dedicated commercial office floorspace, plus 75 hectares of land for a broader range of (mostly lower-intensity) employment activities.
2. An average employment ratio of 20m^2 per job is applied to the dedicated office precinct.
3. An employment ratio of 25 jobs per hectare is applied to the remainder of the employment precinct (75ha) to reflect a broad range of business activities.
4. An employment ratio of 40m^2 per job is applied to the activity centre component.
5. An estimate of the employed residential population is made by applying a crude labour force participation rate of 49% (this estimate reflects the existing LFPRs for Cranbourne at 48.5%, and Berwick at 50.1%), and an average unemployment rate of 6%.
6. Home-based employment is estimated at 10% of the total employed labour force.
7. An estimate of the potential for other employment at community facilities such as schools, medical centres etc has been undertaken with reference to the approach used in the GAA employment model, which assesses the need for such facilities and includes an estimate of typical employment outcomes.

Overall, the analysis indicates that the precinct has potential to support approximately 5,210 jobs, comprising 4,875 jobs in the office/business park component, an estimated 75 jobs in the activity centre, a further 80 jobs in medical and community based facilities, and an estimated 180 home-based jobs.

When compared against the estimated employed resident labour force of 1,840 persons (reflecting underlying labour force participation and with an allowance for unemployment of 6%), the precinct performs very well in terms of providing employment opportunities for local residents. Of course, it is likely that only a share of the local residential population would be employed in the C21 precinct, with the jobs also taken up by people travelling to the precinct from further away.

Table 49: C21 Business Park Employment Opportunities

Location	Area	Ratio	Employment
Dedicated office	60,000m^2	20m^2/job	3,000
Other employment precinct	75 hectares	25 jobs/ha	1,875
Sub-total employment precinct			4,875
Activity centre	3,000m^2	40m^2/job	75
Other (schools, medical, etc)	(medical centre, childcare centre, kindergarten, primary school)		80
<u>Home-based employment estimate:</u>			
Residential population	4,000 persons		
Labour force (@49% LFPR)	1,960 persons		
Employed labour force (6% unemployment)	1,840 persons		
Home-based employment (@10%)			180
Total			**5,210**

Source: Essential Economics; refer text

The outcomes identified in Table 49 compare well against the GAA employment generation target of 30% employment self-sufficiency. In this case, the C21 precinct provides a job self-containment ratio of approximately 280% (ie 5,210 jobs for a local employment requirement of 1,840 jobs).

8.8 Access to Employment in Surrounding Region

Residents in the C21 precinct will have access to a number of other employment areas in the wider region, in addition to the employment activities located within the precinct. The main employment precincts in the wider region include:

- The substantial employment precinct planned for the Officer-Pakenham corridor
- The potential employment land on the south side of Thompsons Road, subject to the finalisation of the extended urban growth area
- Employment lands associated with the expansion of Casey Central
- The service business precinct on the north side of Thompsons Road, in Cranbourne North (Stage 1)
- Major employment generation in the Casey Technology Park.

8.9 Achieving the GAA Benchmarks

Although the analysis in this Chapter indicates that the C21 Business Park precinct will perform well in terms of employment self-sufficiency (as described in section 8.7 above), it is important to recognise that the office precinct and the wider business park is unlikely to be fully developed in the short-term. Indeed, it is likely that residential development will occur well in advance of major business and industrial development.

In these circumstances, it will be important to ensure that the business development opportunities in the small activity centre are maximised, as these are likely to proceed as the population expands. In addition, dwelling designs that provide opportunities for home-based businesses (eg with offices or storage sheds, etc) would also assist in generating local employment.

9 CLYDE NORTH

9.1 Population Outcomes

The demand for retail floorspace in Clyde North will be determined by the extent of housing development and the resulting population levels when the precinct is fully developed. In addition, activity centres in Clyde North are likely to have a role in serving the retail demands generated by development to the north.

For the purpose of this analysis, a number of assumptions have been used that are drawn from more detailed planning work undertaken by Tract Consultants and by the GAA. These assumptions relate to the amount of land available for residential development and the broad configuration of major roads, and include:

- Total developable area of 314 hectares.
- A lot yield of approximately 15 lots per hectare, or 4,710 dwellings.
- An average household size of 2.8 persons per household. The average household size is likely to fluctuate greatly over the course of the development (and subsequently) as the family structure of the resident population changes over time, for example with the birth of children and their later departure from the family home.

On the basis of these inputs, population projections are presented in the following Table 50.

Table 50: Estimated Population Outcomes, Clyde North

Item	Clyde North
Gross land area	534 ha
Area available for residential development (@75%)	314 ha
Average lot yield	15 lots/ha
Residential lot production	4,710 lots
Average household size	2.8 pph
Population at capacity - residents	13,200 persons

Source: Essential Economics; TRACT

The analysis shows that the Clyde North precinct has potential to accommodate a total population of approximately 13,200 residents.

9.2 Retail Demand

The analysis in this section is based on an expectation that the highest-order activity centre in the Clyde North precinct would be a Neighbourhood Activity Centre (NAC). This assumption reflects the overall scale of the residential population in the precinct (at 13,200 persons), the role of Eden Rise in serving some parts of the precinct, and the expectation that the potential for employment land along Thompsons Road to the south would limit any potential to serve an extended catchment in that direction.

Potential may exist for other forms of retail development – for example homemaker retailing – to be located at the southern edge of the precinct, associated with the Thompsons Road employment precinct (subject to the finalisation of the extended urban growth area) and serving an extended catchment to the south. The potential for homemaker retail development outside the Clyde North precinct has not been assessed in this report.

Retail Expenditure

Average retail expenditure by residents in the precinct is projected to be in the order of $14,750 per capita in 2025 (expressed in constant 2008 dollars).

This estimate is based on a current benchmark average retail spending level of approximately $11,450 per capita in 2008, which has been derived from average retail expenditure in suburbs such as Cranbourne North and Berwick. Real growth in per capita retail spending has been applied, but at conservative rates which reflect uncertainty in economic performance in the short term. In 2025 (representing a development timeframe of approximately 15 years) average retail expenditure would be approximately $14,750 per capita.

On the basis of these estimates, total retail expenditure by residents in Clyde North is projected to be approximately $195 million per annum.

Average Retail Trading Levels

There is little research to assist in determining an appropriate average trading level for neighbourhood retailing, particularly when projecting into the future. Previous work undertaken by Essential Economics for the Cranbourne East PSP adopted a figure of $5,500 in 2026 (stated in 2007 dollars), and Deep End, in work undertaken in the Hume Corridor, have also adopted this figure in preparing projections for the year 2015/16 (quoted in 2008 dollars).

For the Clyde North precinct, an average trading level of $5,750/m^2 has been adopted for the year 2025, which has been calculated by taking the figure of $5,500/m^2 in 2016, and applying a small amount of real growth over the period 2016-2025.

Supportable Retail Floorspace

Estimates of total supportable retail floorspace have been derived by dividing the total retail expenditure by residents in the precinct by an appropriate average turnover level for neighbourhood retailing (as noted above).

On the basis of these assumptions and estimates, total retail floorspace supported by residents in the Clyde North precinct would be in the order of 33,900m^2.

Locally Retained Retail Floorspace

A substantial majority of retail demand will be met by retail shopping facilities located in the wider region, including Eden Rise (which is currently expanding to include a second supermarket and additional specialty stores), Casey Central, Fountain Gate, Berwick and other centres located further afield.

A share of retail floorspace demand would be retained within the Clyde North precinct in order to support neighbourhood and local retailing.

For the purpose of this analysis, an estimated 27% of retail demand by Clyde North residents would be retained locally, and this figure is based on work undertaken by Essential Economics in relation to the distribution of retail floorspace by centre type.

On this basis, residents in the Clyde North precinct will generate demand for an estimated 9,200m^2 of retail floorspace to be provided in neighbourhood activity centre(s) and local shops.

A summary of the analysis of supportable retail floorspace in the Clyde North precinct is shown in Table 51.

Table 51: Retail Floorspace Demand Analysis, Clyde North

Item	Clyde North
Population at capacity (persons)	13,200 persons
Retail expenditure	
Average per capita retail expenditure (pa)	$14,750 /cap
Total retail expenditure	$194.7 m
Retail floorspace demand	
Average retail turnover performance	$5,750 /m2
Total supportable retail floorspace	33,900 m2
Retail demand supported locally, %	27%
Local retail floorspace provision	9,200 m2

Source: Essential Economics; MDS MarketInfo 2007

Supermarket Floorspace Provision

Successful neighbourhood activity centres typically contain a supermarket and a range of food and non-food retail specialty stores, supported by some non-retail tenants such as shopfront offices (real estate, travel agent, local offices, etc) and civic and community uses.

Supermarkets are almost always the most important component of a neighbourhood centre due to their ability to attract a large number of regular customers, their large store size as a proportion of the total centre, and their significant contribution to total centre turnover.

Various benchmarks can be used to calculate the opportunity for supermarket floorspace development. For example, research by Deep End found that in a range of neighbourhood centres in Melbourne's growth areas, supermarkets constituted approximately 50% of total centre floorspace. The same research found that, having regard for the trade areas served by these centres, the average provision of supermarket floorspace is approximately 0.3m^2 per capita.

For the purposes of planning the centre network in the identified PSPs, supportable supermarket floorspace has been assessed with reference to the following approaches:

1. Undertake a sensitivity analysis, based on average supermarket floorspace provision per capita ranging from 0.25m^2/capita to 0.35m^2/capita; and

2. Undertake a more detailed supermarket capacity analysis to determine supportable local supermarket provision in the precinct.

Sensitivity analysis

Although the research undertaken by Deep End identified average supermarket floorspace provision at approximately 0.3m^2 per capita, the actual provision of supermarket floorspace in neighbourhood catchments is likely to vary significantly, depending upon factors such as the quality of centre design, the range of supermarkets in higher-order centres in the surrounding area, the proximity and convenience of alternative supermarkets, the location of neighbourhood centres with respect to travel patterns to work, and other factors.

Because of the uncertainty in assessing average supermarket provision, a sensitivity analysis has been adopted to calculate supermarket demand on the basis that average provision would range between 0.25m^2/cap and 0.35m^2/cap.

This analysis is presented in Table 52, and indicates that the Clyde North precinct would support approximately 3,300m^2 to 4,600m^2 of supermarket floorspace in centres located within the precinct.

Table 52: Analysis of Supermarket Floorspace Provision – Sensitivity Analysis, Clyde North

Item	Clyde North
Population at capacity	13,200 persons
Sensitivity 1: @ 0.25 m2/cap	
Supermarket floorspace provision in precinct	3,300m2
Sensitivity 2: @ 0.35 m2/cap	
Supermarket floorspace provision in precinct	4,600 m2

Source: Essential Economics

Supermarket capacity analysis

A further analysis of the potential to support local supermarket floorspace has been undertaken using the following methodology:

- Prepare estimates of total retail expenditure on food, liquor and groceries (FLG), which is the core market served by supermarkets (and typically generates approximately 94% of total supermarket turnover).
- Estimate the share of FLG spending which would typically be directed to supermarkets, rather than to food specialty stores, markets and so on. This estimate is based on data from the ABS publication Retail Industry Australia 1998-99 (Cat No 8624.0).
- Estimate the share of supermarket FLG spending that is likely to be retained in the precinct, having regard for the locations of other centres in the surrounding region, travel to work patterns and so on. The Clyde North precinct is likely to achieve a relatively high retention of 75% as it has potential to accommodate a larger neighbourhood centre.
- Make allowance for supermarket turnover generated from the sale of non-FLG merchandise (small kitchenware and houseware items, for example). Typically this is approximately 6%.
- Make allowance for a share of turnover to be derived from residents beyond the precinct. This element is not likely to be significant for Clyde North, having regard for the likely location of centres and the precinct's position on the edge of the urban area.
- Apply an average supermarket turnover performance measure (turnover per square metre floorspace) in order to derive an estimate of the amount of supermarket floorspace that could be supported in Clyde North.

The analysis is presented in Table 53, and shows that an estimated 4,800m^2 of supermarket floorspace would be supported in the Clyde North Precinct.

Table 53: Supermarket Capacity Analysis, Clyde North

Item	Clyde North
Population	13,200 persons
FLG expenditure /cap	$4,390 /cap
Total FLG expenditure	$57.9 m
FLG expenditure directed to supermarkets, %	75%
Total supermarket FLG expenditure	***$43.5 m***
% retained in precinct	75%
Total retained supermarket FLG expenditure	***$32.6 m***
Plus general merchandise @6%	$2.1 m
Total supermarket turnover potential generated locally	$34.7 m
Plus turnover from beyond precinct	15%
Total supermarket turnover potential	**$40.8 m**
Average trading level	$8,500 /m2
Supermarket floorspace potential	**4,800 m2**

Source: Essential Economics; MDS MarketInfo 2007

Summary

According to the analysis presented in this Chapter, the Clyde North precinct will support approximately **9,200m^2** of retail floorspace, comprising approximately **4,800m^2** of supermarket floorspace and **4,400m^2** of specialty retail floorspace.

These figures are presented as broad indications of floorspace requirements over the longer term.

9.3 Non-Retail Floorspace Demand

In addition to retail activities, neighbourhood activity centres also accommodate a range of non-retail shopfront businesses. Examples include real estate agents, travel agents, post offices, and small businesses such as solicitors, conveyancers, accountants, tax agents, financial advisors, and so on. In some circumstances home-based businesses may seek small office space in neighbourhood centres as they expand.

State government policy seeks to expand the range of uses in neighbourhood centres to include a wider variety of commercial office uses. This policy is supported by the GAA, which aims to improve employment sustainability by encouraging local job provision in close proximity to residential neighbourhoods.

The proportion of non-retail floorspace in neighbourhood activity centres varies considerably. For example, single-ownership neighbourhood shopping centres in growth areas typically have a relatively low proportion of non-retail floorspace; research undertaken by Deep End (in the context of assessing the activity centre framework in Craigieburn) indicates that non-retail uses make up 10% of centre floorspace in growth areas, on average.

In contrast, multiple-ownership centres in more established areas (often in a main-street context) tend to have a greater diversity of uses and a more significant provision of non-retail floorspace. Research undertaken by Essential Economics in various centre studies throughout Melbourne indicates that non-retail floorspace provision can be up to 30% or more of total centre floorspace in some neighbourhood centres. These businesses often take up secondary (low rent) tenancies on the edge of centres, or are found in upper-level premises.

The extent to which non-retail uses are accommodated in NACs located in the Clyde North precinct will depend upon factors such as:

- Ownership model – single-ownership centre or multiple-ownership
- Design format – main-street or undercover shopping centre
- Business environment – the extent to which the surrounding population generates demand for business services, and whether these demands are met elsewhere (such as in higher-order centres in the region, or in the C21 Business Park precinct to the north)
- Levels of entrepreneurship – the extent to which the local population invests in new business development, and has the appropriate professional and managerial skills

A broad estimate of the potential for non-retail floorspace to be accommodated in centres located in Clyde North has been prepared with reference to the factors listed above. For this analysis, it is expected that the design format and development model would aim to encourage opportunities for the provision of local non-retail businesses, and that non-retail uses would comprise approximately 20% of total centre floorspace at the main neighbourhood activity centre.

Overall, approximately **2,000m^2** of non-retail floorspace is estimated to be supportable at centres in the precinct.

These calculations are based on the types of non-retail businesses (real estate agents, tax agents, accountants, etc) that are typically found in neighbourhood activity centres.

In addition to the non-retail activities that may be co-located at an activity centre, the GAA employment model also seeks to provide an allocation of employment land adjoining each NAC. The plans prepared for the Clyde North precinct include a small allocation of additional employment land, consisting of a commercial site of 0.5ha adjacent to the activity centre. Additional employment land is planned for the south side of Thompsons Road, subject to the finalisation of the extended urban growth boundary.

9.4 Proposed Activity Centre Network

The proposed activity centre network to serve the Clyde North precinct consists of:

- One large NAC located central to the precinct, anchored by two supermarkets.
- A local centre on Grices Road (location to be determined).
- Small shops located elsewhere in the precinct, with locations to be determined.

A summary of the distribution of retail and non-retail floorspace is presented in Table 8.5, which also provides an indicative land budget based on average site coverage of 30%.

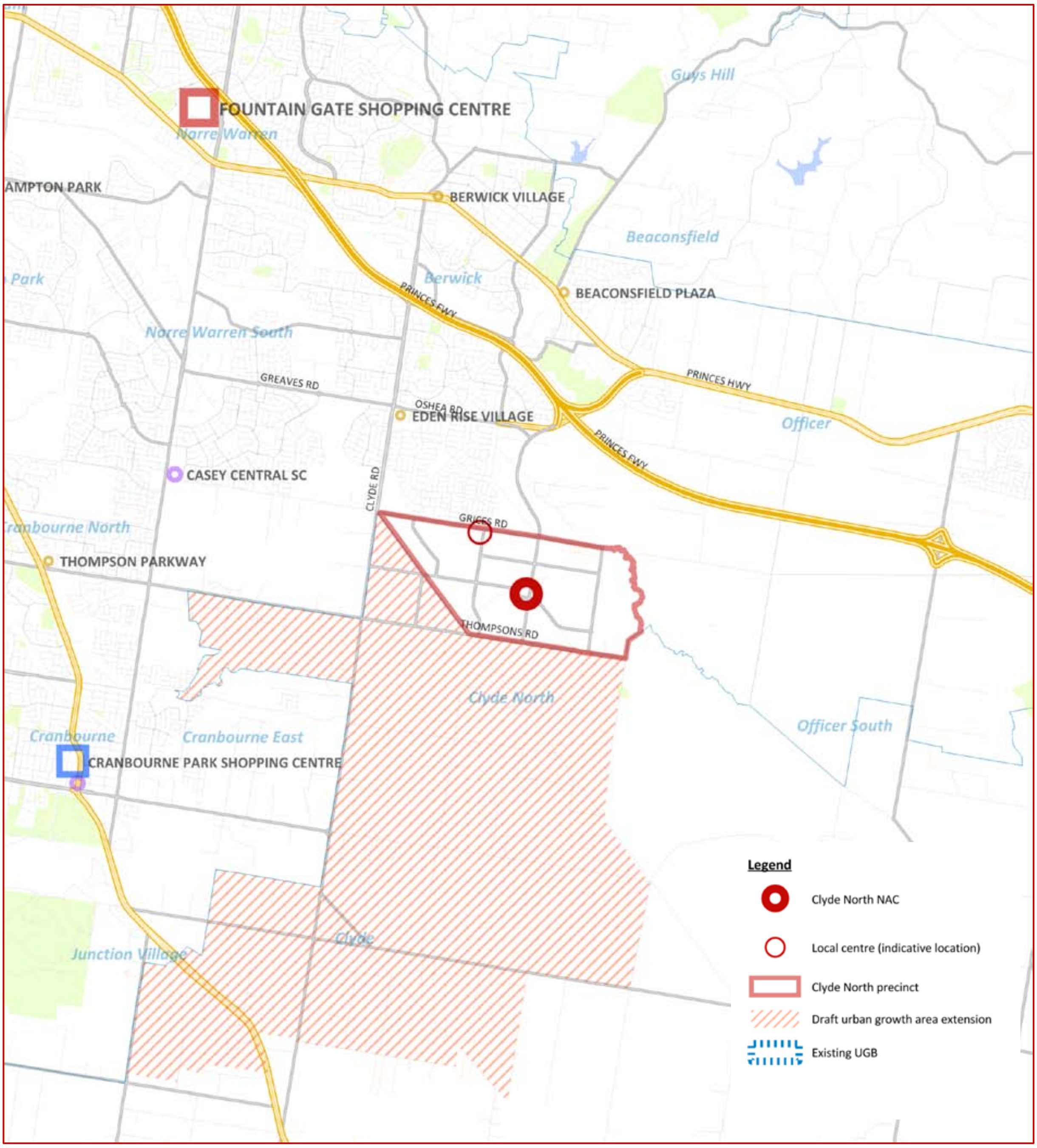
Table 54: Proposed Activity Centre Network, Clyde North

Centre	Supermarket	Specialty	Total retail	Non-retail	Total	Land budget
Central Clyde North NAC	4,300 m2	3,400 m2	7,700 m2	1,750 m2	9,450 m2	3.2ha
Local centre on Grices Road	500 m2	500 m2	1,000 m2	250 m2	1,250 m2	0.4ha
Local shop(s) and other	0 m2	500 m2	500 m2	0 m2	500 m2	0.1ha
Total	**4,800 m2**	**4,400 m2**	**9,200 m2**	**2,000 m2**	**11,200 m2**	**3.7ha**

Source: Essential Economics Pty Ltd

An indicative plan of the Clyde North precinct is presented in Figure 11.

Figure 11: Clyde North Indicative Plan



Produced by Essential Economics with MapInfo and StreetPro

9.5 Employment Generated in the Precinct

An estimate of the potential employment generated in the Clyde North precinct is shown in Table 55, and is compared against the forecast size of the employed resident labour force in order to assess the performance of the precinct in providing local jobs to the residential population. The broad approach in undertaking this analysis is as follows:

1. An estimate of the employed residential population is made by applying a crude labour force participation rate of 49% (this estimate reflects the existing LFPRs for Cranbourne, at 48.5% and Berwick, at 50.1%), and an average unemployment rate of 6%.
2. Home-based employment is estimated at 10% of the total employed labour force.
3. An employment ratio of 40m^2 per job is applied to the retail component of activity centres.
4. An employment ratio of 20m^2 per job is applied to the non-retail component of activity centres.
5. An employment ratio of 35 jobs per hectare is applied to employment land allocation.
6. An estimate of the potential for other employment at community facilities such as schools, medical centres etc has been undertaken with reference to detailed planning work undertaken by Tract and the GAA, and to figures contained in the GAA employment model which assesses the need for such facilities and includes an estimate of typical employment outcomes.

Overall, the analysis indicates that the precinct has potential to support approximately 1,390 jobs, comprising 330 jobs in activity centres, 20 jobs in the employment land, a further 430 jobs in community facilities, schools, etc, and an estimated 610 home-based jobs.

Table 55: Clyde North Employment Opportunities

Location	Area	Ratio	Employment
Activity centres			
Retail component	9,200m^2	40m^2/job	230
Non-retail component	2,000m^2	20m^2/job	100
Sub-total activity centres			330
Employment land	0.5ha	35 jobs/ha	20
Other (schools, medical, etc)	(2x medical centres, 2x childcare centres, 4x kindergartens, 3x primary schools, 2x secondary schools, 1x retirement village)		430
Home-based employment estimate			
Residential population	13,200		
Labour force (@49% LFPR)	6,470		
Employed labour force (6% unemployment)	6,080		
Home-based employment (@10%)			610
Total			**1,390**

Source: Essential Economics; refer text

When compared against the estimated employed resident labour force of 6,080 persons, this represents an employment self-sufficiency rate of approximately 23% (ie 1,390 jobs for an employed labour force of 6,080 persons).

9.6 Access to Employment

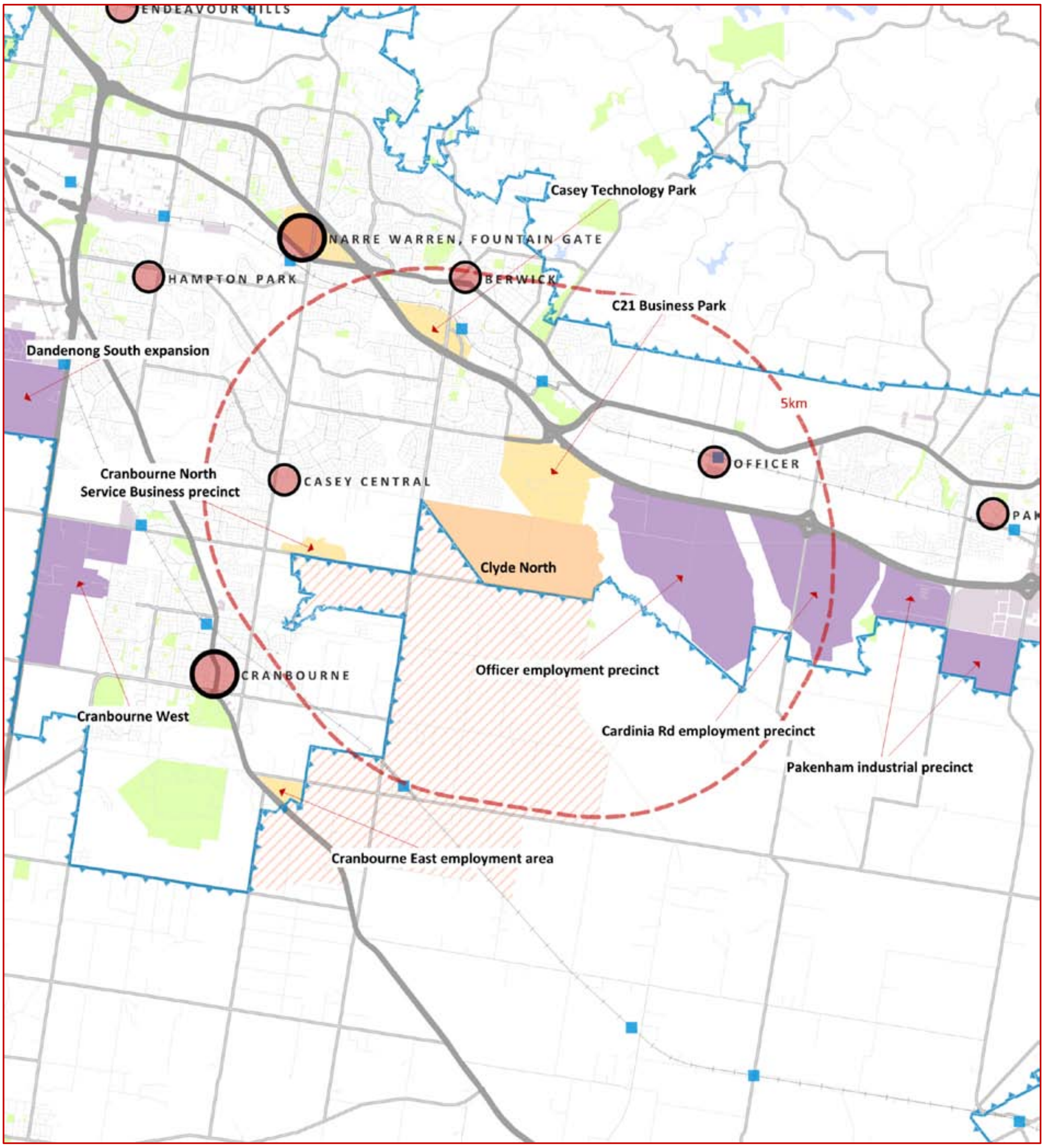
The analysis undertaken in section 10.5 assumes that only a small allocation of employment land is made available in the Clyde North precinct because of the potential for major employment areas to be developed in close proximity to the precinct.

In this context, it is important to note that residents in Clyde North will have access to a number of employment precincts in the wider region, including:

- C21 Business Park, immediately to the north of the precinct
- The substantial employment precinct planned for the Officer-Pakenham corridor, which will be easily accessible along Thompsons Road
- The potential employment land on the south side of Thompsons Road, subject to the extension of the urban growth boundary
- Employment lands associated with the expansion of Casey Central
- The service business precinct on the north side of Thompsons Road, in Cranbourne North (Stage 1)
- Major employment generation in the Casey Technology Park.

An indication of the main employment areas within a 5km buffer of the Clyde North precinct is shown in Figure 12.

Figure 12: Access to Employment – Clyde North



Prepared by Essential Economics with MapInfo and StreetPro

9.7 Achieving the GAA Benchmarks

The GAA has a broad employment target of 30% of the employment requirements of new precincts to be located within the surrounding neighbourhood area (ie employment self-sufficiency rate of 30%), and this is reflected in the application of the GAA local employment model.

According to the analysis in section 9.5, the Clyde North precinct has potential to generate approximately 1,390 jobs, representing an employment self-sufficiency rate of 23% (on the basis that the precinct would have an estimated 6,080 employed residents). Importantly, these jobs are mainly associated with retail and community facilities which rely on a residential catchment, thereby ensuring that these jobs are available as the population expands.

The conclusion is that the precinct fails to deliver the scale of local employment generation that is envisaged by the GAA targets.

However, further analysis shows that employment opportunities are available in close proximity to the Clyde North precinct, including the C21 Business precinct, the Officer employment precinct, and the proposed industrial land to the south of Thompsons Road (subject to the extension of the urban growth area). Other employment opportunities are available in the surrounding region.

The following issues are of importance in improving the performance of the Clyde North precinct in terms of generating local employment opportunities:

- Encourage a well-designed neighbourhood activity centre which is a vibrant focus for business activity, thereby improving the opportunities for retail and other commercial developments.
- Allocate land, as proposed, for a small employment land precinct in order to provide opportunities for a wider range of business activities, including for example small scale-service industries, workshops, showrooms and so on.
- Encourage a variety of home designs which include some that cater to home-based businesses, and which include home offices, storage sheds, etc.
- Provide support for the introduction of a new major industrial area on the southern side of Thompsons Road, in the event that the draft extension to the urban growth area is finalised. This employment precinct would take advantage of the role of Thompsons Road as a major through-route, and would provide opportunities for business development to serve the employment needs of residents in Clyde North, as well as people living in the extended urban growth area to the south.
- Encourage the development of the C21 business precinct as planned, although noting that this development is not likely to proceed in the short-term, and will only be fully developed in the longer term (refer analysis in Chapter 8).

10 CRANBOURNE NORTH (STAGE 2)

10.1 Population Outcomes

The demand for retail floorspace in Cranbourne North (Stage 2) will be determined by the extent of housing development and the resulting population levels when the precinct is fully developed. Other important factors include the location of existing and proposed new centres in the surrounding region. Of particular importance is the fact the precinct is part of a wider development area which includes Cranbourne North Stage 1 and the activity centre and employment precinct associated with Casey Central Town Centre.

For the purpose of this analysis, estimates of dwelling yields are based on work undertaken by GAA. The GAA estimates relate to the amount of land available for residential development, and the expected number of dwellings, as follows:

- Total developable area of 137 hectares.
- An approximate lot yield of 15 lots per hectare, with a mix of conventional and medium density residential development;
- An average household size of 2.8 persons per household. The average household size is likely to fluctuate greatly over the course of the development (and subsequently) as the family structure of the resident population changes over time, for example with the birth of children and their later departure from the family home.

On the basis of these inputs, population projections are presented in the following Table 56.

Table 56: Estimated Population Outcomes, Cranbourne North Stage 2

Item	Cranbourne North (Stage 2)
Gross land area	187 ha
Area available for residential development	137 ha
Average lot yield	15 lots/ha
Residential lot production	2,060 lots
Average household size	2.8 pph
Population at capacity - residents	5,800 persons

Source: Essential Economics; TRACT

The analysis shows that the Cranbourne North (Stage 2) precinct has potential to accommodate a total population of approximately 5,800 residents.

10.2 Retail Demand

The analysis in this section is based on an expectation that the highest-order activity centre in the Cranbourne North (Stage 2) precinct would be a small Neighbourhood Activity Centre (NAC). This assumption reflects the overall scale of the residential population in the precinct (at 5,800 persons), the role of Casey Central as a higher-order centre (MAC) serving the precinct, and the allocation of a small centre in the Cranbourne North (Stage 1) precinct on Glasscocks Road (land already zoned Business 1).

Potential may exist for other forms of retail development – for example homemaker retailing – to be located in the service business precinct on the north side of Thompsons Road in the Cranbourne North (Stage 1) precinct (land zoned Industrial 3 as part of Amendment C113). The potential for homemaker retail development outside the Cranbourne North (Stage 2) precinct has not been assessed in this report.

Retail Expenditure

Average retail expenditure by residents in the precinct is projected to be in the order of $14,750 per capita in 2025 (expressed in constant 2008 dollars).

This estimate is based on a current benchmark average retail spending level of approximately $11,450 per capita in 2008, which has been derived from average retail expenditure in suburbs such as Cranbourne North and Berwick. Real growth in per capita retail spending has been applied, but at conservative rates which reflect uncertainty in economic performance in the short term. In 2025 (representing a development timeframe of approximately 15 years) average retail expenditure would be approximately $14,750 per capita.

On the basis of these estimates, total retail expenditure by residents in the Cranbourne North precinct is projected to be approximately $86 million.

Average Retail Trading Levels

There is little research to assist in determining an appropriate average trading level for neighbourhood retailing, particularly when projecting into the future. Previous work undertaken by Essential Economics for the Cranbourne East PSP adopted a figure of $5,500 in 2026 (stated in 2007 dollars), and Deep End, in work undertaken in the Hume Corridor, have also adopted this figure in preparing projections for the year 2015/16 (quoted in 2008 dollars).

For the Cranbourne North (Stage 2) precinct, an average trading level of $5,750/m^2 has been adopted for the year 2025, which has been calculated by taking the figure of $5,500/m^2 in 2016, and applying a small amount of real growth over the period 2016-2025.

Supportable Retail Floorspace

Estimates of total supportable retail floorspace have been derived by dividing the total retail expenditure by residents in Cranbourne North (Stage 2) by an appropriate average turnover level for neighbourhood retailing (as noted above).

On the basis of these assumptions and estimates, total retail floorspace supported by residents in the Cranbourne North (Stage 2) precinct would be in the order of 14,900m^2.

Locally Retained Retail Floorspace

A substantial majority of retail demand will be met by retail shopping facilities located in the wider region, including in particular Casey Central, which is identified as a MAC and is located in close proximity to the precinct.

A share of retail floorspace demand would be retained within the Cranbourne North (Stage 2) precinct in order to support neighbourhood and local retailing.

For the purpose of this analysis, an estimated 27% of retail demand by residents in the precinct would be retained locally, and this figure is based on work undertaken by Essential Economics in relation to the distribution of retail floorspace by centre type.

On this basis, residents in Cranbourne North (Stage 2) will generate demand for an estimated 4,000m^2 of retail floorspace to be provided in activity centres within the precinct.

A summary of the analysis of supportable retail floorspace in the Cranbourne North (Stage 2) precinct is shown in Table 57.

Table 57: Retail Floorspace Demand Analysis, Cranbourne North Stage 2

Item	Cranbourne North (Stage 2)
Population at capacity (persons)	5,800 persons
Retail expenditure	
Average per capita retail expenditure (pa)	$14,750 /cap
Total retail expenditure	$85.6 m
Retail floorspace demand	
Average retail turnover performance	$5,750 /m2
Total supportable retail floorspace	14,900 m2
Retail demand supported locally, %	27%
Local retail floorspace provision	4,000 m2

Source: Essential Economics; MDS MarketInfo 2007

Supermarket Floorspace Provision

Successful neighbourhood activity centres typically contain a supermarket and a range of food and non-food retail specialty stores, supported by some non-retail tenants such as shopfront offices (real estate, travel agent, local offices, etc) and civic and community uses.

Supermarkets are almost always the most important component of a neighbourhood centre due to their ability to attract a large number of regular customers, their large store size as a proportion of the total centre, and their significant contribution to total centre turnover.

Various benchmarks can be used to calculate the opportunity for supermarket floorspace development. For example, research by Deep End found that in a range of neighbourhood centres in Melbourne's growth areas, supermarkets constituted approximately 50% of total centre floorspace. The same research found that, having regard for the trade areas served by these centres, the average provision of supermarket floorspace is approximately 0.3m^2 per capita.

For the purposes of planning the centre network in the identified PSPs, supportable supermarket floorspace has been assessed with reference to the following approaches:

1. Undertake a sensitivity analysis, based on average supermarket floorspace provision per capita ranging from 0.25m^2/capita to 0.35m^2/capita; and

2. Undertake a more detailed supermarket capacity analysis to determine supportable local supermarket provision in the precinct.

Sensitivity analysis

Although the research undertaken by Deep End identified average supermarket floorspace provision at approximately 0.3m^2 per capita, the actual provision of supermarket floorspace in neighbourhood catchments is likely to vary significantly, depending upon factors such as the quality of centre design, the range of supermarkets in higher-order centres in the surrounding area, the proximity and convenience of alternative supermarkets, the location of neighbourhood centres with respect to travel patterns to work, and other factors.

Because of the uncertainty in assessing average supermarket provision, a sensitivity analysis has been adopted to calculate supermarket demand on the basis that average provision would range between 0.25m^2/cap and 0.35m^2/cap.

This analysis is presented in Table 58, and indicates that the Cranbourne North (Stage 2) precinct would support approximately 1,500m^2 to 2,000m^2 of supermarket floorspace in centres located within the precinct.

Table 58: Analysis of Supermarket Floorspace Provision – Sensitivity Analysis, Cranbourne North Stage 2

Item	Cranbourne North (Stage 2)
Population at capacity	5,800 persons
Sensitivity 1: @ 0.25 m2/cap	
Supermarket floorspace provision in precinct	1,500 m2
Sensitivity 2: @ 0.35 m2/cap	
Supermarket floorspace provision in precinct	2,000 m2

Source: Essential Economics; Deep End. Figures rounded.

Supermarket capacity analysis

Further analysis of the potential to support local supermarket floorspace has been undertaken using the following methodology:

- Prepare estimates of total retail expenditure on food, liquor and groceries (FLG), which is the core market served by supermarkets (and typically generates approximately 94% of total supermarket turnover).
- Estimate the share of FLG spending which would typically be directed to supermarkets, rather than to food specialty stores, markets and so on. This estimate is based on data from the ABS publication Retail Industry Australia 1998-99 (Cat No 8624.0).
- Estimate the share of supermarket FLG spending that is likely to be retained in the precinct, having regard for the locations of other centres in the surrounding region, travel to work patterns and so on. The Cranbourne North (Stage 2) precinct is unlikely to achieve a high retention because of the location of higher order centres such as Casey Central in the surrounding area.
- Make allowance for supermarket turnover generated from the sale of non-FLG merchandise (small kitchenware and houseware items, for example).
- Make allowance for a share of turnover to be derived from residents beyond the precinct. This element is not likely to be significant for Cranbourne North (Stage 2), having regard for the likely location of centres and the precinct's position on the edge of the urban area.
- Apply an average supermarket turnover performance measure (turnover per square metre floorspace) in order to derive an estimate of the amount of supermarket floorspace that could be supported in Cranbourne North (Stage 2).

The analysis is presented in Table 59, and shows that an estimated 1,300m^2 of supermarket floorspace would be supported in the Cranbourne North (Stage 2) precinct. This is below the potential indicated in the sensitivity analysis described above; however, it is considered to be a better reflection of the likely development opportunity having regard for the location of Casey Central just 2.5km to the west of the precinct, and the small centre already planned for Glasscocks Road.

For the purposes of planning the small NAC, the forecast requirement for supermarket floorspace is broadly rounded to 1,500m^2.

Table 59: Supermarket Capacity Analysis, Cranbourne North Stage 2

Item	**Cranbourne North (Stage 2)**
Population	5,800 persons
FLG expenditure /cap	$4,390 /cap
Total FLG expenditure	$25.5 m
FLG expenditure directed to supermarkets, %	75%
Total supermarket FLG expenditure	***$19.1 m***
% retained in precinct	50%
Total retained supermarket FLG expenditure	***$9.5 m***
Plus general merchandise @6%	$0.6 m
Total supermarket turnover potential generated locally	$10.2 m
Plus turnover from beyond precinct	10%
Total supermarket turnover potential	**$11.3 m**
Average trading level	$8,500 /m2
Supermarket floorspace potential	**1,300 m2**

Source: Essential Economics; MDS MarketInfo 2007

Summary

According to the analysis presented in this Chapter, the Cranbourne North (Stage 2) precinct will support approximately **3,500m^2** of retail floorspace, consisting of approximately **1,500m^2** of supermarket floorspace (ie a mid-sized supermarket), and approximately **2,000m^2** of additional specialty retail floorspace.

This estimate of the retail size of the centre is lower than the broad estimate presented in Table 57, and reflects the constraint on retail potential due to the close proximity of Casey Central, and the location of the precinct on the edge of the urban area.

10.3 Non-Retail Floorspace Demand

In addition to retail activities, neighbourhood activity centres also accommodate a range of non-retail shopfront businesses. Examples include real estate agents, travel agents, post offices, and small businesses such as solicitors, conveyancers, accountants, tax agents, financial advisors, and so on. In some circumstances home-based businesses may seek small office space in neighbourhood centres as they expand.

State government policy seeks to expand the range of uses in neighbourhood centres to include a wider variety of commercial office uses. This policy is supported by the GAA, which aims to improve employment sustainability by encouraging local job provision in close proximity to residential neighbourhoods.

The proportion of non-retail floorspace in neighbourhood activity centres varies considerably. For example, single-ownership neighbourhood shopping centres in growth areas typically have a relatively low proportion of non-retail floorspace; research undertaken by Deep End (in the context of assessing the activity centre framework in Craigieburn) indicates that non-retail uses make up 10% of centre floorspace in growth areas, on average.

In contrast, multiple-ownership centres in more established areas (often in a main-street context) tend to have a greater diversity of uses and a more significant provision of non-retail floorspace. Research undertaken by Essential Economics in various centre studies throughout Melbourne indicates that non-retail floorspace provision can be up to 30% or more of total centre floorspace in some neighbourhood centres. These businesses often take up secondary (low rent) tenancies on the edge of centres, or are found in upper-level premises.

The extent to which non-retail uses are accommodated in NACs located in the Cranbourne North (Stage 2) precinct will therefore depend upon factors such as:

- Ownership model – single-ownership centre or multiple-ownership
- Design format – main-street or undercover shopping centre
- Business environment – the extent to which the surrounding population generates demand for business services, and whether these demands are met elsewhere (such as in higher-order centres in the region such as Casey Central, or in the C21 Business Park precinct to the north-east, or the service business precinct on Thompsons Road)
- Levels of entrepreneurship – the extent to which the local population invests in new business development, and has the appropriate professional and managerial skills

A broad estimate of the potential for non-retail floorspace to be accommodated in centres located in Cranbourne North (Stage 2) has been prepared with reference to the factors listed above. For this analysis, it is expected that the design format and development model would aim to encourage opportunities for the provision of local non-retail businesses, and that non-retail uses would comprise approximately 15-20% of total centre floorspace at the main neighbourhood activity centre.

Overall, approximately **750m^2** of non-retail floorspace is estimated to be supportable at centres in the precinct.

These calculations are based on the types of non-retail businesses (real estate agents, tax agents, accountants, etc) that are typically found in small neighbourhood activity centres.

10.4 Proposed Activity Centre Network

The proposed activity centre network to serve the Cranbourne North (Stage 2) precinct consists of one small NAC with total retail floorspace of 3,500m^2 and a non-retail component of 750m^2. Total floorspace at the activity centre is proposed to be 4,250, with an estimated land budget requirement of 1.4 hectares, as shown below.

Table 60: Proposed Activity Centre Network, Cranbourne North Stage 2

Centre type	Supermarket	Specialty	Total retail	Non-retail	Total	Land budget
Neighbourhood activity centre	1,500 m2	2,000 m2	3,500 m2	750 m2	4,250 m2	1.4ha

Source: Essential Economics Pty Ltd

General principles which are relevant in planning the locations of neighbourhood activity centres include:

- A central location with respect to the residential catchment
- A site on a main road, in this case preferably with good access from major arterial roads such as Thompsons Road or Glasscocks Road

- A location on the edge of a neighbourhood, rather than an internalised location within a neighbourhood precinct.

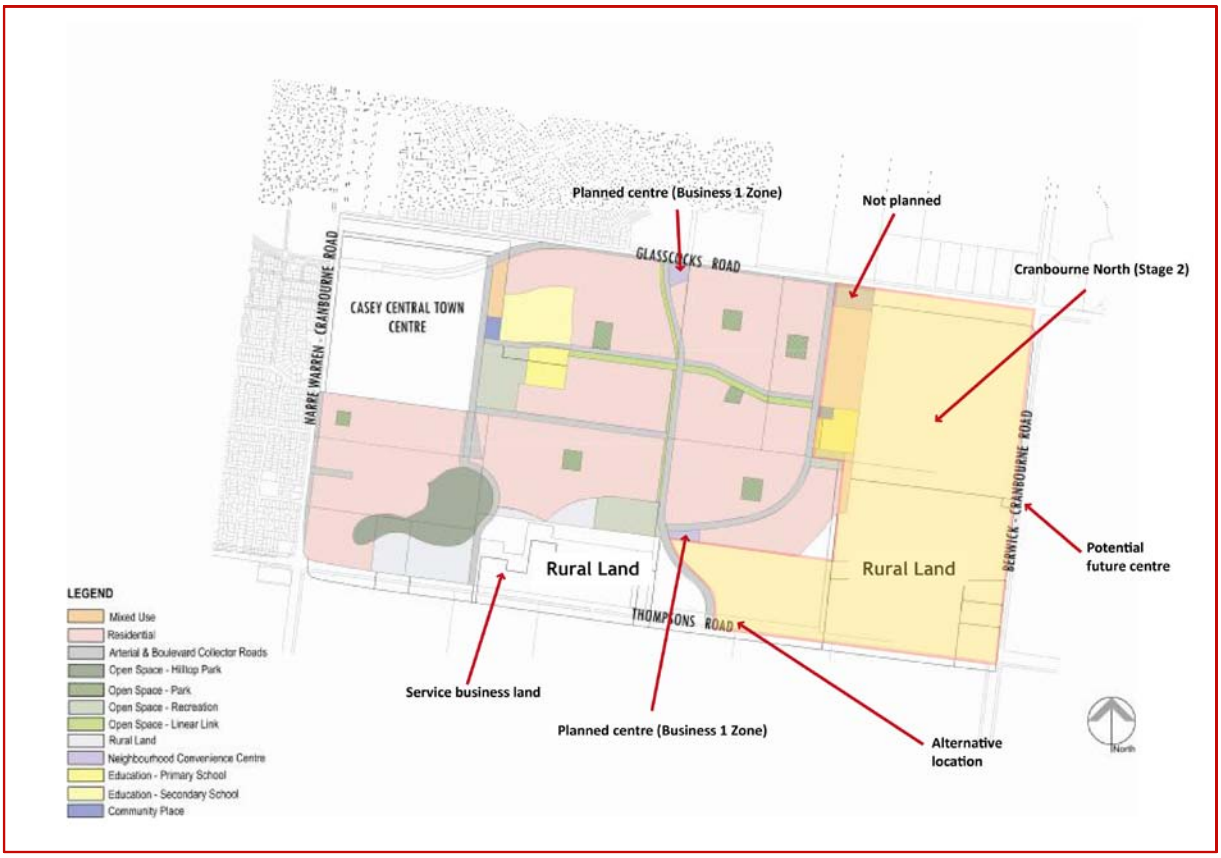
Three neighbourhood centres were identified in the Cranbourne North Development Plan (2007), as shown in Figure 13 below. The centre identified in the north-east of the Cranbourne North Structure Plan area (as shown in Figure 13) did not proceed through the amendment process, and now forms part of Stage 2.

Business 1 Zones have been applied to the southern-most centre and the western-most centre (on Glasscocks Road) as part of the Cranbourne North Development Plan (2007).

Having regard for the location of existing shopping facilities at Casey Central, Eden Rise, and the centres identified on Glasscocks Road and in the south, the following recommendations are made in relation to retail facilities in the Cranbourne North (Stage 2) precinct:

- Do not proceed with the centre to the north-east identified in the Cranbourne North Development Plan, as this centre is relatively close to the one located further to the west (in the Business 1 Zone).
- Plan for just one neighbourhood activity centre (NAC) to serve the precinct.
- Adopt the existing planned location (already in the Business 1 Zone) or, alternatively, move the centre in order to maximise the residential catchment served (especially having regard for the location of the service business precinct) and to favour a location on a major road. A potential alternative location is shown in Figure 13, consisting of a position on Thompsons Road, which would also assist in serving residents to the south of Thompsons Road (assuming that the land is brought within the UGB).
- If the draft extended urban growth area is adopted, then a future centre on the eastern side of Berwick-Cranbourne Road is recommended to ensure that residents in Cranbourne North Stage 2 have convenient access to a local centre (and noting the GAA target of all residents to be within 1km of neighbourhood retail facilities).

Figure 13: Cranbourne North Structure Plan



Source: Cranbourne North Development Plan (2007)

10.5 Employment Generated in the Precinct

An estimate of the potential employment generated in the Cranbourne North (Stage 2) precinct is shown in Table 61, and is compared against the forecast size of the employed resident labour force in order to assess the performance of the precinct in providing local jobs to the residential population. The broad approach in undertaking this analysis is as follows:

1. An estimate of the employed residential population is made by applying a crude labour force participation rate of 49% (this estimate reflects the existing LFPRs for Cranbourne, at 48.5% and Berwick, at 50.1%), and an average unemployment rate of 6%.
2. Home-based employment is estimated at 10% of the total employed labour force.
3. An employment ratio of $40m^2$ per job is applied to the retail component of activity centres.
4. An employment ratio of $20m^2$ per job is applied to the non-retail component of activity centres.
5. An employment ratio of 35 jobs per hectare is applied to the service business precinct on Thompsons Road.
6. An estimate of the potential for other employment at community facilities such as schools, medical centres etc has been undertaken with reference to detailed planning work undertaken by GAA, and to

figures contained in the GAA employment model which assesses the need for such facilities and includes an estimate of typical employment outcomes.

Note that the employment analysis includes consideration of the service business precinct on Thompsons Road, which is to be included in the Industrial 3 Zone as part of Amendment C113.

Overall, the analysis indicates that the precinct has potential to support approximately 2,245 jobs, comprising 130 jobs in activity centres, a further 90 jobs in community facilities, schools, etc, an estimated 270 home-based jobs, and 1,750 jobs created in the service business precinct on Thompsons Road.

Table 61: Employment Opportunities, Cranbourne North Stage 2

Location	Area	Ratio	Employment
Activity centres			
Retail component	3,500m^2	40m^2/job	90
Non-retail component	750m^2	20m^2/job	40
Sub-Total Activity Centre			130
Service business precinct	50 hectares	35 jobs/ha	1,750
Other (schools, medical, etc)	(1x medical centre, 1x community centre, 1x childcare centre, 2x kindergarten, 1x primary school)		95
Home-based employment estimate:			
Residential population	5,800		
Labour force (@49% LFPR)	2,840		
Employed labour force (6% unemployment)	2,670		
Home-based employment (@10%)			270
Total			**2,245**

Source: Essential Economics; refer text

When compared against the estimated employed resident labour force of 2,670 persons, this represents an employment self-sufficiency rate of approximately 84% (ie 2,245 jobs for an employed labour force of 2,670 persons). However, it is important to appreciate that this estimate *includes* the service business precinct on Thompsons Road, in which an estimated 1,750 jobs will be created.

10.6 Access to Employment

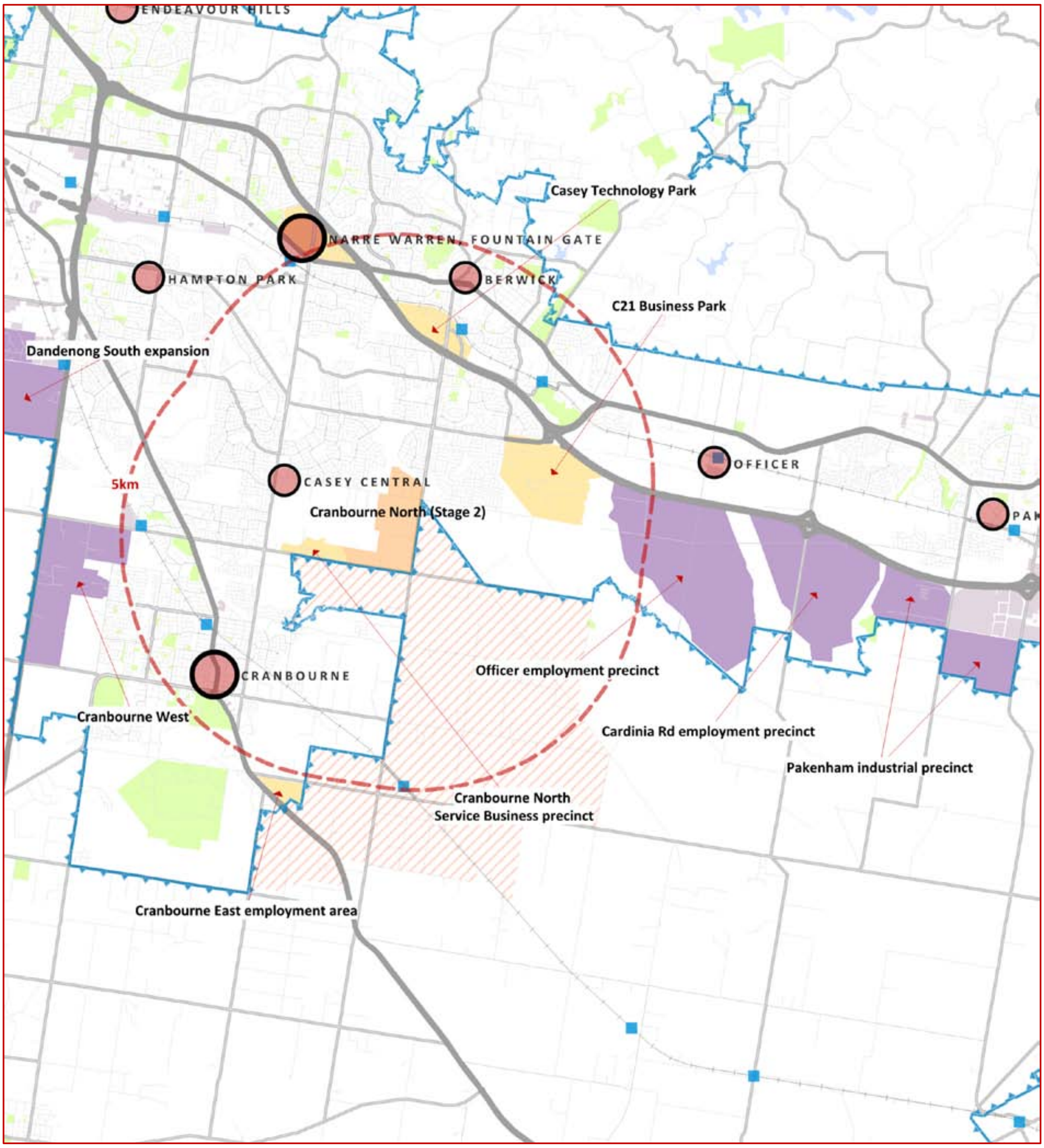
Residents in the Cranbourne North (Stage 2) precinct will have access to a number of employment areas in the wider region, including:

- Casey Central
- Casey Technology Park
- C21 Business Park
- Cranbourne Town Centre
- Fountain Gate-Narre Warren CBD
- The substantial employment precinct planned for the Officer-Pakenham corridor, which will be easily accessible along Thompsons Road

- The potential employment land on the south side of Thompsons Road, subject to the finalisation of the draft new urban growth boundary.

An indication of the main employment areas within a 5km buffer of the Cranbourne North (Stage 2) precinct is shown in Figure 14.

Figure 14: Access to Employment – Cranbourne North (Stage 2)



Prepared by Essential Economics with MapInfo and StreetPro

10.7 Achieving the GAA Benchmarks

The GAA has a broad employment target of 30% of the employment requirements of new precincts to be located within the surrounding neighbourhood area (ie employment self-sufficiency rate of 30%), and this is reflected in the application of the GAA local employment model.

According to the analysis in section 10.5, the Cranbourne North Stage 2 precinct has potential to generate approximately 2,245 jobs, representing an employment self-sufficiency rate of 84% when measured against the estimated number of employed residents (2,670 persons). An important consideration is that this estimate of employment creation includes 1,750 jobs associated with the service business precinct, which is not strictly within the Cranbourne North Stage 2 precinct (although it is essentially within the wider Cranbourne North precinct).

The conclusion is that the precinct performs well in relation to the GAA targets.

Further analysis shows that additional employment opportunities are available in close proximity to Cranbourne North, including the Casey Central Town Centre, the C21 Business precinct, the Officer employment precinct, and the proposed industrial land to the south of Thompsons Road (subject to the extension of the urban growth area). Other employment opportunities are available in the surrounding region.

The following issues are of importance in improving the performance of the Cranbourne North Stage 2 precinct in terms of generating local employment opportunities:

- Encourage a well-designed neighbourhood activity centre which is a vibrant focus for business activity, thereby improving the opportunities for retail and other commercial developments.
- Encourage a variety of home designs which include some that cater to home-based businesses, and which include home offices, storage sheds, etc.
- Provide support for the development of the service industry precinct on Thompsons Road (associated with Amendment C113).
- Encourage the development of the C21 business precinct as planned, although noting that this development will only be fully developed in the longer term (refer analysis in Chapter 8).

11 BOTANIC RIDGE

11.1 Population Outcomes

Opportunities for housing development in the Botanic Ridge precinct are based on work undertaken by GAA to identify the location and types of housing product likely to be accommodated, and the associated community infrastructure such as schools, community centres, etc.

According to analysis undertaken by GAA, the Botanic Ridge precinct has potential to generate approximately 4,000 residential dwellings when fully developed.

On the basis of these inputs, population projections are presented in the Table 62.

Table 62: Estimated Population Outcomes, Botanic Ridge

Item	Botanic Ridge
Residential lot production	4,000 lots
Average household size	2.8 pph
Population at capacity - residents	11,200 persons

Source: Essential Economics; TRACT

The analysis shows that the Botanic Ridge precinct has potential to accommodate a total population of approximately 11,200 residents.

11.2 Retail Demand

The analysis in this section is based on an expectation that the highest-order activity centre in the Botanic Ridge precinct would be a Neighbourhood Activity Centre (NAC). This assumption reflects the overall scale of the residential population in the precinct (at 11,200 persons), the role of Cranbourne Town Centre in serving the higher-order retail needs of the precinct, the existing small convenience centre at Junction Village, and the location of the Cranbourne East employment area which might include some retail facilities.

Retail Expenditure

Average retail expenditure by residents in the precinct is projected to be in the order of $14,750 per capita in 2025 (expressed in constant 2008 dollars).

This estimate is based on a current benchmark average retail spending level of approximately $11,450 per capita in 2008, which has been derived from average retail expenditure in suburbs such as Cranbourne North and Berwick. Real growth in per capita retail spending has been applied, but at conservative rates which reflect uncertainty in economic performance in the short term. In 2025 (representing a development timeframe of approximately 15 years) average retail expenditure would be approximately $14,750 per capita.

On the basis of these estimates, total retail expenditure by residents in Botanic Ridge is projected to be approximately $165 million.

Average Retail Trading Levels

There is little research to assist in determining an appropriate average trading level for neighbourhood retailing, particularly when projecting into the future. Previous work undertaken by Essential Economics for the

Cranbourne East PSP adopted a figure of $5,500 in 2026 (stated in 2007 dollars), and Deep End, in work undertaken in the Hume Corridor, have also adopted this figure in preparing projections for the year 2015/16 (quoted in 2008 dollars).

For the Botanic Ridge precinct, an average trading level of $5,750/m^2 has been adopted for the year 2025, which has been calculated by taking the figure of $5,500/m^2 in 2016, and applying a small amount of real growth over the period 2016-2025.

Supportable Retail Floorspace

Estimates of total supportable retail floorspace have been derived by dividing the total retail expenditure by residents in Botanic Ridge by an appropriate average turnover level for neighbourhood retailing (as noted above).

On the basis of these assumptions and estimates, total retail floorspace supported by residents in the Botanic Ridge precinct would be in the order of 28,700m^2.

Locally Retained Retail Floorspace

A substantial majority of retail demand will be met by retail shopping facilities located in the wider region, including in particular Cranbourne Town Centre and the neighbourhood centre identified in the Cranbourne East PSP for Ballarto Road.

A share of retail floorspace demand would be retained within the Botanic Ridge precinct in order to support neighbourhood and local retailing.

For the purpose of this analysis, an estimated 27% of retail demand by residents in the precinct would be retained locally, and this figure is based on work undertaken by Essential Economics in relation to the distribution of retail floorspace by centre type.

On this basis, residents in the precinct will generate demand for an estimated 7,700m^2 of retail floorspace to be provided in neighbourhood activity centre(s) and local shops.

A summary of the analysis of supportable retail floorspace in the Clyde North precinct is shown in Table 63.

Table 63: Retail Floorspace Demand Analysis, Botanic Ridge

Item	Botanic Ridge
Population at capacity	11,200 persons
Retail expenditure	
Average per capita retail expenditure (pa)	$14,750 /cap
Total retail expenditure	$165.2 m
Retail floorspace demand	
Average retail turnover performance	$5,750 /m2
Total supportable retail floorspace	28,700 m2
Retail demand supported locally, %	27%
Local retail floorspace provision	7,700 m2

Source: Essential Economics; MDS MarketInfo 2007

Supermarket Floorspace Provision

Successful neighbourhood activity centres typically contain a supermarket and a range of food and non-food retail specialty stores, supported by some non-retail tenants such as shopfront offices (real estate, travel agent, local offices, etc) and civic and community uses.

Supermarkets are almost always the most important component of a neighbourhood centre due to their ability to attract a large number of regular customers, their large store size as a proportion of the total centre, and their significant contribution to total centre turnover.

Various benchmarks can be used to calculate the opportunity for supermarket floorspace development. For example, research by Deep End found that in a range of neighbourhood centres in Melbourne's growth areas, supermarkets constituted approximately 50% of total centre floorspace. The same research found that, having regard for the trade areas served by these centres, the average provision of supermarket floorspace is approximately 0.3m^2 per capita.

For the purposes of planning the centre network in the identified PSPs, supportable supermarket floorspace has been assessed with reference to the following approaches:

1. Undertake a sensitivity analysis, based on average supermarket floorspace provision per capita ranging from 0.25m^2/capita to 0.35m^2/capita; and

2. Undertake a more detailed supermarket capacity analysis to determine supportable local supermarket provision in the precinct.

Sensitivity analysis

Although the research undertaken by Deep End identified average supermarket floorspace provision at approximately 0.3m^2 per capita, the actual provision of supermarket floorspace in neighbourhood catchments is likely to vary significantly, depending upon factors such as the quality of centre design, the range of supermarkets in higher-order centres in the surrounding area, the proximity and convenience of alternative supermarkets, the location of neighbourhood centres with respect to travel patterns to work, and other factors.

Because of the uncertainty in assessing average supermarket provision, a sensitivity analysis has been adopted to calculate supermarket demand on the basis that average provision would range between 0.25m^2/cap and 0.35m^2/cap.

This analysis is presented in Table 64, and indicates that the Botanic Ridge precinct would support approximately 2,800m^2 to 3,900m^2 of supermarket floorspace in centres located within the precinct.

Table 64: Analysis of Supermarket Floorspace Provision – Sensitivity Analysis, Botanic Ridge

Item	Botanic Ridge
Population at capacity	11,200 persons
Sensitivity 1: @ 0.25 m2/cap	
Supermarket floorspace provision in precinct	2,800 m2
Sensitivity 2: @ 0.35 m2/cap	
Supermarket floorspace provision in precinct	3,900 m2

Source: Essential Economics; Deep End

Supermarket capacity analysis

A further analysis of the potential to support local supermarket floorspace has been undertaken using the following methodology:

- Prepare estimates of total retail expenditure on food, liquor and groceries (FLG), which is the core market served by supermarkets (and typically generates approximately 94% of total supermarket turnover).
- Estimate the share of FLG spending which would typically be directed to supermarkets, rather than to food specialty stores, markets and so on. This estimate is based on data from the ABS publication Retail Industry Australia 1998-99 (Cat No 8624.0).
- Estimate the share of supermarket FLG spending that is likely to be retained in the precinct, having regard for the locations of other centres in the surrounding region, travel to work patterns and so on.
- Make allowance for supermarket turnover generated from the sale of non-FLG merchandise (small kitchenware and houseware items, for example).
- Make allowance for a share of turnover to be derived from residents beyond the precinct. This element is not likely to be significant for Botanic Ridge, having regard for the likely location of centres and the precinct's position on the southern edge of the urban area.
- Apply an average supermarket turnover performance measure (turnover per square metre floorspace) in order to derive an estimate of the amount of supermarket floorspace that could be supported in Botanic Ridge.

The analysis is presented in Table 65, and shows that an estimated 3,100m^2 of supermarket floorspace would be supported in the Botanic Ridge precinct.

Table 65: Supermarket Capacity Analysis, Botanic Ridge

Item	Botanic Ridge
Population	11,200 persons
FLG expenditure /cap	$4,390 /cap
Total FLG expenditure	$49.2 m
FLG expenditure directed to supermarkets, %	75%
Total supermarket FLG expenditure	***$36.9 m***
% retained in precinct	60%
Total retained supermarket FLG expenditure	***$22.1 m***
Plus general merchandise @6%	$1.4 m
Total supermarket turnover potential generated locally	$23.5 m
Plus turnover from beyond precinct	10%
Total supermarket turnover potential	**$26.2 m**
Average trading level	$8,500 /m2
Supermarket floorspace potential	**3,100 m2**

Source: Essential Economics; MDS MarketInfo 2007

Summary

According to the analysis presented in this Chapter, the Botanic Ridge precinct will support approximately an additional **6,500m^2** of retail floorspace, including **3,100m^2** of supermarket floorspace (a full-line store) and approximately **2,400m^2** of additional specialty retail floorspace in a neighbourhood centre context. These figures are intended as broad estimates of future activity centre floorspace, and will be assessed further at the planning permit stage.

This estimate of the retail size of the centre is lower than the broad estimate presented in Table 63, and reflects the constraint on retail potential due to the close proximity of Cranbourne Town Centre, the location of the precinct on the edge of the urban area, and the irregular shape of the precinct which makes it difficult to consolidate the precinct into a single catchment.

11.3 Non-Retail Floorspace Demand

In addition to retail activities, neighbourhood activity centres also accommodate a range of non-retail shopfront businesses. Examples include real estate agents, travel agents, post offices, and small businesses such as solicitors, conveyancers, accountants, tax agents, financial advisors, and so on. In some circumstances home-based businesses may seek small office space in neighbourhood centres as they expand.

State government policy seeks to expand the range of uses in neighbourhood centres to include a wider variety of commercial office uses. This policy is supported by the GAA, which aims to improve employment sustainability by encouraging local job provision in close proximity to residential neighbourhoods.

The proportion of non-retail floorspace in neighbourhood activity centres varies considerably. For example, single-ownership neighbourhood shopping centres in growth areas typically have a relatively low proportion of non-retail floorspace; research undertaken by Deep End (in the context of assessing the activity centre framework in Craigieburn) indicates that non-retail uses make up 10% of centre floorspace in growth areas, on average.

In contrast, multiple-ownership centres in more established areas (often in a main-street context) tend to have a greater diversity of uses and a more significant provision of non-retail floorspace. Research undertaken by Essential Economics in various centre studies throughout Melbourne indicates that non-retail floorspace provision can be up to 30% or more of total centre floorspace in some neighbourhood centres. These businesses often take up secondary (low rent) tenancies on the edge of centres, or are found in upper-level premises.

The extent to which non-retail uses are accommodated in a centre located in the Botanic Ridge precinct will therefore depend upon factors such as:

- Ownership model – single-ownership centre or multiple-ownership
- Design format – main-street or undercover shopping centre
- Business environment – the extent to which the surrounding population generates demand for business services, and whether these demands are met elsewhere (for example the Cranbourne East employment area)
- Levels of entrepreneurship – the extent to which the local population invests in new business development, and has the appropriate professional and managerial skills

A broad estimate of the potential for non-retail floorspace to be accommodated in centres located in Botanic Ridge has been prepared with reference to the factors listed above. For this analysis, it is expected that the design format and development model would aim to encourage opportunities for the provision of local non-retail businesses, and that non-retail uses would comprise approximately 15% of total centre floorspace at the main neighbourhood activity centre. Small allocations are also made for the local centres.

Overall, approximately **1,500m^2** of non-retail floorspace is estimated to be supportable within the precinct.

These calculations are based on the types of non-retail businesses (real estate agents, tax agents, accountants, etc) that are typically found in neighbourhood activity centres.

11.4 Proposed Activity Centre Network

The proposed activity centre network to serve the Botanic Ridge precinct consists of:

- One NAC with total retail floorspace of approximately 5,500m^2, anchored by a full-line supermarket
- The existing convenience retailing at Junction Village
- At least one smaller convenience centre located elsewhere in the precinct, potential locations include a central position with respect to the precinct as a whole, and the intersection of Browns Road and Pearcedale Road.

A summary of the distribution of retail and non-retail floorspace is presented in Table 66, which also provides an indicative land budget based on average site coverage of 30%.

Table 66: Proposed Activity Centre Network, Botanic Ridge

Centre	Supermarket	Specialty	Total retail	Non-retail	Total	Land budget
Central NAC	3,100 m2	2,400 m2	5,500 m2	1,000 m2	11,500 m2	2.2 ha
Junction Village	0 m2	500 m2	500 m2	250 m2	750 m2	0.3 ha
Local centre	0 m2	500 m2	500 m2	250 m2	500 m2	0.3 ha
Total	**3,100 m2**	**3,400 m2**	**6,500 m2**	**1,250 m2**	**13,150 m2**	**2.8 ha**

Source: Essential Economics Pty Ltd

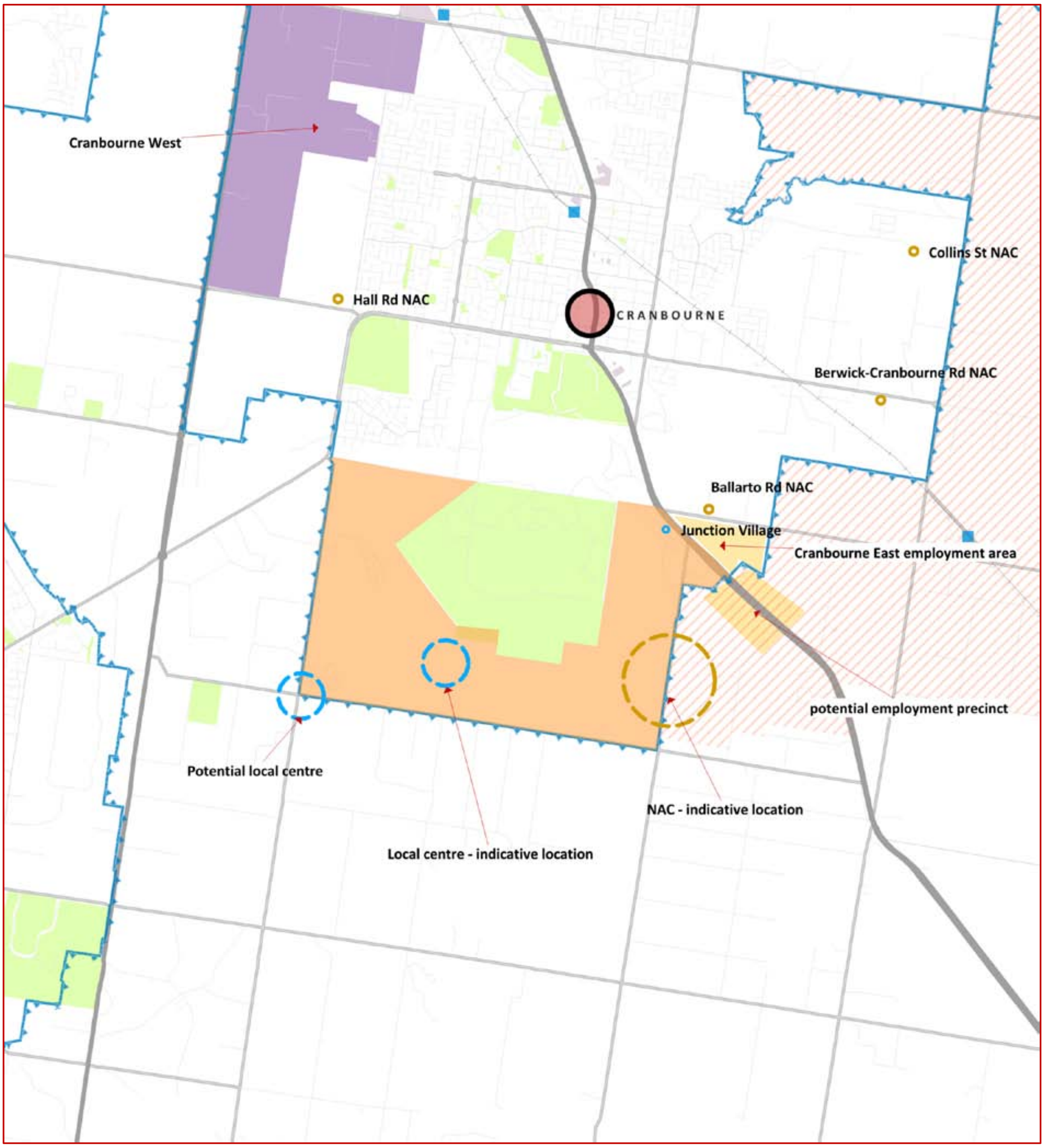
General principles which are relevant in planning the locations of neighbourhood activity centres include:

- Potential to serve a dedicated residential catchment
- A site on a main road, preferably with good access from major arterial roads such as the Craig Road/Casey Fields Boulevard extension
- A location on the edge of a neighbourhood, rather than an internalised location within a neighbourhood precinct.

An important consideration is the potential inclusion of land to the east of the Botanic Ridge PSP inside the urban growth area, noting that the draft extension to the urban growth boundary is located directly to the east of the proposed Craig Road/Casey Fields Boulevard extension.

Having regard for these factors, an indicative plan for the activity centres in Botanic Ridge is shown in Figure 15.

Figure 15: Indicative Activity Centre Locations – Botanic Ridge



Prepared by Essential Economics with MapInfo and StreetPro

11.5 Employment Generated in the Precinct

An estimate of the potential employment generated in the Botanic Ridge precinct is shown in Table 67, and is compared against the forecast size of the employed resident labour force in order to assess the performance of the precinct in providing local jobs to the residential population. The broad approach in undertaking this analysis is as follows:

1. An estimate of the employed residential population is made by applying a crude labour force participation rate of 49% (this estimate reflects the existing LFPRs for Cranbourne, at 48.5% and Berwick, at 50.1%), and an average unemployment rate of 6%.
2. Home-based employment is estimated at 10% of the total employed labour force.
3. An employment ratio of 40m^2 per job is applied to the retail component of activity centres.
4. An employment ratio of 20m^2 per job is applied to the non-retail component of activity centres.
5. An estimate of the potential for other employment at community facilities such as schools, medical centres etc has been undertaken with reference to detailed planning work undertaken by Tract, and to figures contained in the GAA employment model which assesses the need for such facilities and includes an estimate of typical employment outcomes.

Overall, the analysis indicates that the precinct has potential to support approximately 870 jobs, comprising 240 jobs in activity centres, a further 110 jobs in community facilities, schools, etc, and an estimated 520 home-based jobs.

Table 67: Employment Opportunities Botanic Ridge

Location	Area	Ratio	Employment
Activity centres:			
Retail component	6,500m^2	40m^2/job	160
Non-retail component	1,500m^2	20m^2/job	80
Sub-Total Activity centre			240
Other (schools, medical, etc)	(1x medical centre, 1x community centre , 1x childcare centre, 1x kindergarten, 1x primary school, 1x retirement village)		110
Home-based employment estimate:			
Residential population	11,200		
Labour force (@49% LFPR)	5,490		
Employed labour force (6% unemployment)	5,160		
Home-based employment (@10%)			520
Total			**870**

Source: Essential Economics; refer text

When compared against the estimated employed labour force of 5,160 persons, this represents an employment self-sufficiency rate of approximately 17% (ie 870 jobs for an employed resident labour force of 5,160 persons).

An important consideration, however, is that a new employment precinct is planned on the South Gippsland Highway, to the east of Botanic Ridge. This land has potential to generate employment opportunities for the Botanic Ridge population.

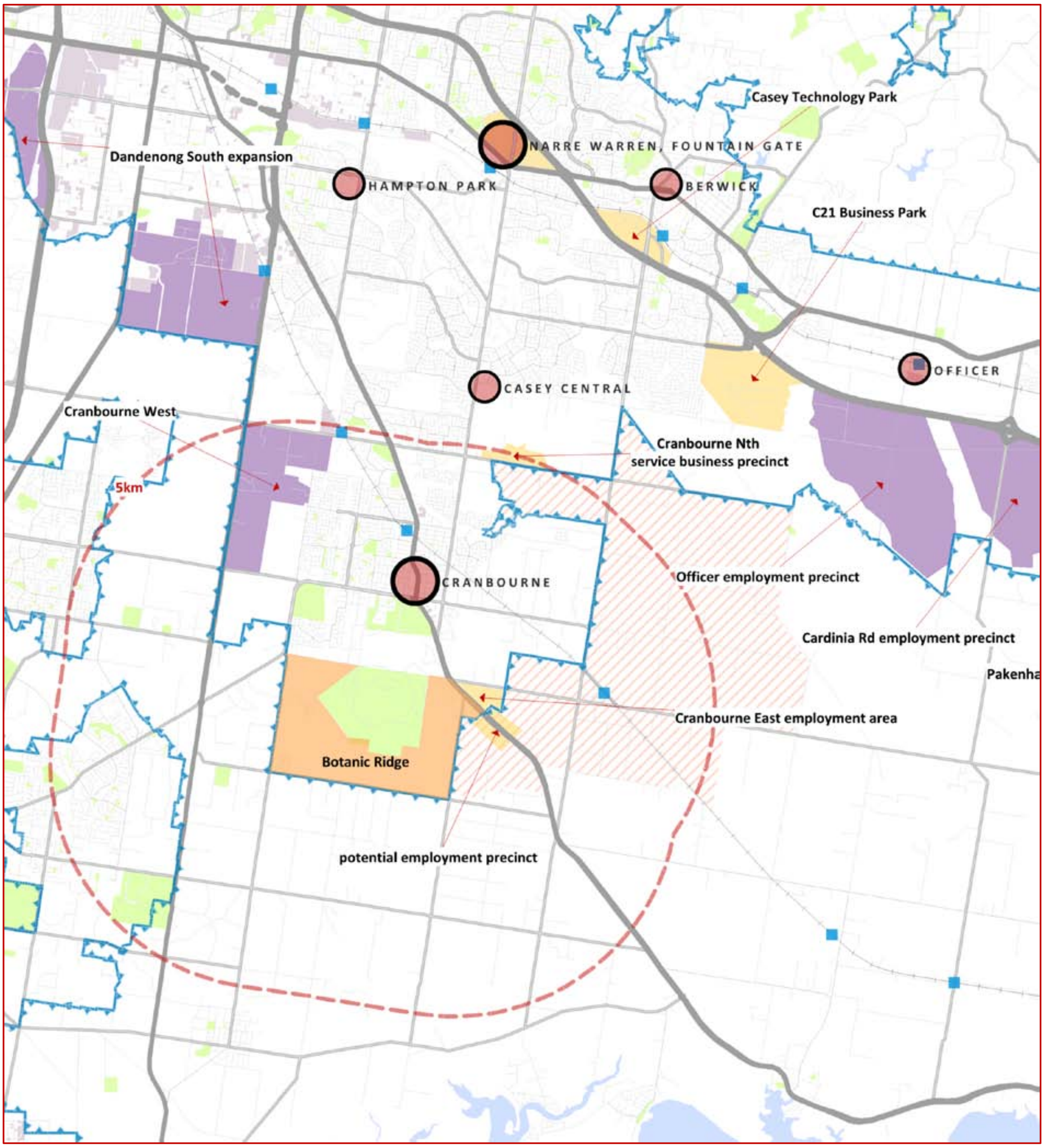
11.6 Access to Employment

Residents in the Botanic Ridge precinct will have access to a number of employment areas in the wider region, including:

- The new planned employment precinct on the South Gippsland Highway, to the east of Botanic Ridge
- Employment opportunities at Cranbourne Town Centre
- Employment opportunities in the employment area on Ballarto Road/South Gippsland Highway (Cranbourne East)
- Cranbourne West industrial/business park.

An indication of the main employment areas within a 5km buffer of the Botanic Ridge precinct is shown in Figure 16.

Figure 16: Access to Employment – Botanic Ridge



Prepared by Essential Economics with MapInfo and StreetPro

11.7 Achieving the GAA Benchmarks

The GAA has a broad employment target of 30% of the employment requirements of new precincts to be located within the surrounding neighbourhood area (ie employment self-sufficiency rate of 30%), and this is reflected in the application of the GAA local employment model.

According to the analysis in section 11.5, the Botanic Ridge precinct has potential to generate approximately 870 jobs, representing an employment self-sufficiency rate of 17%.

On this basis, the precinct fails to deliver the scale of local employment generation that is envisaged by the GAA targets.

However, further analysis shows that other employment opportunities are available in the region surrounding Botanic Ridge, including Cranbourne Town Centre, the employment precinct associated with the Cranbourne East PSP, and the planned new employment precinct on the South Gippsland Highway, to the east of Botanic Ridge.

The following issues are of importance in improving the performance of the Botanic Ridge precinct in terms of generating local employment opportunities:

- Encourage a well-designed neighbourhood activity centre which is a vibrant focus for business activity, thereby improving the opportunities for retail and other commercial developments.
- Support the establishment of new local centres to serve the central and western parts of the precinct.
- Encourage a variety of home designs which include some that cater to home-based businesses, and which include home offices, storage sheds, etc.
- Provide support for the introduction of a new employment precinct on the South Gippsland Highway to the west of Botanic Ridge, in the event that the draft extension to the urban growth area is finalised. This employment precinct would provide opportunities for business development to serve the employment needs of residents in Botanic Ridge, as well as people living in the extended urban growth area to the south.
- Encourage development opportunities in Cranbourne Town Centre which provide employment opportunities for the wider region, including residents in Botanic Ridge.

PART C: CONCLUSIONS AND RECOMMENDATIONS

12 CONCLUSIONS AND RECOMMENDATIONS

This Chapter presents the main findings from this economic development and employment analysis, and provides direction to GAA and the relevant local Councils in relation to the delivery of employment opportunities in the growth corridor as a whole, and in each of the PSPs that have been examined in more detail.

The recommendations relate to regional-level issues which include the need to retain areas of land as major employment precincts for residents in the corridor and beyond, the need to provide relevant infrastructure to support residential and employment growth, and the need to match business development opportunities with the qualifications and skills of the local labour force.

At the local-level, the recommendations relate to issues which include the need to plan for well-designed and amenable centres which maximise employment outcomes, ensuring that employment opportunities in the wider region are easily accessible, and matching the timing of population growth with the identification and development of employment lands.

Recommendations are provided in the form of a list of *objectives* and the associated *actions* that need to be undertaken in order to meet the objectives.

12.1 Regional-level Findings and Recommendations

1 Ensure that identified major employment precincts are retained for employment use

The analysis identifies potential for approximately 79,000 to 125,000 jobs to be generated within the Corridor, although this is intended only as a broad estimate of the employment creation potential, and does not include all the potential jobs that might be created, for example in community service positions in schools, hospitals etc (ie not in activity centres). Potential also exists for an additional 29,000 to 44,000 jobs to be accommodated in Dandenong South.

These broad estimates of potential job supply can be compared against projections which indicate total demand for approximately an additional 111,000 jobs over the period 2009 to 2031 to meet the employment demand of the resident labour force in Casey and Cardinia.

Importantly, analysis shows that a significant increase of 193,930 jobs will need to be located inside the corridor over the period 2009 to 2031 if the GAA targets are to be achieved. This estimate includes the jobs required to address the current employment deficit, as well as the additional jobs needed to serve the future population.

These figures highlight the importance of securing land for employment purposes to meet the employment demands of residents in the region as urban expansion proceeds.

It is also important to note that not all of the identified employment precincts will be developed within the 2009 to 2031 timeframe, and so it will be important to ensure that a variety of business development opportunities eventuate in order to provide an ongoing supply of new employment for local residents.

Actions:

1.1 Retain land that is designated for future employment uses.

1.2 Support the early development of employment precincts through a range of strategies, including incentives for new investment, promotion of the region for new development, and delivery of required infrastructure.

1.3 Identify new areas of land for employment development, including for example potential areas of land in the extended urban growth area (south of Thompsons Road and South Gippsland Highway).

2 ***Improve employment self-sufficiency and self-containment***

Analysis shows that the Casey-Cardinia corridor, with approximately 56,260 jobs for a resident labour force of 127,870 persons in 2006, achieves an overall level of employment self-sufficiency of approximately 44%.

This is well below the target adopted by the GAA of an overall self-sufficiency rate of 100% (implying the need for an additional 71,610 jobs, on top of the current 56,260 jobs, to meet the existing resident labour force of 127,870 persons).

Current levels of self-containment (ie the proportion of the resident labour force which lives and works within the region) are approximately 34% throughout the corridor as a whole, and just 27% for the City of Casey (ie living and working in Casey). These figures are well below the GAA employment target of 50% self-containment.

Actions:

2.1 Ensure that employment opportunities are realised throughout the corridor in order to encourage higher levels of employment self-sufficiency.

2.2 Identify regional and sub-regional employment nodes which offer opportunities for a diversity of employment outcomes including industrial, semi-industrial service business, showroom and other development opportunities.

2.3 Maximise employment opportunities in activity centres, including planning for an office component in each centre.

2.4 Encourage home-based employment, and provide opportunities for home-based businesses to grow into small and medium enterprises.

2.5 Review the GAA benchmarks relating to employment self-sufficiency and self-containment over time to ensure that they remain relevant to the corridor and are an appropriate basis for employment planning.

3 ***Encourage an improvement in the white collar to blue collar occupation ratio***

Analysis shows that a lower share of the resident labour force in the Casey-Cardinia growth corridor is employed in white collar occupations when compared against metropolitan benchmarks and the targets that have been adopted by the GAA.

In Casey, 58% of the resident labour force is employed in white collar occupations, while in Cardinia the figure is 60%.

In terms of jobs, 70% of jobs in Casey were in white collar occupations in 2006, while in Cardinia the figure is 66% (and an overall figure of 69%).

These figures compare with a target of 75% in white collar occupations set by the GAA.

Actions:

3.1 Encourage a more diversified housing product, including high quality housing to attract managers, professionals and business owners.

3.2 Encourage the development of the commercial office sector in the corridor, including major dedicated office precincts, small-scale offices in activity centres and home-based employment, as well as offices associated with industrial activities.

3.3 Provide support to local education and training in order to raise the qualifications and skills of the existing and future resident labour force.

3.4 Review the GAA benchmark relating to the distribution of employment by occupation type over time to ensure that they remain relevant to the corridor and are an appropriate basis for employment planning.

4 *Match job creation to the qualifications and skills of the resident labour force*

Analysis shows that the identified major employment precincts within the corridor (including activity centre development and home-based business) have potential to generate approximately 54,000 to 83,000 new white collar jobs, and this compares with an employment requirement of approximately 149,960 new white collar jobs to be provided within the corridor over the period 2009 to 2031 to address the current deficit and meet the GAA targets for 2031.

These employment precincts also have capacity to deliver approximately 25,000 to 42,000 blue collar jobs, compared with a projected requirement for an additional 43,970 new blue collar jobs to be provided within the corridor over the period 2009 to 2031.

Further employment opportunities – in particular for blue collar occupations – are also available outside the corridor in Dandenong South.

Overall, these broad figures indicate that it will be important to ensure that relevant employment opportunities are provided as the characteristics of the resident workforce changes, and to meet the GAA targets in relation to occupational distribution.

Actions:

4.1 Ensure that employment opportunities for white collar occupations are available in order to meet the potential changes in the skills and qualifications of the local workforce.

4.2 Encourage small business development in activity centres.

4.3 Encourage opportunities for major commercial office development in identified precincts such as Fountain Gate-Narre Warren CBD, Casey Technology Park and C21 Business Park.

5 *Ensure the delivery of transport infrastructure*

The potential to secure major new investment in commercial offices and industrial activities for the Casey-Cardinia corridor will depend to some extent on ensuring that there is sufficient underlying infrastructure to support business development.

In particular, an issue identified in the Casey-Cardinia corridor is that traffic congestion along the Princes Highway corridor is likely to increase substantially as rapid population growth continues. In these circumstances, there is a need to ensure that additional transport capacity is provided in order to support local business development within the corridor and along the east-west connections.

Actions:

5.1 Support the identification of Thompsons Road as a major new east-west link the supports business development in the region and provides important linkages between the major employment precincts of Dandenong South and the Officer-Pakenham corridor.

5.2 Pursue opportunities for new employment precincts on Thompsons Road, for example the identified service business precinct in Cranbourne North and the potential for a large new employment area (of approximately 1,000ha) on the south side of Thompsons Road in Clyde North (subject to finalisation of the new UGB and completion of the Growth Area Framework Plans).

5.3 Advocate for public sector investment in transport infrastructure upgrades, including public transport services.

6 *Promote the corridor for business and industrial development*

Trends in building permit approvals and information from the Urban Development Program in relation to industrial land absorption rates show that the Casey-Cardinia corridor only has a minor role as a location for commercial and industrial development, and has performed poorly in attracting construction activity in these sectors.

It will be important for the region to secure major new investment if the identified employment precincts are to be realised and if the job requirement targets for the corridor are to be met.

It is likely that a range of investments will need to be attracted to the region, from major new industrial and commercial projects, to investment from the public and community sector (eg in hospitals, tertiary education, etc), to local projects that accommodate small businesses.

In this context, the corridor will need to be better promoted to large and small investors as a location for business development.

Actions:

6.1 Promote the Casey-Cardinia corridor as a location for major new industrial developments, highlighting the land development opportunities, transport infrastructure, access to a local labour force and other attributes.

6.2 Promote the corridor as a location for major new commercial office projects, highlighting opportunities for development at the Fountain Gate - Narre Warren CBD, the Casey Technology Park, and C21 Business Park (noting that this is likely to be a longer-term opportunity).

6.3 Provide support for small business development throughout the corridor, with most of this activity likely to occur in activity centres and service business precincts.

6.4 Advocate for major new investment from the State government.

12.2 Findings and Recommendations for PSP Areas

7 *Improve levels of employment self-sufficiency and self-containment*

Analysis presented in Chapters 8 to 11 shows that the GAA target of a 30% self-sufficiency rate in each neighbourhood precinct is not likely to be met in the case of Clyde North (23%) or Botanic Ridge (17%).

In Cranbourne North Stage 2 the inclusion of the service business precinct leads to a self-sufficiency rate of approximately 84%, while the C21 Business Park will generate a substantial excess of employment in relation to the size of the resident labour force living within the precinct.

Nonetheless, each precinct is relatively well-located with respect to other employment precincts in the wider region, and these precincts have potential to ensure that the sub-regional GAA target of 70% of jobs within the sub-region is met.

Actions:

7.1 Ensure that opportunities for local employment within each precinct are maximised by allocating sufficient business zoned land to accommodate potential business development in excess of the identified retail and commercial demands, while also recognising the need to reflect the role of the activity centre in the retail hierarchy. The allocation of business-zoned land should be consistent with the GAA targets.

7.2 Ensure that, where the job targets are not met within the precinct, employment opportunities are identified in the immediate sub-region.

7.3 Encourage home-based employment.

8 *Encourage attractive and well-designed activity centres*

Well-designed and successful activity centres maximise the opportunities for local business development by retaining a greater share of local expenditure, and by attracting visitation from the wider area. In addition, good design helps to make centres attractive for small business investment, for example by providing places for business lunches and meetings, and by promoting more vibrant and enticing centres which attract local investment (rather than this investment being directed outside the region).

Actions:

8.1 Promote good design for new neighbourhood activity centres in the identified precincts.

8.2 Encourage linkages between the C21 activity centre and the associated business and office park within the precinct, and encourage the co-location of business services.

8.3 Encourage active centres which cater for on-street activities (eg street dining) and which provide appropriate services for local employees and small businesses.

8.4 Where practical, introduce small business incubators or, alternatively, aim to deliver a wide range of supporting services, particularly for home-based businesses.

9 *Provide for a range of business development opportunities*

Opportunities for business development in activity centres are likely to focus on the retail sector and associated small business sectors such as finance, property services, business services, and so on.

However, the provision of a wider range of business development opportunities also needs to be pursued, catering for businesses such as personal services, contractors, and semi-industrial businesses. In some cases small employment precincts are necessary to provide local and sub-regional employment opportunities. Where these opportunities are not available in the wider region, they should be accommodated as part of the design of neighbourhood activity centres.

Actions:

9.1 Designate land to the south of Clyde North (on the south side of Thompsons Road) as a location for a new employment precinct (subject to the finalisation of the new UGB and completion of the Growth Area Framework Plans).

9.2 Support the designation of land in Cranbourne North (on the north side of Thompsons Road) as a service business precinct.

9.3 Encourage the future development of the Casey Central MAC to provide a wide range of business development opportunities.

9.4 Designate the land bounded by Ballarto Road and the South Gippsland Highway as an employment precinct for a mix of commercial and industry uses. Explore the potential for this to be a substantial new precinct through the Growth Area Framework planning process (refer 9.5 below).

9.5 Designate a new employment precinct on the South Gippsland Highway to the west of the Botanic Ridge precinct (and to the south of the employment precinct associated with Cranbourne East PSP).

9.6 Support the retention of the C21 Business Park for commercial offices and campus-style development, although noting that this is likely to be a longer-term opportunity.

10 *Encourage home-based employment*

Home-based employment is estimated to account for approximately 5-10% of the local resident labour force, with these jobs in a range of sectors such as personal services, tradespeople, professional businesses, and so on.

Opportunities for home-based employment need to be pursued in order to improve local employment self-containment, and relate to aspects such as housing design, business support services, and local office provision.

Actions:

10.1 New residential estates should include some provision for home-based businesses, for example with extended storage areas (eg large garages), dedicated home-office space, and high quality internet access.

10.2 Encourage local councils to provide a range of business support services for home-based businesses, for example by supporting local networking events, centralising the provision of relevant information, and providing local administrative services (eg secretarial services).

10.3 Support the provision of serviced offices where there is sufficient demand.

10.4 Support the growth of home-based businesses into small enterprises, by ensuring sufficient locally-available premises.

11 *Diversify the housing product*

The diversification of housing product, including larger allotments, would encourage new residents to move into the area who have a wider range of qualifications and entrepreneurial skills. This would assist in achieving the stated target of 75% white collar employment adopted by the GAA.

Actions:

11.1 Promote a wide range of housing types in new residential estates, while ensuring that target yields are met.

11.2 Encourage high quality housing construction and design, and where possible identify areas where executive style homes are to be encouraged.