Activity Centres Strategy
Prepared by: City of Kalamunda
April 2020

Contents

1.0 INTRODUCTION

Changes in technology, demographics and consumer behavior have influenced the way activity and commercial centres are used by consumers and businesses. These changes are also influencing the way local commercial and activity centres in the City of Kalamunda (the City) are developing and evolving.

In 2010, the City prepared a Local Planning Strategy to provide strategic guidance to future land use planning and development. With regard to local commercial and activity centres, the Local Planning Strategy (2010) drew on existing strategic documents at the time including the Economic Development Strategy (2010) and undertook a strategic assessment of retail and commercial activity in the City. The following objectives guided the detailed components:

a. To respond to the change and growth of population.
b. To ensure an equitable spatial distribution of facilities so that communities are not geographically disadvantaged from activity centres.
c. To respond to community desires in terms of retailing.
d. To ensure maximum integration of community facilities and residential development in relation to activity centres.
e. To improve the aesthetics of activity centre environments.
f. To identify commercial activities to locate in commercial centres to assist the commercial viability of centres.

This revised Activity Centres Strategy (the Strategy) seeks to maintain these key guiding objectives and provide updated information that has changed or evolved since 2010. In addition to these objectives the Strategy will:

a. Ensure compliance with up-to-date strategic land use policy and economic analysis which applies to Perth and the City, with a specific focus on the detailed commercial and retail planning for Forrestfield North.
b. Reflect best practice land use planning and provide a robust framework for local commercial and activity centres.
c. Investigate and prepare precinct improvement documentation.

The Strategy provides a strategic vision for the future development of commercial and retail centres and outlines a set of core principles which will guide centres planning and the strategic considerations for the preparation of the Local Planning Strategy 2019.

1.1 PURPOSE

The Strategy will ensure that activity centres are delivered to optimise community benefit by providing direction to guide the future development and enhancement of amenity. The Strategy will guide Council, its officers and applicants when considering the planning of activity centres through statutory and strategic planning processes.

1.2 VISION

The Strategy builds on the priorities of the City's Strategic Community Plan by supporting the local economy and using the land and assets sustainably, diversely and effectively. The Strategy has the following overarching vision:

The City of Kalamunda will have a network of commercial activity centres that are characterised by their diversity, flexibility and unique character.

1.3 OBJECTIVES

a. To respond to the change and growth of population.
b. To ensure an equitable spatial distribution of facilities so that communities are not geographically disadvantaged from activity centres.
c. To improve the aesthetics of activity centre environments.
d. Reflect best practice land use planning and provide a robust framework for local commercial and activity centres.

1.4 ACTIVITY CENTRE HIERARCHY

An activity centre hierarchy has been prepared for the City which has been based upon the level of centres established through State Planning Policy 4.2 – Activity Centres Perth and Peel 2010 (SPP4.2). The City believes a variety of activity centres should be provided to meet the diverse requirements of the community.

The establishment of an activity centre hierarchy will assist with:

a. Providing high-level guidance regarding the location, scale and nature of development and land uses intended for the various centres.
b. Ensure policy reflects the various roles and functions of centres.
c. Create a clear network of centres which meet the various retail, commercial, community and convenience needs of the locality.
d. Assist with guiding the planning and investment of transportation infrastructure and other aspects of development associated with activity centres.

1.5 USE OF THE STRATEGY

Hierarchy	Role / Description
District Activity Centre (DAC)	District centres have a greater focus on servicing the daily and weekly needs of residents. Their relatively smaller scale catchment compared to Regional Centres enables them to have a greater local community focus and provide services, facilities and job opportunities that reflect the particular needs of their catchments.
Neighbourhood Activity Centre (NAC)	Neighbourhood Centres have a more limited role in providing convenience retailing and community facilities for an immediate surrounding catchment. Usually, these centres are anchored by a supermarket. In some cases, these centres also serve a tourist market.
Local Activity Centre (LAC)	Local Centres consist of a small group of shops that typically serve a local, walkable catchment, and provide for the daily convenience and 'top-up' needs of local residents and passing motorists. Less than 1500m2 nla. Some of these small centres contain a limited number of community facilities and other uses. Numerous Local Centres are located throughout City of Kalamunda, mainly in the urban region.
Convenience Centres	Provide the day to day convenience needs of local communities.

The Strategy establishes strategic guidance for activity centres within the City which will provide an integral reference document for the City's officers, particularly those involved in development services, asset services, community services, and economic, land and property services to deliver effective community outcomes. The Strategy will assist agencies, community groups, developers, businesses and individual residents to understand the City's direction with regard to strategic activity centre planning, development and management.

1.6 TARGETED STAKEHOLDER CONSULTATION

The City is committed to engaging the public through all stages of the Strategy through comprehensive consultation.

2.0 POLICY CONTEXT

2.1 STATE POLICY CONTEXT

State Planning Policy documents are critical documents for establishing the parameters for the development of Activity Centres. The following are important reference points:

Directions 2031	Guides the planning framework for accommodating significant urban growth in Perth through to 2031.
Perth and Peel @ 3.5 Million	Guides the planning framework for accommodating significant urban growth that predicts a Perth and Peel population of 3.5 million by 2050.
North-East Sub-Regional Structure Plan	The guiding planning framework for local government areas in the North-East metro area which includes the City and identified future urban growth areas. The document considers the hierarchy of Activity Centres within the region.
State Planning Policy 4.2: Activity Centres for Perth and Peel	Sets the framework for the planning and development of activity centres throughout Perth and Peel. The main purpose of the policy is to specify broad planning requirements for the planning and development of new activity centres and the redevelopment and renewal of existing centres in Perth and Peel. It is mainly concerned with the distribution, function, broad land use and urban design criteria of activity centres, and with coordinating their land use and infrastructure planning.
Liveable Neighbourhoods Operational Policy	Sets out the planning framework for achieving liveable communities. Of particular relevance is Element 7: Activity centres and employment which sets out the framework for the appropriate planning of activity centres.
State Planning Policy 7.3 Residential Design Codes Volume 1	Provides the basis for the control of residential development throughout Western Australia.
State Planning Policy 7.3 Residential Design Codes Volume 2: Apartments	Provides planning and design standards for residential apartments (multiple dwellings) in areas codes R40 and above, within mixed use development and activity centres.
Draft State Planning Policy 7.2 Precinct Design	Informs and guides the community, landowners, proponents, designers, reviewers, referral agencies and decision makers to achieve good planning and design outcomes for precincts in Western Australia.

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2.2 CITY POLICY CONTEXT

Listed below are the key local planning documents the City utilises in the development of Activity Centres:

Local Planning Scheme No.3 (LPS3)	Sets out the planning framework and requirements for land use planning within the City.
Local Planning Strategy 2010	Guides the strategic directions for future land use planning within the City. A new Local Planning Strategy is being prepared and is anticipated to be adopted post 2020.
Local Planning Strategy 2019/20	The Activity Centres Strategy will be a component of the new Local Planning Strategy which will guide the strategic directions for future land use planning within the City from 2019 and beyond.
Economic Development Strategy 2017	Guides the City's allocation of resources to support economic development by fostering greater investment and jobs growth. Adopted in November 2017.
Local Planning Policy P-DEV 60: Design Advisory Committees	The role of the Design Advisory Committee (DAC) is to provide formal technical and professional advice and recommendations to the City and Councillors on significant planning proposals. The DAC is advisory in nature only and does not make determinations on development applications or any other proposals.
Tourism Strategy 2019	The purpose of the Tourism Development Strategy is to position the City to achieve its full tourism potential by promoting investment and growth and providing a unique tourism offering.
Environmental Land Use Planning Strategy 2019 (ELUPS)	ELUPS develops strategies to enhance and improve biodiversity and promote sustainable planning practises which are sensitive and complimentary to the existing natural ecosystem.
Draft Arts Strategy 2019	The Arts Strategy 2019 sets the direction for activating cultural facilities, encouraging more participation in the arts and diversifying the economy and improving the visual appeal of public places. The Arts Strategy 2019 is anticipated to be adopted late 2019.
Draft Local Planning Policy: Public Art Contributions	The Policy has been prepared to facilitate the provision of public art through development proposals and provides guidance on the format of public art contributions within the City. The Policy is anticipated to be adopted late 2019.
Industrial Development Strategy 2018	The Industrial Development Strategy 2018 provides direction in regard to strategic and statutory planning

	decision making within the City to facilitate and manage growth and changes to industrial estates.

3.0 DEMOGRAPHIC ANALYSIS

Refer to Appendix 1 for detailed Demographic Analysis.

Residential development in the City ranges from established communities to suburbs that are undergoing urban renewal, rural areas and growth areas. The lot configuration and size of housing stock can be a key contributing factor to defining the demographics of a suburb. As a result, the demographic profile can be utilised to assess the demand and future planning direction for activity centres. It is important that the demographic of the City's suburbs is factored into the planning of activity centres so that the City can plan for the existing and future community demands for retail and commercial space.

Demographic data obtained from Forecast. id (2017), Profile. id (2017) and Economy. Id (2018)

3.1 POPULATION

Key Findings:

a. The City has a 2018 population forecast of 60,739 and is predicted to rise to 76,179 persons by 2036.
b. The majority of population growth is expected in Forrestfield, Maida Vale and High Wycombe (including Forrestfield North).
c. Not included in future population projections is Wattle Grove South and Maida Vale South, which have been identified for potential future growth.
d. All localities are predicted to rise in population by over 10% over the next 20 years except for Wattle Grove, Gooseberry Hill and Lesmurdie.
e. The WAPC's North-East Sub-Regional Planning Framework shows the population of the City to grow to 103,000 by 2050.

3.2 DWELLINGS

Key Findings:

a. The Foothills is anticipated to experience the largest number of new dwellings, as a result of new developments and urban renewal.
b. In the hills, Kalamunda is anticipated to experience growth as a result of urban renewal mostly in close proximity to the town centre.
c. The remainder of the hills is anticipated to experience limited growth mostly due to development constraints.
d. Between 2016 and 2036 the number of dwellings in the City of Kalamunda is projected to increase by 6,988 dwellings (or 31.97%).
e. The City currently has over 90% of its residents living in separate houses, which is reflective of the dominant dwelling structure for the City.

3.3 AGE PROFILE

Key Findings:

a. The population growth is heavily skewed towards increases in older age groups, particularly over 70.
b. Projected increase in persons in non-private dwellings in the City from 635 (2011) to 1,135 (2036).
c. Between 2011 and 2036 projected number of elderly aged (over 85) to increase more than three-fold from 774 to 2,478
d. Between 2011 and 2036, projected need for in the order of 800 – 900 additional aged care beds in the City
e. Using WA average ratios, there should be an additional 506 residential care places and an additional 243 home care places in the City between 2011 and 2036.

3.4 EMPLOYMENT PROFILE

Key Findings:

a. There was a total of 14,480 persons working in the City in 2016 (by place of work).
b. Between 2011 and 2016, total employment in the City increased by 10%.
c. More than 27,250 residents of the City were working in 2016.
d. The City has a relatively low unemployment rate, compared to Western Australia. In the June Quarter of 2016 the unemployment rate was 4.2%
e. 25% of the resident workforce works in the Kalamunda LGA, followed by Perth inner areas.
f. To maintain the current employment self-sufficiency ratios around 4,500 – 4,800 new jobs will be required in the City by 2036, and more if employment self-sufficiency is to be increased.

City of Kalamunda

4.0 KEY CONSIDERATIONS

There are several factors that will affect the success and functionality of the City's activity centres going into the future. The key considerations for future activity centre planning are described below:

4.1 DEMOGRAPHIC CHANGES

Population growth is often associated with increased economic growth and employment opportunities in a region. Population growth leads to higher demand for various goods and services. It also helps to generate increased consumer and business confidence and stronger levels of local reinvestment and business investment attraction (AEC 2017).

Kalamunda's population increased from 51,423 in 2006 to 59,349 in 2016, an average annual growth rate of 1.5% (ABS, 2017). This is a relatively modest growth rate, typical of middle ring municipalities in Perth and is much lower than some outer metropolitan growth areas in Perth. It should be noted that the majority of this population growth occurred in the first half of the decade. Population growth is currently estimated to continue to grow at a similar pace to 2026 (WA Planning Commission, 2015) and the increase to 77,000 by 2036. Most of this growth is forecast to be in Forrestfield North, Forrestfield, Wattle Grove and High Wycombe (AEC 2017).

Some growth is expected in Kalamunda township, largely in and around the town centre, but otherwise little growth is expected in the hills suburbs and rural areas. Population growth is a key driver of economic growth, and is expected to impact on a number of industries in Kalamunda, particularly education and training, health care and social assistance, retail trade etc. This will create demand for job opportunities, developing a pool of labour for businesses to source from, while driving demand for a range of goods and services to support household consumption (AEC 2017).

Kalamunda has an older average age than the State, at 38.1 years in 2015 (ABS, 2016b). The increase in average age has been brought about by a combination of improved life expectancy, as well as a trend toward having children later in life and declining rates of children per person. These trends are anticipated to continue, as advances in medicine and health care service delivery continue to extend the average life expectancy (AEC 2017).

The population growth is heavily skewed towards increases in older age groups, particularly over 70. For some periods (2011 to 2021) there is forecast to be a reduction in the number of 18 to 24-year old's in the City. The consequence is a reduction in the proportion of parents and homebuilders (35 to 39) from 20.8% to 19.6% of the population and an increase in the proportion of over 70-year old residents from 9.0% to 15.4% of the population. The increasing average age in Kalamunda will drive increased demand for health care services as well as aged care and other assisted living services (AEC 2017).

4.2 CONSUMER BEHAVIOUR

The changing nature of the global economy, the impact that this is having on consumer patterns and jobs of the future is an important trend that needs to be monitored and factored into planning for the growth of the economy and building relationships with local businesses and understanding how these factors are impacting their businesses is important (AEC 2017).

Consumer expenditure is increasingly trending towards households reducing debt, paying down mortgages and embracing the 'sharing economy' to optimise assets by leveraging digital networks to allow collaborative consumption as well as online retailing (AEC 2017).

The retail sector is constantly changing as consumer preferences shift in response to new trends and economic factors, such as online shopping and increased demand for ready to consume products (e.g. ready to eat meals, plug and play equipment). Retail is an important sector in the City (providing 11% of jobs in 2011), and local retailers will need to continue to be innovative and responsive to the ways consumers purchase products to continue to satisfy demand. Despite this, shifts in consumer preferences and the emergence of online shopping will continue to erode the need for traditional store-based retail (and change the types of job roles required in retail) throughout Australia. Online shopping enables consumers to access goods and services from across the globe rather than being reliant on local retailers, which will likely negatively impact on demand in the City's retail trade industry (AEC 2017).

The method by which products are advertised has also had a significant shift over the past 10 years. Companies are focusing on online advertising, particularly through social media platforms such as Facebook and Instagram. This differs from the traditional advertising platforms such as newspaper, radio and television advertising.

4.3 INNOVATION AND TECHNOLOGY

Innovation has also contributed to consumer demands, shifting from purchasing physical objects to a preference for digital content, which is changing the way people both access and store information and entertainment. This has resulted in reduced and changed demand for a range of goods and services, such as physical printed content (e.g. books, magazines, newspapers, CDs and DVDs), service providers that leased this content (e.g. libraries, DVD hire), and entertainment/ leisure activities (e.g. access to digital content, including sport, movies and games, has contributed to an increase in home-based leisure pursuits) (AEC 2017).

A growing trend amongst consumers that will slightly offset some of the changes being driven by technology is the desire to have locally based authentic experiences. This trend will drive more local people to want to shop locally, and if unique and authentic experiences are developed it will also attract visitors to the region from the broader Perth metro area (AEC 2017).

Continually evolving technology will play a major role in shaping the development of Western Australia and Australia over the coming 30 years. Rapidly evolving energy, communications, and transportation technologies will boost economic activity. It also has the potential to revolutionise education and training delivery. Mobile internet, automation of knowledge work, machine-based learning, cloud technology, advanced robotics and autonomous vehicles, next generation genomics, energy storage, 3D printing, advanced materials and renewable energy are just some of the known technologies that will change the face of how we do business and live into the future. Technology has the potential to stimulate industries already established and lead to higher levels of labour productivity, while also lowering barriers and costs of new and emerging industries (AEC 2017).

4.4 MAJOR DEVELOPMENTS AND INFRASTRUCTURE DELIVERY

Ongoing population growth will create increased pressure and demand on existing infrastructure and the delivery of future infrastructure. Infrastructure has the capacity to lead or follow development and good economic outcomes are achieved when the right infrastructure leads development. Infrastructure plays a crucial role in driving business investment, growth and productivity. Today, both the private and public sector are placing more emphasis on developing basic infrastructure in Australia to promote the growth of the economy and provide for a growing population (AEC 2017).

Major projects and infrastructure developments in Kalamunda include:

a. The Perth Airport and Freight Access Project will enable road freight access between the Perth Airport and the Kewdale and Forrestfield industrial areas. The project is the largest infrastructure project ever undertaken by Main Roads WA.

b. The Forrestfield-Airport link that will connect High Wycombe to Perth via a new train line. This train line is the first to connect Perth's eastern suburbs to the airport and the city, providing a much-needed connection for residents and tourists. The train line is anticipated to be functioning by 2021.

c. Forrestfield North, the new 200ha urban centre at the terminus of the Forrestfield-Airport Link. To make the most of the State government's investment, a high-density mixed-use development is proposed as the City's flagship project. The planning process for this is well underway, with work continuing for the Forrestfield North Structure Plans.

d. The Maddington-Kenwick Strategic Employment Area, which is predominantly in the City of Gosnells, over time has the potential to generate significant employment opportunities for the broader region.

e. Maida Vale South, a potential future low-medium density urban area which will require significant infrastructure upgrades and commercial demand from a growing population.

f. Wattle Grove South, a potential development area dependent on the future direction of community engagement, concept and detailed planning to determine whether there will be any future commercial demand.

g. Forrestfield-Thornlie link that is identified on Metronet's commuter train master plan, with a potential train station identified at Wattle Grove.

These projects will provide access to services, infrastructure and amenity for local residents and businesses, and have the potential if promoted and facilitate proactively to generate quality investment attraction outcomes for the City (AEC 2017).

4.5 LOCAL ATTRIBUTES

The City's Activity Centres characteristics have influenced the type of retail and commercial activities generally found at Centres. The City's Centres are generally small and specialised. Most centres are limited to groceries, takeaway and a few specialty stores that service the community. The City has no Centres above the DAC category and have very limited bulky goods retail stores or opportunities. The City's Centres are heavily influenced by the Strategic Metropolitan Centres (SMC) and Secondary Activity Centres (SAC) of surrounding local governments, such as Midland SMC, Cannington SMC and Belmont SAC which cater for a broad range of retail and commercial services and limit the demand for a variety of retail types occurring in the City. The Kalamunda DAC is an example of a Centre that is heavily influenced by its local attributes, with additional demand coming from the tourism and recreation (cycling) market. This has led to a large occurrence of cafes catering for this market.

5.0 RETAIL ANALYSIS

The City engaged MGA Planners to undertake a Retail Analysis (the Retail Analysis) and Retail Gravity Model (the Model) to provide an indication of appropriate retail scale and distribution over time.

Refer to Appendix 4 for detailed report. Refer to Appendix 2 for retail model outputs.

The City also engaged Essential Economics to undertake a review (the Review) of the Retail Analysis and Model provided by MGA Planners. The review by Essential Economics provides commentary on where additional factors should be considered outside the Retail Analysis. The Retail Analysis uses a retail gravity model to inform the future planning implications for activity centres.

5.1 STUDY AREA

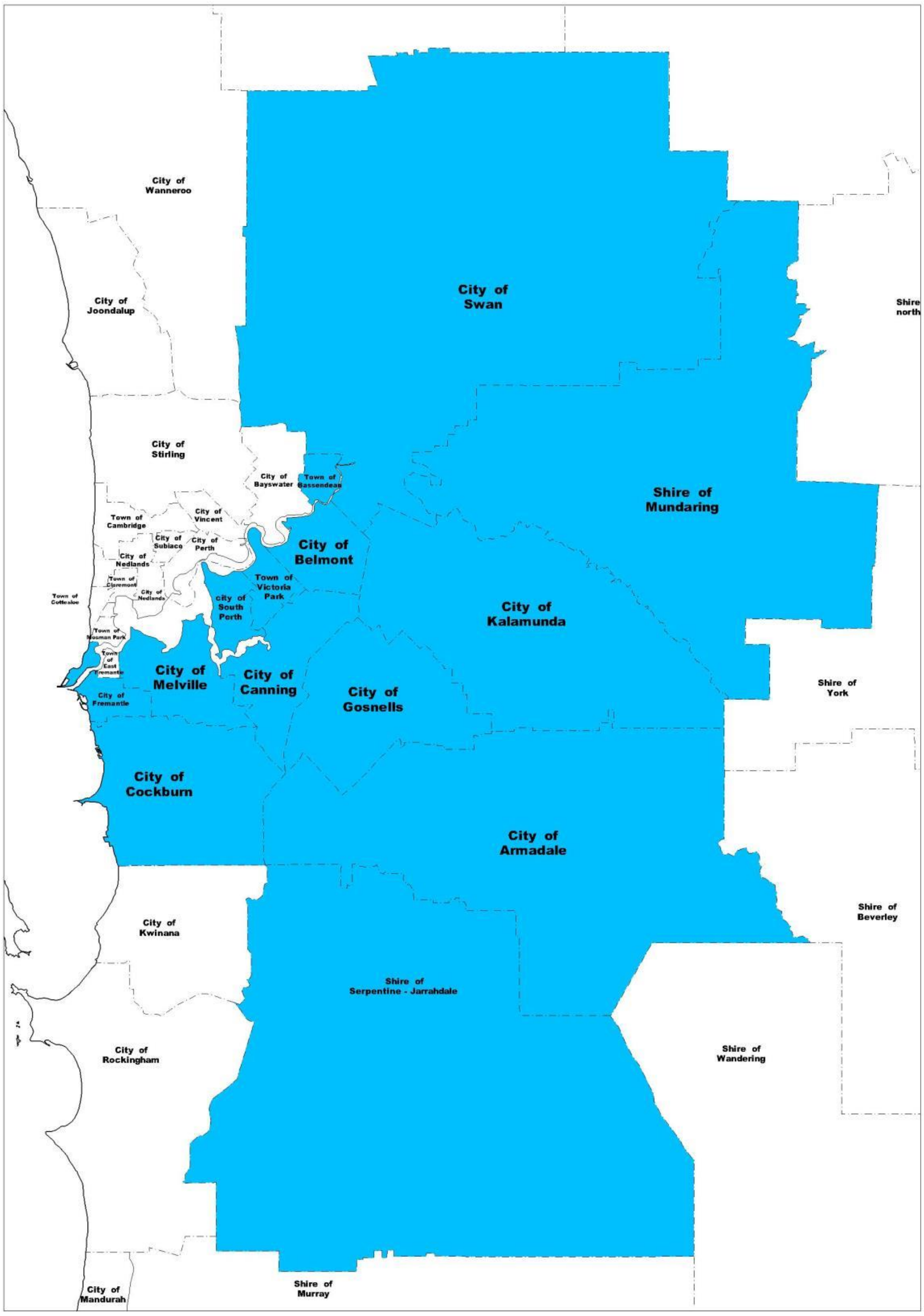
The study area has an extent necessary to accommodate the trade areas for other significant competing higher order centres neighbouring the Kalamunda LGA, including the Cannington Strategic Metropolitan Centre (SMC), Belmont Secondary Activity Centre (SAC), Cockburn SAC, Midland SMC, Armadale SMC and Maddington SAC. The full range of activity centres in surrounding LGA areas were also accommodated. Other centres modelled include the Perth CBD, Garden City Booragoon SAC and Cockburn SAC.

The modelled study area includes the portion of the Perth metropolitan area south of the Swan River, including the LGA areas of Armadale, Belmont, Bassendean, Canning, Cockburn, Gosnells, Kalamunda, Fremantle, Melville, Gosnells, Serpentine-Jarrahdale, South Perth, Swan and Victoria Park.

Figure 5.1 depicts the study area utilised as basis for the modelling undertaken.

The Cannington SMC, Midland SMC and Belmont SAC are the main competition to Kalamunda's two district centres. The main trade areas of these centres are roughly formed by the LGAs of Swan, Mundaring, Kalamunda, Belmont, Victoria Park and Canning. The LGAs of Bayswater, Bassendean, South Perth and Gosnells make significant contributions to these three centres and are also in the main trade areas of Morley SMC, Maddington SAC, Booragoon SAC and Cockburn SAC. To ensure all major competition is covered, the study area included these LGAs.

Figure 5.1: Study Area



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5.2 RETAIL MODEL

The retail gravity model forecasts customer choice for different retail centres, resulting from the distribution of shopping floor space and the nature of the transport network. The gravity model assumes that shoppers are more likely to use shopping centres which are located closer to their homes, rather than centres that are further away. However, the model also accommodates the potential for shoppers to travel to other competing centres further away through bypassing smaller shopping centres to visit larger centres. The model determines a trade area for each activity centre simultaneously, based on the probability of visitation to each centre from each origin zone in the study area. That is, the model accommodates the overlapping of catchments for all centres.

5.3 RETAIL MODEL LIMITATIONS AND CONSIDERATIONS

Retail gravity models are useful tools in retail analysis, particularly for large-scale projects which involve numerous larger centres spread over an extensive geographic area. Retail gravity models predict customer shopping patterns utilising, including travel time to each centre from all origin zones, the floorspace within each centre, reported turnover or combined industry benchmarks for calibration purposes, population projections and household expenditure data.

Some of the limitations involved in estimating retail potential through a retail demand assessment are explained below:

a. Factors influencing how and where people shop not incorporated definitively in retail demand assessments include the following:
   i. An assessment cannot account for all consumer choices and preferences. For example, retail models do not take qualitative matters into consideration, influencing attraction to a centre such as physical amenity, parking availability, cleanliness, store range or customer service.
   ii. Consumers choose from a range of retail outlets for different reasons and shopping facilities do not serve a single catchment. Some shoppers prefer one brand of shop over another, or a greater range.
   iii. A definitive trade impact on individual retailers cannot be identified, given that retailers may often respond to their competitive environment in a way that reduces trade impacts.
b. The assessment has not taken into account the tourism role performed by the Kalamunda DAC. This is because tourism expenditure categories and estimates prepared by Tourism Research Australia do not directly reflect those used to inform retail models. The modelling undertaken is a projection of floorspace demand generated by resident expenditure only. Additional floorspace demand generated by tourism may be addressed in retail sustainability assessments prepared in respect of new activity centres or expansions.
c. Accessibility. Public transport access and the travel patterns of workers visiting centres during the journey to / from work are not factors accounted for.

d. Non-Retail uses. Level and quality of other facilities, including entertainment, civic and community facilities.

It should be noted that other retail models have a range of limitations as well and, depending on the location and scenario, may be more or less appropriate. For the purposes of this Strategy the Retail Gravity Model provides a suitable guide for the future expansion and growth of the City's activity centres, and to guide the strategic directions and actions of the City's planning related decisions. Any proposed expansions or new activity centres should be required to undertake a retail sustainability assessment which provides a detailed assessment of that particular centre to enable the City to make accurate informed decisions.

Appendix 2 identifies those activity centres to be the subject of future retail sustainability assessments to accompany local structure/centre plans and development applications for new activity centres, or expansions to existing activity centres.

5.4 MODEL CALIBRATION AND SCENARIOS

Calibration of the model involves utilising turnover according to values reported by shopping centre owners or metropolitan benchmarks. Publications utilised included Shopping Centre News, and Urbis Retail Averages.

The outputs shown in the following section provides outputs for the years 2026 and 2036. In the 2026 model it is assumed that a centre having 5,000m2 net lettable area (nla), will have established at the Forrestfield North DAC. The 2036 outputs define the growth potential of a selected range of activity centres in the Kalamunda LGA area as at 2036.

By 2036 it is assumed that there will have been additions to Forrestfield DAC, Kalamunda DAC, and that new neighbourhood activity centres may have been established at Maida Vale South and could establish at Wattle Grove South depending on the direction established at community engagement, concept and detailed planning.

5.5 MODEL OUTPUTS

The data tables described in Appendix 2 provides a list of existing activity centres at the calibration year (2016) showing floorspace, estimated turnover and estimated turnover per m². This is followed by a comparison of forecasts of floorspace, turnover and percentage change among and existing and future activity centres as at 2026 and 2036. Dollar values remain in constant 2015/2016 values at 2026 and 2036. The name and location of each activity in the Kalamunda LGA area is visible on the draft strategy map attached at Appendix 3.

5.6 OBSERVATIONS

5.6.1 2026 OUTPUTS

The 2026 outputs in Appendix 2 show that the extent of population growth by 2026 may be sufficient to establish a neighbourhood activity sized centre at the Forrestfield North DAC. This may generate impacts on the network of competing centres exceeding 5%, comparing 2026 to 2016 turnover values. Potential further growth to a district scale centre, at or beyond 2026, would be affected by the extent to which the Midland SMC or other major competing centres expand. The different functions of the Midland SMC should be factored in when considering the impacts on the Forrestfield North DAC. This is because the Midland SMC services a significant catchment, whereas a neighbourhood centre at Forrestfield North DAC would cater for a much more localised catchment, as well as having additional exposure through commuters using the future Forrestfield Train Station. The retail modelling outputs in Appendix 2 indicate that regardless of future expansion to the Midland SMC, the establishment of a neighbourhood activity centre of 5,000m² at the Forrestfield North DAC by 2026 appears to be a reasonable proposition.

The recommendations in Section 4.0 of Appendix 4 include the need for a retail sustainability assessment to be prepared to accompany any proposal for development at the Forrestfield North DAC prior to 2026, to accommodate known and approved development at that time. The draft Forrestfield North Residential Precinct Local Structure Plan – Economic, Employment and Retail Strategy (the Forrestfield North Retail Strategy) predicts up to 1,250m^2 of retail floorspace by 2026 and 8,400m^2 of retail floorspace by 2031. These results are outlined in Table 5.2. It should be noted that the Forrestfield North Retail Strategy is only in draft format and does not take into consideration the detailed planning for the Forrestfield North DAC as part of the Transit Orientated Development (TOD) precinct local structure planning.

5.6.2 2036 OUTPUTS

The 2036 outputs identify a distribution of retail potential among three existing activity centres and four proposed future activity centres. The 2036 modelling assumes that all proposed retail expansions are to occur, as set out in the different activity centres strategies for surrounding LGA areas previously mentioned in Section 5.2.1 – Inputs.

The 2036 outputs indicate that up to approximately 8,000m² nla of retail floorspace is likely to be viable within the trade area of the Forrestfield North DAC. This is shown to be distributed between the Forrestfield North DAC (5,000m²), Maida Vale South NAC (1,500m²) and the Maida Vale Road LAC (1,200m²). The level of growth in the Forrestfield North DAC trade area by 2036 is generally consistent with that identified as being viable in other earlier retail analysis undertaken for the City.

The modelling indicates that the new Forrestfield North DAC will perform well in 2036 with 5,000m2 nla. This indicates that development of over 5,000m2 may be desirable at this location by 2036, although this should be subject to further analysis closer to 2036, based on the extent of growth among competing centres and population growth that actually occurs over the coming decade.

The retail modelling outputs revealed that the inclusion of 5,000m² at the Maida Vale NAC (map reference 19) resulted in impacts that were generally high. The impacts indicate that a reduced activity centre floor space area or postponement of the establishment of the Forrestfield North DAC may need to occur due to competing demand within the High Wycombe-Maida Vale catchment as a result of an activity centre being established at the Maida Vale NAC. However, the retail modelling undertaken was based on an assumption that the 2031 growth proposals identified in the activity centre strategies of all surrounding LGA areas actually occur, which may not be the case. In addition, the Review stated that given both centres will have localised catchments, this should be taken into consideration when determining the full extent of the impacts.

On this basis, given the State and City's significant investment into the Forrestfield North precinct, the Strategy proposes that an activity centre at Maida Vale NAC is considered post 2026 and subject to retail sustainability assessment being prepared at an earlier date to support establishment of the Maida Vale NAC being established. Any proposal for an activity centre at the Maida Vale NAC will need to be informed by a retail sustainability assessment that includes an analysis of the impacts on Forrestfield North at the time a proposal is made and into the future, in addition to updated population projections and current development throughout the network of activity centres.

The draft Forrestfield North Residential Precinct Local Structure Plan – Economic, Employment and Retail Strategy (the Forrestfield North Retail Strategy) predicts up to 9,150m^2 of retail floorspace by 2036 and 20,800 of retail floorspace by 2041. These results are outlined in Table 5.2. It should be noted that the Forrestfield North Retail Strategy is only in draft format and does not take into consideration the detailed planning for the Forrestfield North DAC as part of the Transit Orientated Development (TOD) precinct local structure planning.

Table 5.2: Forrestfield North Additional Floorspace Projections

Retail (RET) Floorspace m2					
	2021	2026	2031	2036	2041
Supermarket	-	-	4,900	4,900	8,300
Department Store	-	-	-	-	6,000
Discount Department Store	-	-	-	-	14,300
Mini-majors	-	-	500	500	1,000
Specialty Shops	500	1,000	2,250	2,750	4,000
Non-retail	100	250	750	1,000	1,500
Total	600	1,250	8,400	9,150	20,800

The impacts on the larger centres occur predominantly as a result of the assumption that all proposed expansions in the City of Swan and City of Gosnells actually occur, compounded with the low level of projected population growth in the eastern half of the LGA area. The extent of growth projected in surrounding LGA's may not actually occur, and it is therefore suggested that proposed expansions at the district centres be accompanied by a retail sustainability assessment.

The smaller centres having high percentages are on a small base floorspace size. Given the specialised nature of their offering (restaurant, liquor store or other local convenience function) they are of lesser concern and are unlikely to be impacted to the extent modelled.

5.6.3 OUTPUT CONSIDERATIONS

When analysing the Model outputs other factors should also be considered that may impact upon the growth of Activity Centres. Kalamunda DAC in particular is noted for its specialised offerings and tourism market that may not be captured by the Model. The Model only predicts an additional 2006m2 floorspace by 2036 and no floorspace increase by 2026. This modelled assumption may be below what actually eventuates due to these separate considerations.

The Kalamunda Activity Centre Plan retail analysis will inform and provide a more detailed review of the retail demand for the Kalamunda DAC over the next 20 years. The Retail Analysis for the Kalamunda DAC predicts two possible scenarios. One is business as usual and predicts an additional 1,500m2-2500m2 by 2027. Scenario 2 which would see an increased market share and increased productivity for the precinct predicts an additional 2,800m2-3,800m2 of retail floorspace by 2027. It is noted in the analysis that that the best-case scenario of 3,800m2 of additional retail floorspace over the next ten years should be treated with a degree of caution given the absence of any apparent strong drivers for growth in the catchment.

The retail analysis for the Kalamunda Activity Centre Plan utilises floorspace demand scenarios that are predicated on growth in the pool of aggregate catchment per capita spend and changes in the average turnover levels of the retail supply space in the town centre. Retail growth is contingent on population growth and growth in per capita expenditure as well as increased capture of that expenditure. Opportunities for increased capture of resident spend are dependent on the creation of a vibrant, activated centre that features increased opportunities for engagement. This is an iterative process and will unfold over time providing the value proposition and sense of location and destination that a revitalised town centre presents and assumes that the offering is sufficiently compelling to attract both users and business to the town centre.

For the other activity centres the model's predicted outputs may also be above or below what eventuates due to additional considerations. The model should only be considered as a guide when informing future planning decisions and any significant planning decisions should include a site-specific retail demand analysis.

6.0 BUILT FORM AND PUBLIC REALM ANALYSIS

Many of the City's Activity Centres haven't received upgrades or development for a lengthy period of time and have substandard landscaping and infrastructure in the surrounding public domain. The newest centres developed have occurred in High Wycombe at the High Wycombe East NAC and the High Wycombe West NAC, constructed in the early 2000s. The Forrestfield Shopping Centre located within the Forrestfield DAC received upgrades in 2016/2017 and the Sanderson Road NAC, Kalamunda Glades NAC, Lesmurdie LAC and Kalamunda Shopping Centre located within the Kalamunda DAC received exterior upgrades over the past few years.

More recent developments in the Kalamunda DAC have received significant community opposition to the built form outcome, and the public realm requires attention. The eastern extent of the Kalamunda DAC along Railway Road received public realm improvements connecting it to the Bibbulmun track. The Kalamunda Activity Centre Plan, to be completed 2019/20, will extend on the work already undertaken and consider the public realm improvements, and private realm design guidelines required to improve the built form of future developments and the public spaces. The Forrestfield Activity Centre Plan, to be developed 2021/22, will also consider the private realm and public realm improvements required. All other centres have received limited upgrades over the past 10 years, and all centres require a review of the public realm.

A number of townscape improvement plans for local and neighbourhood centres were developed in 2010. There has been limited implementation of these plans since the plans were developed. These Townscape Improvement Plans are to be considered for review, and those neighbourhood centres that don't have Townscape Improvement Plans are to be considered for plans to be developed. It will be important that landowners are engaged to encourage the implementation of the plans and the City ensures that money is budgeted for public realm improvements. The WAPC has recently released a draft State Planning Policy 7.2 Precinct Design which provides guidelines for the development of precincts such as activity centres. The review and development of Improvement Plans/Precinct Plans are to be undertaken with the consideration of these guidelines.

Consider review of the following Improvement Plans / Precinct Plans:

a. Sanderson Road NAC
b. Edinburgh Road NAC
c. High Wycombe East LAC
d. High Wycombe East NAC

Consider development of the following Improvement Plans / Precinct Plans:

e. High Wycombe West NAC
f. Wattle Grove NAC (A Local Development Plan to be considered for this activity centre to ensure future development fits within the existing built environment)

Refer to Appendix 6 for existing Improvement Plans.

7.0 CAR PARKING

Car Parking provisions are detailed within the Local Planning Scheme No. 3 and outline the parking requirements for different uses. Cash-in lieu can be accepted where the determined car parking requirements, including any reduction for dispensation, are not met if the City so agrees to contribute to the cost of acquisition and development, by the local government, of a public car park. The cost of each parking bay in a public car park shall be ascertained by dividing the total cost or estimated cost of the acquisition of land and development of the public car park by the number of car parking bays therein. The number of car parking bays which an owner is required to provide shall, if the local government so agrees, be reduced by the number of car parking bays in a public car park of which an owner pays the cost.

The City can also allow for a dispensation where the circumstances are acceptable. This is outlined in the following clause:

'The local government may from time to time vary or adjust the Parking Contribution to reflect changes in values and costs, notwithstanding which the local government may at its discretion, determine a lesser amount to be applied as the Parking Contribution.'

It is recommended that the City investigates the need for a Car Parking Strategy to provide guidance in the use of cash-in-lieu provisions within Local Planning Scheme No. 3 and how they apply to developments.

8.0 EXISTING AND FUTURE CENTRES

8.1 EXISTING ACTIVITY CENTRE HIERARCHY

In accordance with the definitions of SPP4.2, the City contains the following centre types:

Table 8.1: The City of Kalamunda – Activity Centre Hierarchy

Centre / Hierarchy (Map Ref)	Role / Description	Example of Centre Features
District Centres (DAC) Kalamunda (14) Forrestfield District Hale Road (2) Forrestfield North (8) (Potential)	District centres have a greater focus on servicing the daily and weekly needs of residents. Their relatively smaller scale catchment enables them to have a greater local community focus and provide services, facilities and job opportunities that reflect the particular needs of their catchments.	• Anchored by 1-2 major grocery stores (Coles, Woolworths, Super IGA) • Possible smaller format grocery store (IGA, Aldi, Foodworks) • Moderate number of specialty stores which include and not limited to: o Newsagency o Pharmacy o Bakery o Butcher o Hairdresser o Liquor Shop • Small number of cafes, restaurants and take-away outlets
Neighbourhood Centres (NAC) Sanderson Road (17) Kalamunda Glades (15) Wattle Grove North Hale Road (26) High Wycombe West Wittenoom Rd (12) High Wycombe East Kalamunda Rd (9) Edinburgh Road (1) Maida Vale South (21) (Potential) Wattle Grove South (27) (Potential)* Maida Vale Midland Road (19) (Potential) Hills Rural (22) (Potential)	Neighbourhood Centres have a more limited role in providing convenience retailing and community facilities for an immediate surrounding catchment. Usually, these centres are anchored by a supermarket. In some cases, these centres also serve a tourist market.	• Anchored by 1 major grocery shop, sometimes anchored by smaller format grocery store • Small number of specialty stores • Limited number of restaurants, take-away and cafes
Local Centres (LAC) Lesmurdie Road (16) High Wycombe East Berle Way (10) Newburn Road (13) Gooseberry Hill (7) Forrestfield Berkshire Road (3) High Wycombe West Kenneth Rd(11) Maida Vale Kalamunda Road (18) Maida Vale Road (20) (Future)	Local Centres consist of a small group of shops that typically serve a local, walkable catchment, and provide for the daily convenience and 'top-up' needs of local residents and passing motorists. Less than 1500m2 nla Some of these small centres contain a limited number of community facilities and other uses. Numerous Local Centres are located throughout City of Kalamunda, mainly in the urban region.	• Usually anchored by smaller format grocery store • Limited number of specialty stores • Possible café • If not anchored by smaller format grocery store may have several specialty stores and café/take-away/restaurants
Convenience Centres Holmes Road (6) Hawtin Road South Deli (5) Hawtin Road North Furniture (4) Lewis Road (25) Walliston Deli (24) Pickering Brook (23) Welshpool Road East Wattle Grove (28)	Provide the day to day convenience needs of local communities.	• One single convenience shop/deli • Usually has no other connected businesses

(1) – Map Reference, * Subject to Community Engagement, Concept Planning and Detailed Planning to determine the scale of the Activity Centre and whether an activity centre is required.

8.2 EXISTING ACTIVITY CENTRES

Assessing the residential outcome surrounding the City's existing activity centres will be considered as part of the Local Housing Strategy 2020. Community engagement will be required as part of any activity centre investigation process. The planning of activity centres is based on contemporary planning principles and philosophies outlined in SPP4.2 and Liveable Neighbourhoods. The following key principles generally apply:

a. Are of a Neighbourhood Centre or higher status.
b. Are in proximity to public transport routes.
c. Have readily available sewer or are in close proximity to existing sewer services.
d. Are not impacted by the ANEF aircraft noise contour.

Local centres and lower order convenience retail nodes are generally not considered suitable for land use improvements or increased densities because the scale of commercial development and amenities, from a planning perspective, do not warrant increased densities. Additionally, many areas surrounding local centres or retail nodes were recently increased in density as part of the City's Local Housing Strategy 2014 and Local Planning Scheme Amendment 82.

8.2.1 PROPOSED CHANGES TO EXISTING ACTIVITY CENTRES

8.2.1.1 DISTRICT CENTRES

Analysis from MGA Planners found that Forrestfield DAC would be expected to cater for 12,956m2 to 17,000m2 floorspace by 2036. The analysis for Kalamunda DAC would be expected to be able to cater an additional 2006m2 by 2036, from 14,994m2 to 17,000m2 floorspace. The Draft Retail Analysis for the Kalamunda DAC predicts two possible scenarios. One is business as usual and predicts an addition 1,500m2-2500m2 by 2027. Scenario 2, which would see an increased market share for the precinct, predicts an additional 2,800m2-3,800m2 of retail floorspace by 2027. The anticipated population increases over the 2018-2036 period of the surrounding localities are expected to make a significant contribution to the feasibility of these expansions. There are also additional considerations outside what is modelled, such as specialised offerings and tourism demand, that may see additional floorspace requirements for these centres.

The City's existing District Centres in Forrestfield and Kalamunda are currently in the process of having Activity Centre Plans (ACP) prepared in accordance with the requirements of SPP4.2. Kalamunda DAC ACP will be progressed through 2019/2020 and Forrestfield DAC ACP will be progressed at a future date. The detailed planning requirements for these centres are subject to the preparation and approval of ACPs, design guidelines and relevant technical documents including retail demand analysis and public realm improvement guidelines. The retail demand analysis undertaken as part of the preparation of the ACPs will inform the future planning of the DACs rather than the retail analysis provided in this Strategy. However, the retail analysis in the Strategy provides a broader overarching framework for area specific retail investigations. The boundaries for these ACPs will extend beyond commercial land uses and include surrounding residential, local reserves and civic uses.

8.2.1.2 NEIGHBOURHOOD CENTRES

Analysis from MGA Planners found that none of the existing NACs will demand additional floorspace by 2036. Kalamunda Glades and Sanderson Road in fact had reductions in anticipated floorspace, however this should not be considered a concern due to the specialised nature of their offering. Many of these centres are in areas of low residential density and where less future development is expected to occur. They will also be impacted by future centres and the expansion of DACs. To promote redevelopment of NACs, higher housing densities may be considered surrounding these centres to increase the local immediate population and investigation of adjacent land to allow for progressive commercial expansion. Public realm improvements will also incentivise redevelopment, greater patronage and attractive businesses.

The City's neighbourhood centres are listed below.

Sanderson Road, Lesmurdie NAC

Catchment Investigated: Nil

Potential Activity Centre Expansion: Opportunity to consider expansion into existing car parking areas, with car parking areas currently underutilised. Refer to Appendix 5 for opportunities and issues mapping.

Existing Density and Yields: Surrounding properties are zoned R5, with five properties that are aged persons dwellings.

Proposed Density and Yields: Local Housing Strategy 2020 to investigate opportunities, subject to community consultation.

Summary of Changes:

a. Consider Review of Townscape Improvement Plan (Refer to Appendix 6 for existing Improvement Plan).
b. Local Housing Strategy 2019 to investigate opportunities, subject to community consultation.

Kalamunda Glades NAC

Catchment Investigated: 400m

Potential Activity Centre Expansion: Limited space for expansion on the existing site, any expansion will require a reduction in the car parking area. It is noted that expansion of the centre was undertaken during 2017/2018 on site, extending to the north. There is no opportunity to expand to surrounding landholdings as the site is surrounded by four roads. Refer to Appendix 5 for opportunities and issues mapping.

Existing Density and Yields: Surrounding properties are zoned R10.

Proposed Density and Yields: Local Housing Strategy 2020 to investigate opportunities, subject to community consultation.

Summary of Changes

a. Local Housing Strategy 2020 to investigate opportunities, subject to community consultation.

Wattle Grove North NAC

Catchment Investigated: Nil.

Potential Activity Centre Expansion: Expansion subject to Cell 9 Structure Plan. Sites to the east are zoned Mixed Use, which could enable an expansion of the commercial activity and/or residential development to support the activity centre. To ensure any future development fits in with the existing built environment, the establishment of a Precinct Plan or Local Development Plan should be considered. Refer to Appendix 5 for opportunities and issues mapping.

Existing Density and Yields: Surrounding properties are either zoned urban development R20 or R30.

Proposed Density and Yields: The surrounding properties are subject to an existing structure plan and therefore no changes are proposed. Applicant may propose changes through Structure Plan amendments that will be assessed by the City.

Summary of Changes:

a. Potential changes to the north of Activity Centre. Any commercial proposal to be considered at Structure Plan amendment or development application phase.
b. Consider Development of Precinct Plan / Local Development Plan.

High Wycombe East NAC

Catchment Investigated: 400m

Potential Activity Centre Expansion: Expansion on site will require reduction in car parking area. Limited potential for any further expansion, activity centre is bound by roads and public open space. Properties along Kalamunda Road to the east, along the north side of Kalamunda Road could be investigated for future opportunities. A portion of a property to the west of the High Wycombe East NAC is identified as service station by the High Wycombe Outline Development Plan (ODP) U2 and could provide an opportunity for expansion of the activity centre by amending the ODP to an alternative use. Refer to Appendix 5 for opportunities and issues mapping.

Existing Density and Yields: Properties to the north of Kalamunda Road are mostly zoned Urban Development R20. Properties to the east and south of the centre have been rezoned as part of Amendment 82. Properties along Kalamunda Road are dual density R25/R60, and other properties are dual density R25/R40. Properties to the north of the centre are subject to an existing structure plan. Properties to the west of the centre are within the Perth Airport ANEF noise contour and are currently unable to be rezoned. The Perth Airport recently released a draft Perth Airport Masterplan 2020 which has modified the ANEF contours and

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shows that the area in High Wycombe subject to the contours is reduced. The appropriate zonings for areas of High Wycombe removed from the ANEF contours should be investigated.

SPP4.2 states that residential growth should be optimised through appropriately scaled buildings and higher-density development in walkable catchments of centres. Higher-density housing should be incorporated within and immediately adjacent to activity centres to establish a sense of community and increase activity outside normal business hours. SPP4.2 states that 200m is the appropriate walkable catchment for increased residential targets for neighbourhood centres. Liveable Neighbourhoods states that a substantial majority of dwellings should be within 400m to 500m of a centre.

Proposed Density and Yields: The surrounding properties have either been recently rezoned as a result of Amendment 82, are subject to an existing Structure Plan or are unable to be rezoned due to the Perth Airport ANEF noise contour.

Summary of Changes:

a. Investigate opportunities for properties along northern side of Kalamunda Road between High Wycombe East NAC and High Wycombe West LAC.
b. Investigate appropriate zoning for properties that are removed from the Perth Airport ANEF contours (subject to the finalisation of the Perth Airport Masterplan 2020). Subject to the actions of the Local Housing Strategy 2019.
c. Consider Review and Implementation of Townscape Improvement Plan (Refer to Appendix 6 for existing Improvement Plan).
d. Investigate opportunity to amend High Wycombe Outline Development Plan U2 allocation of service station to commercial, mixed use or residential.

High Wycombe West NAC

Catchment Investigated: Nil

Potential Activity Centre Expansion: Expansion on site will require reduction in car parking area. Expansion north or south is possible with rezoning. Land immediately north and south of the centre is currently zoned special use, serving a service industry use. Refer to Appendix 5 for opportunities and issues mapping.

Existing Density and Yields: Surrounding properties are mostly R20. There is an R30 development to the north of the site.

Proposed Density and Yields: No proposed density changes due to Perth Airport ANEF contour constraint, which generally prevents development from exceeding R25.

Summary of Changes:

a. Consider development of a Townscape Improvement Plan / Precinct Plan.

Edinburgh Road, Forrestfield NAC

Catchment Investigated: 400m

Potential Activity Centre Expansion: Expansion on site will require reduction in car parking area. No potential for further expansion on adjacent sites, as activity centre is either bound by road or abuts recent residential developments. Refer to Appendix 5 for opportunities and issues mapping.

Existing Density and Yields: Surrounding properties have been rezoned as part of Amendment 82. Properties immediately surrounding centre and to the north of centre are dual density R25/R60. Other surrounding properties are dual density R25/R40. SPP4.2 states that residential growth should be optimised through appropriately scaled buildings and higher-density development in walkable catchments of centres. Higher-density housing should be incorporated within and immediately adjacent to activity centres to establish a sense of community and increase activity outside normal business hours. SPP4.2 states that 200m is the appropriate walkable catchment for increased residential targets for neighbourhood centres. Liveable Neighbourhoods states that a substantial majority of dwellings should be within 400m to 500m of a centre.

Proposed Density and Yields: No proposed changes because properties have recently been rezoned as a result of Amendment 82.

Summary of Changes:

a. Review Townscape Improvement Plan (Refer to Appendix 6 for existing Improvement Plan).

8.2.1.3 LOCAL CENTRES

Analysis from MGA Planners found there would be no significant demand for increase in demand for floorspace of local centres. Given the small catchment local centres provide for this is to be expected. The only centre considered to have potential for expansion is the Forrestfield LAC.

Forrestfield LAC

Catchment Investigated: Nil

Potential Activity Centre Expansion: The City's Public Open Space Strategy identifies Berkshire Road Reserve, which neighbours Forrestfield LAC for potential transfer. The transfer of this reserve could enable the expansion of Forrestfield LAC. Refer to Appendix 5 for opportunities and issues mapping.

Summary of Potential Opportunities:

a. Potential for expansion of the centre to the east by transferring Berkshire Road Reserve and being investigated for development purposes. The Public Open Space Strategy 2018 states that the Berkshire Road Reserve has the potential to be transferred for alternative uses, subject to community consultation.

Holmes Road LAC

Catchment Investigated: Nil

Potential Activity Centre Expansion: 369 Holmes Road, bound by Holmes Road, Alder Way and Laurel Street is zoned Special Use Zone (Special Use 1) allowing for uses that are generally of a light industry nature. The site currently and in the past has had commercial type uses as well (hence its inclusion in this Strategy), however the majority of uses on site existing are light industry. The Industrial Development Strategy 2018 notes that given the site is surrounded by residential properties, a more appropriate land use for the area instead of light industry should be considered. This land use could potentially be commercial.

The site at 384 Holmes Road is also Special Use (Special Use 4), however permits more commercial type uses. Given its location it is considered that these uses are appropriate for the site. As part of the development of Local Planning Scheme No.4 the site should be considered to be rezoned to the commercial zone.

Summary of Changes:

a. During the review of Local Planning Scheme No. 3 and the development of Local Planning Scheme No. 4 investigate the most appropriate zone for the Special Use 1 at 369 Holmes Road.
b. During the review of Local Planning Scheme No. 3 and the development of Local Planning Scheme No. 4 investigate the most appropriate zone for the Special Use 4 at 384 Holmes Road.

High Wycombe East LAC

Catchment Investigated: Nil:

Potential Activity Centre Expansion: Limited opportunity for expansion given Main Roads Roe Highway / Kalamunda Road interchange upgrade and road widening which reduces the site area.

Summary of Changes:

a. Consider Review of Townscape Improvement Plan (Refer to Appendix 6 for existing Improvement Plan).

8.3 FUTURE AND POTENTIAL ACTIVITY CENTRES

8.3.1 FORRESTFIELD NORTH

Activity Centres Strategy Modelling:

a. Retail modelling by MGA Planners predicts that by 2026, 5000m2 nla will be established in Forrestfield North and will be operating well by 2036.
b. The draft Economic, Employment and Retail Strategy for the Forrestfield North Structure Plans predicts that 1250nla will be established by 2026 and that 9150nla will be established by 2036.

Structure Plan Modelling:

a. Retail modelling undertaken for the Forrestfield North LSPs by AEC has estimated a retail floorspace of 7,911m2 by 2026 and 11,819m2 by 2036. Differences to the above modelling is on the basis of different development assumptions (timing).

Matters for Consideration:

a. The scale and timing of retail development will be dependent on the uptake of residential development.
b. The popularity of the train station will also have an impact on influencing the scale and timing of retail development in Forrestfield North.
c. Despite Forrestfield North DAC predicted to develop as a larger NAC over the next 20 years+, it will be subject to an Activity Centre Plan as per the requirements of SPP4.2, due to its regional significance in connection with the train station. This will be undertaken as part of the Forrestfield North LSP process.

8.3.2 MAIDA VALE SOUTH

Activity Centres Strategy Modelling:

a. Retail modelling by MGA Planners predicts that a NAC in Maida Vale South won't be supported by 2026. The NAC may however be feasible in 2036.

Matters for Consideration:

a. Burgess Design Group (BDG) are currently undertaking the detailed planning to enable urban infill to occur in the locality which will allow for a NAC to eventually be feasible.
b. For development to occur, a Metropolitan Region Scheme (MRS) Amendment and Local Planning Scheme (LPS) Amendment must be approved by the WAPC.
c. There will also need to be a Local Structure Plan prepared to determine the appropriate location for the NAC.

8.3.3 WATTLE GROVE SOUTH

Activity Centres Strategy Modelling:

a. Depending on the direction of Wattle Grove South established by community engagement, concept and detailed planning, retail modelling by MGA Planners predicts that a NAC in Wattle Grove South wouldn't be supported by 2026.
b. The NAC may however be feasible in 2036 if that is the direction that is established through the community engagement, concept and detailed planning.

Matters for Consideration:

a. The future direction for Wattle Grove South may be for a smaller scale activity centre or no activity centre at all.
b. Wattle Grove South is subject to Community Engagement, Concept Planning and Detailed Planning to determine the scale of the Activity Centre and whether an activity centre is required.

8.3.4 MAIDA VALE (MIDLAND ROAD/KALAMUNDA ROAD)

A site on the corner of Midland Road and Kalamunda Road in Maida Vale (map Ref 19) has had an MRS Amendment request put forward in 2014 for rezoning to Urban to enable the development of a NAC. The site is currently zoned Rural under the MRS and Special Use under the LPS. The site will also require a LPS Amendment for a NAC to be possible. The MRS Amendment request is currently with the WAPC, with no determination provided to date. The site is conducive to retail opportunities because of its exposure to passing trade and proximity on two arterial roads.

Activity Centres Strategy Modelling:

a. Analysis by MGA Planners found that the inclusion of 5,000m² of retail at the Maida Vale NAC would be feasible in the short-term, however the impacts on the development of Forrestfield North were considered noteworthy based on the retail gravity model.
b. It is important to note that the retail modelling undertaken was based on an assumption that the 2031 growth proposals identified in the activity centre strategies of all surrounding local government areas actually occur, this may not necessarily be the case.
c. In addition, the Review stated that given both centres will have localised catchments, this should be taken into consideration when determining the full extent of the impacts of the proposal.

Matters for Consideration:

a. On the above basis, given the State Government and City's significant investment into the Forrestfield North precinct, the Strategy proposes that an activity centre at Maida Vale NAC is considered post 2026 or after the establishment of the retail core at Forrestfield North.
b. Should development of the proposed Maida Vale NAC be proposed earlier, a retail sustainability assessment will need to be prepared to support the proposed development and demonstrate that it will not adversely impact on the timely or orderly establishment of the retail core at Forrestfield North.
c. Notwithstanding the above, any proposal for an activity centre at the Maida Vale NAC will need to be informed by a retail sustainability assessment that includes an analysis of the impacts on any proposed commercial or retail based activities in Forrestfield North at the time a proposal is made.

8.3.5 MAIDA VALE ROAD

A site on Maida Vale Road in Maida Vale (map Ref 18) is identified as commercial by the Cell 6 LSP. The size of the site will be able to support a LAC. Analysis by MGA Planners concluded that a LAC will be able to be supported in that location and will have minimal impacts on the other existing and future activity centres. A development application at the site for a retail development was approved in 2019.

8.3.6 HILLS RURAL AREA

In 2014, the City developed concept plans for developing a portion of Pickering Brook for the purpose of residential development. The concept plans included a recommended site for a new local centre to support the increased population, existing community and tourism. The proposed Metropolitan Region Scheme Amendment that was sent to the WAPC was refused in October 2017, mainly due to bushfire concerns. In March 2018 the State Government's North East Sub-Regional Framework identified the Pickering Brook site for planning investigation.

Matters for Consideration:

a. In June 2018 the State Government announced a taskforce to assist with the future planning and tourism initiatives for the area.
b. In conjunction with the City's Rural Strategy and State Government Working Group / Taskforce is to identify strategies and actions for appropriate services in Pickering Brook. Any analysis should look at building on and complimenting existing facilitates before identifying any new areas for commercial development.

9.0 STRATEGIC DIRECTIONS AND ACTIONS

Short Term: 1-3 years

Medium Term: 4-8 years

Long Term: 9 years +

Objectives		
Strategies	Actions	Implementation
To respond to the change and growth of population.		
1.1 Identify catchments around activity centres for development opportunities.	1.1.1 Undertake community engagement for catchments surrounding activity centres to investigate future development options for the catchments. The activity centre areas to be investigated will be determined through the implementation of actions coming out of the Housing Strategy 2020.	Priority: High Timeframe: Short Term
1.2 Activity Centres to compliment aged care.	1.2.1 Identify sites and encourage development of aged care accommodation within proximity to Activity Centres, where possible.	Priority: Medium Timeframe: Short Term
To ensure an equitable spatial distribution of facilities so that communities are not geographically disadvantaged from activity centres.		
2.1 New significant development areas are to include an appropriately sized and located service centre based on needs and demands.	2.1.1 Subject to appropriate retail analysis, community engagement outcomes and Council support, Forrestfield North, Maida Vale South and Wattle Grove South are to incorporate an appropriately sized and located services within future Structure Plans.	Priority: High Timeframe: Medium

City of Kalamunda

2.2 Improve access to Activity Centres in areas which have limited access and/or limited facilities.	2.2.1 Rural Strategy and State Government Working Group / Taskforce is to identify strategies and actions for appropriate services in Pickering Brook. Note: This action should look at building on and complimenting existing facilitates before identifying any new areas.	Priority: High Timeframe: Short Term
	2.2.2 Liaise with Public Transport Authority to improve and increase bus routes to and from activity centres and their broader catchments.	Priority: Medium Timeframe: Ongoing
2.3 Enable increased commercial activity in appropriate locations.	2.3.1 Identify sites in strategic locations for investigations to commercial. a) Maida Vale NAC (Midland/Kalamunda Road) to be considered post 2026 subject to a sustainability assessment. Any proposals prior need to be appropriately justified with supporting technical analysis demonstrating that the development will not adversely impact on the timely and orderly development of retail services in Forrestfield North. b) Consider reviewing High Wycombe Outline Development Plan U2 and the existing allocation of service station. c) Identify and investigate appropriate sites adjacent to existing activity centres for commercial and/or mixed uses to allow for progressive activity centre expansion.	Priority: Low Timeframe: Short / Medium Term
	To improve the aesthetics of activity centre environments.	
3.1 Facilitate activity centre public and private realm improvements.	3.1.1 Consider the review of the following townscape improvement plans / precinct plans: a) Sanderson Road NAC	Priority: High Timeframe: Short / Medium Term

	b) Edinburgh Road NAC c) High Wycombe East LAC d) High Wycombe East NAC	
	3.1.2 Consider the development of townscape improvement plans / precinct plans for the following activity centres: a) High Wycombe Village West NAC b) Wattle Grove NAC	Priority: High Timeframe: Short / Medium Term
	3.1.3 As funding and resources allow, the City should aim to improve the public realm of a centre subject to an adopted townscape improvement plan at least once every three years.	Priority: High Timeframe: Ongoing
	3.1.4 Upon receipt of a development application within an activity centre, the City is to encourage the applicant to undertake improvements to the existing private realm and public realm where it abuts the development and is considered appropriate.	Priority: Low Timeframe: Ongoing
3.2 Prepare new design criteria for Neighbourhood and Local Activity Centres	3.3.1 Investigate planning measures to address design criteria for neighbourhood and local activity centres.	Priority: Medium Timeframe: Short Term
Reflect best practice land use planning and provide a robust framework for local commercial and activity centres.		
4.1 To identify commercial uses to locate in commercial centres to assist the commercial viability of centres.	4.1.1 Review the permissibility of uses under commercial and mixed use in the use class table of Local Planning Scheme No. 3 and incorporate changes in the new Local Planning Scheme No. 4 with a view to streamline processes, where appropriate.	Priority: High Timeframe: Short Term
4.2 Provide modern and flexible development guidance.	4.2.1 Normalise Special Use 1 and Special Use 4 into Local Planning Scheme No. 4 with appropriate zones.	Priority: Low Timeframe: Short Term

	4.2.2 Investigate the need for a Car Parking Strategy to guide the use of cash-in-lieu provisions within Local Planning Scheme No. 3.	Priority: Medium Timeframe: Short Term
4.3 Ensure compliance with up-to-date strategic land use policy and economic analysis which applies to Perth and the City.	4.2.1 Future urban areas are to have detailed commercial and retail planning that complies with up-to-date strategic land use policy and economic analysis.	Priority: Medium Timeframe: Medium
4.4 Best practice planning for District Centres.	4.4.1 Review DAC Activity Centre Plans every five years.	Priority: High Timeframe: Ongoing

10.0 REVIEW

The Strategy will be required to be reviewed periodically as required and at least every 5 years as a minimum. It is recommended that the base assessment methodology remains unchanged during periodic review to retain the integrity of the existing Strategy. The City shall support the continual improvement to Activity Centre policy (both state and local), strategic partnerships, and operational activities and procedures. In doing so, this will enable the City to deliver efficient and effective Activity Centre outcomes.

11.0 IMPLEMENTATION

The Strategy is a long-term plan which outlines the future recommendations for Activity Centres within the City. Despite a great level of attention to detail to assess the future Activity Centre requirements in a holistic manner the City understands that with a lengthy implementation timeframe, situations and circumstances will change. Within the Implementation phase of the Strategy, the City will prioritise the Strategy's recommendations based on available resources, funding and Council priorities.

11.1 DISCLAIMER

The City of Kalamunda's Activity Centres Strategy (Strategy) has been developed for the purpose of being a 'point-in-time' guiding document with respect to, amongst other things, facilitate and manage growth and changes to activity centres.

Without limiting the purpose of the Strategy, the City does not represent, warrant, undertake or guarantee that the contents of this Strategy will lead to any particular outcome or result and the City reserves its rights to amend, vary or remove any and/or all of the contents of this Strategy, at its sole discretion, from time to time.

All activity centres contained within this Strategy are subject to further investigation by the City and any future use, zoning, direction or development will be subject to consideration by Council, and/or the Department of Planning, Lands and Heritage.

The City shall not be liable for any losses that may result from any third parties' use or reliance on this document. Without limitation such losses shall include, but not be limited to, loss of profits, income, revenue, anticipated savings, contract expectation, commercial opportunities or goodwill.

The City shall not be liable for any reliance that any person, organisation, corporation, government authority, department, or entity of any kind, may place on the contents of this Strategy and the City does not guarantee the accuracy of the information contained herein.

The Strategy is based on City officer interpretation and the best information available to the City's officers at the point in time of the Strategy's formulation.

City of Kalamunda

APPENDIX 1 – DEMOGRAPHIC ANALYSIS

Residential development in the City ranges from established communities to suburbs that are undergoing urban renewal, rural areas and growth areas. The lot configuration and size of housing stock can be a key contributing factor to defining the demographics of a suburb. As a result, the demographic profile can be utilised to assess the demand and future planning direction for activity centres. It is important that the demographic of the City's suburbs is factored into the planning of activity centres so that the City can plan for the existing and future community demands for retail and commercial space.

Demographic data obtained from Forecast. id (2017), Profile. id (2017) and Economy. Id (2018).

1.1 POPULATION

1.1.1 HISTORIC POPULATION

The graph below shows population growth in the City of Kalamunda and comparison regions. The data demonstrates that between 2006 and 2011 the City of Kalamunda experienced an annual growth rate of 2.0%, equivalent to an increase of 5069 persons. In comparison to 2011-2016 in which the City experienced a lower annual population growth rate of 1.0% and 2857 persons. During the same periods the Perth Metropolitan area experienced much higher population growth rates.

Table 1.1: Historic Population Growth, City of Kalamunda and Metropolitan Perth

	Population			Ave Annual Growth Rate	
	2006	2011	2016	2006 - 2011	2011 - 2016
City of Kalamunda	51,423	56,492	59,349	2.0%	1.0%
Perth (Metropolitan)	1,533,413	1,772,899	1,925,794	3.1%	1.7%

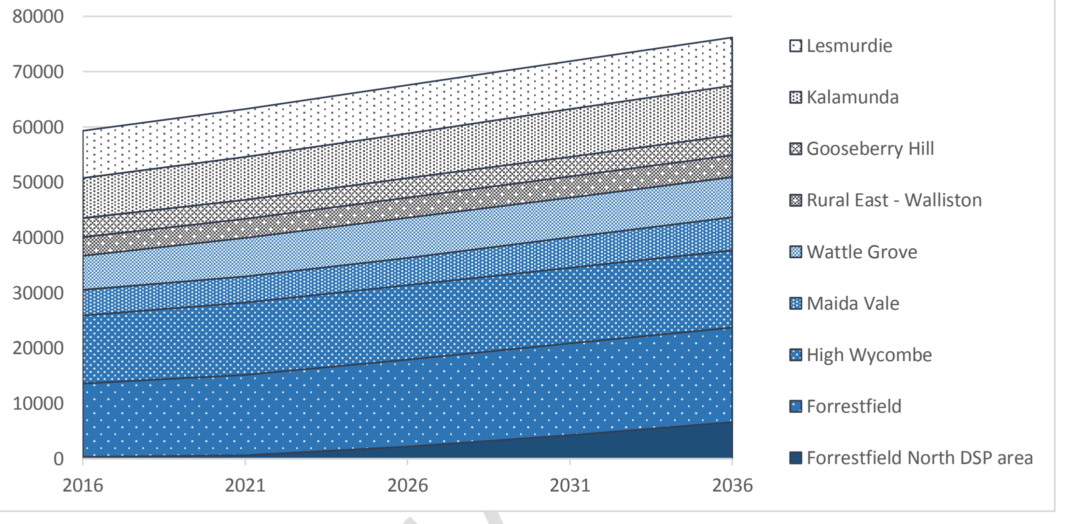
Source: ABS Regional Population Growth, Cat. 3218.0

1.1.2 POPULATION PROJECTIONS

The City has a 2018 population forecast of 60,739 and is predicted to rise to 76,179 persons by 2036 as per Forecast ID (2017). A rise of 25.42% over the next 18 years. It should be noted that the ABS Estimated Resident Population has the City's population listed as 58,946, demonstrating that current projections are not being met (Economy. id 2018). Forrestfield and High Wycombe currently provide the highest forecast population in addition to the highest residential densities, demonstrating a higher demand for commercial land. Most of the City's population growth is expected to take place in the Foothills, whereas the Hills is expected to see steady growth. The Foothills will account for 85% of the City's increased population over the next 18 years. Forrestfield, Maida Vale and Forrestfield North are anticipated to experience the greatest growth rates over this 18-year period. Not included in future population projections is Wattle Grove South and Maida Vale South, which have been identified for potential future growth. These new development localities may require new commercial precincts to cater for a new population.

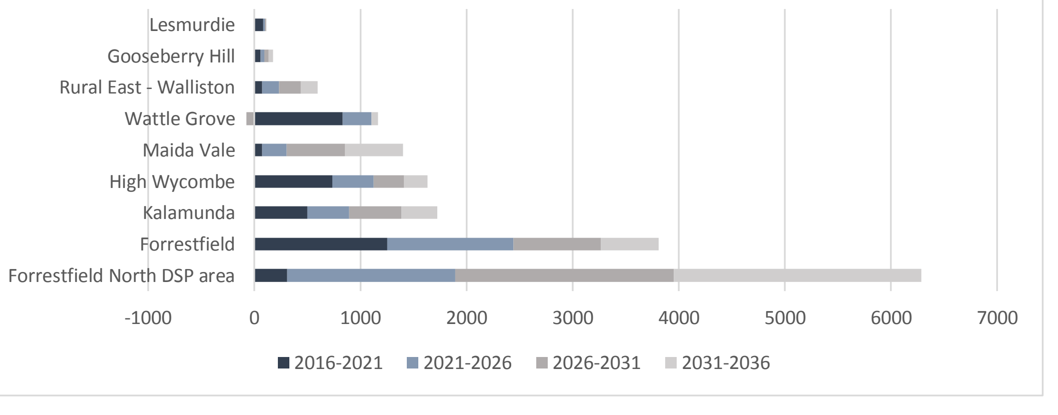
All localities are predicted to rise in population by over 10% over the next 20 years except for Wattle Grove at 9.77%, Gooseberry Hill at 2.41% and Lesmurdie at 0.22%. It should be noted that the majority of Forrestfield North resides in High Wycombe, which has been assessed independently and impacts upon High Wycombe's demographic information.

Figure 1.1: City of Kalamunda: Population 2016 – 2036



Source: Forecast id 2017

Figure 1.2: City of Kalamunda: Location of Population Growth 2016 – 2036



Source: Forecast id 2017

Population projections by the WAPC WA Tomorrow are significantly higher than Forecast id figures, which show the City's population increasing to between 70,270 and 76,090 by 2026. The WA Tomorrow series was prepared in 2015. The forecast id figures were last updated in

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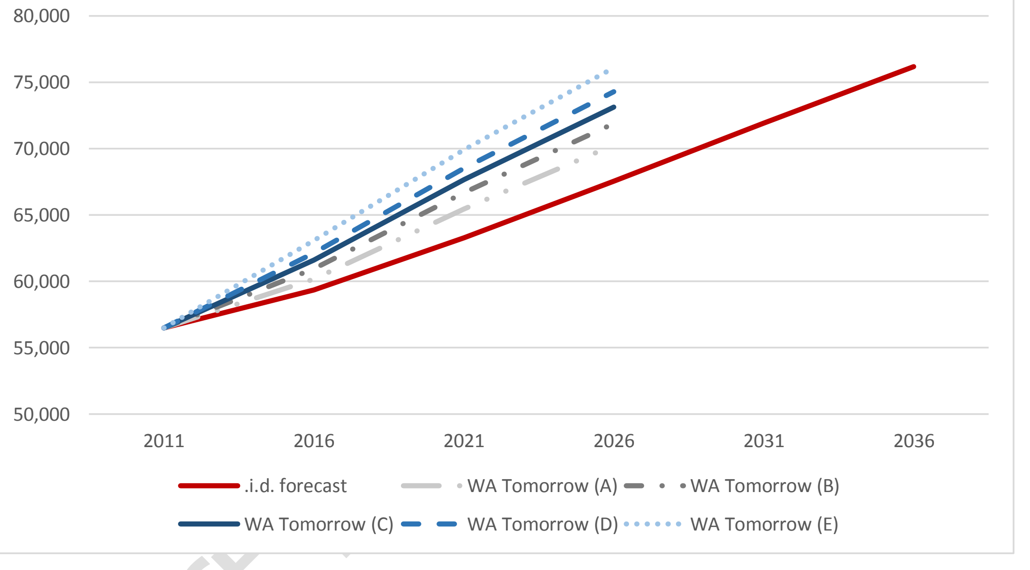
September 2017 and account for the 2016 Census. These figures are therefore regarded as being more appropriate and are used for the analysis in this report.

The differences are illustrated in Figure 3.3.

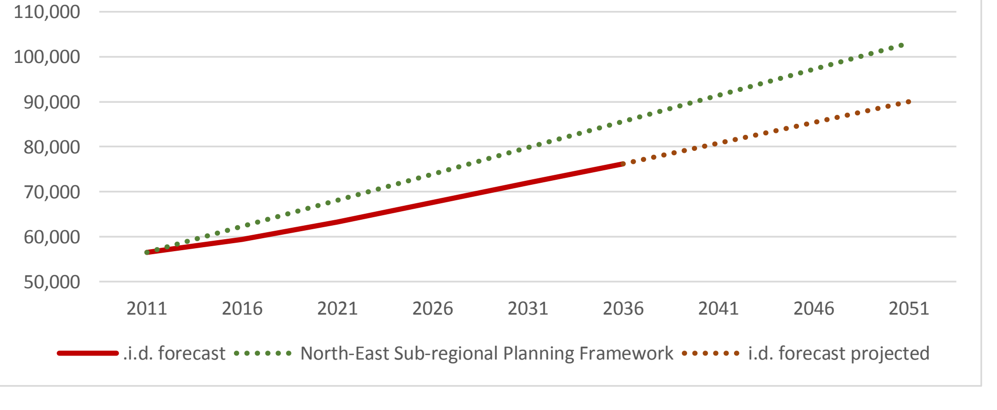
It should be noted that the WAPC North-East Sub-regional Planning Framework shows the population of the City continuing to grow strongly to 103,000 by 2050. If the trajectory of the id forecast series were continued, this population number would not be reached by 2050, but the City would certainly be on track to have a population of at least 90,000 by that time (see Figure 3.4).

Figure 1.3: City of Kalamunda, Population Projections to 2036, WA Tomorrow and forecast i.d.



Source: WA Tomorrow (2015) and i.d. forecast (2017)

Figure 1.4: City of Kalamunda, Population Projections to 2050



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	Forecast 2018 pop.	Forecast 2036 pop.	Change 2018-36	Change 2018-36 Percentage	Land Area (ha)	Forecast Population Density 2018 (persons per hectare)	Forecast Population Density 2036 (persons per hectare)
City of Kalamunda	60,739 *58,946 ABS ERP 2018	76,179	+15,440	25.42%	32,436	1.87	2.35
Hills	23,009	25,274	+2,265	9.84%	27,950	0.82	0.90
Kalamunda	7,517	8,969	+1452	19.31%	1,064	7.06	8.43
Lesmurdie	8,605	8,694	+89	1.03%	1,365	6.30	6.37
Gooseberry Hill	3,467	3,620	+153	4.41%	895	3.87	4.04
Rural East-Walliston	3,420	3,991	+571	16.69%	24,626	0.14	0.16
Foothills	37,730	50,905	+13,175	34.92%	4,485	8.41	11.35
Wattle Grove	6,586	7,229	+643	9.77%	867	7.60	8.34
Forrestfield	13,614	17,079	+3465	25.45%	1702 (+30ha in Forrestfield North)	7.99	10.03
Forrestfield North DSP	310	6,613	+6,303	2033.86%	264	1.17	25.05
High Wycombe	12,563	13,936	+1,373	10.92%	811 (+234ha in Forrestfield North)	15.49	17.18

Maida Vale	4,657	6,048	+1,391	29.88%	841	5.54	7.19

Table 1.2: Population Breakdown

City of Kalamunda

1.2 DWELLINGS

The forecast change in dwellings reflects that of the population change. The Foothills is anticipated to experience the largest number of new dwellings, as a result of new developments and urban renewal. In the hills, Kalamunda is anticipated to experience significant growth as a result of urban renewal mostly in close proximity to the town centre. The remainder of the hills is anticipated to experience limited growth mostly due to development constraints such as retaining environmental areas, building constraints due to the nature of the undulating rocky landscape, no sewage servicing, bushfire risk and maintaining the 'bush' character and amenity of the area. The potential new development areas in the foothills; Forrestfield North, Wattle Grove South and Maida Vale South may require the provision of new commercial precincts.

The table below demonstrates that between 2016 and 2036 the number of dwellings in the City of Kalamunda is projected to increase by 6,988 dwellings (or 31.97%). This equates to an average annual growth rate of 1.6%.

Table 1.3: Household Growth Projections, 2016-2036

	2016	2021	2026	2031	2036	Growth (2016-2036)		Ann. Avg. Growth (2016-2036)	
						No.	%	No.	%
Kalamunda (S)	21,859	23,507	25,321	27,129	28,847	6,988	31.97	349	1.60

Source: Forecast id 2017

Significantly, the City currently has over 90% of its residents living in separate houses, which is reflective of the dominant dwelling structure for the LGA. There are also very few medium and high-density dwelling typologies (grouped dwellings, terrace houses, units and apartments) in the City which reflects the low-density nature of the area. There has been very minimal change in these typologies between 2011 and 2016.

Table 1.4: Dwelling Structure

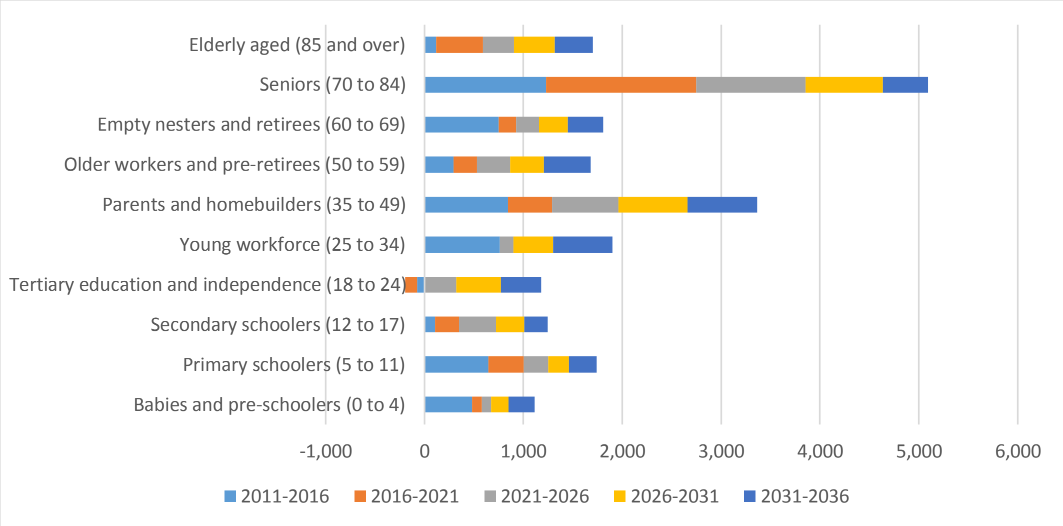
City of Kalamunda - Dwellings (Enumerated)	2016			2011			Change
Dwelling type	Number	%	Greater Perth %	Number	%	Greater Perth %	2011 to 2016
Separate house	21,225	93.3	74.6	19,799	93.6	76.7	+1,426
Medium density	1,282	5.6	19.6	1,198	5.7	17.9	+84
High density	0	0.0	5.1	16	0.1	4.8	-16
Caravans, cabin, houseboat	150	0.7	0.4	125	0.6	0.4	+25
Other	42	0.2	0.1	11	0.1	0.1	+31
Not stated	56	0.2	0.2	5	0.0	0.1	+51
Total Private Dwellings	22,755	100.0	100.0	21,154	100.0	100.0	+1,601

Source: Profile id 2017

1.3 AGE PROFILE

The population growth is heavily skewed towards increases in older age groups, particularly over 70. For some period (2011 to 2021) there is forecast to be a reduction in the number of 18 – 24 year-old residents in the City.

Figure 1.5: City of Kalamunda: Population change by service age cohort (persons)

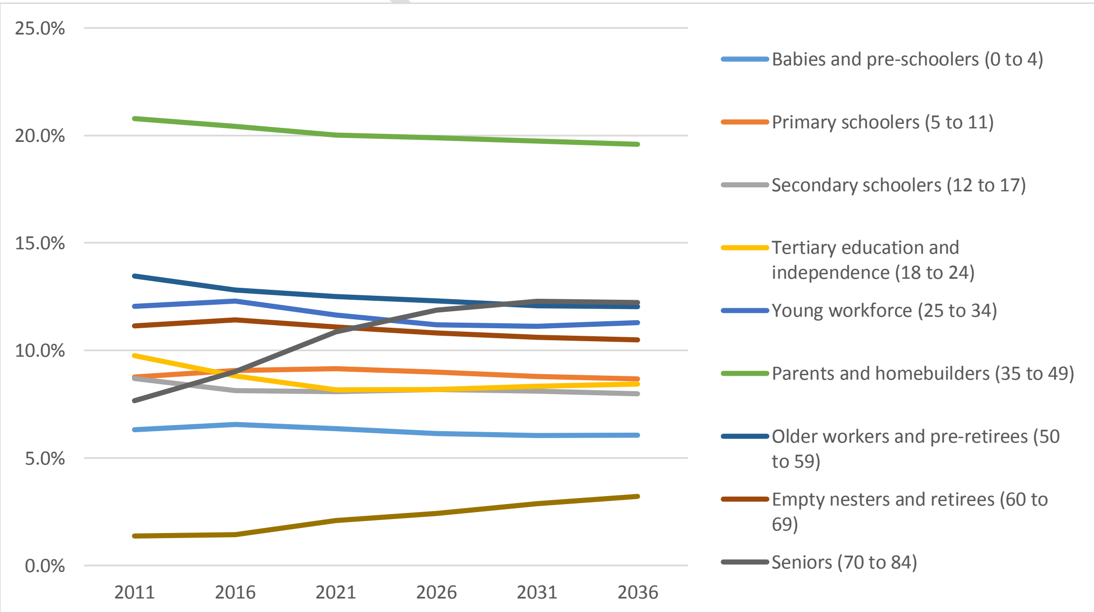


Source: Forecast id 2017

The consequences of the forecast changes are a reduction in the proportion of parents and homebuilders (35 to 39) from 20.8% to 19.6% of the population and a substantial increase in the proportion of over 70-year old residents from 9.0% to 15.4% of the population.

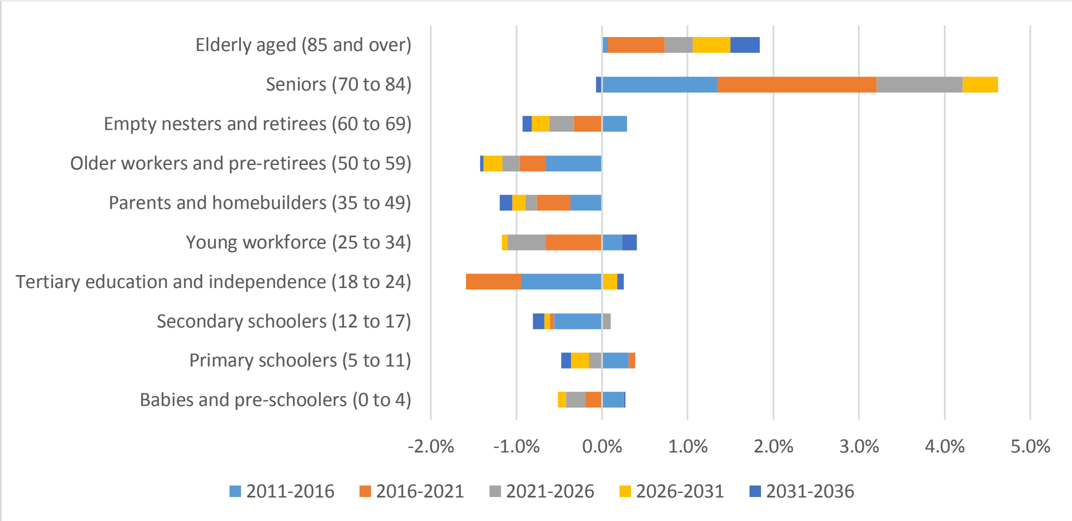
This is illustrated in Figure 3.6 and 3.7.

Figure 1.6: City of Kalamunda: Population change by service age cohort (proportion of total)



Source: Forecast id 2017

Figure 1.7: City of Kalamunda: Population by service age cohort (change in proportion of total)



Source: Forecast id 2017

1.3.1 AGE PROFILE IMPLICATIONS

Population growth in the City is heavily skewed towards increases in older age groups, particularly over 70, with substantial increase in elderly aged (85 and over).

Persons over 85 form a high proportion of people in aged care accommodation. At 30 June 2014 Australia-wide the majority (77%) of people in care were aged 80 or over and the average age for people in permanent residential aged care was 84.5.

It is estimated that at least 50% or more of the 635 persons counted in non-private dwellings are in aged care accommodation or nursing homes. Population id forecasts an increase in persons in non-private dwellings in Kalamunda from 635 (2011) to 1,135 (2036). However, over this time the number of elderly aged (over 85) will increase more than three-fold from 774 to 2,478, with the projected proportion of persons in non-private dwellings to elderly aged decreasing from 82% to 49%. An implication from this is that there will be significant demand for in-home services and significant demand for additional care facilities, beyond those implied in the forecasts, by 2036. Between 2011 and 2036, there might be a need for in the order of 800 – 900 additional aged care beds in the City (of which less than half are accounted for in current forecasts by forecast id shown in Table 1.5). These might be achieved through the expansion of existing facilities or establishing new ones.

Table 1.5: City of Kalamunda Selected Age Projections and Non-Private Dwelling Projections

	2011	2016	2021	2026	2031	2036
Population						
Seniors (70 to 84)	4,330	5,557	7,076	8,182	8,965	9,424
Elderly aged (85+)	774	889	1,366	1,676	2,093	2,478
Total 70+	5,104	6,446	8,442	9,858	11,058	11,902
Persons in non-private dwellings	635	635	915	965	1,085	1,135
Ratio non-private dwellings to elderly aged (85+)	82%	71%	67%	58%	52%	46%

Source: Population id 2017

This projection is supported by WA average care and staffing ratios. Using WA average ratios, there should be an additional 506 residential care places and an additional 243 home care places in Kalamunda between 2011 and 2036.

Table 1.6: Kalamunda, Operational Aged Care Places (modelled on WA Ave ratios)

	2011	2016	2021	2026	2031	2036	Change 2011 - 2036
Residential care	380	480	628	733	823	886	506
Home care	182	230	301	352	395	425	243

Aged care is a substantial employer. The aged care workforce could more than double to over 2,200 in the City by 2036, with around 600 in residential aged care. This is contingent upon the number of aged care beds in the City increasing from its current (around 300 – 350) to around 900 beds by 2036.

This is shown in Table 1.7.

Table 1.7: Kalamunda, Aged Care Workforce to 2036

	2011	2016	2021	2026	2031	2036	Change 2011 - 2036
Residential care workforce	449	567	743	868	973	1,047	598

Community care workforce	506	639	836	977	1,096	1,179	674
Total	955	1,206	1,579	1,844	2,069	2,227	1272

1.4 EMPLOYMENT PROFILE

1.4.1 SOCIO ECONOMIC CHARACTERISTICS

Tables 1.8 and 1.9 show summary socio-economic data for the City of Kalamunda. Compared with the Greater Perth metropolitan area and Western Australia, Kalamunda has:

- Higher median individual income;
- Higher median household income;
- A higher proportion of people born in Australia;
- A higher proportion speaking English only at home;
- A much higher proportion of separate houses and much lower proportion of medium and higher density housing;
- A lower proportion of houses being rented and a higher proportion of owner-occupied houses;
- Generally, more cars per dwelling;
- A lower proportion of people with a bachelor degree / diploma or higher, but a higher proportion of Certificate iii – iv qualifications;
- A lower proportion of managers and professionals in the resident workforce, but a higher proportion of clerical & sales workers, technicians & trades workers and machinery operators & drivers; and
- A much higher proportion of people working in Transport, Postal and Warehousing industries.

Table 1.8: City of Kalamunda – Resident Workforce – Industry of Employment

Industry	Number	Kalamunda %	Western Australia %
Agriculture, Forestry and Fishing	262	1.8	2.5
Mining	243	1.7	6.6
Manufacturing	1,064	7.4	5.6
Electricity, Gas, Water and Waste Services	167	1.2	1.2
Construction	1,272	8.8	9.9
Wholesale Trade	407	2.8	2.5
Retail Trade	1,406	9.7	9.5
Accommodation and Food Services	1,061	7.3	6.4
Transport, Postal and Warehousing	2,068	14.3	4.6
Information Media and Telecommunications	73	0.5	1.0
Financial and Insurance Services	303	2.1	2.3
Rental, Hiring and Real Estate Services	288	2.0	1.7
Professional, Scientific and Technical Services	511	3.5	6.4
Administrative and Support Services	386	2.7	3.3
Public Administration and Safety	440	3.0	6.2
Education and Training	1,777	12.3	8.7
Health Care and Social Assistance	1,177	8.1	11.7
Arts and Recreation Services	155	1.1	1.6
Other Services	695	4.8	3.9
Industry not classified	706	4.9	4.6
Total	14,453*	100.0	100.0

Source: ABS Census 2016

**This figure varies slightly depending on the source. For the purpose of this Strategy the figure 14,480 is the accepted number.*

Table 1.9: City of Kalamunda – Selected Socio-economic Characteristics

	City of Kalamunda	*Greater Perth*
Income		
Median individual income (annual)	$38,064	*$37,865*
Variation from Greater Perth median	+0.53%	
Median household income (annual)	$86,372	*$85,436*
Variation from Greater Perth median	+1.1%	
Median Age (years)	39	*36*
Country of Birth		
Australia	64.9%	*57.3%*
Other Major English-Speaking Countries	14.0%	*13.6%*
Other Overseas Born	21.1%	*29.1%*
% speak English only at home	82.6%	*73.5%*
Family Composition		
Couple family – Total	84.7%	*83.8%*
One parent family – Total	14.1%	*14.5%*
Dwelling Structure (Occupied Private Dwellings)		
Separate house	94.0%	*76.9%*
Semi-detached, row or terrace house, townhouse etc.	5.0%	*16.0%*
Flat, unit or apartment	0.2%	*6.6%*
Other dwelling	0.5%	*0.3%*
Occupancy rate		
Average household size	2.7	*2.6*
Tenure Type (Occupied Private Dwellings)		
Owned outright	34.4%	*28.1%*
Owned with a mortgage	46.0%	*41.9%*
Rented	16.3%	*26.7%*

Other tenure type	1.1%	*2.3%*
Car Ownership per Dwelling		
None	2.6%	*4.9%*
One	26.3%	*32.2%*
Two	39.4%	*39.4%*
Three of more	29.2%	*20.8%*
Highest Year of School Completed (% of population aged 15 years and over)		
Bachelor/ Diploma and above	26.5%	*32.2%*
Certificate iii - iv	19.5%	*16.3%*
Year 12 or equivalent	16.3%	*16.7%*
Year 10-11 or equivalent	19.5%	*15.9%*
Year 9 or below	5.9%	*5.5%*
Did not go to school	0.4%	*0.6%*
Highest year of school not stated	8.9%	*9.9%*
Occupation		
Managers & professionals	28.2%	*33.7%*
Clerical & sales workers	24.4%	*22.8%*
Technicians & trades workers	17.7%	*15.6%*
Machinery operators & drivers	9.4%	*6.5%*
Labourers & related workers	8.6%	*9.0%*

Source: ABS Census 2016

1.4.2 EMPLOYMENT

There was a total of 14,480 persons working in Kalamunda in 2016 (by place of work). The industries which provided the most jobs in Kalamunda in 2011 were:

- Transport, Postal and Warehousing (14.2% of total)
- Education and Training (12.2%).
- Retail Trade (9.7%)
- Construction (8.8%)
- Manufacturing (7.4%)

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In comparison, in 2016 Western Australia employed 4.6% in Transport, Postal and Warehousing; 8.7% in Education and Training; and 9.5% in Retail Trade.

The major differences between the jobs held by local workers of the City of Kalamunda and Western Australia were:

- A larger percentage of workers employed in Transport, Postal and Warehousing (14.2% compared to 4.6%)
- A larger percentage of workers employed in Education and Training (12.2% compared to 8.7%)
- A smaller percentage of workers employed in Mining (1.8% compared to 6.6%)
- A smaller percentage of workers employed in Health Care and Social Assistance (8.2% compared to 11.7%)
- A smaller percentage of workers employed in Professional, Scientific and Technical Services (3.5% compared to 6.4%)

Between 2011 and 2016, total employment in Kalamunda increased by 10%. Industries which posted strong growth outcomes over the period between 2011 and 2016 included:

- Financial and Insurance Services (+157 jobs; +111% on 2011)
- Accommodation and Food Services (+349 jobs; +49%).
- Information Media and Telecommunications (+22 jobs; +40%).
- Administrative and Support Services (+99 jobs; +34%).
- Education and Training (+292 jobs; +20%).
- Health Care and Social Assistance (+191 jobs; +19%).

The main industries which showed a contraction of employment were:

- Manufacturing (- 569 jobs; - 35% on 2011)
- Wholesale Trade (- 93 jobs; - 19% on 2011)
- Mining (- 35 jobs; - 12% on 2011)
- Retail Trade (- 122 jobs; - 8% on 2011)

More than 27,250 residents of Kalamunda were working in 2016. The industries in which the most Kalamunda residents worked in 2016 were:

- Health Care and Social Assistance (10.4% of employed residents)
- Construction (10.3%)
- Retail Trade (9.2%)
- Education and Training (8.7%).
- Transport, Postal and Warehousing (8.2%)
- Manufacturing (6.1%)
- Public Administration and Safety (5.9%)
- Mining (5.7%)

Workers living in Kalamunda are more likely than the Greater Perth average to work in the transport, postal and warehousing, manufacturing and wholesale trade sectors and much less likely to work in the professional, scientific and technical services, health care and social assistance and accommodation and food services sectors.

Table 1.10: City of Kalamunda – Jobs Profile, 2011-2016

	2011		2016			
	Jobs	% total	Jobs	% total	Change	% change 2011 - 2016
Agriculture, Forestry and Fishing	232	1.8%	265	1.8%	33	14%
Mining	291	2.2%	256	1.8%	-35	-12%
Manufacturing	1,641	12.5%	1,072	7.4%	-569	-35%
Electricity, Gas, Water and Waste Services	147	1.1%	170	1.2%	23	16%
Construction	1,134	8.6%	1,281	8.8%	147	13%
Wholesale Trade	493	3.7%	400	2.8%	-93	-19%
Retail Trade	1,530	11.6%	1,408	9.7%	-122	-8%
Accommodation and Food Services	719	5.5%	1,068	7.4%	349	49%
Transport, Postal and Warehousing	1,977	15.0%	2,057	14.2%	80	4%
Information Media and Telecommunications	55	0.4%	77	0.5%	22	40%
Financial and Insurance Services	141	1.1%	298	2.1%	157	111%
Rental, Hiring and Real Estate Services	252	1.9%	293	2.0%	41	16%
Professional, Scientific and Technical Services	533	4.1%	510	3.5%	-23	-4%
Administrative and Support Services	291	2.2%	390	2.7%	99	34%
Public Administration and Safety	426	3.2%	444	3.1%	18	4%
Education and Training	1,479	11.2%	1,771	12.2%	292	20%
Health Care and Social Assistance	992	7.5%	1,183	8.2%	191	19%
Arts and Recreation Services	118	0.9%	156	1.1%	38	32%
Other Services	571	4.3%	694	4.8%	123	22%
Inadequately described	121	0.9%	564	3.9%	443	366%
Not stated	8	0.1%	139	1.0%	131	1638%
Total	13,151	100.0 %	14,480	100.0 %	1329	10%

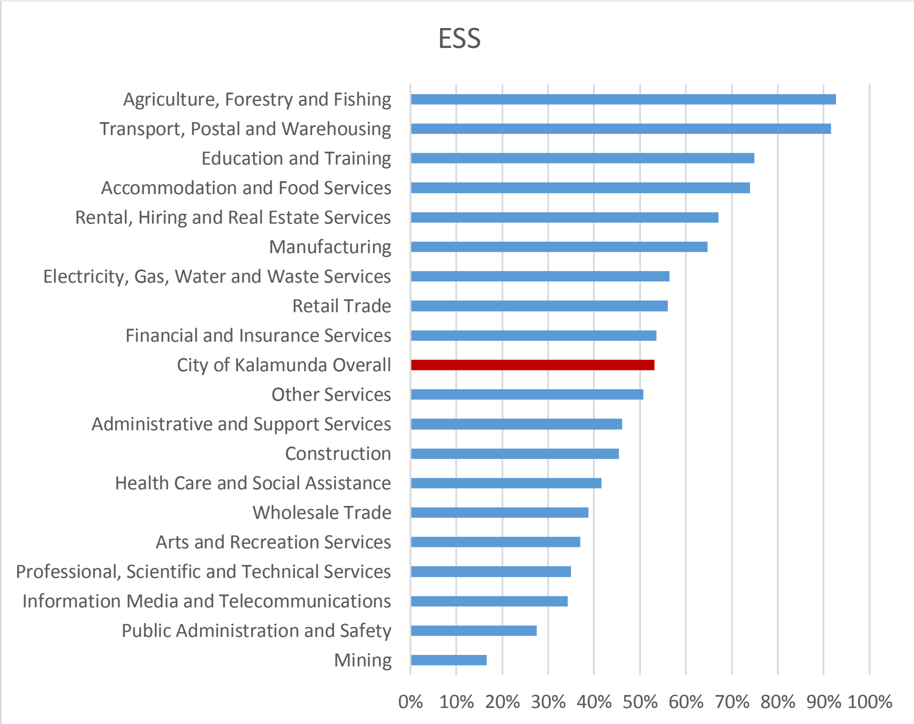
Source: ABS Census 2011, 2016 (Employment, Industry Sector by Place of Work)

1.4.3 EMPLOYMENT LOCATIONS

Kalamunda has a relatively low unemployment rate, compared to Western Australia. In the June Quarter of 2016 the unemployment rate was 4.2% (Department of Employment, 2016).

Kalamunda has a relatively low rate of employment self-sufficiency (53%). Only the Agriculture Forestry and Fishing, Transport Postal and Warehousing, Education and Training and Accommodation and Food Services sectors have employment self-sufficiency rates at over 70%. This means that the majority of City resident workers travel outside of the City for employment. However, even though the City has low employment self-sufficiency, a high proportion of the resident workforce work in the adjacent municipalities of Belmont and Swan, which have substantial industrial estates and the Perth airport employment complex.

Figure 1.8: City of Kalamunda – Employment Self-Sufficiency by Industry, 2016



Source: ABS Census 2016 (Employment, Industry Sector by Place of Work and Place of Usual Residence)

Data from the 2016 Census shows that 25% of the resident workforce works in the Kalamunda LGA, followed by Perth inner areas (the LGAs of Perth, Vincent, Nedlands, Subiaco and South Perth) (17%), other Perth (outer) metro LGAs (11%), Canning (10%), Swan (9%) and Belmont (9%). The biggest growth in employment location between 2011 and 2016 has been to inner Perth LGAs (an additional 786 Kalamunda residents working there), other Perth (outer) metro LGAs (an additional 763 Kalamunda residents working there), Kalamunda (an additional 296 Kalamunda residents working there) and Gosnells (an additional 155 Kalamunda residents working there).

That is, the largest growth in employment for Kalamunda residents is some distance away.

Table 1.11: Place of work for Kalamunda Residents (2011 and 2016)

	2011		2016		Change 2011 to 2016
Kalamunda	6,445	24%	6,741	25%	296
Perth Inner (Perth, Vincent, Nedlands, Subiaco, South Perth)	3,666	14%	4,452	17%	786
Adjacent / nearby					
Canning	2,620	10%	2,708	10%	88
Swan	2,483	9%	2,516	9%	33
Belmont (C)	2,221	8%	2,326	9%	105
Victoria Park (T)	1,016	4%	1,054	4%	38
Gosnells (C)	951	4%	1,106	4%	155
Bayswater (C)	560	2%	590	2%	30
Mundaring (S)	447	2%	448	2%	1
Armadale (C)	332	1%	433	2%	101
Bassendean (T)	291	1%	252	1%	(39)
Other Perth metro	2,119	8%	2,882	11%	763
Outside Perth Metro	765	3%	1,109	4%	344

Source: ABS Census, 2011, 2016

Table 1.12 shows the main employment locations in employment complexes within the City of Kalamunda, based on the 2016 WAPC Land Use and Employment Survey. It shows that of all employment in employment complexes, around 41% is in commercial centres, 39% is in industrial complexes and around 20% is in public purpose and recreation complexes.

Table 1.12: Employment Complexes, Kalamunda, 2016

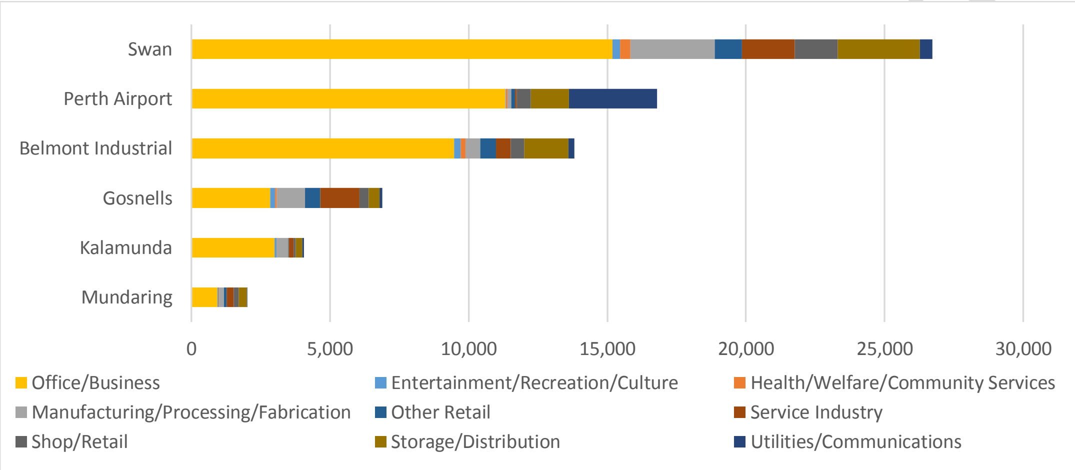
	TOTAL EMPLOYMENT		TOTAL	FTE (est)
	Full time	Part time		
Commercial Centres				
Kalamunda Town Centre	618	949	1,567	1,093
Forrestfield Centre	213	620	833	523
High Wycombe Village	107	261	368	238
Wittenoom Rd	192	130	322	257
Other centres (No = 19)	504	716	1,220	862
Total Commercial Centres	1,634	2,676	4,310	2,972
Industrial Centres				-
Welshpool-E	784	97	881	833
Forrestfield	2,403	249	2,652	2,528
Kalamunda	286	46	332	309
Hazelmere S	190	4	194	192
Total Industrial Centres	3,663	396	4,059	3,861
Public Purpose and Recreation Complexes				
Forrestfield High	74	19	93	84
Kalamunda High	70	46	116	93
Lesmurdie High	94	20	114	104
Kalamunda public purposes	699	815	1,514	1,107
Primary Education / recreation complexes	144	133	277	211
Total Public Purpose / Recreation Complexes	1,081	1,033	2,114	1,598
Total	6,378	4,105	10,483*	8,431

Source: WAPC Land Use and Employment Survey 2016

**This figure varies slightly depending on the source. For the purpose of this Strategy the figure 14,480 is the accepted number.*

The resident workforce contains a large number of job categories found in industrial estates. Adjacent LGAs include substantial industrial estates and Perth Airport. Together these account for 70,000 jobs. Industrial estates in Kalamunda account for only 6% of the total industrial employment in the wider area.

Figure 1.9: Employment (Location) in Industrial Estates, Kalamunda and Adjacent LGAs, 2016



Source: WAPC Land Use and Employment Survey 2016

There are around 35,300 people employed in commercial complexes in the City of Kalamunda and the adjacent LGAs of Swan, Mundaring, Belmont and Gosnells. This is around half the number in industrial estates in the same area, showing the importance of these estates to the overall employment supply. In the main, economic activity in the commercial centres is for local retail and services and its scale, and employment potential, is closely tied to population size. This contrasts with economic activity in industrial complexes, which is much more likely to have an external economic orientation.

The breakdown of employment in commercial complexes in the local region is shown in Table 1.13. It shows the Midland Centre is by far the largest, with around 7,050 employees, followed by Belmont, Ellenbrook, Maddington complexes, Kalamunda Centre and Gosnells.

Table 1.13: Employment in Commercial Centres, Kalamunda and Adjacent LGAs, 2016

	Full time	Part time	Total
Kalamunda			
Kalamunda Centre	618	949	1,567
Forrestfield Forum	213	620	833
Other complexes	803	1,107	1,910
Total Kalamunda	1,634	2,676	4,310
Belmont			
Belmont Town Centre	769	1,538	2,307
Other complexes	2,683	1,167	3,850
Total Belmont	3,452	2,705	6,157
Gosnells			
Maddington Complex	807	1,128	1,935
Gosnells	630	756	1,386
Other complexes	1,711	2,324	4,035
Total Gosnells	3,148	4,208	7,356
Swan			
Midland Centre	3,818	3,232	7,050
Ellenbrook Centre	891	1,101	1,992
Other complexes	4,078	4,393	8,471
Total Swan	7,896	7,625	15,521
Mundaring			
Mundaring centre	404	551	955
Other complexes	362	656	1,018
Total Mundaring	766	1,207	1,973
Total all areas	16,896	18,421	35,317

Source: WAPC Land Use and Employment Survey 2016

1.4.4 FUTURE EMPLOYMENT

At current rates of workforce participation there will be an additional 8,500 Kalamunda residents in the workforce by 2036. To maintain the current employment self-sufficiency ratios around 4,500 – 4,800 new jobs will be required in the City, and more if employment self-sufficiency is to be increased.

Some will be in commercial centres and public-purpose centres (schools, hospitals, aged care) as they expand to serve local population. The scale of jobs growth correlates with the population growth. New jobs in these centres and complexes might be expected to account for up to 40% of new jobs. The commercial centres aspect of this is considered in section 4 following.

The projected location of jobs in the Perth metropolitan area to 2050 is provided by the WAPC *Perth & Peel @ 3.5 Million* suite of documents, including the North-East Sub-regional Planning Framework. An extract from it is shown in Figure 3.6. It shows a substantial growth of jobs in the Perth CBD and inner areas, together with some growth in areas easily accessible to Kalamunda residents such as the airport and Murdoch. The trend, described in Section 3.3, of an increasing number of Kalamunda residents working in inner Perth LGAs and other Perth (outer) metro LGAs (e.g. at Murdoch) is likely to continue.

Given the skill base and current occupation mix of Kalamunda residents (see Section 2.3), a high proportion of the workforce, in the order of 35% - 40%, will be working in industrial estates. To maintain current levels of self-sufficiency, by 2036 1,500 – 1,900 of these additional jobs would be in industrial estates in the City of Kalamunda. At levels of employment density that might be found in a business park environment, this might be in the order of 70 – 90 ha of land. This is the lower rung of new land required and would be much higher – approximately double - for industrial estates that are primarily oriented to freight and logistics operations, which as a land use has much lower employment densities.

City of Kalamunda

APPENDIX 2 - RETAIL MODEL OUTPUTS

2016 Outputs

Map Reference	LGA	Centre Name	PLUC 5 Floorspace NLA 2015/17 (m²)	Turnover 2015/16 ($/M)	Turnover 2015/16 ($/m²)
1	Kalamunda	Edinburgh Road NAC	1628	$11,211,716	$6,887
2	Kalamunda	Forrestfield District Centre	12956	$101,295,153	$7,818
3	Kalamunda	Forrestfield LAC	260	$1,428,595	$5,495
4	Kalamunda	Hawtin Road North LAC	1400	$8,225,189	$5,875
5	Kalamunda	Hawtin Road South LAC	60	$313,895	$5,232
6	Kalamunda	Holmes Road LAC	530	$2,592,070	$4,891
7	Kalamunda	Gooseberry Hill LAC	895	$4,544,043	$5,077
8	Kalamunda	Forrestfield North District Centre	-	-	-
9	Kalamunda	High Wycombe East NAC	5809	$41,414,811	$7,129
10	Kalamunda	High Wycombe LAC East	1135	$7,879,806	$6,943
11	Kalamunda	High Wycombe LAC West	683	$4,569,070	$6,690
12	Kalamunda	High Wycombe West (Wittenoom Rd) NAC	3830	$26,854,311	$7,012
13	Kalamunda	Newburn Road LAC	985	$6,551,768	$6,652
14	Kalamunda	Kalamunda District Centre	14994	$113,997,010	$7,603
15	Kalamunda	Kalamunda Glades NAC	3760	$27,205,470	$7,235
16	Kalamunda	Lesmurdie LAC	700	$4,798,585	$6,855
17	Kalamunda	Sanderson Road NAC	2197	$14,898,588	$6,781
18	Kalamunda	Maida Vale LAC	580	$3,651,817	$6,296
19	Kalamunda	Maida Vale NAC	-	-	-
20	Kalamunda	Maida Vale Road LAC	-	-	-
21	Kalamunda	Maida Vale South NAC	-	-	-
22	Kalamunda	Hills Rural NAC	-	-	-
23	Kalamunda	Pickering Brook LAC	285	$1,016,557	$3,567
24	Kalamunda	Walliston LAC	160	$909,794	$5,686
25	Kalamunda	Lewis Road LAC	1200	$8,229,780	$6,858
26	Kalamunda	Wattle Grove North NAC	3712	$26,776,449	$7,213
27	Kalamunda	Wattle Grove South NAC	-	-	-
28	Kalamunda	Welshpool Road East LAC	375	$2,422,558	$6,460

2026 Model Outputs

* - Subject to retail sustainability assessment / retail analysis as part of preparation of Structure Plan. Refer to section 5.6 for further explanation.

^ - Subject to the outcomes of Community Engagement, Concept Planning and Detailed Planning to determine scale of Activity Centre and whether an Activity Centre is required.

Map Reference	LGA	Centre Name	PLUC 5 Floorspace 2015/17 (m²)	Turnover 2016 (2016 $ / m²)	PLUC 5 Floorspace 2026 (m²)	Turnover 2026 (2016$ / m²)	% Change
1	Kalamunda	Edinburgh Road NAC	1628	$6,887	1628	$6,337	-8.0%
2	Kalamunda	Forrestfield District Centre	12956	$7,818	12956*	$7,283	-6.8%
3	Kalamunda	Forrestfield LAC	260	$5,495	260	$5,082	-7.5%
4	Kalamunda	Hawtin Road North LAC	1400	$5,875	1400	$5,558	-5.4%
5	Kalamunda	Hawtin Road South LAC	60	$5,232	60	$4,899	-6.3%
6	Kalamunda	Holmes Road LAC	530	$4,891	530	$4,593	-6.1%
7	Kalamunda	Gooseberry Hill LAC	895	$5,077	895	$5,221	2.8%
8	Kalamunda	Forrestfield North District Centre	-	-	5000*	$7,003	na
9	Kalamunda	High Wycombe East NAC	5809	$7,129	5809	$7,176	0.7%
10	Kalamunda	High Wycombe LAC East	1135	$6,943	1135	$7,080	2.0%
11	Kalamunda	High Wycombe LAC West	683	$6,690	683	$6,744	0.8%
12	Kalamunda	High Wycombe West (Wittenoom Rd) NAC	3830	$7,012	3830	$6,939	-1.0%
13	Kalamunda	Newburn Road LAC	985	$6,652	985	$6,670	0.3%
14	Kalamunda	Kalamunda District Centre	14994	$7,603	14994*	$7,789	2.4%
15	Kalamunda	Kalamunda Glades NAC	3760	$7,235	3760	$7,073	-2.2%
16	Kalamunda	Lesmurdie LAC	700	$6,855	700	$6,200	-9.6%
17	Kalamunda	Sanderson Road NAC	2197	$6,781	2197	$5,883	-13.2%
18	Kalamunda	Maida Vale LAC	580	$6,296	580	$6,519	3.5%
19	Kalamunda	Maida Vale NAC	-	-	-*	-	na
20	Kalamunda	Maida Vale Road LAC	-	-	1,200	$7,104	na
21	Kalamunda	Maida Vale South NAC	-	-	-*	-	na
22	Kalamunda	Hills Rural NAC	-	-	-*	-	-
23	Kalamunda	Pickering Brook LAC	285	$3,567	285	$3,451	-3.3%
24	Kalamunda	Walliston LAC	160	$5,686	160	$5,392	-5.2%
25	Kalamunda	Lewis Road LAC	1200	$6,858	1200	$6,118	-10.8%
26	Kalamunda	Wattle Grove North NAC	3712	$7,213	3712	$6,669	-7.6%
27	Kalamunda	Wattle Grove South NAC	-	-	-*^	-	na
28	Kalamunda	Welshpool Road East LAC	375	$6,460	375	$5,956	-7.8%

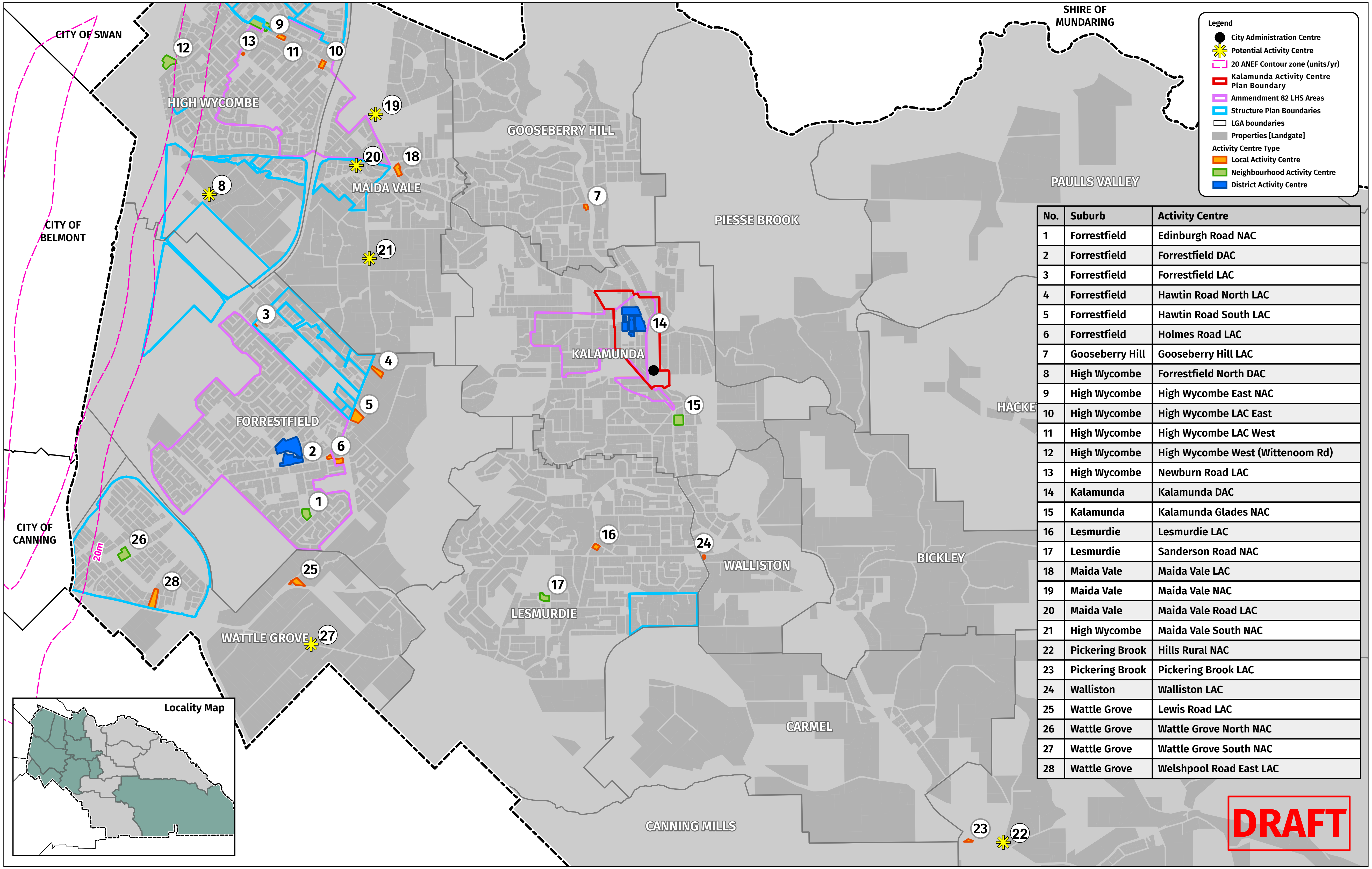
2036 Model Outputs

* - Subject to retail sustainability assessment / retail analysis as part of preparation of Structure Plan or Development Application. Refer to section 5.6 for further explanation.

^ - Subject to the outcomes of Community Engagement, Concept Planning and Detailed Planning to determine scale of Activity Centre and whether an Activity Centre is required.

Map Reference	LGA	Centre Name	PLUC 5 Floorspace 2015/17 (m^2)	Turnover 2016 (2016 $ / m^2)	PLUC 5 Floorspace 2036 (m^2)	Turnover 2036 (2016$ / m^2)	% Change
1	Kalamunda	Edinburgh Road NAC	1628	$6,887	1628	$6,750	-2.0%
2	Kalamunda	Forrestfield District Centre	12956	$7,818	17000*	$7,968	1.9%
3	Kalamunda	Forrestfield LAC	260	$5,495	260	$6,281	14.3%
4	Kalamunda	Hawtin Road North LAC	1400	$5,875	1400	$6,447	9.7%
5	Kalamunda	Hawtin Road South LAC	60	$5,232	60	$5,667	8.3%
6	Kalamunda	Holmes Road LAC	530	$4,891	530	$4,966	1.5%
7	Kalamunda	Gooseberry Hill LAC	895	$5,077	895	$4,800	-5.4%
8	Kalamunda	Forrestfield North District Centre	0	$0	5000*	$9,658	na
9	Kalamunda	High Wycombe East NAC	5809	$7,129	5809	$7,251	1.7%
10	Kalamunda	High Wycombe LAC East	1135	$6,943	1135	$7,138	2.8%
11	Kalamunda	High Wycombe LAC West	683	$6,690	683	$6,784	1.4%
12	Kalamunda	High Wycombe West (Wittenoom Rd) NAC	3830	$7,012	3830	$7,485	6.8%
13	Kalamunda	Newburn Road LAC	985	$6,652	985	$6,917	4.0%
14	Kalamunda	Kalamunda District Centre	14994	$7,603	17000*	$7,269	-4.4%
15	Kalamunda	Kalamunda Glades NAC	3760	$7,235	3760	$6,763	-6.5%
16	Kalamunda	Lesmurdie LAC	700	$6,855	700	$6,250	-8.8%
17	Kalamunda	Sanderson Road NAC	2197	$6,781	2197	$6,094	-10.1%
18	Kalamunda	Maida Vale LAC	580	$6,296	580	$6,232	-1.0%
19	Kalamunda	Maida Vale NAC	0	0	-*	$0	na
20	Kalamunda	Maida Vale Road LAC	0	0	1200	$8,762	na
21	Kalamunda	Maida Vale South NAC	0	$0	1500*	$7,361	na
22	Kalamunda	Hills Rural NAC	-	-	-*	-	-
23	Kalamunda	Pickering Brook LAC	285	$3,567	285	$3,344	-6.2%
24	Kalamunda	Walliston LAC	160	$5,686	160	$5,236	-7.9%
25	Kalamunda	Lewis Road LAC	1200	$6,858	1200	$6,693	-2.4%
26	Kalamunda	Wattle Grove North NAC	3712	$7,213	3712	$7,322	1.5%
27	Kalamunda	Wattle Grove South NAC	0	$0	1500*^	$6,517	na
28	Kalamunda	Welshpool East LAC	375	$6,460	375	$6,584	1.9%

APPENDIX 3 – ACTIVITY CENTRES MAPS



No.	Suburb	Activity Centre
1	Forrestfield	Edinburgh Road NAC
2	Forrestfield	Forrestfield DAC
3	Forrestfield	Forrestfield LAC
4	Forrestfield	Hawtin Road North LAC
5	Forrestfield	Hawtin Road South LAC
6	Forrestfield	Holmes Road LAC
7	Gooseberry Hill	Gooseberry Hill LAC
8	High Wycombe	Forrestfield North DAC
9	High Wycombe	High Wycombe East NAC
10	High Wycombe	High Wycombe LAC East
11	High Wycombe	High Wycombe LAC West
12	High Wycombe	High Wycombe West (Wittenoom Rd)
13	High Wycombe	Newburn Road LAC
14	Kalamunda	Kalamunda DAC
15	Kalamunda	Kalamunda Glades NAC
16	Lesmurdie	Lesmurdie LAC
17	Lesmurdie	Sanderson Road NAC
18	Maida Vale	Maida Vale LAC
19	Maida Vale	Maida Vale NAC
20	Maida Vale	Maida Vale Road LAC
21	High Wycombe	Maida Vale South NAC
22	Pickering Brook	Hills Rural NAC
23	Pickering Brook	Pickering Brook LAC
24	Walliston	Walliston LAC
25	Wattle Grove	Lewis Road LAC
26	Wattle Grove	Wattle Grove North NAC
27	Wattle Grove	Wattle Grove South NAC
28	Wattle Grove	Welshpool Road East LAC

N

Activity Centres - Overview

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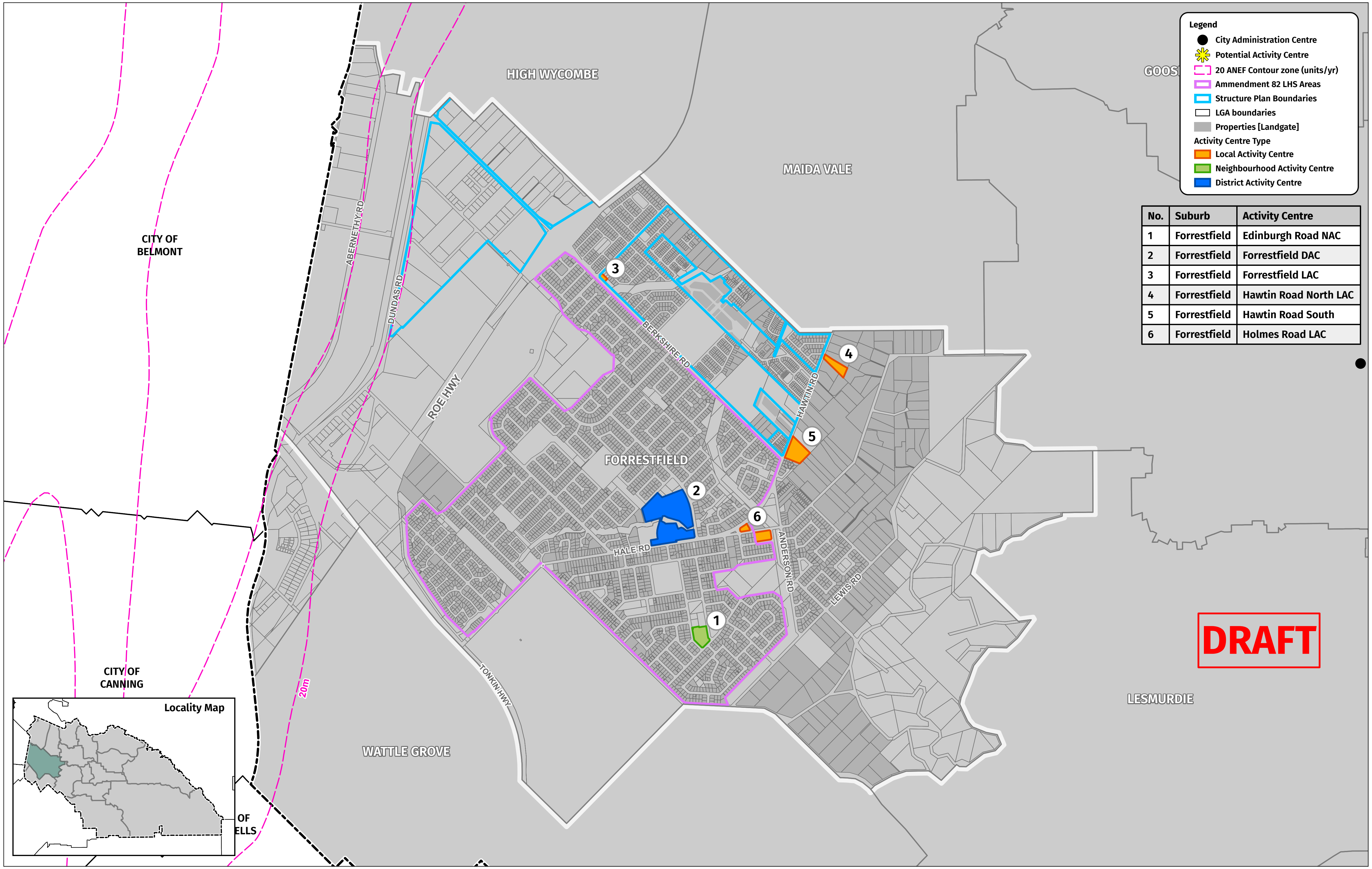
Map Grid: Map Grid of Australia, Zone 50 (MGA)

City of Kalamunda



No.	Suburb	Activity Centre
1	Forrestfield	Edinburgh Road NAC
2	Forrestfield	Forrestfield DAC
3	Forrestfield	Forrestfield LAC
4	Forrestfield	Hawtin Road North LAC
5	Forrestfield	Hawtin Road South
6	Forrestfield	Holmes Road LAC

N

Activity Centres - Forrestfield

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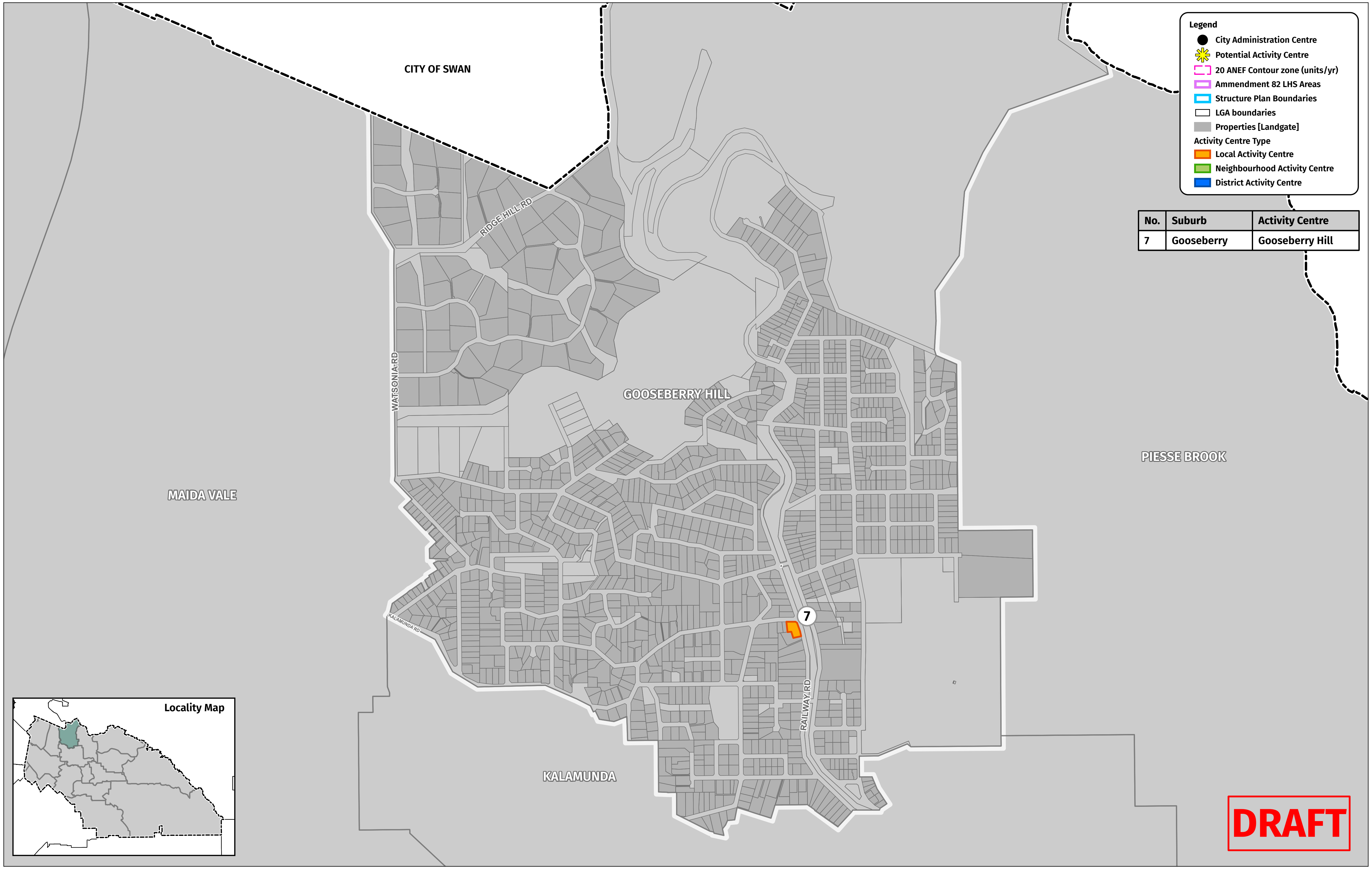
City of Kalamunda



Activity Centres - Gooseberry Hill

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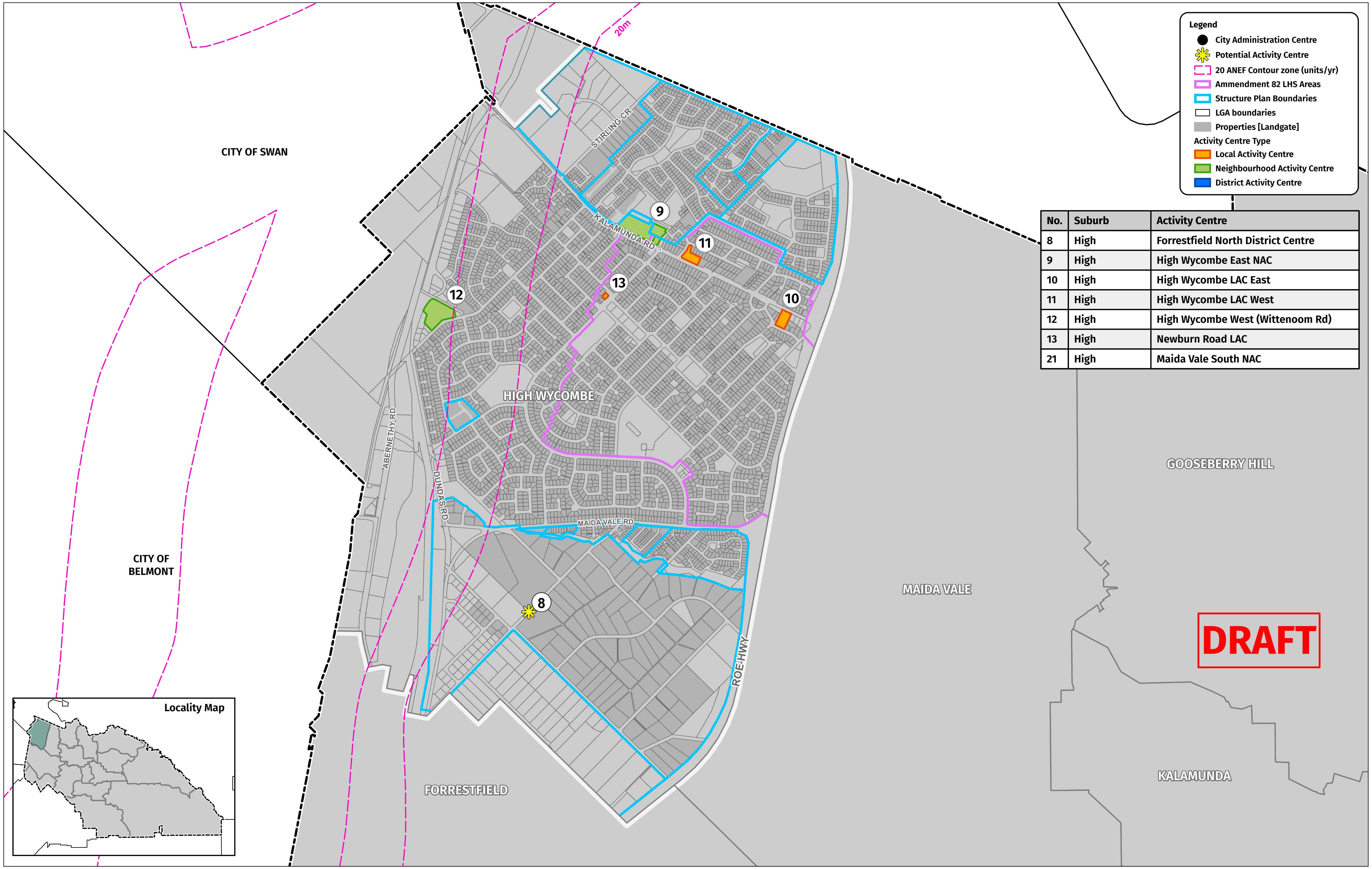

No.	Suburb	Activity Centre
8	High	Forrestfield North District Centre
9	High	High Wycombe East NAC
10	High	High Wycombe LAC East
11	High	High Wycombe LAC West
12	High	High Wycombe West (Wittenoom Rd)
13	High	Newburn Road LAC
21	High	Maida Vale South NAC

N

Activity Centres - High Wycombe

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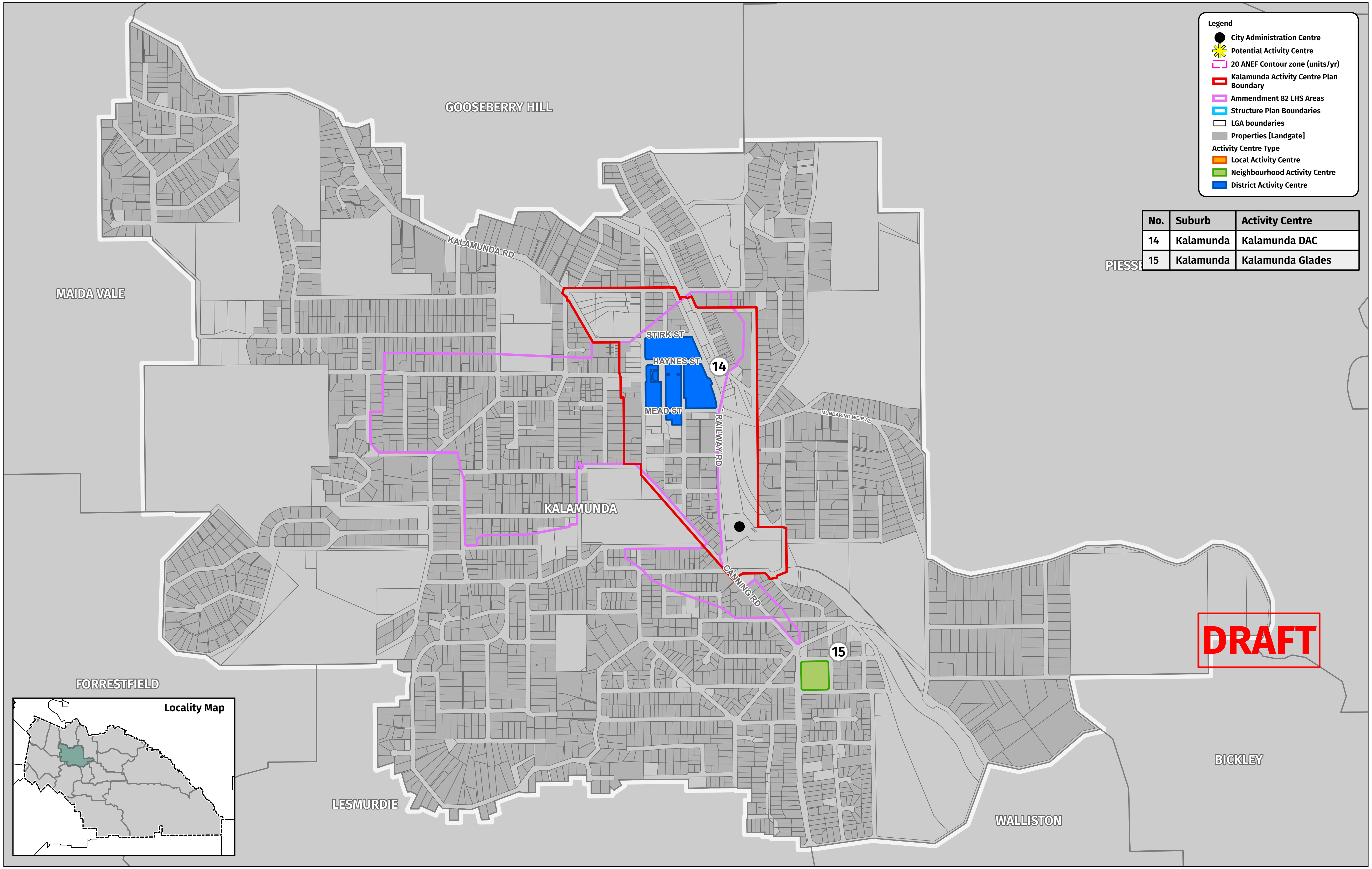
City of Kalamunda



No.	Suburb	Activity Centre
14	Kalamunda	Kalamunda DAC
15	Kalamunda	Kalamunda Glades

N

Activity Centres - Kalamunda

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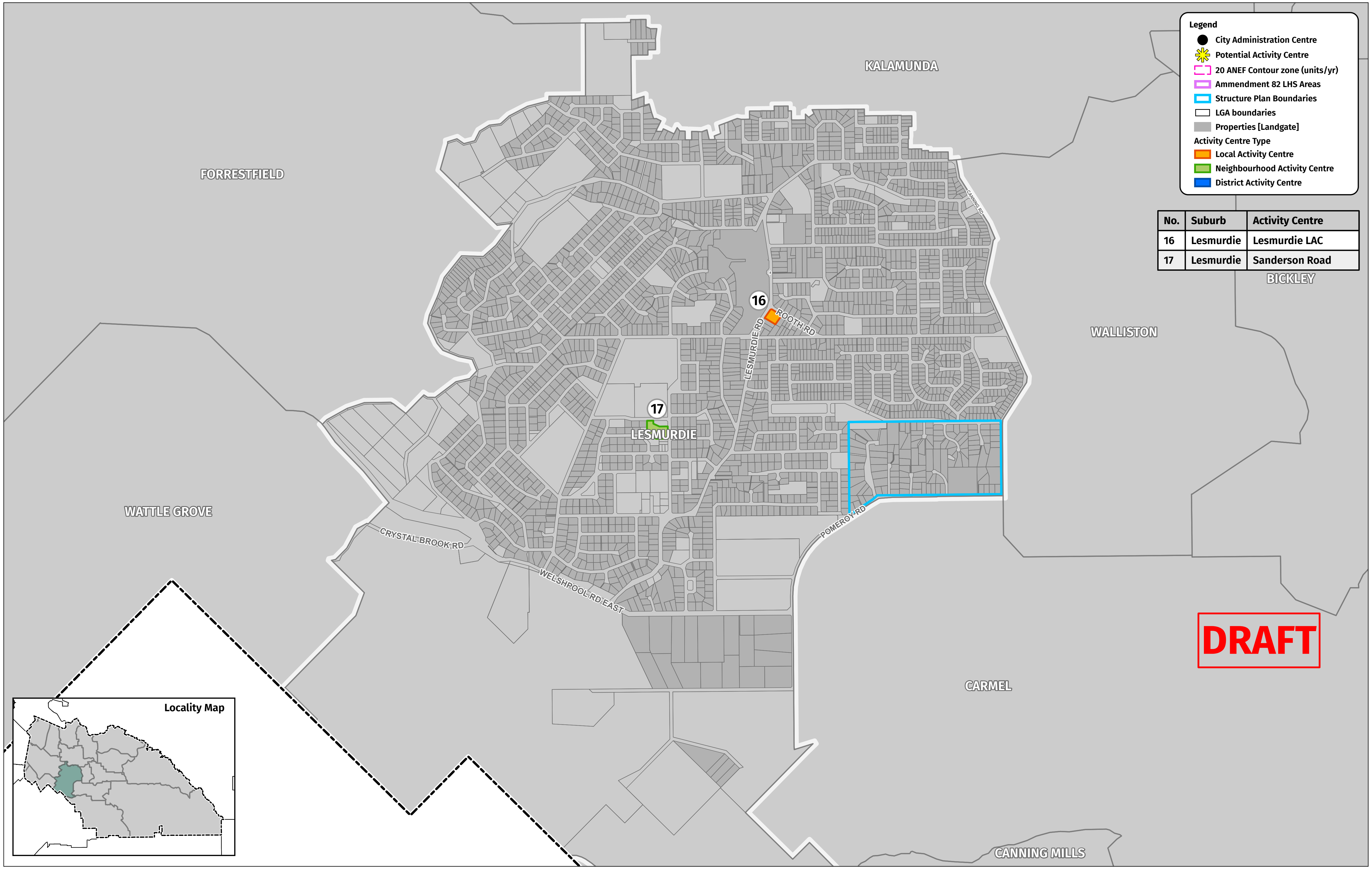
City of Kalamunda



No.	Suburb	Activity Centre
16	Lesmurdie	Lesmurdie LAC
17	Lesmurdie	Sanderson Road

N

Activity Centres - Lesmurdie

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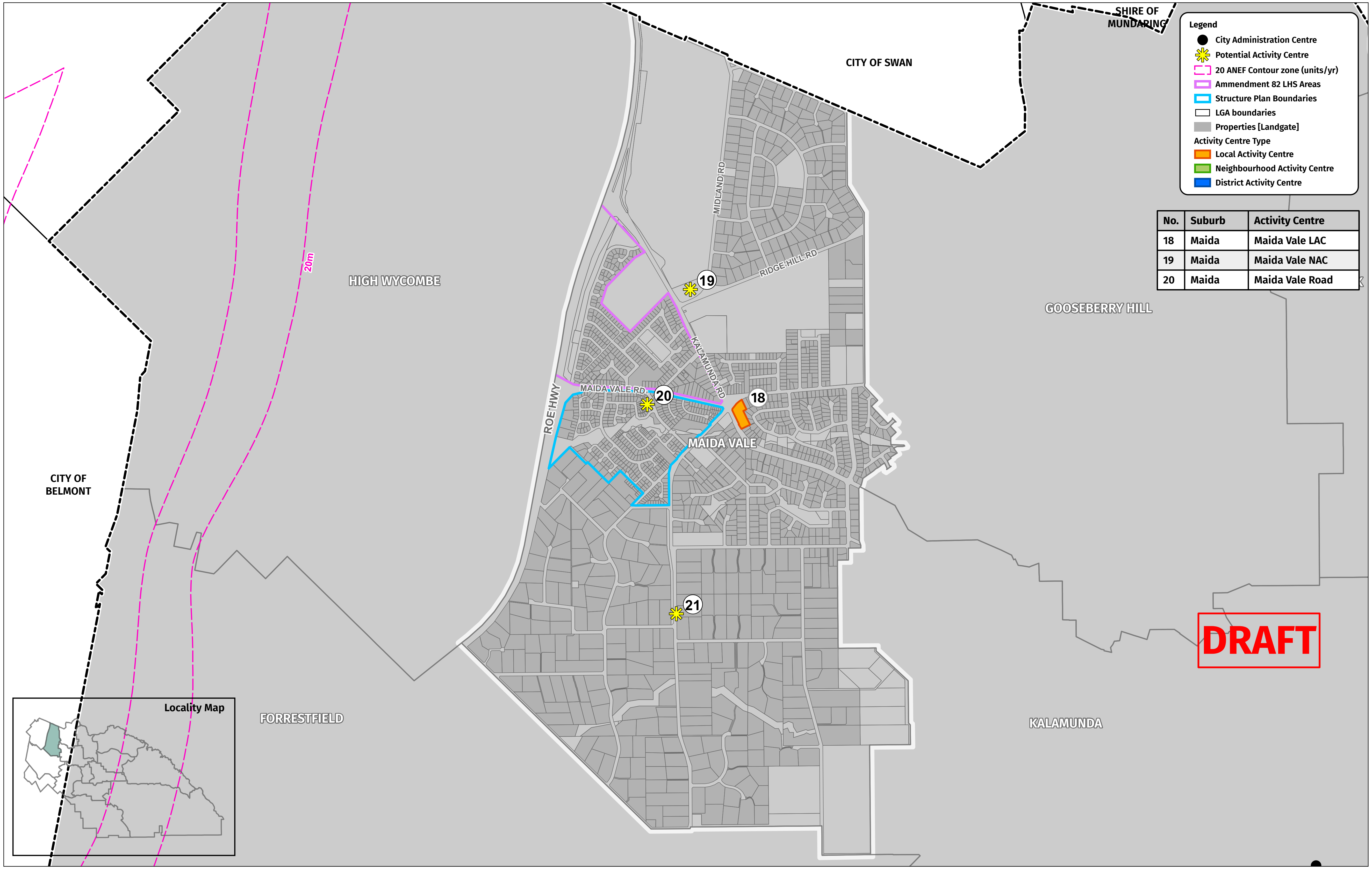
City of Kalamunda



No.	Suburb	Activity Centre
18	Maida	Maida Vale LAC
19	Maida	Maida Vale NAC
20	Maida	Maida Vale Road

Activity Centres - Maida Vale

N

Project Name: STP_201801_004 [Activity Centres - Maida Vale] Created by: GIS Support Officer Date Saved: 02-Apr-20 1:25 PM

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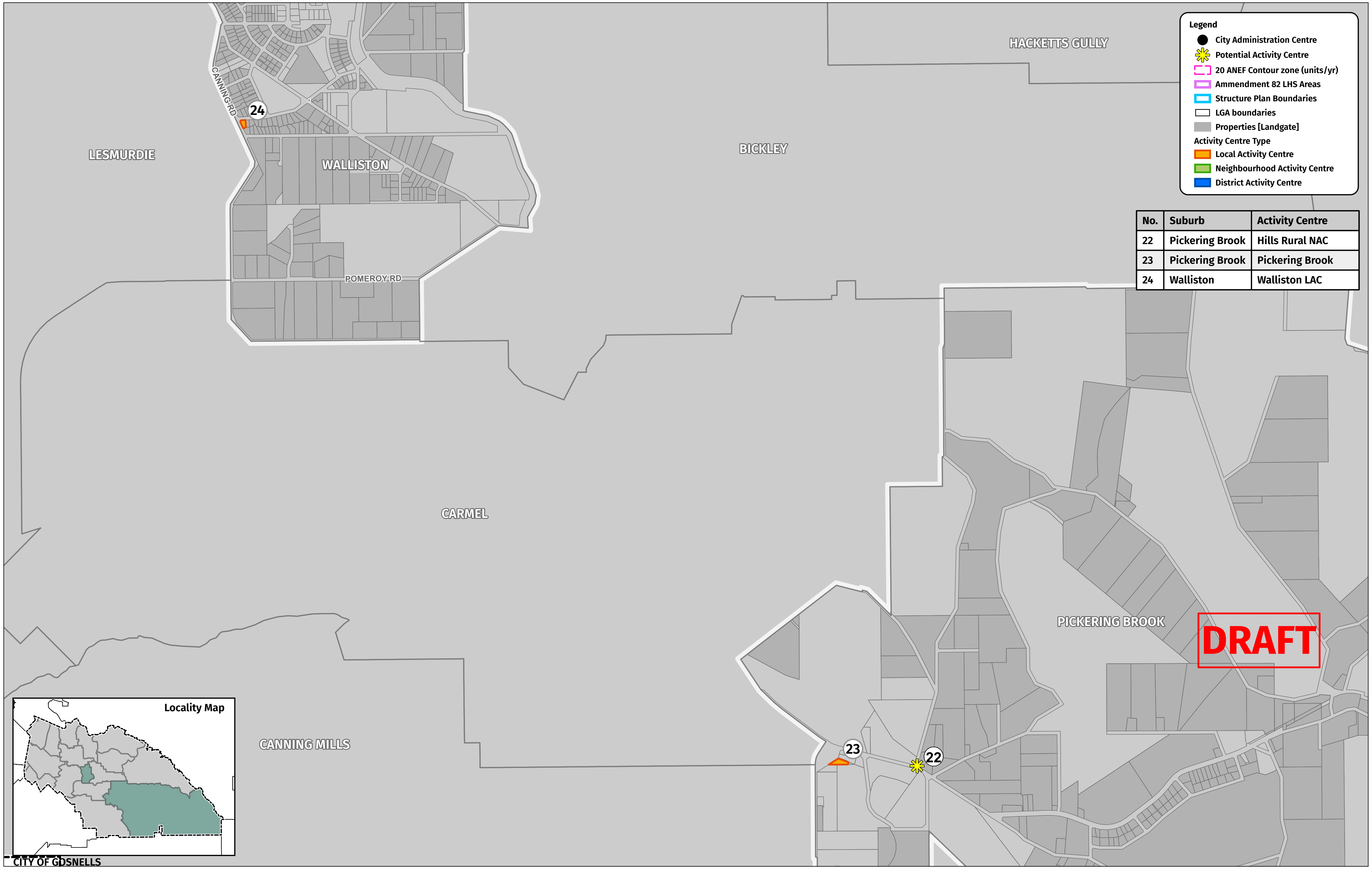
City of Kalamunda



No.	Suburb	Activity Centre
22	Pickering Brook	Hills Rural NAC
23	Pickering Brook	Pickering Brook
24	Walliston	Walliston LAC

N

Activity Centres - Walliston-RuralEast

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Kilometres

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Map Grid: Map Grid of Australia, Zone 50 (MGA)

City of Kalamunda

No.	Suburb	Activity Centre
25	Wattle	Lewis Road LAC
26	Wattle	Wattle Grove North NAC
27	Wattle	Wattle Grove South NAC
28	Wattle	Welshpool Road East

Activity Centres - Wattle Grove

Project Name: STP_201801_004 [Activity Centres - Wattle Grove] Created by: GIS Support Officer Date Saved: 02-Apr-20 1:25 PM

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City of Kalamunda

APPENDIX 4 - RETAIL ANALYSIS

66

Activity Centres Strategy:
Retail and Commercial Demand Analysis

city of kalamunda

March 2019

Syme Marmion & Co

MGA
TOWN PLANNERS

Version Control

Document History and Status

Status	Issued To	Qty	Date	Reviewed	Approved
Draft 1	City of Kalamunda	Electronic	18 Dec 2017	J. Malcolm J. Iverach	J. Syme
Draft 2	City of Kalamunda	Electronic	17 January 2018	J. Malcom	J. Syme
Draft 3			26 February 2019	City of Kalamunda – Reviewed to align with Strategy	
Draft 4	City of Kalamunda	Electronic	19 March 2019	J. Malcom Edits to include Maida Vale LAC development. Reviewed by City of Kalamunda	

Report Details

File Name:	Kalamunda Commercial and Industrial
Author:	J Syme; J Malcolm
Client:	City of Kalamunda
Name of Document:	Activity Centres Strategy: Retail and Commercial Demand Analysis
Document Version:	Final
Project Number:	P1710

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Contents

1. Introduction

The City of Kalamunda is currently in the process of preparing a new Local Planning Strategy and Local Planning Scheme. A key component of the Local Planning Strategy is the preparation of an Activity Centre Strategy for the City. To support the preparation of the document, the City requires supporting commercial and retail demand analysis for the City to utilise as a basis for preparing the Activity Centre Strategy.

Historically, the City's main retail and commercial centres have been located in Forrestfield and Kalamunda (District Centres). Other parts of the City have responded to retail demand with smaller neighbourhood, local and "out of centre" retail nodes developing along arterial routes in High Wycombe, Forrestfield and Kalamunda.

This report is prepared to inform the formulation of the Local Planning Strategy. It provides information and recommendations on:

- The amount of commercial and retail land required to service the City's predicted future population and growth areas.
- The location and distribution of commercial and retail land.
- An overview of industrial land demand in the City.
- Future commercial and retail land required in future growth areas.
- Specific recommendations on existing activity centres and commercial areas in the City's existing localities.

2. Background

2.1 Population

2.1.1 Historic Growth

The population of the City of Kalamunda grew from 51,400 in 2006 to 56,490 in 2011 and to 59,340 in 2016. The average annual growth rate in both the 2006 – 2011 and 2011 – 2016 periods was less than the average for metropolitan Perth overall, as shown in Table 2.1. While the City has some areas with new residential development, it does not have the large areas of new greenfield development that characterise the high growth LGAs such as Rockingham and Wanneroo and its rate of urban infill development is as yet comparatively low compared with inner areas. These combine to give a lower population growth rate than for the Perth metropolitan area overall.

Table 2.1: Historic Population Growth, City of Kalamunda and Metropolitan Perth

	Population			Ave Annual Growth Rate	
	2006	2011	2016	2006 - 2011	2011 - 2016
City of Kalamunda	51,423	56,492	59,349	2.0%	1.0%
Perth (Metropolitan)	1,533,413	1,772,899	1,925,794	3.1%	1.7%

Source: ABS Regional Population Growth, Cat. 3218.0

2.1.2 Projected Growth

Population analysis is primarily based on the City of Kalamunda *forecast i.d*. dataset. This is checked against WAPC WA Tomorrow (2015) forecasts.

The City's population is projected by *forecast i.d*. (latest update September 2017) to grow from 59,340 (2016) to 76,179 (2036). This is lower than the WAPC WA Tomorrow projections, which show population increasing to between 70,270 and 76,090 by 2026.

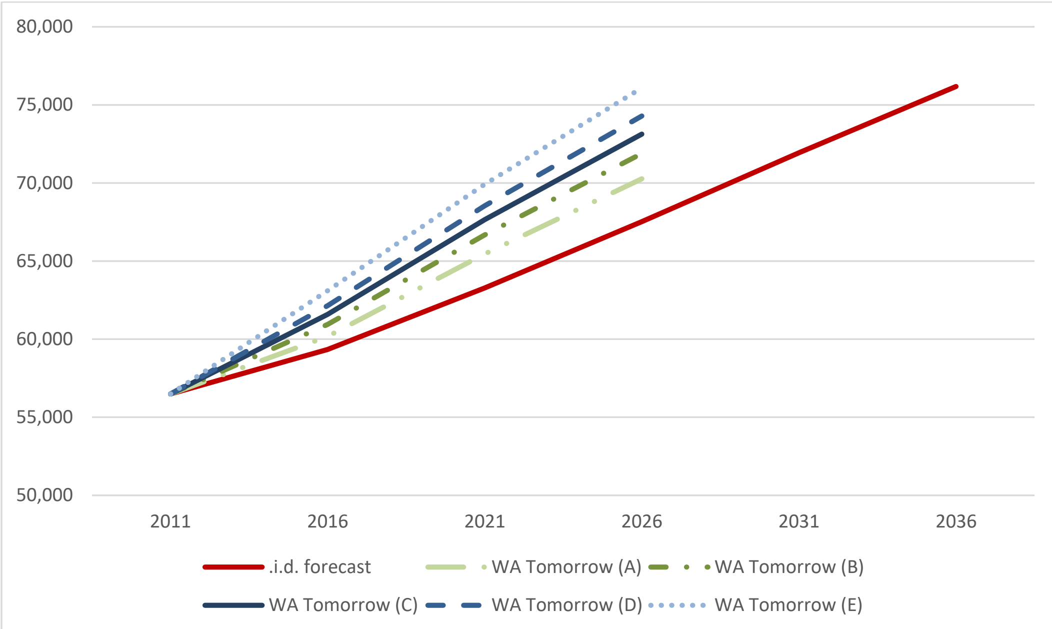
The WA Tomorrow series was prepared in 2015. The *forecast i.d*. figures were last updated in September 2017 and account for the 2016 Census. These figures are therefore regarded as being more appropriate and are used for the analysis in this report.

The differences are illustrated in Figure 2.1.

It should be noted that the draft WAPC North-East Sub-regional Planning Framework[1] shows the population of the City continuing to grow strongly to 103,000 by 2050. If the trajectory of the *.id forecast* series were continued, this population number would not be reached by 2050, but the City would certainly be on track to have a population of at least 90,000 by that time (see Figure 2.2).

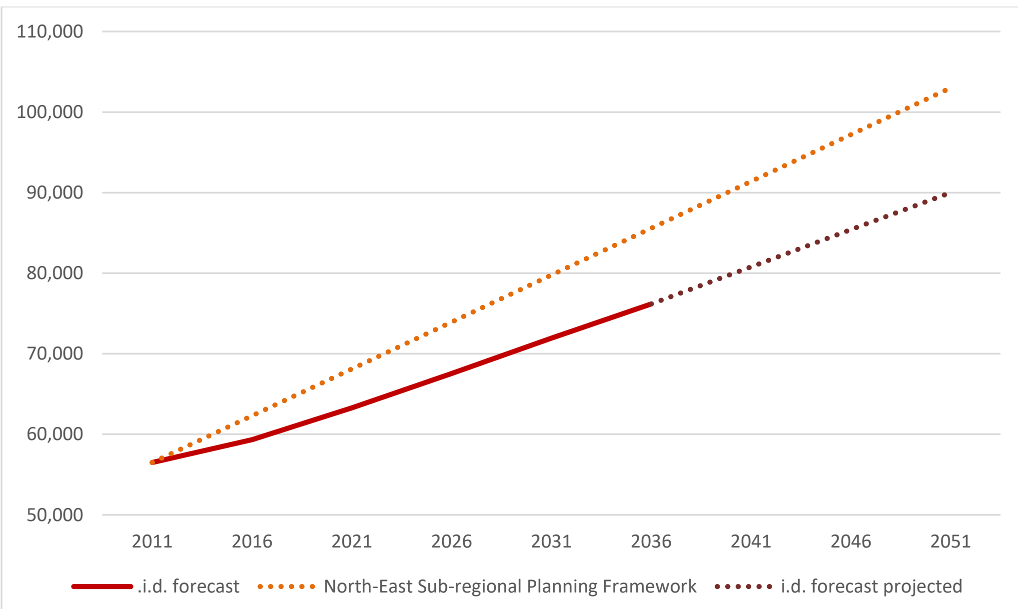
[1] WAPC, Towards Perth & Peel @ 3.5 Million, North-East Sub-regional Planning Framework, May 2015

Fig 2.1: City of Kalamunda, Population Projections to 2036, WA Tomorrow and *forecast i.d.*



Source: WA Tomorrow (2015) and i.d. forecast (2017)

Fig 2.2: City of Kalamunda, Population Projections to 2050



2.1.3 Location of Growth

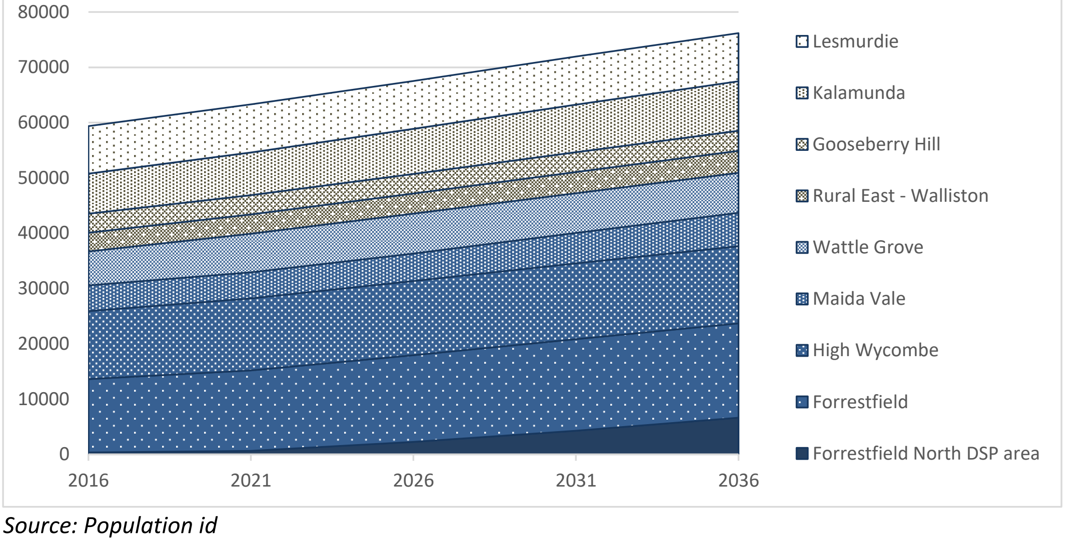
In 2016 the hills suburbs and rural areas (Kalamunda, Rural East – Walliston, Gooseberry Hill, Lesmurdie) accounted for 38% of the City population; by 2036 this figure will reduce to 33%.

Table 2.2: City of Kalamunda, Population Projections - by Small Area to 2036

	2011	2016	2021	2026	2031	2036	Change 2016 -2036	% Change 2016 -2036
Lesmurdie	8,515	8,579	8,665	8,680	8,687	8,694	115	1%
Gooseberry Hill	3,527	3,442	3,502	3,536	3,576	3,620	178	5%
Rural East - Walliston	3,435	3,393	3,468	3,628	3,833	3,991	598	18%
Wattle Grove	4,404	6,139	6,974	7,246	7,172	7,229	1,090	18%
Maida Vale	4,715	4,644	4,718	4,947	5,498	6,048	1,404	30%
High Wycombe	11,977	12,304	13,037	13,429	13,717	13,936	1,632	13%
Kalamunda	7,085	7,243	7,742	8,139	8,630	8,969	1,726	24%
Forrestfield	12,451	13,270	14,525	15,710	16,539	17,079	3,809	29%
Forrestfield North DSP area	385	328	639	2,220	4,280	6,613	6,285	1916%
Total	**56,494**	**59,342**	**63,270**	**67,535**	**71,932**	**76,179**	**16,837**	**28%**

Source: Population id

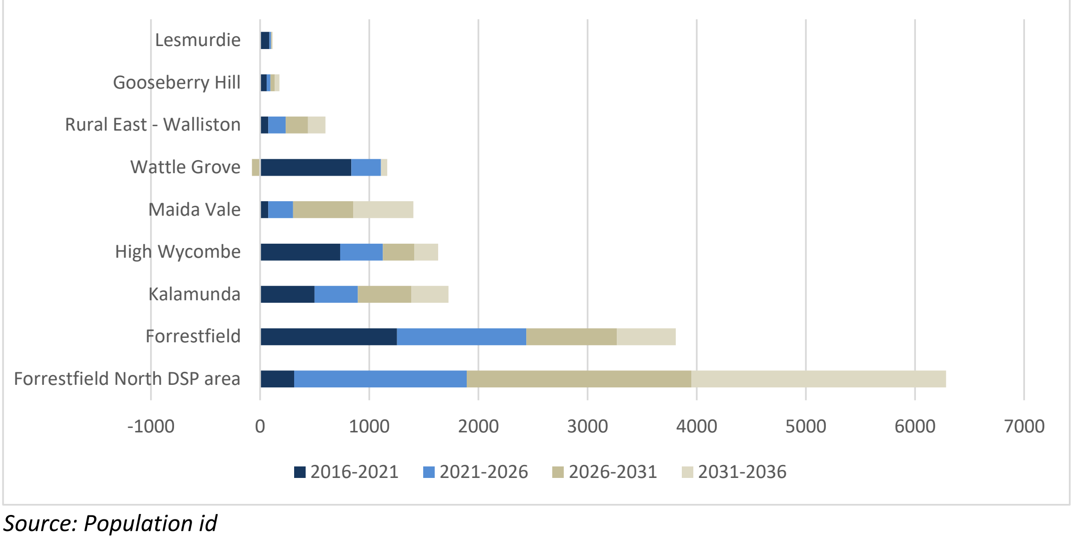
Fig 2.3: City of Kalamunda: Population 2016 – 2036



Source: Population id

The majority of growth is forecast to be in the Forrestfield North DSP area, Forrestfield, Wattle Grove and High Wycombe. Some growth is expected in Kalamunda township (largely in and around the town centre), but otherwise little growth is expected in the hills suburbs and rural areas.

Fig 2.4: City of Kalamunda: Location of Population Growth 2016 – 2036

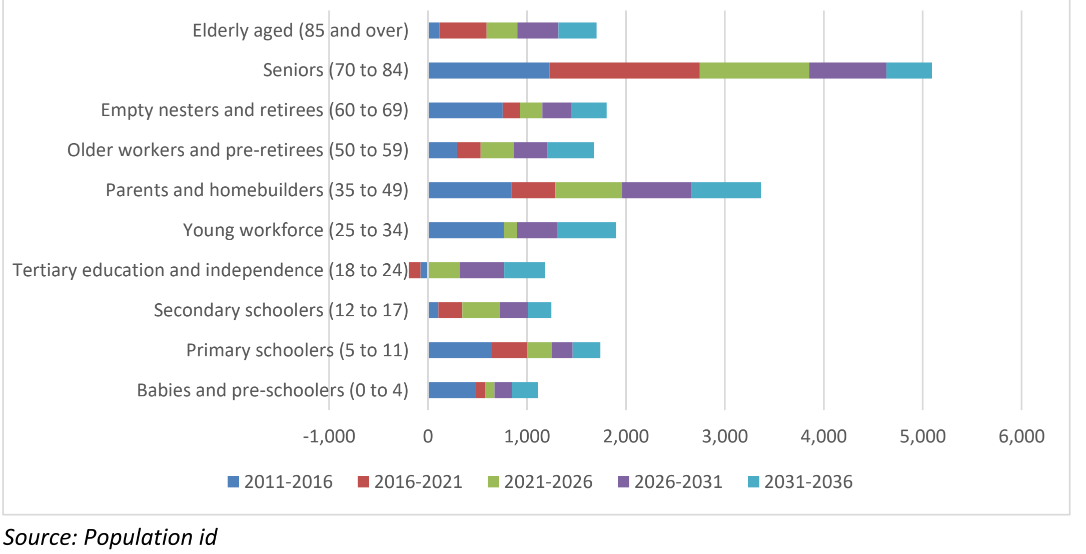


Source: Population id

2.1.4 Age Profile

The population growth is heavily skewed towards increases in older age groups, particularly over 70. For some periods (2011 to 2021) there is forecast to be a reduction in the number of 18 – 24 year olds in the City.

Fig 2.5: City of Kalamunda: Population change by service age cohort (persons)

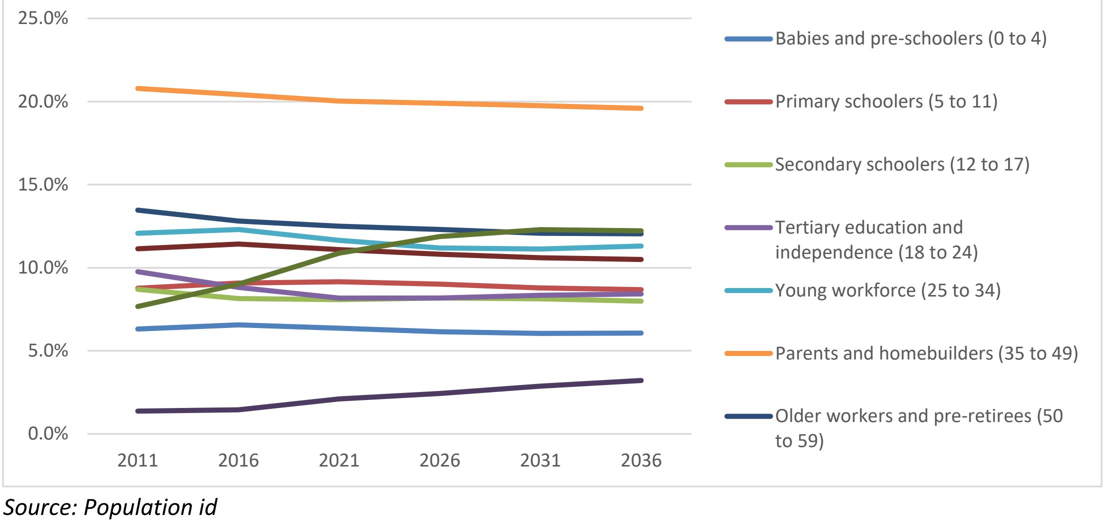


Source: Population id

The consequence is a reduction in the proportion of parents and homebuilders (35 to 39) from 20.8% to 19.6% of the population and a substantial increase in the proportion of over 70 year olds from 9.0% to 15.4% of the population.

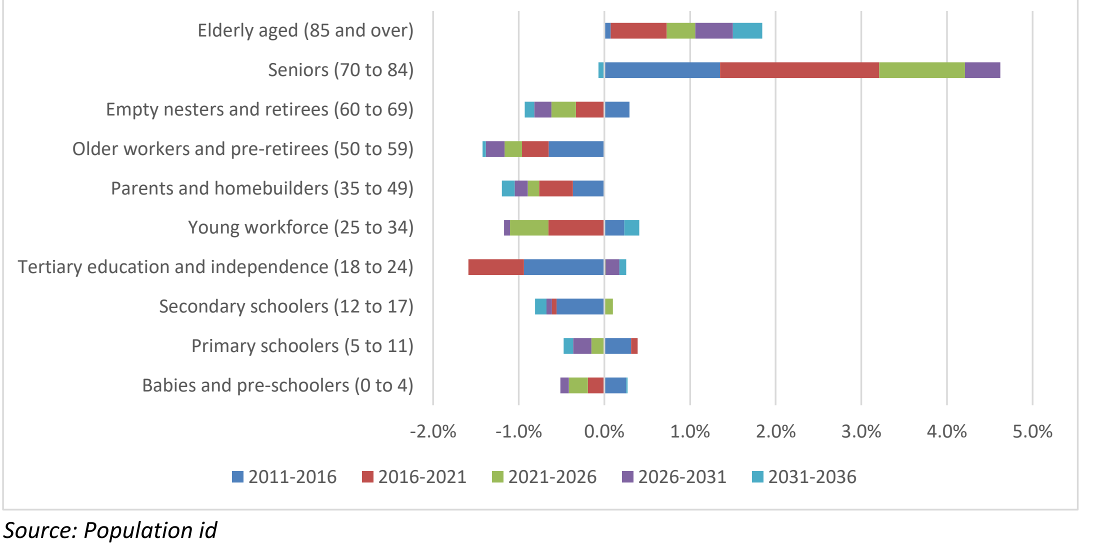
This is illustrated in Figure 2.6 and 2.7.

Fig 2.6: City of Kalamunda: Population change by service age cohort (proportion of total)



Source: Population id

Fig 2.7: City of Kalamunda: Population by service age cohort (change in proportion of total)



Source: Population id

2.2 Implications of Population Change

2.2.1 Workforce

There were 27,250 employed people[2] amongst Kalamunda residents in 2016. At current rates of workforce participation, this will increase to around 35,800 by 2036. There were around 14,480 jobs in total in the City in 2016[3], giving an employment self-sufficiency ratio of around 53%.[4]. To maintain this ratio an additional 4,500 jobs will be required in the City between 2016 and 2036. To increase it to 80%, an additional 14,150 jobs would be required. The resident workforce is expected to continue increasing beyond 2036, and could reach 48,100 by 2050 if the population projections in the WAPC North-East Sub-regional Planning Framework are realised.

2.2.2 Age Profile Implications

Population growth in the City is heavily skewed towards increases in older age groups, particularly over 70, with substantial increase in elderly aged (85 and over).

Persons over 85 form a high proportion of people in aged care accommodation. At 30 June 2014 Australia-wide the majority (77%) of people in care were aged 80 or over and the average age for people in permanent residential aged care was 84.5[5].

The census reports persons in non-private dwellings. This has been reported and forecast to 2036 in the City's *forecast.id* series. For this series the ABS categorises non-private dwellings as including:

- Hotel, motel, bed and breakfast.
- Staff quarters, including camps for resources sector.
- Psychiatric hospital or institution and Hostel for the disabled.
- Nursing home and Accommodation for the retired or aged (not self-contained).
- Other welfare, including 'group homes'.
- Prison.
- Other and not classifiable.

For the City of Kalamunda, the 2011 Census counts 29 non-private dwelling places as follows:

Hotel, motel, bed and breakfast	6
Boarding house, private hotel	3
Boarding school	5
Hostel for the disabled	9
Nursing home	6
	29

Source: ABS Census

It is estimated that at least 50% or more of the 635 persons counted in non-private dwellings are in aged care accommodation or nursing homes. *Population.id* forecasts an increase in persons in non-

[2] Based on 2016 Census
[3] Based on ABS Census, 2016; NIEIR modelling shows 17,000 jobs
[4] Note this figure is similar to the ESS using modelled NIEIR total jobs and Modelled NIEIR total (i.e. full and part time) employment figures of 31,718 employed residents, which accounts for some Census undercount.
[5] http://www.aihw.gov.au/aged-care/residential-and-home-care-2013-14/characteristics/

private dwellings in Kalamunda from 635 (2011) to 1,135 (2036). However, over this time the number of elderly aged (over 85) will increase more than three-fold from 774 to 2,478, with the projected proportion of persons in non-private dwellings to elderly aged decreasing from 82% to 49%. An implication from this is that there will be significant demand for in-home services and significant demand for additional care facilities, beyond those implied in the forecasts, by 2036. Between 2011 and 2036, there might be a need for in the order of 800 – 900 additional aged care beds in the City (of which less than half are accounted for in current forecasts by *i.d. forecast* shown in Table 2.3). These might be expansion of existing facilities or establishing new ones.

Table 2.3: City of Kalamunda Selected Age Projections and Non-Private Dwelling Projections

	2011	2016	2021	2026	2031	2036
Population						
Seniors (70 to 84)	4,330	5,557	7,076	8,182	8,965	9,424
Elderly aged (85+)	774	889	1,366	1,676	2,093	2,478
Total 70+	5,104	6,446	8,442	9,858	11,058	11,902
Persons in non-private dwellings	635	635	915	965	1,085	1,135
Ratio non-private dwellings to elderly aged (85+)	82%	71%	67%	58%	52%	46%

Source: Population id, SMCo

This projection is supported by WA average care and staffing ratios[6]. Using WA average ratios, there should be an additional 506 residential care places and an additional 243 home care places in Kalamunda between 2011 and 2036.

Table 2.4: Kalamunda, Operational Aged Care Places (modelled on WA Ave ratios)

	2011	2016	2021	2026	2031	2036	Change 2011 - 2036
Residential care	380	480	628	733	823	886	506
Home care	182	230	301	352	395	425	243

Aged care is a substantial employer. The aged care workforce could more than double to over 2,200 in the City by 2036, with around 600 in residential aged care. This is contingent upon the number of aged care beds in the City increasing from its current (around 300 – 350) to around 900 beds by 2036.

This is shown in Table 2.5.

Table 2.5: Kalamunda, Aged Care Workforce to 2036

	2011	2016	2021	2026	2031	2036	Change 2011 - 2036
Residential care workforce	449	567	743	868	973	1,047	598
Community care workforce	506	639	836	977	1,096	1,179	674
Total	**955**	**1,206**	**1,579**	**1,844**	**2,069**	**2,227**	**1272**

[6] Ref: Australian Government, Department of Social Services, 2013–14 Concise Facts & Figures in Aged Care. Note that WA has a similar overall operational aged care ratio as Australia, but a lower proportion of residential care places and a higher proportion of home care places per person aged over 70.

2.3 Socio-Economic Characteristics

Tables 2.6 and 2.7 show summary socio-economic data for the City of Kalamunda. Compared with the Greater Perth metropolitan area, Kalamunda has:

- Higher median individual income;
- Higher median household income;
- A higher proportion of people born in Australia;
- A higher proportion speaking English only at home;
- A much higher proportion of separate houses and much lower proportion of medium and higher density housing;
- A lower proportion of houses being rented and a higher proportion of owner-occupied houses;
- Generally, more cars per dwelling;
- A lower proportion of people with a bachelor degree / diploma or higher, but a higher proportion of Certificate iii – iv qualifications;
- A lower proportion of managers and professionals in the resident workforce, but a higher proportion of clerical & sales workers, technicians & trades workers and machinery operators & drivers.
- A much higher proportion of people working in Transport, Postal and Warehousing industries.

Table 2.6: City of Kalamunda – Resident Workforce – Industry of Employment

Industry	Number	Kalamunda %	Western Australia %
Agriculture, Forestry and Fishing	262	1.8	2.5
Mining	243	1.7	6.6
Manufacturing	1,064	7.4	5.6
Electricity, Gas, Water and Waste Services	167	1.2	1.2
Construction	1,272	8.8	9.9
Wholesale Trade	407	2.8	2.5
Retail Trade	1,406	9.7	9.5
Accommodation and Food Services	1,061	7.3	6.4
Transport, Postal and Warehousing	2,068	14.3	4.6
Information Media and Telecommunications	73	0.5	1.0
Financial and Insurance Services	303	2.1	2.3
Rental, Hiring and Real Estate Services	288	2.0	1.7
Professional, Scientific and Technical Services	511	3.5	6.4
Administrative and Support Services	386	2.7	3.3
Public Administration and Safety	440	3.0	6.2
Education and Training	1,777	12.3	8.7
Health Care and Social Assistance	1,177	8.1	11.7
Arts and Recreation Services	155	1.1	1.6
Other Services	695	4.8	3.9
Industry not classified	706	4.9	4.6
Total	**14,453**	**100.0**	**100.0**

Source: ABS Census 2016

Table 2.7: City of Kalamunda – Selected Socio-economic Characteristics

	City of Kalamunda	*Greater Perth*
Income		
Median individual income (annual)	**$38,064**	*$37,865*
Variation from Greater Perth median	**+0.53%**	
Median household income (annual)	**$86,372**	*$85,436*
Variation from Greater Perth median	**+1.1%**	
Median Age (years)	**39**	*36*
Country of Birth		
Australia	**64.9%**	*57.3%*
Other Major English Speaking Countries	**14.0%**	*13.6%*
Other Overseas Born	**21.1%**	*29.1%*
% speak English only at home	**82.6%**	*73.5%*
Family Composition		
Couple family – Total	**84.7%**	*83.8%*
One parent family – Total	**14.1%**	*14.5%*
Dwelling Structure (Occupied Private Dwellings)		
Separate house	**94.0%**	*76.9%*
Semi-detached, row or terrace house, townhouse etc.	**5.0%**	*16.0%*
Flat, unit or apartment	**0.2%**	*6.6%*
Other dwelling	**0.5%**	*0.3%*
Occupancy rate		
Average household size	**2.7**	*2.6*
Tenure Type (Occupied Private Dwellings)		
Owned outright	**34.4%**	*28.1%*
Owned with a mortgage	**46.0%**	*41.9%*
Rented	**16.3%**	*26.7%*
Other tenure type	**1.1%**	*2.3%*
Car Ownership per Dwelling		
None	**2.6%**	*4.9%*
One	**26.3%**	*32.2%*
Two	**39.4%**	*39.4%*
Three of more	**29.2%**	*20.8%*
Highest Year of School Completed (% of population aged 15 years and over)		
Bachelor/ Diploma and above	**26.5%**	*32.2%*
Certificate iii - iv	**19.5%**	*16.3%*
Year 12 or equivalent	**16.3%**	*16.7%*
Year 10-11 or equivalent	**19.5%**	*15.9%*
Year 9 or below	**5.9%**	*5.5%*
Did not go to school	**0.4%**	*0.6%*
Highest year of school not stated	**8.9%**	*9.9%*
Occupation		
Managers & professionals	**28.2%**	*33.7%*
Clerical & sales workers	**24.4%**	*22.8%*
Technicians & trades workers	**17.7%**	*15.6%*
Machinery operators & drivers	**9.4%**	*6.5%*
Labourers & related workers	**8.6%**	*9.0%*

Source: ABS Census 2016

3. Economy and Employment

3.1 Economy

Kalamunda is a relatively small economy, of $2.6 billion in 2015-16. The economy has expanded strongly since 2006-07, at an average annual pace of 4.5% (relatively consistent with the pace of growth at the State level). Growth in the economy has been driven primarily by expansion of the local mining logistics and support sector. However, growth in rental, hiring and real estate services and agriculture have also been strong growth sectors locally.

The most prominent sectors in the Kalamunda economy, in terms of contribution to Gross Value Add in 2015-16, were:

- Transport, postal and warehousing - $498 million (22.1% of total Industry Value Add)
- Construction - $371 million (16.4%)
- Mining (including mining services) - $243 million (10.8%)
- Manufacturing - $207 million (9.2%)
- Healthcare and social assistance - $120 million (5.3%).

The top five growth sectors between 2010-11 and 2015-16 were:

- Education and training (168.8% growth)
- Other services (124.2%)
- Agriculture, fishing and forestry (72.8%)
- Rental, hiring and real estate services (50.9%)
- Administrative and support services (48.9%).

The most prominent sectors which contracted over this timeframe were:

- Healthcare and social assistance (-23.2%)
- Public administration and safety (-22.3%)
- Professional, scientific and technical services (-9.2%)
- Arts and recreation services (-8.2%)
- Information media and telecommunications (2.7%).

The key local sectors (in terms of contribution to Gross Regional Product) in 2015-16 were linked to the resources sector, with transport, postal and warehousing, mining and construction together forming more than 40% of local economic production. Manufacturing is also a key sector. Local businesses tend to be small businesses which are non-employing (64.4% of local businesses) and with turnover of less than $50,000 (23.4%) (ABS, 2016c). Key industries (in terms of business numbers) in 2015 were construction, professional, scientific and technical services and transport postal and warehousing which together formed 46.3% of all businesses.

When compared to Western Australia, Kalamunda has strengths in the areas of Transport, Postal and Warehousing (+16% points), Manufacturing (+3% points) and Construction (+2% points).

The City's Economic Development Strategy identifies expansion opportunities in tourism, health and aged care services and specialist agriculture.

Table 3.1: City of Kalamunda – Industry Output, 2015/16

Industry Sector	Output ($m)	Kalamunda % of Total	Change from 2009-10 to 2015-16	Western Australia % of Total
Agriculture, fishing and forestry	16.8	1%	73%	3%
Mining	243.3	11%	5%	26%
Manufacturing	206.7	9%	3%	6%
Electricity, gas, water and waste services	61.8	3%	45%	3%
Construction	370.5	16%	38%	15%
Wholesale trade	83.6	4%	10%	3%
Retail trade	118.0	5%	14%	4%
Accommodation and food services	44.7	2%	21%	2%
Transport, postal and warehousing	497.5	22%	26%	6%
Information media and telecommunications	15.3	1%	3%	2%
Financial and insurance services	47.8	2%	45%	5%
Rental, hiring and real estate services	64.5	3%	51%	2%
Professional, scientific and technical services	80.4	4%	-9%	6%
Administrative and support services	64.4	3%	49%	4%
Public administration and safety	44.2	2%	-22%	4%
Education and training	119.2	5%	169%	4%
Healthcare and social assistance	120.2	5%	-23%	6%
Arts and recreation services	9.0	0%	-8%	1%
Other services	45.3	2%	124%	2%
Ownership of dwellings	239.4			
Gross Value Add	2,492.7			
Taxes Less Subsidies	117.9			
Gross Regional Product	2,610.6			

3.2 Employment

Table 3.2 shows the jobs in Kalamunda by industry sector in 2011 and 2016.

Table 3.2: City of Kalamunda – Jobs Profile, 2011-2016

	2011		2016			
	Jobs	% total	Jobs	% total	Change	% change 2011 - 2016
Agriculture, Forestry and Fishing	232	1.8%	265	1.8%	33	14%
Mining	291	2.2%	256	1.8%	-35	-12%
Manufacturing	1,641	12.5%	1,072	7.4%	-569	-35%
Electricity, Gas, Water and Waste Services	147	1.1%	170	1.2%	23	16%
Construction	1,134	8.6%	1,281	8.8%	147	13%
Wholesale Trade	493	3.7%	400	2.8%	-93	-19%
Retail Trade	1,530	11.6%	1,408	9.7%	-122	-8%
Accommodation and Food Services	719	5.5%	1,068	7.4%	349	49%
Transport, Postal and Warehousing	1,977	15.0%	2,057	14.2%	80	4%
Information Media and Telecommunications	55	0.4%	77	0.5%	22	40%
Financial and Insurance Services	141	1.1%	298	2.1%	157	111%
Rental, Hiring and Real Estate Services	252	1.9%	293	2.0%	41	16%
Professional, Scientific and Technical Services	533	4.1%	510	3.5%	-23	-4%
Administrative and Support Services	291	2.2%	390	2.7%	99	34%
Public Administration and Safety	426	3.2%	444	3.1%	18	4%
Education and Training	1,479	11.2%	1,771	12.2%	292	20%
Health Care and Social Assistance	992	7.5%	1,183	8.2%	191	19%
Arts and Recreation Services	118	0.9%	156	1.1%	38	32%
Other Services	571	4.3%	694	4.8%	123	22%
Inadequately described	121	0.9%	564	3.9%	443	366%
Not stated	8	0.1%	139	1.0%	131	1638%
Total	13,151	100.0%	14,480	100.0%	1329	10%

Source: ABS Census 2011, 2016 (Employment, Industry Sector by Place of Work)

There was a total of 14,480 persons working in Kalamunda in 2016 (by place of work). The industries which provided the most jobs in Kalamunda in 2011 were:

- Transport, Postal and Warehousing (14.2% of total)
- Education and Training (12.2%).
- Retail Trade (9.7%)
- Construction (8.8%)
- Manufacturing (7.4%)

In comparison, in 2016 Western Australia employed 4.6% in Transport, Postal and Warehousing; 8.7% in Education and Training; and 9.5% in Retail Trade.

The major differences between the jobs held by local workers of the City of Kalamunda and Western Australia were:

- A larger percentage of workers employed in Transport, Postal and Warehousing (14.2% compared to 4.6%)
- A larger percentage of workers employed in Education and Training (12.2% compared to 8.7%)
- A smaller percentage of workers employed in Mining (1.8% compared to 6.6%)
- A smaller percentage of workers employed in Health Care and Social Assistance (8.2% compared to 11.7%)
- A smaller percentage of workers employed in Professional, Scientific and Technical Services (3.5% compared to 6.4%)

Between 2011 and 2016, total employment in Kalamunda increased by 10%. Industries which posted strong growth outcomes over the period between 2011 and 2016 included:

- Financial and Insurance Services (+157 jobs; +111% on 2011)
- Accommodation and Food Services (+349 jobs; +49%).
- Information Media and Telecommunications (+22 jobs; +40%).
- Administrative and Support Services (+99 jobs; +34%).
- Education and Training (+292 jobs; +20%).
- Health Care and Social Assistance (+191 jobs; +19%).

The main industries which showed a contraction of employment were:

- Manufacturing (- 569 jobs; - 35% on 2011)
- Wholesale Trade (- 93 jobs; - 19% on 2011)
- Mining (- 35 jobs; - 12% on 2011)
- Retail Trade (- 122 jobs; - 8% on 2011)

More than of 27,250 residents of Kalamunda were working in 2016. The industries in which the most Kalamunda residents worked in 2016 were:

- Health Care and Social Assistance (10.4% of employed residents)
- Construction (10.3%)
- Retail Trade (9.2%)
- Education and Training (8.7%).
- Transport, Postal and Warehousing (8.2%)
- Manufacturing (6.1%)

- Public Administration and Safety (5.9%)
- Mining (5.7%)

Workers living in Kalamunda are more likely than the Greater Perth average to work in the transport, postal and warehousing, manufacturing and wholesale trade sectors and much less likely to work in the professional, scientific and technical services, health care and social assistance and accommodation and food services sectors.

3.3 Employment Locations – Current Overall

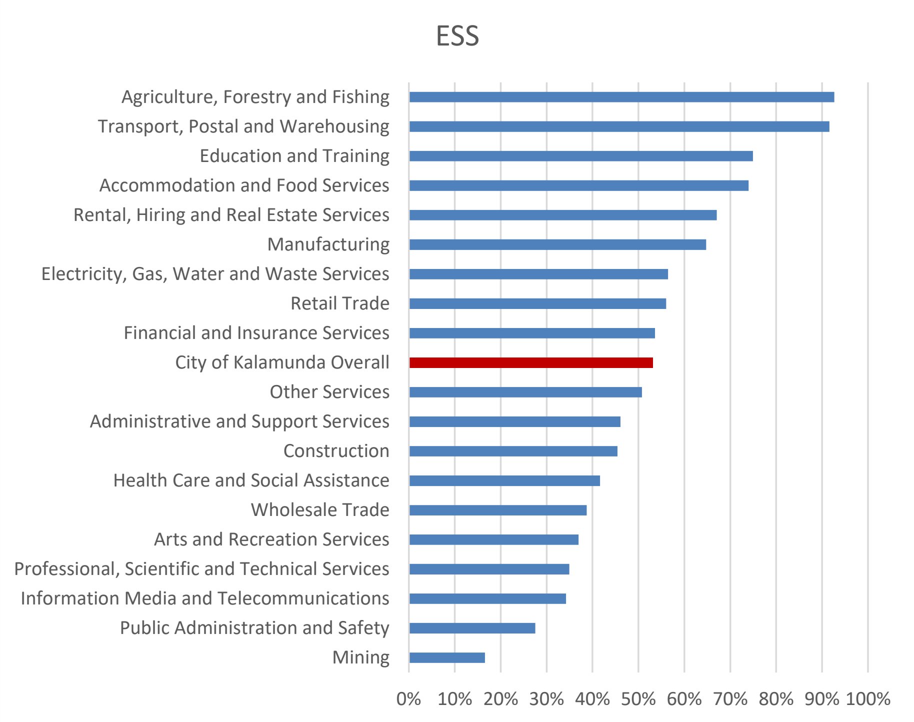
Kalamunda has a relatively low unemployment rate, compared to Western Australia. In the June Quarter of 2016 the unemployment rate was 4.2% (Department of Employment, 2016).

Employment self-sufficiency is defined here as the ratio of jobs in an area compared with the size of the resident workforce in that area. Kalamunda has a relatively low rate of employment self-sufficiency (53%)[7]. Only the Agriculture Forestry and Fishing, Transport Postal and Warehousing, Education and Training and Accommodation and Food Services sectors have employment self-sufficiency rates at over 70%. However, even though the City has low employment self-sufficiency, a high proportion of the resident workforce work in the adjacent municipalities of Belmont and Swan, which have substantial industrial estates and includes the Perth airport employment complex.

Employment self-containment is defined here as the proportion of resident workers who work locally. As shown in the Table 3.3, 25% of Kalamunda resident workers work in Kalamunda. This shows that the majority of City resident workers travel outside of the City for employment. The employment self-containment ratio can increase if the employment self-sufficiency ratios increase. This requires local jobs provision to exceed the rate of workforce increase.

[7] Bases on raw Census counts.

Figure 3.1: City of Kalamunda – Employment Self-Sufficiency by Industry, 2016



Source: ABS Census 2016 (Employment, Industry Sector by Place of Work and Place of Usual Residence)

Data from the 2016 Census shows that 25% of the resident workforce works in the Kalamunda LGA, followed by Perth inner areas (the LGAs of Perth, Vincent, Nedlands, Subiaco and South Perth) (17%), other Perth (outer) metro LGAs (11%), Canning (10%), Swan (9%) and Belmont (9%). The biggest growth in employment location between 2011 and 2016 has been to inner Perth LGAs (an additional 786 Kalamunda residents working there), other Perth (outer) metro LGAs (an additional 763 Kalamunda residents working there), Kalamunda (an additional 296 Kalamunda residents working there) and Gosnells (an additional 155 Kalamunda residents working there)

That is, the largest growth in employment for Kalamunda residents is some distance away.

Table 3.3: Place of work for Kalamunda Residents (2011 and 2016)

	2011		2016		Change 2011 to 2016
Kalamunda	6,445	24%	6,741	25%	296
Perth Inner (Perth, Vincent, Nedlands, Subiaco, South Perth)	3,666	14%	4,452	17%	786
Adjacent / nearby					
Canning	2,620	10%	2,708	10%	88
Swan	2,483	9%	2,516	9%	33
Belmont (C)	2,221	8%	2,326	9%	105
Victoria Park (T)	1,016	4%	1,054	4%	38
Gosnells (C)	951	4%	1,106	4%	155
Bayswater (C)	560	2%	590	2%	30
Mundaring (S)	447	2%	448	2%	1
Armadale (C)	332	1%	433	2%	101
Bassendean (T)	291	1%	252	1%	(39)
Other Perth metro	2,119	8%	2,882	11%	763
Outside Perth Metro	765	3%	1,109	4%	344

Source: ABS Census, 2011, 2016

3.4 Employment Locations – Kalamunda

Table 3.4 shows the main employment locations in employment complexes[8] within the City of Kalamunda, based on the 2016 WAPC Land Use and Employment Survey[9].

It shows that of all employment in employment complexes, around 41% is in commercial centres, 39% is in industrial complexes and around 20% is in public purpose and recreation complexes.

[8] Note this data excludes, for example, work-from home workers, mobile workers (e.g. construction and mobile care workers) and most agriculture and farm-workers.

[9] Note that there is not precise correspondence between employment estimates from this database and those reported in Section 3.2, which are based on 2016 Census figures. Nevertheless, the orders-of-magnitude are sufficiently similar to allow general conclusions to be reached.

Table 3.4: Employment Complexes, Kalamunda, 2016

	TOTAL EMPLOYMENT		TOTAL	FTE (est)
	Full time	Part time		
Commercial Centres				
Kalamunda Town Centre	618	949	1,567	1,093
Forrestfield Forum (Hawaiian Forrestfield)	213	620	833	523
High Wycombe Village	107	261	368	238
Wittenoom Rd	192	130	322	257
Other centres (No = 19)	504	716	1,220	862
Total Commercial Centres	**1,634**	**2,676**	**4,310**	**2,972**
Industrial Centres				-
Welshpool-E	784	97	881	833
Forrestfield	2,403	249	2,652	2,528
Kalamunda	286	46	332	309
Hazelmere S	190	4	194	192
Total Industrial Centres	**3,663**	**396**	**4,059**	**3,861**
Public Purpose and Recreation Complexes				
Forrestfield High	74	19	93	84
Kalamunda High	70	46	116	93
Lesmurdie High	94	20	114	104
Kalamunda public purposes	699	815	1,514	1,107
Primary Education / recreation complexes	144	133	277	211
Total Public Purpose / Recreation Complexes	**1,081**	**1,033**	**2,114**	**1,598**
Total	**6,378**	**4,105**	**10,483**	**8,431**

Source: WAPC Land Use and Employment Survey 2016

3.5 Local and Adjacent Employment Locations – Industrial

The resident workforce contains a large number of job categories found in industrial estates. Adjacent LGAs include substantial industrial estates and Perth Airport. Together these account for 70,000 jobs. Industrial estates in Kalamunda account for only 6% of the total industrial employment in the wider area.

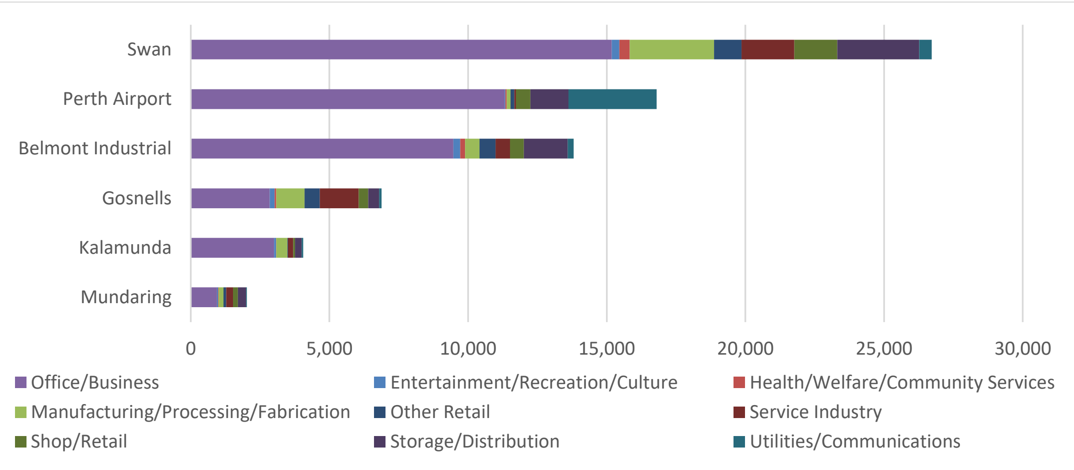
Table 3.5: Employment in Industrial Estates, Kalamunda and Adjacent LGAs, 2016

	Entertainment, Recreation, Culture	Health, Welfare, Community Services	Manufacturing, Processing, Fabrication	Office - Business	Other Retail	Service Industry	Shop - Retail	Storage / Distr.	Utilities - Comms	Total
Mundaring	34	17	176	949	107	243	170	302	30	**2,028**
Kalamunda	72	3	407	3,004	21	183	72	233	64	**4,059**
Gosnells	179	63	1,016	2,845	551	1,407	338	397	83	**6,896**
Belmont	245	179	517	9,471	584	512	504	1,577	215	**13,804**
Perth Airport	32	48	130	11,317	146	57	514	1,381	3,170	**16,795**
Swan	277	378	3,041	15,177	992	1,898	1,550	2,951	456	**26,733**
Totals	**839**	**688**	**5,287**	**42,763**	**2,401**	**4,300**	**3,148**	**6,841**	**4,018**	**70,315**

Source: WAPC Land Use and Employment Survey 2016

Most industrial employment is in Belmont (including Perth Airport) and Swan.

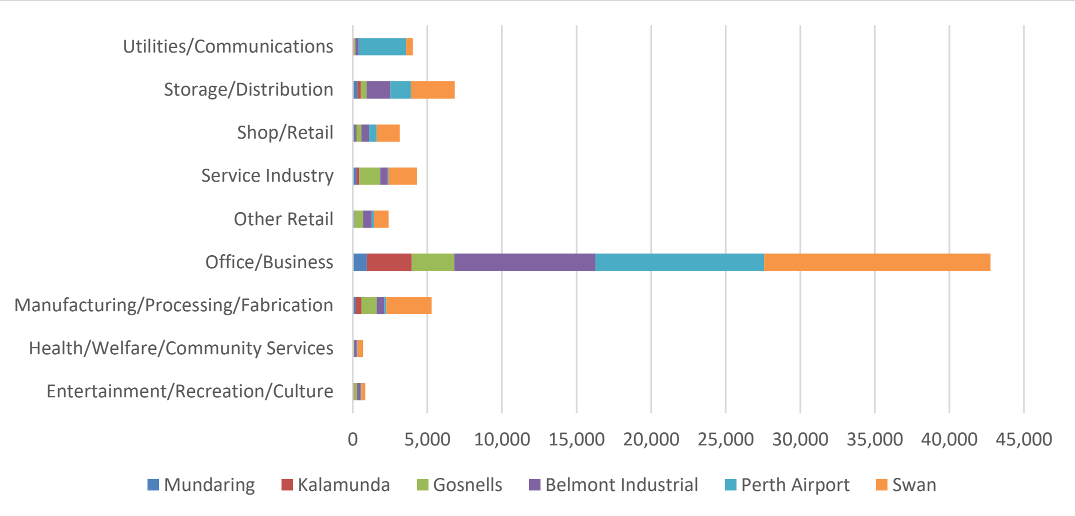
Figure 3.2: Employment (Location) in Industrial Estates, Kalamunda and Adjacent LGAs, 2016



Source: WAPC Land Use and Employment Survey 2016

Office / business uses is the highest employment category, by far, as shown in Figure 3.3.

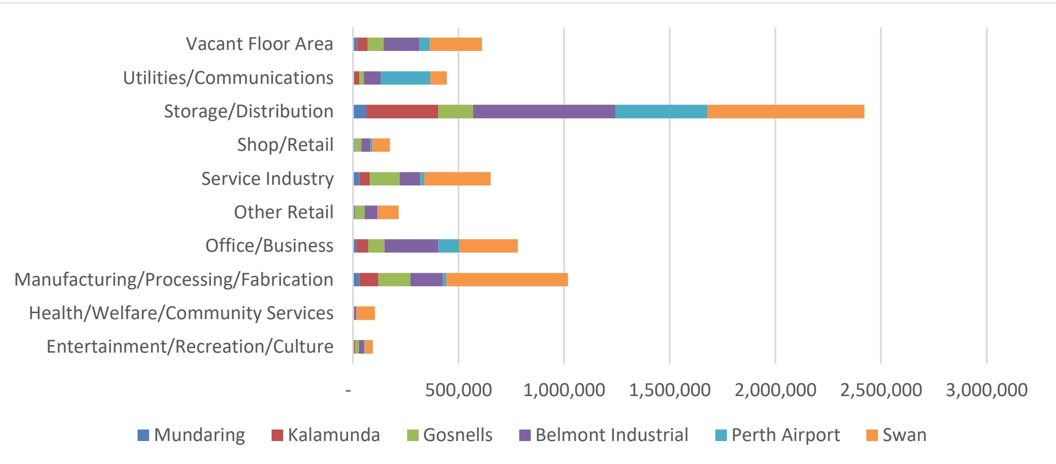
Figure 3.3: Employment (PLUC code) in Industrial Estates, Kalamunda and Adjacent LGAs, 2016



Source: WAPC Land Use and Employment Survey 2016

However, the greatest amount of floorspace (and land area) is for storage / distribution purposes as shown in Figure 3.4.

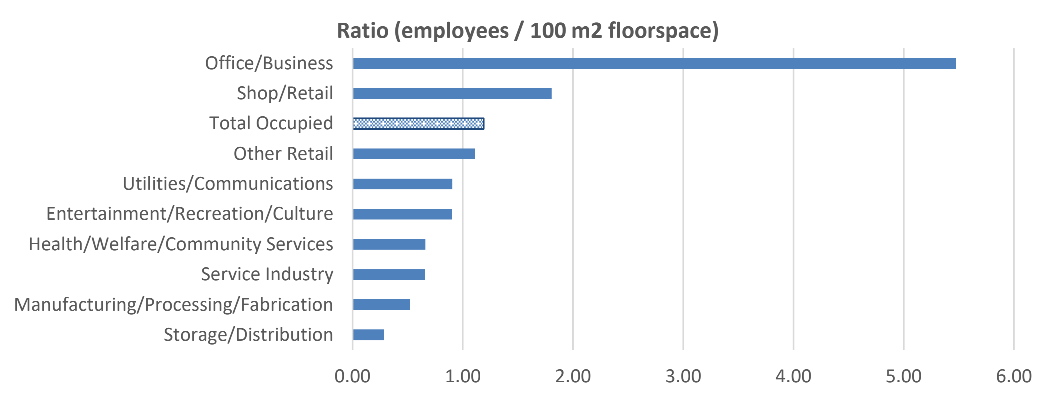
Figure 3.4: Floorspace by PLUC code in Industrial Estates, Kalamunda and Adjacent LGAs, 2016



Source: WAPC Land Use and Employment Survey 2016

This has the lowest employment density as shown in Figure 3.5.

Figure 3.5: Employment Density, Industrial Estates, Kalamunda and Adjacent LGAs, 2016



Source: WAPC Land Use and Employment Survey 2016

The implication is that while freight and logistics operations provide regional value, they are not big employers of labour.

3.6 Local and Adjacent Employment Locations – Commercial Complexes

There are around 35,300 people employed in commercial complexes in the City of Kalamunda and the adjacent LGAs of Swan, Mundaring, Belmont and Gosnells. This is around half the number in industrial estates in the same area, showing the importance of these estates to the overall employment supply. In the main, economic activity in the commercial centres is for local retail and services and its scale, and employment potential, is closely tied to population size. This contrasts with economic activity in industrial complexes, which is much more likely to have an external economic orientation.

The breakdown of employment in commercial complexes in the local region is shown in Table 3.6. It shows the Midland Centre is by far the largest, with around 7,050 employees, followed by Belmont, Ellenbrook, Maddington complexes, Kalamunda Centre and Gosnells.

Table 3.6: Employment in Commercial Centres, Kalamunda and Adjacent LGAs, 2016

	Full time	Part time	Total
Kalamunda			
Kalamunda Town Centre	618	949	1,567
Forrestfield (Hawaiian Forrestfield)	213	620	833
Other complexes	803	1,107	1,910
Total Kalamunda	**1,634**	**2,676**	**4,310**
Belmont			
Belmont Town Centre	769	1,538	2,307
Other complexes	2,683	1,167	3,850
Total Belmont	**3,452**	**2,705**	**6,157**
Gosnells			
Maddington Complex	807	1,128	1,935
Gosnells	630	756	1,386
Other complexes	1,711	2,324	4,035
Total Gosnells	**3,148**	**4,208**	**7,356**
Swan			
Midland Centre	3,818	3,232	7,050
Ellenbrook Centre	891	1,101	1,992
Other complexes	4,078	4,393	8,471
Total Swan	**7,896**	**7,625**	**15,521**
Mundaring			
Mundaring centre	404	551	955
Other complexes	362	656	1,018
Total Mundaring	**766**	**1,207**	**1,973**
Total all areas	**16,896**	**18,421**	**35,317**

Source: WAPC Land Use and Employment Survey 2016

3.7 Employment Locations – Future

3.7.1 Employment Demand:

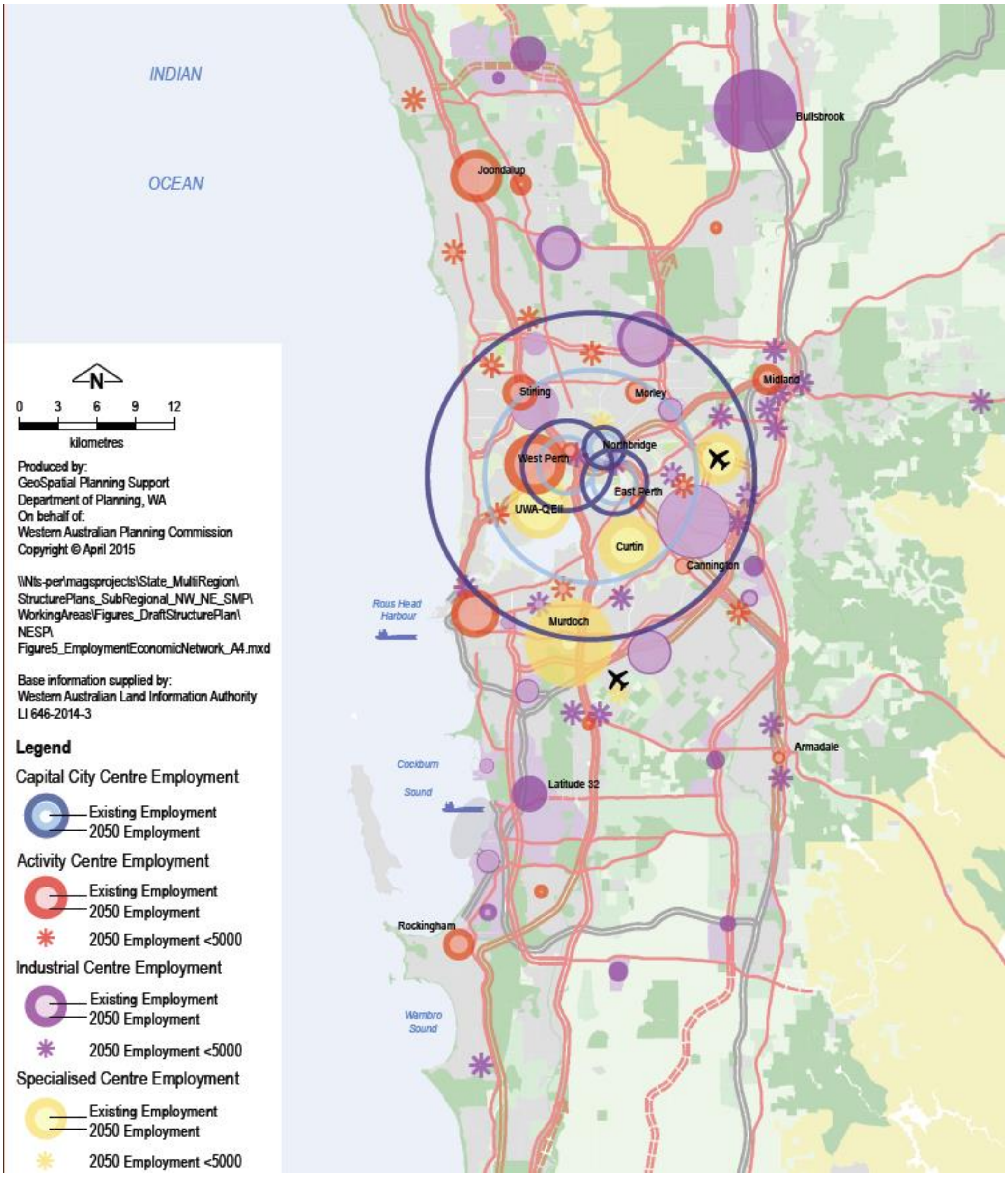
As noted in Section 2.2.1, at current rates of workforce participation there will be an additional 8,500 Kalamunda residents in the workforce by 2036. To maintain the current employment self-sufficiency ratios around 4,500 – 4,800 new jobs will be required in the City and more if employment self-sufficiency is to be increased.

Some will be in commercial centres and public-purpose centres (schools, hospitals, aged care) as they expand to serve local population. Their scale is correlated with population growth. New jobs in these centres and complexes might be expected to account for up to 40% of new jobs. The commercial centres aspect of this is considered in section 4 following.

The projected location of jobs in the Perth metropolitan area to 2050 is provided by the WAPC *Perth & Peel @ 3.5 Million* suite of documents, including the North-East Sub-regional Planning Framework. An extract from it is shown in Figure 3.6. It shows a substantial growth of jobs in the Perth CBD and inner areas, together with some growth in areas easily accessible to Kalamunda residents such as the airport and Murdoch. The trend described in Section 3.3 of an increasing number of Kalamunda residents working in inner Perth LGAs and other Perth (outer) metro LGAs (e.g. at Murdoch) is likely to continue.

Given the skill base and current occupation mix of Kalamunda residents (see Section 2.3), a high proportion of the workforce, in the order of 35% - 40%, will be working in industrial estates. To maintain current levels of self-sufficiency, by 2036 1,500 – 1,900 of these additional jobs would be in industrial estates in the City of Kalamunda. At levels of employment density that might be found in a business park environment, this might be in the order of 70 – 90 ha of land. This is the lower bound of new land required and would be much higher – approximately double - for industrial estates that are primarily oriented to freight and logistics operations, which as a land use has much lower employment densities.

Figure 3.6: Job Locations 2050, Perth Metro (Inner and Middle)



Source: WAPC Perth & Peel @ 3.5 Million 2015

3.7.2 Industrial Land

The last comprehensive analysis of industrial land in the Perth metro area was the published in the WAPC Economic and Employment Lands Strategy: non-heavy industrial (EELS)[10] study completed in 2012. This showed that all industrial estates in the Central Sub-region, including Welshpool and Kewdale are fully developed (with the exception of one small parcel at Canning Vale) and would only grow in employment numbers with further intensification of land use. This is occurring, but at a time that the productivity of industrial land is rapidly increasing, with the introduction of robotics and advanced systems, allowing increased economic activity (in terms of production) but without a fully commensurate increase in employment in industrial estates. Table 3.7 shows changes in employment in selected industrial estates in Kalamunda and adjacent LGAs between 2008 and 2016.

Table 3.7: Employment in Industrial Estates 2008 and 2016

	2008	2016	Change
KALAMUNDA	249	332	83
FORRESTFIELD	2,577	2,652	75
HAZELMERE S	1,287	3,523	2,236
BELMONT	5,762	6,537	775
REDCLIFFE-N	824	894	70
KEWDALE	5,680	6,346	666
HAZELMERE	1,310	4,138	2,828
GUILDFORD	115	54	-61
VIVEASH	531	509	-22
SOUTH GUILDFORD	917	1,770	853
MIDLAND	513	671	158
MIDVALE	1,968	1,802	-166
BECKENHAM	498	751	253
MADDINGTON	5,155	5,370	215
MUNDARING	172	205	33

Source: WAPC Land Use and Employment Survey 2008 and 2016

The data shows that while some established industrial areas have grown, mostly through a process of intensification, and some with previously undeveloped land (e.g. Hazelmere) have expanded strongly, some (e.g. Midvale Guildford and Viveash) have declined in employment, possibly through transition to less employment-intensive uses (e.g. transport and logistics) or to other uses.

For the North-East Sub-region, which includes Kalamunda, the EELS strategy forecast a deficit of 117 ha by 2031. Some of the land identified to fill this deficit is (e.g. at Hazelmere) is now under development.

[10] WAPC, Economic and Employment Lands Strategy: non-heavy industrial, Perth metropolitan and Peel regions April 2012

The EELS identifies several other parcels of land in adjacent LGAs, which in the medium and longer term will make a substantial contribution to industrial land supply. The most prominent of these are:

- The Maddington Kenwick Strategic Employment Area. This is immediately adjacent to the City of Kalamunda in the City of Gosnells and has a total land area across 4 development stages of 492 ha. This might allow for total employment of up to 10,000 over the long term.
- North Ellenbrook. This is to the north of the City of Swan, some distance from the City of Kalamunda. It has a total area of 2,428 ha and might account for up to 25,000 jobs in the very long term

There are thus some quite substantial areas of land identified for industrial development within LGAs adjacent to Kalamunda.

The EELS identified three main parcels of land in the City of Kalamunda for future industrial development:

	Current Zoning		Area (ha)
	MRS	LPS3	
Forrestfield (Stage 1)	Urban	Industrial Development	71
Forrestfield (Stage 2)	Urban	Industrial Development	22
Forrestfield (Stage 3)	Urban	Special Rural	108

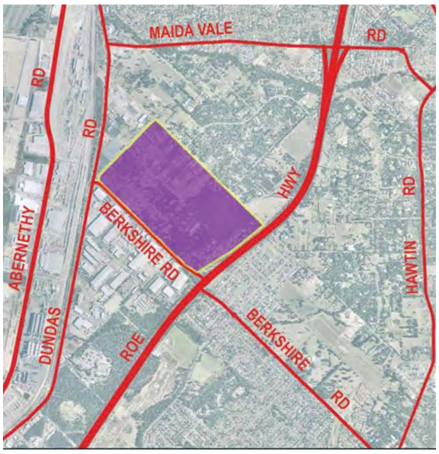
Source EELS 2012

Forrestfield Stage 1 has now been zoned for industrial development and is in the process of developing with new industries and business being established in this precinct. Stages 2 and 3 are currently in the process of being rezoned to facilitate medium-high density urban development in response to the State Governments decision to build a passenger train line to Forrestfield. These stages are now unlikely to feature industrial uses. The current Forrestfield North District Structure Plan includes these areas and reports potential development yields of:

- Potential Total Dwellings: 4,250-5,250
- Potential Total Population: 9,350-11,550
- Potential Employment: 1,500 – 2,000
- Potential Retail Floorspace (m2) 23,000-32,500
- Potential Commercial Floorspace (m2) 229,000-394,500
- Potential Industrial Floorspace (m2) 134,000-141,933

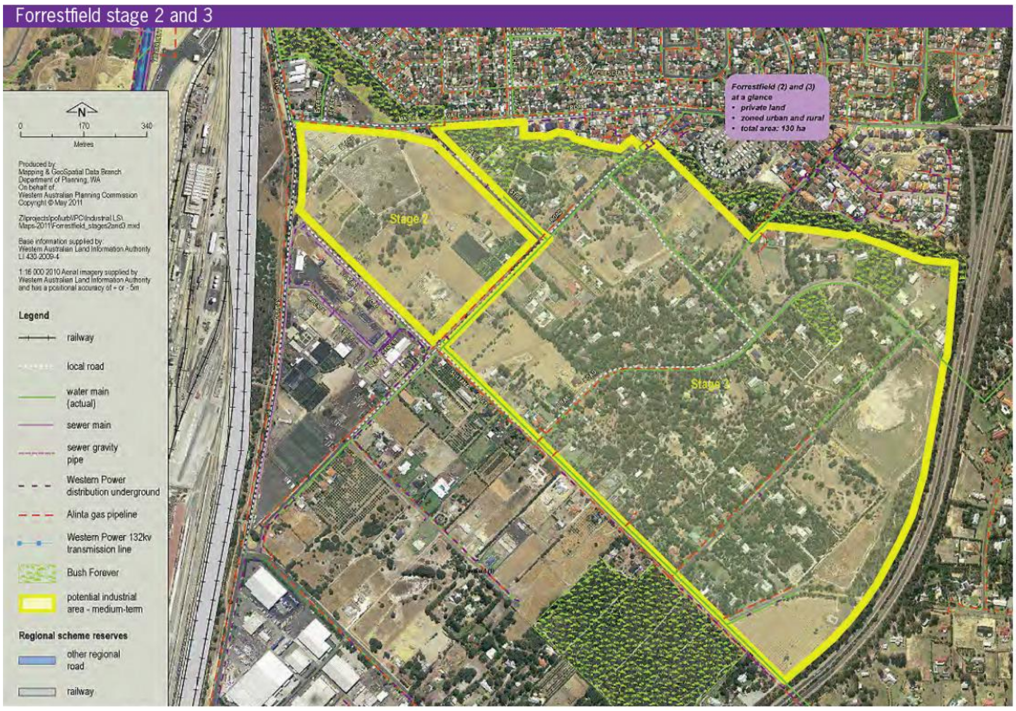
If the potential industrial floorspace were to be realised, this would account for around 1,665 jobs at current overall densities in industrial areas in the region. This would be an important element in maintaining the City's employment self-sufficiency ratios. However, the rezoning of Stages 2 and 3 to better align to precinct to TOD planning principles, mainly including mixed use, retail and medium-high density residential development, means that this quantity of industrial employment is unlikely to be reached. The potential commercial floorspace could account for around 9,000 jobs and this could possibly increase with rezoning. A portion of these jobs would be population-related and a proportion would likely be in externally-oriented economic activity.

Figure 3.7: Forrestfield Stage 1



Source EELS 2012

Figure 3.8: Forrestfield Stages 2 and 3



Source EELS 2012

Given that much of the previously identified long-term supply of industrial land in Kalamunda has now been rezoned and branded for alternative development outcomes (i.e. urban), there is a case for investigating the suitability for industrial development in alterative locations.

There are several reasons why areas should be investigating for future industrial use:

- **The need to increase local employment**. The employment self-sufficiency ratio for Kalamunda is low. The resident workforce is expected to continue to grow from 27,250 in 2016 to 35,800 in 2036 and possibly to 48,500 by 2050. Unless local employment is provided increasing numbers of Kalamunda residents will be travelling longer distances outside of the City to work. Around 35% - 40% of new jobs in Kalamunda will be population-related, providing local retail, education, health and commercial services. The Forrestfield North development will provide the environment for a number of externally-oriented economic activity, but more will be required to achieve and maintain good levels of employment self-sufficiency in the City over the longer term. Table 3.8 shows the additional jobs in Kalamunda required from 2016 to achieve various levels of employment self-sufficiency. For example, if the level were to increase to 80%, then an additional 14,152 jobs in Kalamunda would be required by 2036 and an additional 24,332 jobs would be required by 2050. Of these around 35% - 40%, say 9,000 by 2050, would be population-related, the remainder wold be externally-oriented. The two main locations where these are most likely to be are an expanded Forrestfield North precinct and in industrial estates.

  Table 3.8: Additional Kalamunda Jobs Required from 2016 to Achieve Employment Self Sufficiency Levels by Year

Employment Self Sufficiency	2016	2036	2050
53% (Current level)	-	4,537	11,299
60%	1,871	6,994	14,629
80%	7,321	14,152	24,332
100%	12,771	21,310	34,035

  The 3,400 jobs that could be located in these two land parcels are thus a very important element of a strategy to increase local employment and would be essential if good levels of employment self-sufficiency were to be achieved in the City.

- **There is a general regional need for additional areas of well-located industrial land.** Older inner area industrial locations such as Osborne Park are in a stage of transition from their former industrial uses to commercial and office uses. This puts pressure on next-level industrial land in inner and middle metropolitan locations. Base planning and demand analysis for industrial land in Perth and Peel was completed 9 years ago[11] and the subsequent key WAPC policy document,

[11] Syme Marmion & Co, Industrial Land Needs Study, LandCorp and DPI, 2008

the Economic and Employment Lands Strategy[12] (EELS) planned in detail only to 2031. No detail on future employment land demand or supply for future years is contained in the *Perth & Peel @ 3.5 Million* suite of documents and while some new land is identified in the region for future general business and industrial employment beyond 2031, some, for example the North Ellenbrook land may not be available until well beyond the planning timeframe and is not well located to fill the requirement for well -located general industrial land.

[12] WAPC, Economic and Employment Lands Strategy: non-heavy industrial, Perth metropolitan and Peel regions, April 2012

4. Retail Analysis

4.1 Preamble

A retail gravity model has been tailored for the City to provide an indication of appropriate retail scale and distribution over time. In brief, the retail gravity model informing the investigations undertaken indicates the extent of additional Planning Land Use Code 5 (PLUC 5) shop / retail floor space able to be established throughout the City up to the year 2036, based on an assessment of viability and demand.

The approach taken in planning for future retail growth involves limiting the potential for adverse trade impacts on competing activity centres, facilitating improvements where possible, and ensuring strategic intentions are achieved in the distribution of development potential.

The analysis undertaken during this project involves testing retail potential for longer timeframes and any alternative development outcomes informed by current strategic planning being undertaken by the City.

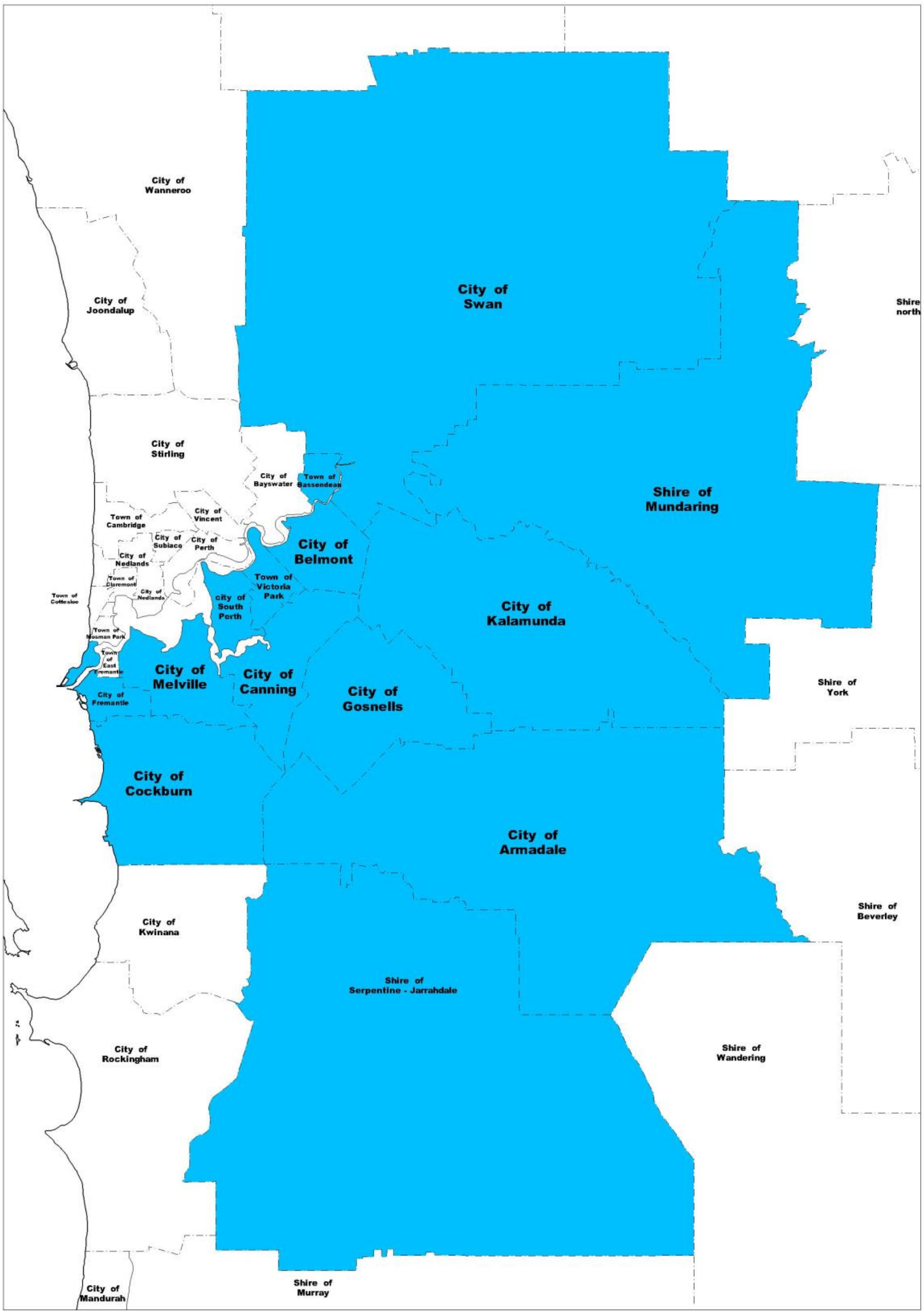
4.2 Study Area

The study area has an extent necessary to accommodate the trade areas for other significant competing higher order centres neighbouring the Kalamunda LGA, including the Cannington Strategic Metropolitan Centre (SMC), Belmont Secondary Activity Centre (SAC), Cockburn SAC, Midland SMC, Armadale SMC and Maddington SAC. The full range of activity centres in surrounding LGA areas were also accommodated. Other outlying centres modelled include the Perth CBD and Garden City Booragoon SAC and Cockburn SAC.

The modelled study area includes that portion of the Perth metropolitan area south of the Swan River, including the LGA areas of Armadale, Belmont, Bassendean Canning, Cockburn, Gosnells, Kalamunda, Fremantle, Melville, Gosnells, Serpentine Jarrahdale, South Perth, Swan and Victoria Park. **Figure 4.1**, depicts the study area utilised as basis for the modelling undertaken.

The Cannington SMC, Midland SMC and Belmont SAC are the main competition to Kalamunda's two district centres. The main trade areas of these centres are roughly formed by the LGAs of Swan, Mundaring, Kalamunda, Belmont, Victoria Park and Canning. The LGAs of Bayswater, Bassendean, South Perth and Gosnells make significant contributions to these three centres and are also in the main trade areas of Morley SMC, Maddington SAC, Booragoon SAC and Cockburn SAC. To ensure all major competition is covered, the study area included these LGAs.

Figure 4.1: Study Area



4.3 Retail Model

4.3.1 Description

The retail gravity model forecasts customer choice for different retail centres, resulting from the distribution of shopping floor space and the nature of the transport network.

The gravity model assumes that shoppers are more likely to use shopping centres which are located closer to their homes, rather than centres that are further away. However, the model also accommodates the potential for shoppers to travel to other competing centres further away through bypassing smaller shopping centres to visit larger centres. The model determines a trade area for each activity centre simultaneously, based on the probability of visitation to each centre from each origin zone in the study area. That is, the model accommodates the overlapping of catchments for all centres.

$$S_{ij} = Oi \frac{A_j^a \,(exp^{-bTij})}{\sum_j A_j^a \,(exp^{-bTij})}$$

The modelling involves use of the above formula, where:

- *Sij* = the proportion of population or $ household expenditure attracted from origin zone *i* to centre *j*;
- *'Oi'* = population or household expenditure in zone *i*;
- *'A'* = is a measure of centre *j* size;
- *'T'* = travel time from each origin zone to each activity centre; and
- *'b'* = the gravity parameter;
- A separate attraction factor 'a' is applied to an activity centres' floor space 'A', to calibrate against reported turnover for shopping centres, and retail averages.

In summary, the model estimates the probability of visitation and level of expenditure at each activity centre, based on:

- the size of each activity centre.
- the travel time to all competing activity centres from all origin zones modelled; and
- population / aggregate household expenditure.

The gravity model assumes that the probability of visitation from any given *origin zone* to each activity centre is proportional to a product of the size of centres, and inversely proportional to travel time to each competing activity centre.

4.3.2 Inputs

The base year for modelling is 2016 and forecasts are made for 2026 and 2036. Consistent with the requirements of SPP 4.2, inputs into the retail modelling included:

Household Expenditure

Household expenditure for the Western Australian PLUC 5 category of goods was prepared by MDS Market Data Systems. The micro-simulation model run by MDS Market Data Systems is based on the ABS Household Expenditure Survey (HES) and census population data; updated using data informing spending behaviour and Australian National Accounts and Taxation Statistics. Various socio-economic characteristics evident within separate census areas are taken into consideration to derive a separate expenditure profile for each ABS Census SA1 area.

Existing PLUC 5 Shop Retail Floorspace

The Department of Planning, Lands and Heritage (DPLH) Land Use and Employment Survey (LUES) (2015/2017) was reviewed to determine existing PLUC 5 shop/retail floor space for the base modelling year (2016).

Data Source: WAPC Land Use and Employment Survey 2015/2017 (Floorspace and WASLUC by Development Areas). Data supplied in September 2017.

Travel Time Measurements

Travel time measurements from each origin zone (ROM Zones) to each retail location in the study area was sought from online mapping sources.

Future Shop - Retail Floorspace

Activity centre strategies and recently approved retail developments in the Study Area were incorporated into the assessment, to accommodate forecast retail growth. This included the City of Swan Draft Activity Centres Strategy 2017, City of Armadale Activity Centres Strategy 2012, Shire of Mundaring Draft Activity Centres Strategy 2017, City of Gosnells Activity Centres Strategy 2012, City of Cockburn Activity Centres Strategy 2014 and the approved expansions to Westfield Carousel, Belmont Forum and Garden City Booragoon.

The Maddington SAC is identified in the City of Gosnells Activity Centres Strategy as having potential to expand to 60,000m² by 2031. Two matters appear to make this outcome unlikely, the first being the scale of recent approved expansions to the Cannington SMC, and secondly the expected level of growth at the Armadale SMC. Recent work done revealed potential for approximately 100,000m² of shop/retail floorspace in the Armadale SMC by 2036.

Population

The spatial basis for the model's population forecasts are small traffic analysis zones (ROM Zones) which provide a fine-grained basis for forecasting the pattern of visitation to all competing activity centres by residents of the Study Area. Population base data and forecasts are the estimated resident population for ROM Zones in the Study Area in 2016, 2026 and 2036.

Population data sources utilised to inform the modelling included the following:

- ABS Census 2016
- ID Forecast population projections for the years 2026 and 2036.

Suburb population totals were depicted graphically in Section 2 of this report. MGA Town Planners have reallocated the ID forecasts into the smaller spatial units (ROM Zones) that function as origin zones within the model.

Forecast ID projections (2026 and 2036) were utilised for the surrounding LGA areas of Armadale, Swan, Gosnells and Mundaring. The DPLH forecasts (2026 and 2031) were applied to all other LGA areas.

Total population within each ROM Zone contained within or partially within the City of Kalamunda LGA area as at 2016, 2026, 2031 and 2036 is shown in Table 4.1 below.

Figure 4.2 below shows the distribution of population throughout the City of Kalamunda local government area as at 2036, by origin zone (ROM Zone).

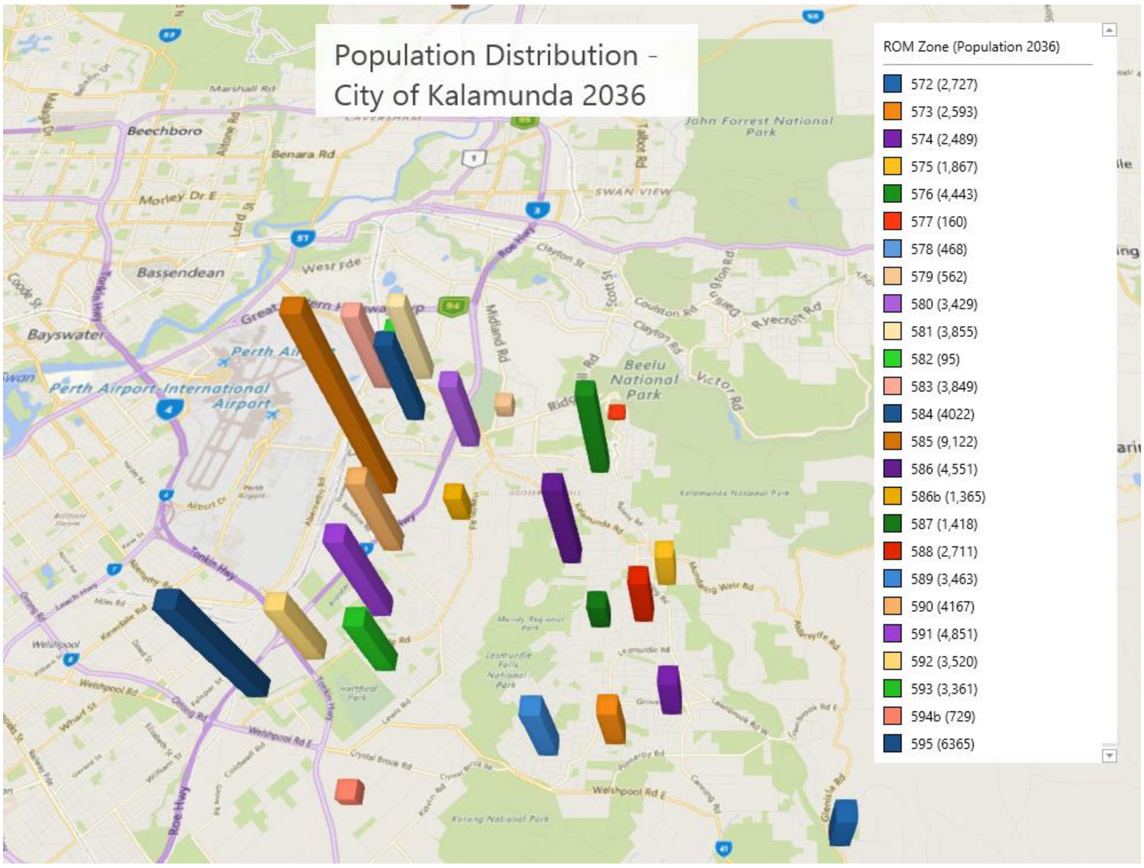
It is evident that the population distribution will be weighted to the western side of the City. This has implications for the distribution of retail potential, as observed in subsequent sections where the results of the modelling undertaken is reviewed.

Table 4.1 – Estimated Resident Population by Year and ROM Zone – Kalamunda LGA

YEAR & SOURCE	2016	2026	2026	2031	2036
ROM ZONE	(ABS)	WAPC	(Forecast ID modified to ROM)	(WAPC)	(Forecast ID modified to ROM)
572	2203	2634	2458	3489	2727
573	2466	2123	2561	2192	2593
574	2408	2307	2470	2414	2489
575	1644	2264	1798	2640	1867
576	4346	4861	4393	6064	4443
577	6	129	90	172	160
578	330	0	393	0	468
579	479	439	517	400	562
580	2352	3142	2673	3187	3429
581	3137	3719	3830	3774	3855
582	78	0	88	0	95
583	3251	3449	3519	3477	3849
584	3359	3492	3709	3823	4022
585	3047	3258	4969	3240	9122

YEAR & SOURCE ROM ZONE	2016 (ABS)	2026 WAPC	2026 (Forecast ID modified to ROM)	2031 (WAPC)	2036 (Forecast ID modified to ROM)
586	3356	4608	4058	4942	4551
586 (b)	730	1250	989	1550	1365
587	1305	1410	1386	1520	1418
588	2575	2219	2674	2258	2711
589	3328	2872	3450	3833	3463
590	1949	1891	3825	1875	4167
591	4104	3848	4763	3735	4851
592	2368	2521	2751	2424	3520
593	3193	3262	3325	3448	3361
594 (b)	668	700	742	800	752
595	4790	4795	6107	4470	6339
Total	**57,472**	**61,193**	**67,535**	**65,729**	**76,179**

Figure 4.2: Population Distribution 2036 by ROM Zone



4.4 Model Calibration and Scenarios

Calibration of the model involves utilising turnover according to values reported by shopping centre owners or metropolitan benchmarks. Publications utilised included *Shopping Centre News*, and *Urbis Retail Averages.*

The outputs shown in the following section provide outputs for the years 2026 and 2036.

In the 2026 model it is assumed that a centre having 5,000m2 nla, will have established at the Forrestfield North DAC.

The 2036 outputs define the growth potential of a selected range of activity centres in the Kalamunda LGA area as at 2036.

By 2036 it is assumed that there will have been additions to Forrestfield DAC, Kalamunda DAC, and that new neighbourhood activity centres will have been established at Maida Vale South and Wattle Grove South.

4.5 Model Outputs

The data tables described below provides a list of existing activity centres at the calibration year (2016) showing floorspace, estimated turnover and estimated turnover per m².

This is followed by a comparison of forecasts of floorspace, turnover and percentage change among and existing and future activity centres as at 2026 and 2036. Dollar values remain in constant 2015/2016 values at 2026 and 2036.

The name and location of each activity in the Kalamunda LGA area is visible on the draft strategy map attached at **Appendix 1**.

Table 4.2: Turnover of Existing Activity Centres at Calibration Year (2016)

Map Reference 0 - Site has been identified in LUES however is not considered significant enough to be considered an Activity Centre as part of the Strategy.

Map Reference	LGA	Centre Name	PLUC 5 Floorspace NLA 2015/17 (m²)	Turnover 2015/16 ($/M)	Turnover 2015/16 ($/m²)
0	Kalamunda	Walnut Road LAC	400	$1,093,910	$2,735
0	Kalamunda	Carmel Road LAC	632	$3,906,270	$6,181
0	Kalamunda	Union Road LAC	200	$971,965	$4,860
1	Kalamunda	Edinburgh Road NAC	1628	$11,211,716	$6,887
2	Kalamunda	Forrestfield District Centre	12956	$101,295,153	$7,818
3	Kalamunda	Forrestfield LAC	260	$1,428,595	$5,495
0	Kalamunda	Hartfield Park LAC	200	$1,220,510	$6,103
4	Kalamunda	Hawtin Road North LAC	1400	$8,225,189	$5,875
5	Kalamunda	Hawtin Road South LAC	60	$313,895	$5,232
6	Kalamunda	Holmes Road LAC	530	$2,592,070	$4,891
7	Kalamunda	Gooseberry Hill LAC	895	$4,544,043	$5,077
8	Kalamunda	Forrestfield North District Centre	-	-	-
9	Kalamunda	High Wycombe East NAC	5809	$41,414,811	$7,129
10	Kalamunda	High Wycombe LAC West	683	$4,569,070	$6,690
11	Kalamunda	High Wycombe West (Wittenoom Rd) NAC	3830	$26,854,311	$7,012
12	Kalamunda	Newburn Road LAC	985	$6,551,768	$6,652
0	Kalamunda	Sorensen Road LAC	90	$410,900	$4,566
13	Kalamunda	Kalamunda District Centre	14994	$113,997,010	$7,603
14	Kalamunda	Kalamunda Glades NAC	3760	$27,205,470	$7,235
15	Kalamunda	Lesmurdie LAC	700	$4,798,585	$6,855
16	Kalamunda	Sanderson Road NAC	2197	$14,898,588	$6,781
0	Kalamunda	Seaton Park LAC	-	-	-
17	Kalamunda	High Wycombe LAC East	1135	$7,879,806	$6,943
18	Kalamunda	Maida Vale LAC	580	$3,651,817	$6,296
19	Kalamunda	Maida Vale NAC	-	-	-
20	Kalamunda	Maida Vale Road LAC	-	-	-
21	Kalamunda	Maida Vale South NAC	-	-	-
22	Kalamunda	Pickering Brook LAC	285	$1,016,557	$3,567
0	Kalamunda	Walliston Industrial	160	$620,265	$3,877
23	Kalamunda	Walliston LAC	160	$909,794	$5,686
24	Kalamunda	Lewis Road LAC	1200	$8,229,780	$6,858
25	Kalamunda	Wattle Grove North NAC	3712	$26,776,449	$7,213
26	Kalamunda	Wattle Grove South NAC	-	-	-
27	Kalamunda	Welshpool Road East LAC	375	$2,422,558	$6,460
28	Kalamunda	Hills Rural NAC	-	-	-

Table 4.3: 2026 Model Outputs

Map Reference 0 - Site has been identified in LUES however is not considered significant enough to be considered an Activity Centre as part of the Strategy.

Map Reference	LGA	Centre Name	PLUC 5 Floorspace 2015/17 (m²)	Turnover 2016 (2016 $ / m²)	PLUC 5 Floorspace 2026 (m²)	Turnover 2026 (2016$ / m²)	% Change
0	Kalamunda	Walnut Road LAC	400	$2,735	400	$2,646	-3.3%
0	Kalamunda	Carmel Road LAC	632	$6,181	632	$5,861	-5.2%
0	Kalamunda	Union Road LAC	200	$4,860	200	$4,703	-3.2%
1	Kalamunda	Edinburgh Road NAC	1628	$6,887	1628	$6,403	-7.0%
2	Kalamunda	Forrestfield District Centre	12956	$7,818	12956	$7,345	-6.1%
3	Kalamunda	Forrestfield LAC	260	$5,495	260	$5,120	-6.8%
0	Kalamunda	Hartfield Park LAC	200	$6,103	200	$5,706	-6.5%
4	Kalamunda	Hawtin Road North LAC	1400	$5,875	1400	$5,593	-4.8%
5	Kalamunda	Hawtin Road South LAC	60	$5,232	60	$4,937	-5.6%
6	Kalamunda	Holmes Road LAC	530	$4,891	530	$4,642	-5.1%
7	Kalamunda	Gooseberry Hill LAC	895	$5,077	895	$5,245	3.3%
8	Kalamunda	Forrestfield North District Centre	-	-	5000	$7,175	na
9	Kalamunda	High Wycombe East NAC	5809	$7,129	5809	$7,181	0.7%
10	Kalamunda	High Wycombe LAC West	683	$6,690	683	$6,750	0.9%
11	Kalamunda	High Wycombe West (Wittenoom Rd) NAC	3830	$7,012	3830	$6,938	-1.1%
12	Kalamunda	Newburn Road LAC	985	$6,652	985	$6,675	0.4%
0	Kalamunda	Sorensen Road LAC	90	$4,566	90	$4,323	-5.3%
13	Kalamunda	Kalamunda District Centre	14994	$7,603	14994	$7,094	2.2%
14	Kalamunda	Kalamunda Glades NAC	3760	$7,235	3760	$7,889	3.8%
15	Kalamunda	Lesmurdie LAC	700	$6,855	700	$7,248	0.2%
16	Kalamunda	Sanderson Road NAC	2197	$6,781	2197	$6,381	-6.9%
0	Kalamunda	Seaton Park LAC	0	$0	0	$6,154	-9.2%
17	Kalamunda	High Wycombe LAC East	1135	$6,943	1135	$6,555	4.1%
18	Kalamunda	Maida Vale LAC	580	$6,296	580	$0	na
19	Kalamunda	Maida Vale NAC	-	-	-	$0	na
20	Kalamunda	Maida Vale Road LAC	-	-	1,200	$7,104	na
21	Kalamunda	Maida Vale South NAC	-	-	-	$3,482	-2.4%
22	Kalamunda	Pickering Brook LAC	285	$3,567	285	$3,821	-1.4%
0	Kalamunda	Walliston Industrial	160	$3,877	160	$5,511	-3.1%
23	Kalamunda	Walliston LAC	160	$5,686	160	$6,224	-9.3%
24	Kalamunda	Lewis Road LAC	1200	$6,858	1200	$6,711	-7.0%
25	Kalamunda	Wattle Grove North NAC	3712	$7,213	3712	$0	na
26	Kalamunda	Wattle Grove South NAC	-	-	-	$6,001	-7.1%

Map Reference	LGA	Centre Name	PLUC 5 Floorspace 2015/17 (m²)	Turnover 2016 (2016 $ / m²)	PLUC 5 Floorspace 2026 (m²)	Turnover 2026 (2016$ / m²)	% Change
27	Kalamunda	Welshpool Road East LAC	375	$6,460	375	$2,646	-3.3%
28	Kalamunda	Hills Rural NAC	-	-	-	-	-

Table 4.4: 2036 Model Outputs

Map Reference 0 - Site has been identified in LUES however is not considered significant enough to be considered an Activity Centre as part of the Strategy.

Map Reference	LGA	Centre Name	PLUC 5 Floorspace 2015/17 (m²)	Turnover 2016 (2016 $ / m²)	PLUC 5 Floorspace 2036 (m²)	Turnover 2036 (2016$ / m²)	% Change
0	Kalamunda	Walnut Road LAC	400	$2,735	400	$2,537	-7.2%
0	Kalamunda	Carmel Road LAC	632	$6,181	632	$5,682	-8.1%
0	Kalamunda	Union Road LAC	200	$4,860	200	$4,477	-7.9%
1	Kalamunda	Edinburgh Road NAC	1628	$6,887	1628	$6,750	-2.0%
2	Kalamunda	Forrestfield District Centre	12956	$7,818	17000	$7,968	1.9%
3	Kalamunda	Forrestfield LAC	260	$5,495	260	$6,281	14.3%
0	Kalamunda	Hartfield Park LAC	200	$6,103	200	$6,189	1.4%
4	Kalamunda	Hawtin Road North LAC	1400	$5,875	1400	$6,447	9.7%
5	Kalamunda	Hawtin Road South LAC	60	$5,232	60	$5,667	8.3%
6	Kalamunda	Holmes Road LAC	530	$4,891	530	$4,966	1.5%
7	Kalamunda	Gooseberry Hill LAC	895	$5,077	895	$4,800	-5.4%
8	Kalamunda	Forrestfield North District Centre	0	$0	5000	$9,658	na
9	Kalamunda	High Wycombe East NAC	5809	$7,129	5809	$7,251	1.7%
10	Kalamunda	High Wycombe LAC West	683	$6,690	683	$6,784	1.4%
11	Kalamunda	High Wycombe West (Wittenoom Rd) NAC	3830	$7,012	3830	$7,485	6.8%
12	Kalamunda	Newburn Road LAC	985	$6,652	985	$6,917	4.0%
0	Kalamunda	Sorensen Road LAC	90	$4,566	90	$5,680	24.4%
13	Kalamunda	Kalamunda District Centre	14994	$7,603	17000	$7,269	-4.4%
14	Kalamunda	Kalamunda Glades NAC	3760	$7,235	3760	$6,763	-6.5%
15	Kalamunda	Lesmurdie LAC	700	$6,855	700	$6,250	-8.8%
16	Kalamunda	Sanderson Road NAC	2197	$6,781	2197	$6,094	-10.1%
0	Kalamunda	Seaton Park LAC	0	$0	0	$0	na
17	Kalamunda	High Wycombe LAC East	1135	$6,943	1135	$7,138	2.8%

Map Reference	LGA	Centre Name	PLUC 5 Floorspace 2015/17 (m²)	Turnover 2016 (2016 $ / m²)	PLUC 5 Floorspace 2036 (m²)	Turnover 2036 (2016$ / m²)	% Change
18	Kalamunda	Maida Vale LAC	580	$6,296	580	$6,232	-1.0%
19	Kalamunda	Maida Vale NAC	0	0	-	$0	na
20	Kalamunda	Maida Vale Road LAC	0	0	1200	$8,762	na
21	Kalamunda	Maida Vale South NAC	0	$0	1500	$7,361	na
22	Kalamunda	Pickering Brook LAC	285	$3,567	285	$3,344	-6.2%
0	Kalamunda	Walliston Industrial	160	$3,877	160	$3,609	-6.9%
23	Kalamunda	Walliston LAC	160	$5,686	160	$5,236	-7.9%
24	Kalamunda	Lewis Road LAC	1200	$6,858	1200	$6,693	-2.4%
25	Kalamunda	Wattle Grove North NAC	3712	$7,213	3712	$7,322	1.5%
26	Kalamunda	Wattle Grove South NAC	0	$0	1500	$6,517	na
27	Kalamunda	Welshpool East LAC	375	$6,460	375	$6,584	1.9%
28	Kalamunda	Hills Rural NAC	-	-	-	-	-

Observations

4.5.1 2026 Outputs

- The 2026 outputs in table 4.3 demonstrate that the extent of population growth by 2026 may be sufficient to establish a neighbourhood activity sized centre at the Forrestfield North DAC. Based on the modelled outputs, the establishment of a neighbourhood activity centre of 5,000m² nla at the Forrestfield North DAC by 2026 appears to be a reasonable proposition, assuming projected population growth is realised. Potential further growth to a district scale centre, at or beyond 2026, would be affected by the extent to which the Midland SMC or other competing centres expand in the medium term. The recommendations in Section 4.0 of this report include the need for a retail sustainability assessment to be prepared to accompany any proposal for development at the Forrestfield North NAC prior to 2026, to accommodate known and approved development at that time.

4.5.2 2036 Outputs

- The 2036 outputs identify a distribution of retail potential among three existing activity centres and four proposed future activity centres. The 2036 test assumes all proposed retail expansions are proposed to occur as set out in the activity centres strategies previously mentioned in Section 3.3 – Inputs.

- The 2036 outputs indicate that up to approximately 8,000m² nla of PLUC 5 floorspace is likely to be viable within the trade area of the Forrestfield North DAC. This is shown in to be distributed between the Forrestfield North DAC (5,000m²), Maida Vale South NAC (1,500m²) and the Maida Vale Road LAC (1,200m²). The level of growth in the Forrestfield North DAC trade area by 2036 is generally consistent with that identified as being viable in earlier retail analysis undertaken for the City.

- The modelling indicates that the new Forrestfield North DAC will perform well in 2036 with 5,000m2 nla. This indicates that development of over 5,000m2 may be desirable at this location by 2036, although this should be subject to further analysis closer to 2036, based on the extent of growth among competing centres and population growth that actually occurs over the coming decade.

- The inclusion of 5,000m² at the Maida Vale NAC (map reference 19) resulted in impacts that were generally unacceptable and higher than the impacts shown in the above tables. However, this is based on the assumption that retail proposals identified in the activity centres strategies of all surrounding LGA areas are actually realised. On this basis, the establishment of an activity centre at the Maida Vale NAC is recommended post 2026 and subject to a retail sustainability assessment at the time.

Impacts of note identified in Table 4.4 as at 2036 are as follows:

- **Neighbourhood Activity Centres**
  - Kalamunda Glades 3,760m² (-6.5%)
  - Sanderson Road 2,197m² (-10.1%)

- **Local Activity Centres:**
  - Walliston LAC – 160m² (-7.9%)
  - Pickering Brook LAC – 285m² (-6.2%)
  - Lesmurdie LAC – 700m² (-8.8%)
  - Walnut Road LAC – 400m² (-7.2%)
  - Carmel Road LAC – 632m² (-8.1%)
  - Union Road LAC – 200m² (-7.9%)

The impacts on the larger centres occur predominantly as a result of the assumption that all proposed expansions in the City of Swan and City of Gosnells actually occur, compounded with the low level of projected population growth in the eastern half of the LGA area. The extent of growth projected in surrounding LGA's may not actually occur, and it is therefore suggested that proposed expansions at the district centres be accompanied by a retail sustainability assessment.

The smaller centres having high percentages are on a small base floorspace size. Given the specialised nature of their offering (restaurant, liquor store or other local convenience function) they are of lesser concern and are unlikely to be impacted to the extent modelled.

4.6 Interpretation and Application

Table 4.5: Activity Centre Floorspace Recommendations

Activity Centre	Floorspace 2016	Indicative Floorspace 2036	Notes
Welshpool East LAC	375	375	**No Change**
Wattle Grove North NAC	3712	3712	**No Change**
Hartfield Park LAC	200	200	**No Change**
Forrestfield District Centre	12956	17,000	**The proposed level of floorspace will bring the centre closer to achieving the nominal intended size for a District Activity Centre under SPP4.2, being 20,000m², providing a range of retail goods and outlets consistent with its functional role. Any proposed expansion shall be subject to a retail sustainability assessment.**
Edinburgh Road NAC	1628	1628	**No Change**
Holmes Road LAC	530	530	**No Change**
Maida Vale LAC	580	580	**No Change**
High Wycombe LAC East	1135	1135	**No Change**
Newburn Road LAC	985	985	**No Change**
High Wycombe LAC West	683	683	**No Change**
High Wycombe East NAC	5809	5809	**No Change**
High Wycombe West (Wittenoom Rd) NAC	3830	3830	**No Change**
Gooseberry Hill LAC	895	895	**No Change**
Kalamunda District Centre	14994	17000	**The proposed level of floorspace will bring the centre closer to achieving the nominal intended size for a District Activity Centre under SPP4.2, being 20,000m², providing a range of retail goods and outlets consistent with its functional role.** **The activity centre has attraction as a tourist destination, being a type of expenditure problematic to forecast and is not included within the scope of this model. Additional floorspace beyond the indicative limit specified, may be encouraged on the basis of its tourism function.** **The limited amount of projected population growth in the eastern half of the LGA area constrains retail potential at the centre.** **Any proposed expansion shall be subject to a retail sustainability assessment.**
Kalamunda Glades NAC	3760	**3760**	**No Change.**
Walliston Industrial	**160**	**160**	**No Change.**
Lesmurdie LAC	**700**	**700**	**No Change.**
Sanderson Road NAC	**2197**	**2197**	**No Change.**
Walliston LAC	**160**	**160**	**No Change.**
Pickering Brook LAC	**285**	**285**	**No Change.**

Activity Centre	Floorspace 2016	Indicative Floorspace 2036	Notes
Forrestfield LAC	260	260	No Change.
Forrestfield North District Centre	0	5000	The first stage of retail development at the Forrestfield North District Activity Centre is expected to occur between 2020 and 2026. The State views this activity centre as a priority for development given the extent of public investment in and around the centre, including the establishment of rail. Additional floorspace may be warranted beyond 2036 or earlier, depending on the rate of residential development in Forrestfield North. This centre is a more desirable location for retail development than the Maida Vale NAC site (train station, medium density housing and population concentration). However, the activity centre is not located adjoining a higher order road, and is less accessible for a wider proportion of residents throughout the City than the Forrestfield District Activity Centre. Consequently, it may be more optimal to favour growth of the latter in the long term, at least to an optimal size for a district activity centre (20,000m²).
Hawtin Road South LAC	60	60	No Change.
Hawtin Road North LAC	1400	1400	No Change.
Maida Vale South NAC	0	1500	
Wattle Grove South NAC	0	1200	
Lewis Road LAC	1200	1200	No Change.
Sorensen Road LAC	90	90	No Change.
Carmel Road LAC	632	632	No Change.
Union Road LAC	200	200	No Change.
Walnut Road LAC	400	400	No Change.
Maida Vale NAC	0	5,000	Development subject to the preparation of a Retail Sustainability Assessment. No potential for further development beyond neighbourhood activity centre size and status given the lack of a catchment to the north.
Maida Vale Road LAC	0	1200	

Appendix 1: Draft Strategy Map

Appendix 2: Model Outputs

LGA	Centre	Floorspace 2016	Turnover	$/m2 2016	Floorspace 2036	$/m2 2016	2036 After	Impact
Armadale	Armadale City (SMC)	60261	$404,756,771	$6,717	100000	$6,717	$7,830	16.6%
Armadale	Kelmscott (DAC)	18400	$115,349,837	$6,269	18400	$6,269	$6,758	7.8%
Armadale	Harrisdale (LAC)	7934	$48,154,861	$6,069	31000	$6,069	$7,164	18.0%
Armadale	Wungong (DAC)	0	$0	$0	35000	$0	$7,326	-
Armadale	Westfield (NAC)	4022	$25,694,027	$6,388	4022	$6,388	$6,735	5.4%
Armadale	Haynes (NAC)	4781	$31,016,376	$6,487	4781	$6,487	$7,464	15.1%
Armadale	Roleystone (LAC)	1961	$10,320,914	$5,263	2000	$5,263	$4,727	-10.2%
Armadale	Champion Drive (NAC)	4045	$26,788,247	$6,623	4045	$6,623	$7,114	7.4%
Armadale	Wungong 2 (NAC)	0	$0	$0	5900	$0	$7,363	-
Armadale	Wungong 3 (NAC)	0	$0	$0	3500	$0	$7,146	-
Armadale	River Rd (LAC)	0	$0	$0	600	$0	$6,324	-
Armadale	Connel Ave (LAC)	100	$499,896	$4,999	100	$4,999	$5,262	5.3%
Armadale	Armstrong Rd (LAC)	290	$1,471,606	$5,075	290	$5,075	$5,476	7.9%
Armadale	Schruth St (LAC)	300	$1,636,503	$5,455	300	$5,455	$5,957	9.2%
Armadale	Challis (LAC)	400	$2,202,263	$5,506	400	$5,506	$5,935	7.8%
Armadale	Narrogin Inn (LAC)	1539	$8,354,279	$5,428	1539	$5,428	$6,373	17.4%
Armadale	Gwynne Park (LAC)	143	$719,374	$5,031	143	$5,031	$5,787	15.0%
Armadale	Seventh Avenue (LAC)	345	$1,781,545	$5,164	345	$5,164	$6,165	19.4%
Armadale	Nicholson Rd Nth (LAC)	0	$0	$0	0	$0	$0	-
Armadale	Brookton / Soldiers Rd (LAC)	490	$2,002,054	$4,086	490	$4,086	$4,170	2.1%
Armadale	Forrestdale (LAC)	0	$0	$0	0	$0	$0	-
Armadale	Tudor Road (LAC)	1214	$6,760,549	$5,569	1214	$5,569	$6,370	14.4%
Armadale	Railway Ave (LAC)	0	$0	$0	0	$0	$0	-
Armadale	Harber Dr (LAC)	100	$471,269	$4,713	100	$4,713	$5,899	25.2%
Armadale	Strawberry Dr (LAC)	100	$621,178	$6,212	100	$6,212	$6,932	11.6%
Armadale	Seville Dr (LAC)	100	$690,587	$6,906	100	$6,906	$7,841	13.5%
Armadale	Erade Village (LAC)	370	$2,114,939	$5,716	2000	$5,716	$6,281	9.9%
Armadale	Piara Waters 01 (LAC)	0	$0	$0	1500	$0	$6,307	-

LGA	Centre	Floorspace 2016	Turnover	$/m2 2016	Floorspace 2036	$/m2 2016	2036 After	Impact
Armadale	Piara Waters 02 (LAC)	0	$0	$0	900	$0	$5,933	-
Armadale	Wungong 4 (LAC)	0	$0	$0	450	$0	$6,527	-
Armadale	Wungong 5 (LAC)	0	$0	$0	700	$0	$7,492	-
Armadale	Wungong 6 (LAC)	0	$0	$0	1000	$0	$6,509	-
Armadale	Wungong 7 (LAC)	0	$0	$0	1500	$0	$7,048	-
Armadale	Wungong 8(LAC)	0	$0	$0	700	$0	$7,206	-
Armadale	Wungong 9 (LAC)	0	$0	$0	1200	$0	$7,146	-
Armadale	Wungong 10 (LAC)	0	$0	$0	400	$0	$7,848	-
Armadale	Wungong 11 (LAC)	0	$0	$0	400	$0	$7,799	-
Armadale	Old Station Rd (LAC)	350	$726,800	$2,077	350	$2,077	$1,971	-5.1%
Armadale	Brookton Highway (LAC)	225	$687,328	$3,055	1500	$3,055	$2,914	-4.6%
Armadale	Brookton / Gardiner Rd (LAC)	60	$172,746	$2,879	1500	$2,879	$2,831	-1.7%
Armadale	Conifer Road (LAC)	210	$508,588	$2,422	1500	$2,422	$2,267	-6.4%
Armadale	Armadale High School	0	$0	$0	200	$0	$6,895	-
Armadale	Bunnings / Harrisdale	5861	$37,892,182	$6,465	5861	$6,465	$7,263	12.3%
Armadale	Forrestdale (MBA)	670	$3,883,567	$5,796	670	$5,796	$7,149	23.3%
Armadale	Kelmscott (MBA)	6487	$37,340,437	$5,756	6637	$5,756	$6,243	8.5%
Armadale	Armadale (MBA)	695	$3,276,115	$4,714	695	$4,714	$6,194	31.4%
Armadale	South Forrestdale (MBA)	0	$0	$0	0	$0	$0	-
Bassendean	Eden	160	$976,407	$6,103	160	$6,103	$6,054	-0.8%
Bassendean	Bass	11915	$80,744,118	$6,777	11915	$6,777	$6,903	1.9%
Bassendean	Ambass	1522	$9,720,858	$6,387	1522	$6,387	$8,565	34.1%
Bayswater	Noraq	11026	$62,733,311	$5,690	11026	$5,690	$5,377	-5.5%
Bayswater	Cambn	700	$3,735,088	$5,336	700	$5,336	$5,015	-6.0%
Bayswater	Linc	919	$4,954,488	$5,391	919	$5,391	$5,156	-4.4%
Bayswater	Crim	984	$5,957,583	$6,054	984	$6,054	$5,768	-4.7%
Bayswater	Morley	100304	$547,263,500	$5,456	120000	$5,456	$5,363	-1.7%
Swan	Amazon	1300	$8,925,592	$6,866	1300	$6,866	$6,485	-5.6%
Swan	Sprngs	2690	$17,699,924	$6,580	6500	$6,580	$6,464	-1.8%
Belmont	Belmont	43148	$303,616,690	$7,037	68115	$7,037	$7,015	-0.3%
Belmont	Belmont Sq (LAC)	580	$4,267,666	$7,358	580	$7,358	$7,300	-0.8%
Belmont	Wright Street (LAC)	675	$3,697,651	$5,478	675	$5,478	$5,427	-0.9%

LGA	Centre	Floorspace 2016	Turnover	$/m2 2016	Floorspace 2036	$/m2 2016	2036 After	Impact
Belmont	Kooyong Road (NAC)	2276	$15,445,330	$6,786	2276	$6,786	$6,631	-2.3%
Belmont	Eastgate (NAC)	220	$1,201,164	$5,460	220	$5,460	$5,376	-1.5%
Belmont	Springs (LAC)	0	$0	$0	0	$0	$0	-
Belmont	Belmont MBA	20608	$122,366,306	$5,938	20608	$5,938	$5,811	-2.1%
Belmont	Ascot (LAC)	0	$0	$0	0	$0	$0	-
Belmont	Belgravia Street (LAC)	942	$4,781,296	$5,076	942	$5,076	$5,028	-0.9%
Belmont	Love Street (LAC)	370	$1,496,172	$4,044	370	$4,044	$4,020	-0.6%
Belmont	Belmay (LAC)	180	$796,219	$4,423	180	$4,423	$4,366	-1.3%
Belmont	Belvidere Street (NAC)	2958	$18,890,745	$6,386	2958	$6,386	$6,320	-1.0%
Belmont	Epsom Avenue (LAC)	1140	$6,739,537	$5,912	1140	$5,912	$5,820	-1.6%
Belmont	Ascot Waters (LAC)	955	$7,433,995	$7,784	955	$7,784	$7,830	0.6%
Belmont	Redcliffe (IND)	0	$0	$0	0	$0	$0	-
Canning	Cannington SMC	64995	$536,280,051	$8,251	170535	$8,251	$8,532	3.4%
Canning	Cannington SMC Surrounds	58652	$362,049,289	$6,173	58652	$6,173	$6,106	-1.1%
Canning	Can Stn 1 (LAC)	100	$434,103	$4,341	100	$4,341	$4,346	0.1%
Canning	Can Stn 2 (LAC)	150	$665,158	$4,434	150	$4,434	$4,379	-1.2%
Canning	Can Stn 3 (LAC)	150	$671,110	$4,474	150	$4,474	$4,421	-1.2%
Canning	Queens Park (NAC)	580	$2,533,247	$4,368	580	$4,368	$4,382	0.3%
Canning	Sevenoaks (NAC)	2110	$13,405,102	$6,353	2110	$6,353	$6,419	1.0%
Canning	Treasure Rd (LAC)	619	$2,849,291	$4,603	619	$4,603	$4,634	0.7%
Canning	Wharf St (LAC)	526	$2,485,979	$4,726	526	$4,726	$4,753	0.6%
Canning	East Cannington (LAC)	0	$0	$0	0	$0	$0	-
Canning	Bentley (DAC)	16967	$113,163,948	$6,670	16967	$6,670	$6,685	0.2%
Canning	Chapman Rd 1 (LAC)	673	$2,930,796	$4,355	673	$4,355	$4,416	1.4%
Canning	Chapman Rd 2 (LAC)	186	$844,759	$4,542	186	$4,542	$4,618	1.7%
Canning	Hillview Tce (LAC))	841	$4,003,430	$4,760	841	$4,760	$4,835	1.6%
Canning	Eureka Rd (LAC)	460	$2,084,972	$4,533	460	$4,533	$4,403	-2.9%
Canning	Manning Rd (LAC)	780	$3,440,391	$4,411	780	$4,411	$4,372	-0.9%
Canning	Barbican St (LAC)	779	$3,277,817	$4,208	779	$4,208	$3,911	-7.1%
Canning	Riverton Dr East (LAC)	633	$2,739,432	$4,328	633	$4,328	$3,944	-8.9%
Canning	Lynwood Ave 1 (NAC)	2046	$12,917,503	$6,314	2046	$6,314	$5,917	-6.3%
Canning	Lynwood Ave 2 (LAC)	396	$1,857,147	$4,690	396	$4,690	$4,411	-5.9%

LGA	Centre	Floorspace 2016	Turnover	$/m2 2016	Floorspace 2036	$/m2 2016	2036 After	Impact
Canning	Shelley (LAC)	867	$3,007,555	$3,469	867	$3,469	$3,114	-10.2%
Canning	Central Rd (LAC)	1105	$4,244,361	$3,841	1105	$3,841	$3,329	-13.3%
Canning	Riverton Forum (DAC)	19271	$154,515,626	$8,018	19271	$8,018	$7,511	-6.3%
Canning	Hillrowe Group (LAC)	0	$0	$0	0	$0	$0	-
Canning	High Road (LAC)	0	$0	$0	0	$0	$0	-
Canning	Herald (NAC)	12557	$88,563,681	$7,053	12557	$7,053	$6,299	-10.7%
Canning	Parkwood (NAC)	332	$1,568,203	$4,724	332	$4,724	$4,412	-6.6%
Canning	Woodpecker (LAC)	1200	$7,539,814	$6,283	1200	$6,283	$5,553	-11.6%
Canning	Glenmoy Ave (LAC)	1300	$5,346,919	$4,113	1300	$4,113	$3,764	-8.5%
Canning	Southlands (DAC)	17029	$125,935,506	$7,395	17029	$7,395	$6,610	-10.6%
Canning	Canning Vale (LAC)	1076	$5,230,201	$4,861	1076	$4,861	$4,443	-8.6%
Canning	Livingston (DAC)	15318	$111,521,054	$7,280	15318	$7,280	$7,112	-2.3%
Canning	Canning Vale (IND)	23032	$114,352,544	$4,965	23032	$4,965	$4,703	-5.3%
Gosnells	Maddington (SAC)	31202	$209,536,961	$6,715	40000	$6,715	$6,991	4.1%
Gosnells	Forest Lakes (DAC)	11244	$70,184,491	$6,242	16000	$6,242	$6,088	-2.5%
Gosnells	Thornlie Square (DAC)	10665	$69,066,994	$6,476	11360	$6,476	$6,515	0.6%
Gosnells	Gosnells Town Centre (DAC)	16117	$101,126,510	$6,275	18868	$6,275	$6,961	10.9%
Gosnells	Southern River (DAC)	0	$0	$0	15000	$0	$8,601	-
Gosnells	Corfield (NAC)	1646	$10,143,742	$6,163	1640	$6,163	$7,008	13.7%
Gosnells	Ashburton (NAC)	1379	$8,491,695	$6,158	1379	$6,158	$7,119	15.6%
Gosnells	Langford (NAC)	2404	$14,541,941	$6,049	2404	$6,049	$5,811	-3.9%
Gosnells	Westfield (NAC)	3165	$19,636,470	$6,204	3165	$6,204	$6,736	8.6%
Gosnells	Spencer (NAC)	3606	$22,606,418	$6,269	3606	$6,269	$6,139	-2.1%
Gosnells	Kenwick (NAC)	1480	$7,586,392	$5,126	1480	$5,126	$5,130	0.1%
Gosnells	Beckenham (NAC)	1491	$9,301,822	$6,239	1491	$6,239	$6,199	-0.6%
Gosnells	Huntingdale Forum (NAC)	1540	$9,210,185	$5,981	1540	$5,981	$6,452	7.9%
Gosnells	Ranford (NAC)	3579	$22,612,133	$6,318	4500	$6,318	$6,526	3.3%
Gosnells	Southern River p (NAC)	5378	$32,873,622	$6,113	5378	$6,113	$7,397	21.0%
Gosnells	Amherst Village (NAC)	9722	$62,554,093	$6,434	12500	$6,434	$6,807	5.8%
Gosnells	DV01	0	$0	$0	4500	$0	$6,617	-
Gosnells	SR08	0	$0	$0	7000	$0	$6,970	-
Gosnells	Gosnells Medical	1000	$5,985,413	$5,985	1000	$5,985	$6,787	13.4%

LGA	Centre	Floorspace 2016	Turnover	$/m2 2016	Floorspace 2036	$/m2 2016	2036 After	Impact
Gosnells	Martindale (LAC)	170	$881,002	$5,182	150	$5,182	$5,084	-1.9%
Gosnells	Huntingdale (LAC)	1023	$6,353,083	$6,210	1023	$6,210	$6,343	2.1%
Gosnells	Royal St (LAC)	825	$3,484,554	$4,224	825	$4,224	$4,231	0.2%
Gosnells	W Gosnells (LAC)	2465	$14,663,182	$5,949	2465	$5,949	$6,287	5.7%
Gosnells	Warton Rd (LAC)	498	$3,149,418	$6,324	498	$6,324	$6,566	3.8%
Gosnells	Furley Rd (LAC)	228	$1,467,379	$6,436	228	$6,436	$6,786	5.4%
Gosnells	Nicholson / Amherst (LAC)	175	$979,445	$5,597	175	$5,597	$5,456	-2.5%
Gosnells	Fraser / Comrie (LAC)	0	$0	$0	0	$0	$0	-
Gosnells	Fraser / Amherst (LAC)	0	$0	$0	0	$0	$0	-
Gosnells	Fraser / Gateway (LAC)	0	$0	$0	0	$0	$0	-
Gosnells	Campbell / Birran (LAC)	0	$0	$0	380	$0	$6,092	-
Gosnells	DV02	0	$0	$0	0	$0	$0	-
Gosnells	Dorothy (LAC)	415	$2,488,960	$5,997	265	$5,997	$6,820	13.7%
Gosnells	SR07 (LAC)	0	$0	$0	0	$0	$0	-
Gosnells	SR10 (LAC)	0	$0	$0	500	$0	$7,569	-
Gosnells	SR11 (LAC)	0	$0	$0	500	$0	$5,248	-
Gosnells	SR13 (LAC)	0	$0	$0	500	$0	$3,120	-
Gosnells	SR15 (LAC)	0	$0	$0	1500	$0	$3,753	-
Gosnells	Yale Rd (LAC)	1430	$8,899,918	$6,224	250	$6,224	$5,979	-3.9%
Gosnells	Albany / William (LAC)	44837	$207,971,540	$4,638	44837	$4,638	$4,612	-0.6%
Gosnells	Beckenham Station NAC	0	$0	$0	6000	$0	$8,262	-
Gosnells	Nicholson / Spencer (MBA)	90	$506,315	$5,626	0	$5,626	$0	-100.0%
Gosnells	Nicholson / Ranford (MBA)	4010	$25,980,566	$6,479	4010	$6,479	$6,441	-0.6%
Gosnells	Nicholson / Garden (MBA)	0	$0	$0	0	$0	$0	-
Gosnells	Nicholson Rd (MBA)	0	$0	$0	0	$0	$0	-
Gosnells	Canine Association Site (IND)	0	$0	$0	0	$0	$0	-
Gosnells	Beckenham (MBA)	0	$0	$0	0	$0	$0	-
Gosnells	Maddington (MBA)	5144	$28,013,306	$5,446	5144	$5,446	$5,641	3.6%
Gosnells	Willow Pond (MBA)	23032	$120,368,924	$5,226	5470	$5,226	$5,046	-3.4%
Gosnells	Furley (MBA)	0	$0	$0	0	$0	$0	-
Gosnells	Passmore (MBA)	0	$0	$0	0	$0	$0	-
Kalamunda	Welshpool East LAC	375	$2,422,558	$6,460	375	$6,460	$6,584	1.9%

LGA	Centre	Floorspace 2016	Turnover	$/m2 2016	Floorspace 2036	$/m2 2016	2036 After	Impact
Kalamunda	Wattle Grove North NAC	3712	$26,776,449	$7,213	3712	$7,213	$7,322	1.5%
Kalamunda	Hartfield Park LAC	200	$1,220,510	$6,103	200	$6,103	$6,189	1.4%
Kalamunda	Forrestfield District Centre	12956	$101,295,153	$7,818	12956 / 17,000	$7,818	$7,968	1.9%
Kalamunda	Edinburgh Road NAC	1628	$11,211,716	$6,887	1628	$6,887	$6,750	-2.0%
Kalamunda	Holmes Road LAC	530	$2,592,070	$4,891	530	$4,891	$4,966	1.5%
Kalamunda	Maida Vale LAC	580	$3,651,817	$6,296	580	$6,296	$6,232	-1.0%
Kalamunda	High Wycombe LAC East	1135	$7,879,806	$6,943	1135	$6,943	$7,138	2.8%
Kalamunda	Newburn Road LAC	985	$6,551,768	$6,652	985	$6,652	$6,917	4.0%
Kalamunda	High Wycombe LAC West	683	$4,569,070	$6,690	683	$6,690	$6,784	1.4%
Kalamunda	High Wycombe East NAC	5809	$41,414,811	$7,129	5809	$7,129	$7,251	1.7%
Kalamunda	High Wycombe West (Wittenoom Rd) NAC	3830	$26,854,311	$7,012	3830	$7,012	$7,485	6.8%
Kalamunda	Gooseberry Hill LAC	895	$4,544,043	$5,077	895	$5,077	$4,800	-5.4%
Kalamunda	Kalamunda District Centre	14994	$113,997,010	$7,603	14994 / 17,000	$7,603	$7,269	-4.4%
Kalamunda	KHS	0	$0	$0	0	$0	$0	-
Kalamunda	Kalamunda Glades NAC	3760	$27,205,470	$7,235	3760	$7,235	$6,763	-6.5%
Kalamunda	Seaton Park LAC	0	$0	$0	0	$0	$0	-
Kalamunda	Walliston Industrial	160	$620,265	$3,877	160	$3,877	$3,609	-6.9%
Kalamunda	Lesmurdie LAC	700	$4,798,585	$6,855	700	$6,855	$6,250	-8.8%
Kalamunda	Sanderson Road NAC	2197	$14,898,588	$6,781	2197	$6,781	$6,094	-10.1%
Kalamunda	Walliston LAC	160	$909,794	$5,686	160	$5,686	$5,236	-7.9%
Kalamunda	Pickering Brook LAC	285	$1,016,557	$3,567	285	$3,567	$3,344	-6.2%
Kalamunda	Forrestfield LAC	260	$1,428,595	$5,495	260	$5,495	$6,281	14.3%
Kalamunda	Forrestfield North District Centre	0	$0	$0	0/5000	$0	$9,658	-
Kalamunda	Hawtin Road South LAC	60	$313,895	$5,232	60	$5,232	$5,667	8.3%
Kalamunda	Hawtin Road North LAC	1400	$8,225,189	$5,875	1400	$5,875	$6,447	9.7%
Kalamunda	Maida Vale South NAC	0	$0	$0	0/1500	$0	$7,361	-
Kalamunda	Wattle Grove South NAC	0	$0	$0	0/1500	$0	$6,517	-
Kalamunda	Lewis Road LAC	1200	$8,229,780	$6,858	1200	$6,858	$6,693	-2.4%
Kalamunda	Sorensen Road LAC	90	$410,900	$4,566	90	$4,566	$5,680	24.4%
Kalamunda	Carmel Road LAC	632	$3,906,270	$6,181	632	$6,181	$5,682	-8.1%
Kalamunda	Union Road LAC	200	$971,965	$4,860	200	$4,860	$4,477	-7.9%
Kalamunda	Walnut Road LAC	400	$1,093,910	$2,735	400	$2,735	$2,537	-7.2%

LGA	Centre	Floorspace 2016	Turnover	$/m2 2016	Floorspace 2036	$/m2 2016	2036 After	Impact
Kalamunda	Maida Vale NAC	0	$0	$0	0/5000	$0	$0	-
Kalamunda	Maida Vale Road LAC	0	$0	$0	0/1200	$0	$8,762	-
Mundaring	Scott Street LAC	442	$2,018,566	$4,567	442	$4,567	$4,636	1.5%
Mundaring	Darlington LAC	510	$1,721,620	$3,376	510	$3,376	$3,151	-6.6%
Mundaring	Glen Forrest South LAC	832	$4,882,056	$5,868	832	$5,868	$5,856	-0.2%
Mundaring	Glen Forrest North LAC	795	$5,850,634	$7,359	795	$7,359	$7,725	5.0%
Mundaring	Mahogany Inn LAC	0	$0	$0	50	$0	$8,209	-
Mundaring	Homestead LAC	0	$0	$0	2500	$0	$8,814	-
Mundaring	Mundaring TC	13150	$126,558,447	$9,624	23000	$9,624	$11,251	16.9%
Mundaring	Parkerville LAC	340	$3,230,064	$9,500	340	$9,500	$12,256	29.0%
Mundaring	Stoneville LAC	790	$7,571,228	$9,584	790	$9,584	$11,506	20.1%
Mundaring	Sawyers Valley LAC	1056	$9,768,552	$9,251	1056	$9,251	$11,996	29.7%
Mundaring	Mount Helena NAC	2192	$19,338,972	$8,823	2192	$8,823	$11,152	26.4%
Mundaring	Chidlow South LAC	282	$3,211,322	$11,388	282	$11,388	$15,284	34.2%
Mundaring	Chidlow North LAC	578	$7,526,744	$13,022	1210	$13,022	$17,469	34.2%
Mundaring	North Stoneville	0	$0	$0	3000	$0	$0	-
Mundaring	Wooroloo LAC	200	$1,332,924	$6,665	200	$6,665	$7,407	11.1%
Mundaring	Swan View LAC	3800	$25,242,045	$6,643	3800	$6,643	$7,152	7.7%
Mundaring	Darling Ridge LAC	3822	$28,298,820	$7,404	3822	$7,404	$7,858	6.1%
Mundaring	Helena Valley NAC	1730	$10,667,375	$6,166	1730	$6,166	$7,827	26.9%
SJ	Is	2570	$10,868,758	$4,229	2570	$4,229	$7,560	78.8%
SJ	Serp	640	$1,842,948	$2,880	3000	$2,880	$7,236	151.3%
SJ	Jarr	212	$273,868	$1,292	212	$1,292	$2,060	59.4%
SJ	MLC	1015	$2,036,855	$2,007	1015	$2,007	$5,704	184.3%
SJ	MNC	0	$0	$0	2500	$0	$6,496	-
SJ	MLC2	0	$0	$0	1500	$0	$8,826	-
SJ	BDC	2566	$10,213,817	$3,980	8000	$3,980	$7,001	75.9%
SJ	BLC1	0	$0	$0	300	$0	$6,774	-
SJ	BLC2	0	$0	$0	300	$0	$6,200	-
SJ	BLC3	0	$0	$0	300	$0	$5,511	-
SJ	BLC4	0	$0	$0	300	$0	$5,654	-
South Perth	Well	1802	$10,248,810	$5,687	1802	$5,687	$5,347	-6.0%

LGA	Centre	Floorspace 2016	Turnover	$/m2 2016	Floorspace 2036	$/m2 2016	2036 After	Impact
South Perth	Kara	13083	$98,548,641	$7,533	13083	$7,533	$7,332	-2.7%
South Perth	Ley	1010	$4,219,867	$4,178	1020	$4,178	$3,955	-5.3%
South Perth	Hotl	150	$672,020	$4,480	150	$4,480	$4,212	-6.0%
South Perth	Bick	0	$0	$0	0	$0	$0	-
South Perth	Henl	758	$3,945,834	$5,206	1321	$5,206	$4,832	-7.2%
South Perth	Ame	0	$0	$0	0	$0	$0	-
South Perth	Bark	380	$1,683,372	$4,430	425	$4,430	$4,309	-2.7%
South Perth	Pres	3318	$21,710,196	$6,543	4614	$6,543	$6,556	0.2%
South Perth	Comr	85	$354,199	$4,167	85	$4,167	$4,117	-1.2%
South Perth	Mon	340	$1,235,032	$3,632	350	$3,632	$3,608	-0.7%
South Perth	Cood	715	$2,989,095	$4,181	698	$4,181	$4,179	0.0%
South Perth	Hmu	650	$2,242,806	$3,450	0	$3,450	$0	-100.0%
South Perth	Mend	5892	$39,802,449	$6,755	9655	$6,755	$6,970	3.2%
South Perth	Ang	4181	$25,498,544	$6,099	4464	$6,099	$6,243	2.4%
South Perth	Hens	720	$2,592,031	$3,600	100	$3,600	$3,645	1.3%
South Perth	Tate	0	$0	$0	0	$0	$0	-
South Perth	Lawl	90	$394,986	$4,389	90	$4,389	$4,442	1.2%
South Perth	Doug	830	$3,628,986	$4,372	434	$4,372	$4,412	0.9%
South Perth	Mead	722	$3,018,209	$4,180	1651	$4,180	$4,270	2.2%
South Perth	Bank	150	$670,754	$4,472	150	$4,472	$4,502	0.7%
South Perth	Kens	0	$0	$0	100	$0	$4,192	-
South Perth	More	415	$1,907,556	$4,597	415	$4,597	$4,636	0.9%
South Perth	Kenn	457	$2,128,269	$4,657	457	$4,657	$4,692	0.8%
South Perth	Mon	306	$1,464,608	$4,786	306	$4,786	$4,753	-0.7%
South Perth	Bird	735	$3,947,022	$5,370	1200	$5,370	$5,358	-0.2%
South Perth	Como	458	$1,704,789	$3,722	2000	$3,722	$3,701	-0.6%
South Perth	Nort	110	$548,505	$4,986	110	$4,986	$4,986	0.0%
South Perth	Eliz	2695	$13,074,040	$4,851	2695	$4,851	$4,846	-0.1%
South Perth	Metro	1001	$4,732,613	$4,728	1001	$4,728	$4,742	0.3%
South Perth	Mill	2664	$13,059,865	$4,902	3965	$4,902	$4,875	-0.6%
Swan	Balla	2479	$12,084,347	$4,875	6500	$4,875	$4,346	-10.8%
Swan	KingF	5722	$38,954,024	$6,808	5722	$6,808	$6,007	-11.8%

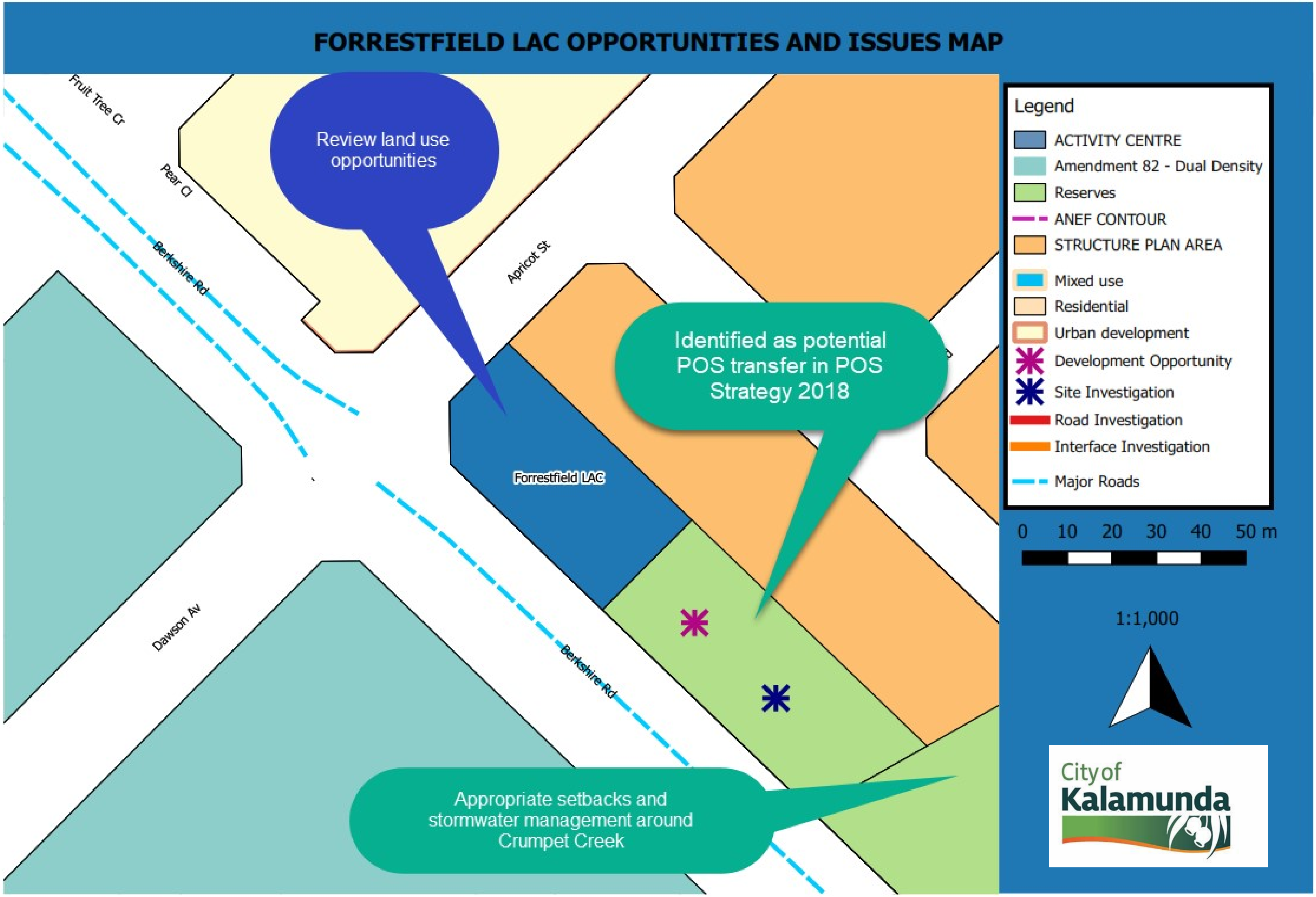
LGA	Centre	Floorspace 2016	Turnover	$/m2 2016	Floorspace 2036	$/m2 2016	2036 After	Impact
Swan	Glnmt	3576	$22,469,662	$6,283	3576	$6,283	$5,686	-9.5%
Swan	Bch-V	4964	$36,013,890	$7,255	4964	$7,255	$7,070	-2.5%
Swan	Bch-L	150	$1,109,442	$7,396	150	$7,396	$10,929	47.8%
Swan	Kiara	1225	$7,418,026	$6,056	1225	$6,056	$5,864	-3.2%
Swan	Midland	98156	$785,150,024	$7,999	135000	$7,999	$8,281	3.5%
Swan	Midland LFR	34864	$187,073,575	$5,366	60000	$5,366	$5,498	2.5%
Swan	Timbr	1188	$8,499,884	$7,155	1118	$7,155	$6,795	-5.0%
Swan	Smr	710	$3,104,563	$4,373	750	$4,373	$3,825	-12.5%
Swan	Illa	180	$892,556	$4,959	290	$4,959	$4,365	-12.0%
Swan	Wood	2225	$22,714,585	$10,209	3000	$10,209	$8,570	-16.1%
Swan	Shps	28501	$307,270,400	$10,781	55000	$10,781	$9,472	-12.1%
Swan	Vlc	1130	$10,676,960	$9,449	1130	$9,449	$9,503	0.6%
Swan	FNC1	1808	$15,907,664	$8,798	1808	$8,798	$9,383	6.6%
Swan	FNC2	0	$0	$0	5200	$0	$7,604	-
Swan	FDC2	0	$0	$0	15000	$0	$8,751	-
Swan	GEH	0	$0	$0	4000	$0	$9,221	-
Swan	Cool	1150	$8,185,016	$7,117	1150	$7,117	$6,391	-10.2%
Swan	FNC3	515	$4,493,205	$8,725	5600	$8,725	$9,741	11.7%
Swan	FDC3	0	$0	$0	15000	$0	$8,124	-
Swan	FLC1	0	$0	$0	2000	$0	$9,405	-
Swan	FLC2	0	$0	$0	2500	$0	$10,581	-
Swan	Hool	0	$0	$0	130	$0	$10,477	-
Swan	FLC3	230	$1,367,386	$5,945	2500	$5,945	$6,189	4.1%
Swan	FNC4	0	$0	$0	5000	$0	$8,084	-
Swan	FNC5	0	$0	$0	5000	$0	$11,230	-
Swan	Jinda	0	$0	$0	0	$0	$0	-
Swan	Farr	453	$4,743,959	$10,472	2500	$10,472	$11,021	5.2%
Swan	Dul	0	$0	$0	5000	$0	$8,090	-
Swan	BB	0	$0	$0	10000	$0	$11,069	-
Swan	Gng	300	$1,548,062	$5,160	300	$5,160	$5,151	-0.2%
Swan	Guil	7320	$38,005,225	$5,192	7320	$5,192	$5,394	3.9%
Swan	Vale	11000	$105,871,789	$9,625	11000	$9,625	$8,984	-6.7%

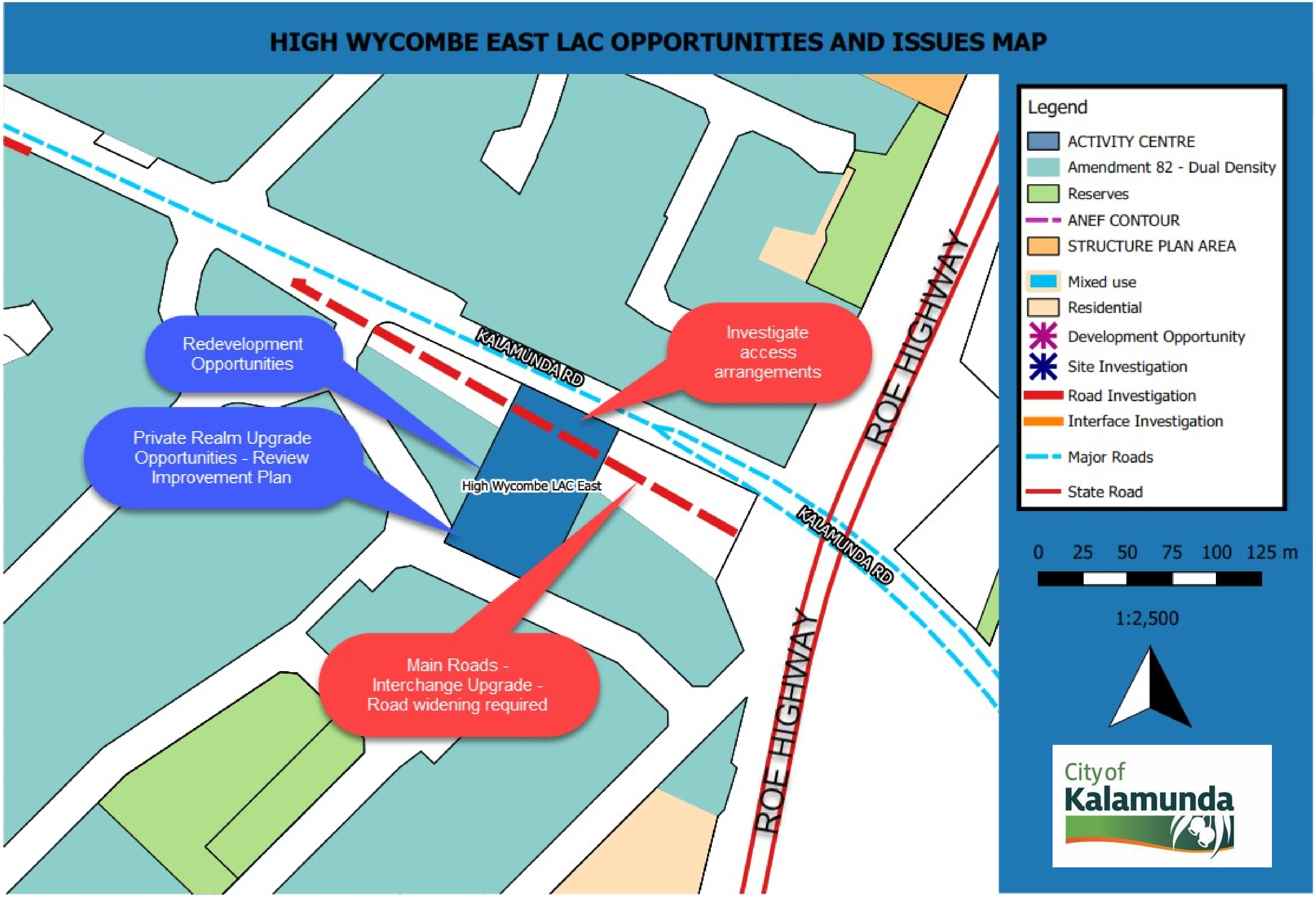
LGA	Centre	Floorspace 2016	Turnover	$/m2 2016	Floorspace 2036	$/m2 2016	2036 After	Impact
Swan	Cell	580	$3,636,008	$6,269	580	$6,269	$6,265	-0.1%
Swan	V1	420	$2,097,278	$4,994	420	$4,994	$4,849	-2.9%
Swan	MS	1266	$10,046,381	$7,936	1266	$7,936	$8,213	3.5%
Swan	MSLC	295	$1,782,009	$6,041	295	$6,041	$6,200	2.6%
Swan	V2	0	$0	$0	0	$0	$0	-
Swan	V3	0	$0	$0	0	$0	$0	-
Swan	V4	1190	$7,045,319	$5,920	1190	$5,920	$6,959	17.5%
Swan	V5	0	$0	$0	0	$0	$0	-
Swan	V6	720	$4,548,734	$6,318	720	$6,318	$7,008	10.9%
Swan	V7	1372	$8,309,360	$6,056	1372	$6,056	$6,166	1.8%
Swan	V8	420	$2,589,819	$6,166	400	$6,166	$6,633	7.6%
Swan	V9	350	$2,105,946	$6,017	350	$6,017	$5,850	-2.8%
Swan	Darl	1557	$11,663,879	$7,491	1557	$7,491	$7,839	4.6%
Swan	V10	0	$0	$0	0	$0	$0	-
Swan	SGI	13916	$65,081,540	$4,677	13916	$4,677	$4,809	2.8%
Swan	Sglc	301	$1,723,282	$5,725	301	$5,725	$5,945	3.8%
Swan	Haze	90	$327,376	$3,638	90	$3,638	$3,805	4.6%
Swan	Lenn	120	$1,393,914	$11,616	120	$11,616	$12,237	5.3%
Swan	Malaga	32228	$171,078,888	$5,308	32228	$5,308	$4,932	-7.1%
Victoria Park	Victoria Park East (LAC)	810	$3,650,788	$4,507	810	$4,507	$4,553	1.0%
Victoria Park	Alday Gateway (DAC)	6538	$33,335,695	$5,099	8365	$5,099	$5,143	0.9%
Victoria Park	Swansea / Welshpool	12745	$59,122,261	$4,639	12745	$4,639	$4,679	0.9%
Victoria Park	Collier Tech Park	800	$3,058,089	$3,823	800	$3,823	$3,893	1.8%
Victoria Park	Etwell St (LAC)	195	$663,088	$3,400	195	$3,400	$3,466	1.9%
Victoria Park	Westminster (LAC)	779	$3,059,737	$3,928	779	$3,928	$4,007	2.0%
Victoria Park	Sussex St (LAC)	200	$908,189	$4,541	200	$4,541	$4,592	1.1%
Victoria Park	East Victoria Park (DAC)	26925	$188,400,158	$6,997	26925	$6,997	$7,116	1.7%
Victoria Park	Albany Highway Commercial (DAC)	3226	$13,374,935	$4,146	3226	$4,146	$4,111	-0.8%
Victoria Park	Victoria Park (DAC)	12401	$95,494,290	$7,701	12401	$7,701	$7,685	-0.2%
Victoria Park	Albany Highway Commercial North (DAC)	5046	$28,394,645	$5,627	5046	$5,627	$5,550	-1.4%
Victoria Park	Burswood Road Commercial	925	$4,537,269	$4,905	2870	$4,905	$4,790	-2.4%
Victoria Park	Canning Highway / Berwick	2664	$14,187,891	$5,326	3965	$5,326	$5,340	0.3%

LGA	Centre	Floorspace 2016	Turnover	$/m2 2016	Floorspace 2036	$/m2 2016	2036 After	Impact
Victoria Park	Burswood	1181	$4,892,135	$4,142	2425	$4,142	$4,042	-2.4%
Victoria Park	Red Castle	981	$4,646,279	$4,736	981	$4,736	$4,651	-1.8%
Victoria Park	Orrong Road	795	$6,175,740	$7,768	795	$7,768	$7,704	-0.8%
Victoria Park	Lathlain (LAC)	270	$1,124,453	$4,165	270	$4,165	$4,167	0.1%
Victoria Park	Lathlain 2 (LAC)	370	$1,293,606	$3,496	370	$3,496	$3,499	0.1%
Victoria Park	Lathlain 3 (LAC)	0	$0	$0	0	$0	$0	-
Victoria Park	Orrong Road / Archer Street (LAC)	690	$3,385,117	$4,906	690	$4,906	$4,850	-1.1%
Victoria Park	Archer Street (LAC)	1713	$7,985,452	$4,662	1713	$4,662	$4,762	2.1%
Victoria Park	Carlisle (LAC)	470	$1,875,245	$3,990	470	$3,990	$4,098	2.7%
Victoria Park	Cohn St (LAC)	84	$443,482	$5,280	84	$5,280	$5,331	1.0%
Victoria Park	Oats St (LAC)	485	$2,365,168	$4,877	485	$4,877	$4,951	1.5%
Victoria Park	Tuckett St (LAC)	0	$0	$0	0	$0	$0	-

APPENDIX 5 – OPPORTUNITIES AND ISSUES MAPS

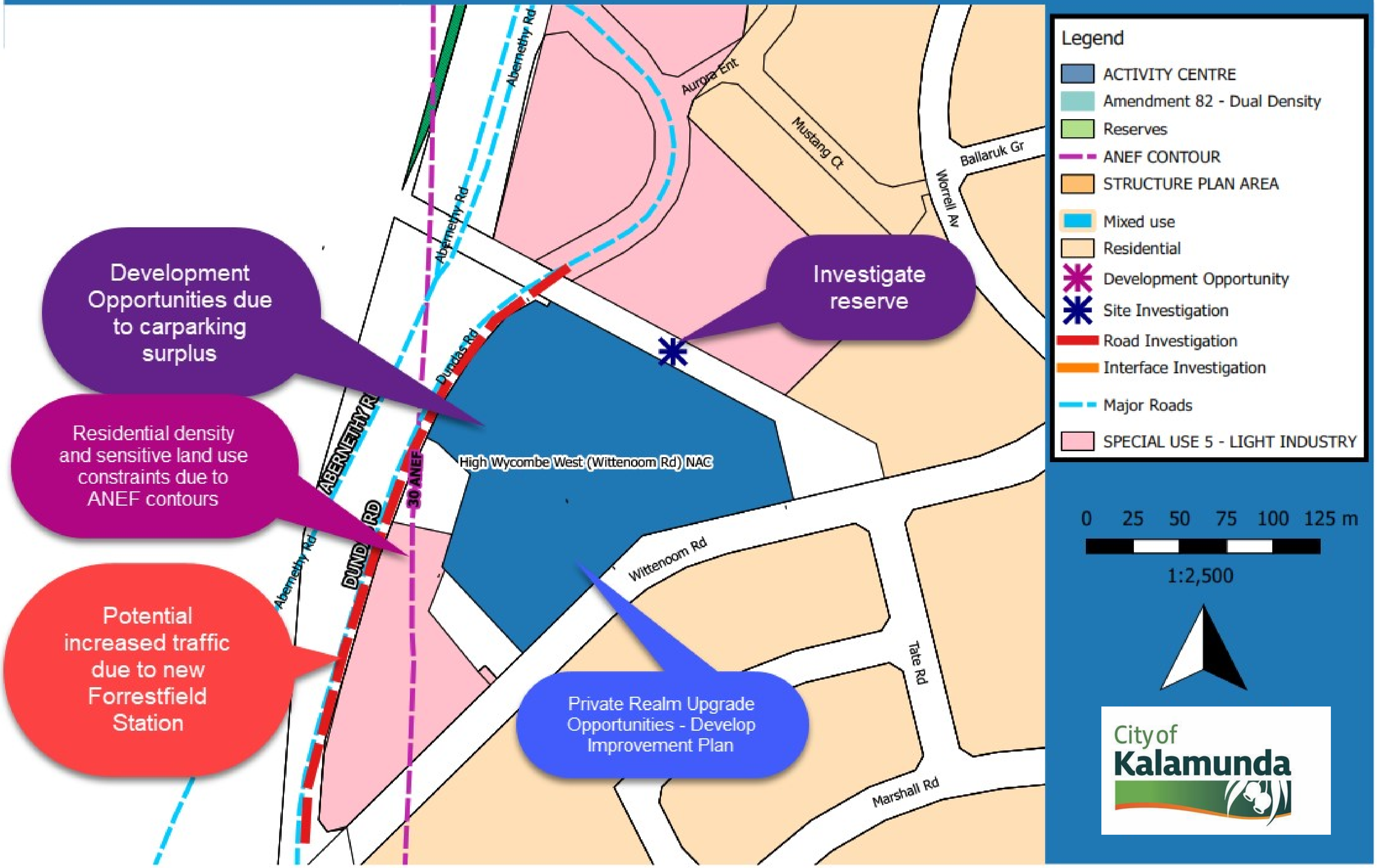

EDINBURGH ROAD NAC OPPORTUNITIES AND ISSUES MAP
Local bushland reserve for retention
15 unit residential occured 2014. Opportunity to bring into residential zone to reflect development.
Residential and Commercial Development Opportunities
Private Realm Upgrade Opportunities - Review Improvement Plan
Public Realm Upgrade Opportunities surrounding centre - Review Improvement Plan
POS Improvements and Activation Opportunities
Access to be reviewed to comply with relevant standards
Edinburgh Road NAC
Rothesay St
Cumberland Rd
Essex St
Chester Ct
Lincoln Rd
Lee St
Norfolk St
Sovereign Pl
Legend
ACTIVITY CENTRE
Amendment 82 - Dual Density
Reserves
ANEF CONTOUR
STRUCTURE PLAN AREA
Commercial
Residential
Development Opportunity
Site Investigation
Road Investigation
Interface Investigation
Major Roads
0 25 50 75 100 125 m
1:2,500
City of Kalamunda


FORRESTFIELD LAC OPPORTUNITIES AND ISSUES MAP
Review land use opportunities
Identified as potential POS transfer in POS Strategy 2018
Appropriate setbacks and stormwater management around Crumpet Creek
Fruit Tree Cr
Pear Cl
Berkshire Rd
Apricot St
Forrestfield LAC
Dawson Av
Berkshire Rd
Legend
ACTIVITY CENTRE
Amendment 82 - Dual Density
Reserves
ANEF CONTOUR
STRUCTURE PLAN AREA
Mixed use
Residential
Urban development
Development Opportunity
Site Investigation
Road Investigation
Interface Investigation
Major Roads
0 10 20 30 40 50 m
1:1,000
City of Kalamunda

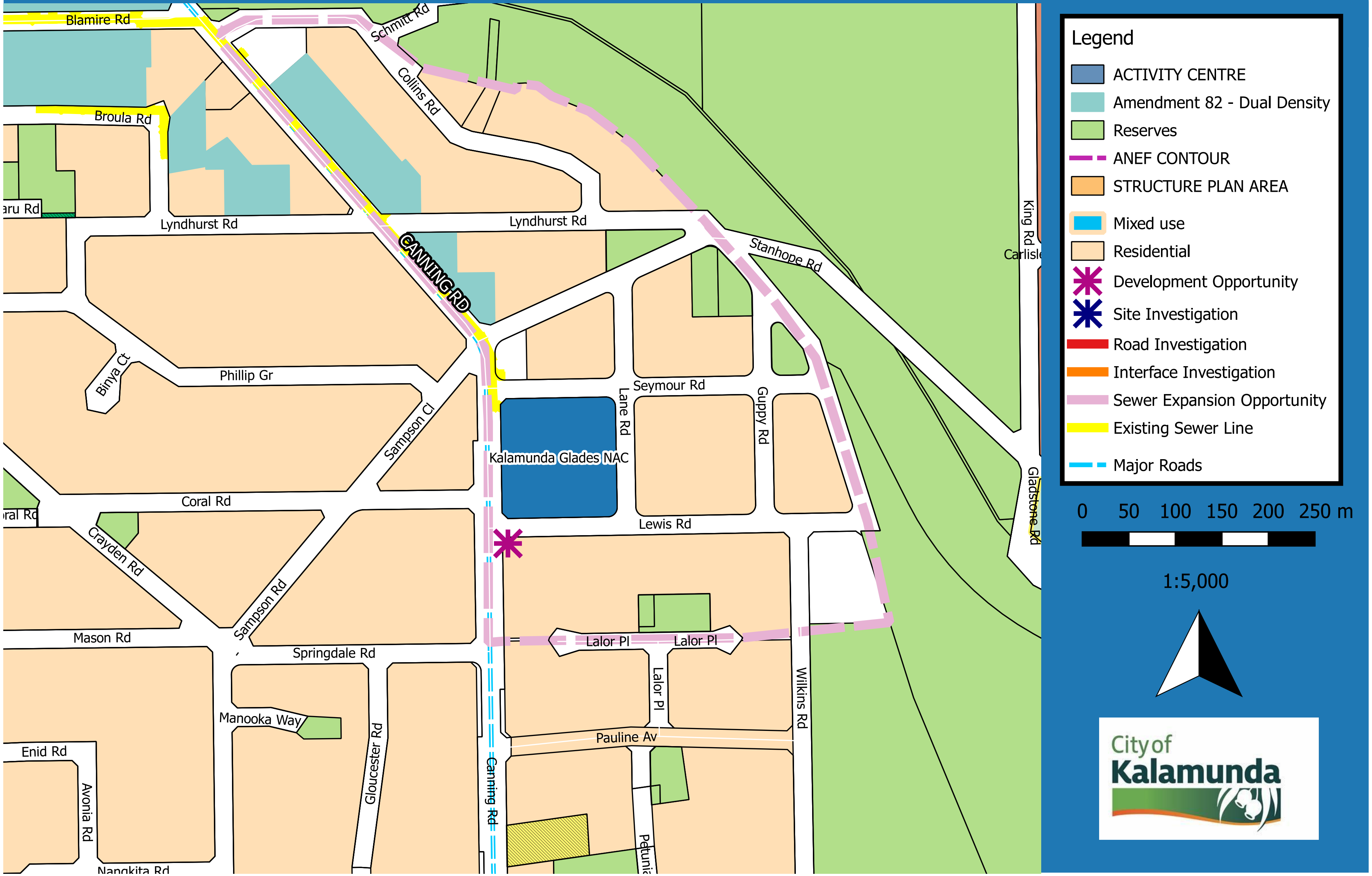

HIGH WYCOMBE EAST LAC OPPORTUNITIES AND ISSUES MAP
Redevelopment Opportunities
Private Realm Upgrade Opportunities - Review Improvement Plan
Investigate access arrangements
Main Roads - Interchange Upgrade - Road widening required
KALAMUNDA RD
High Wycombe LAC East
ROE HIGHWAY
Legend
ACTIVITY CENTRE
Amendment 82 - Dual Density
Reserves
ANEF CONTOUR
STRUCTURE PLAN AREA
Mixed use
Residential
Development Opportunity
Site Investigation
Road Investigation
Interface Investigation
Major Roads
State Road
0 25 50 75 100 125 m
1:2,500
City of Kalamunda

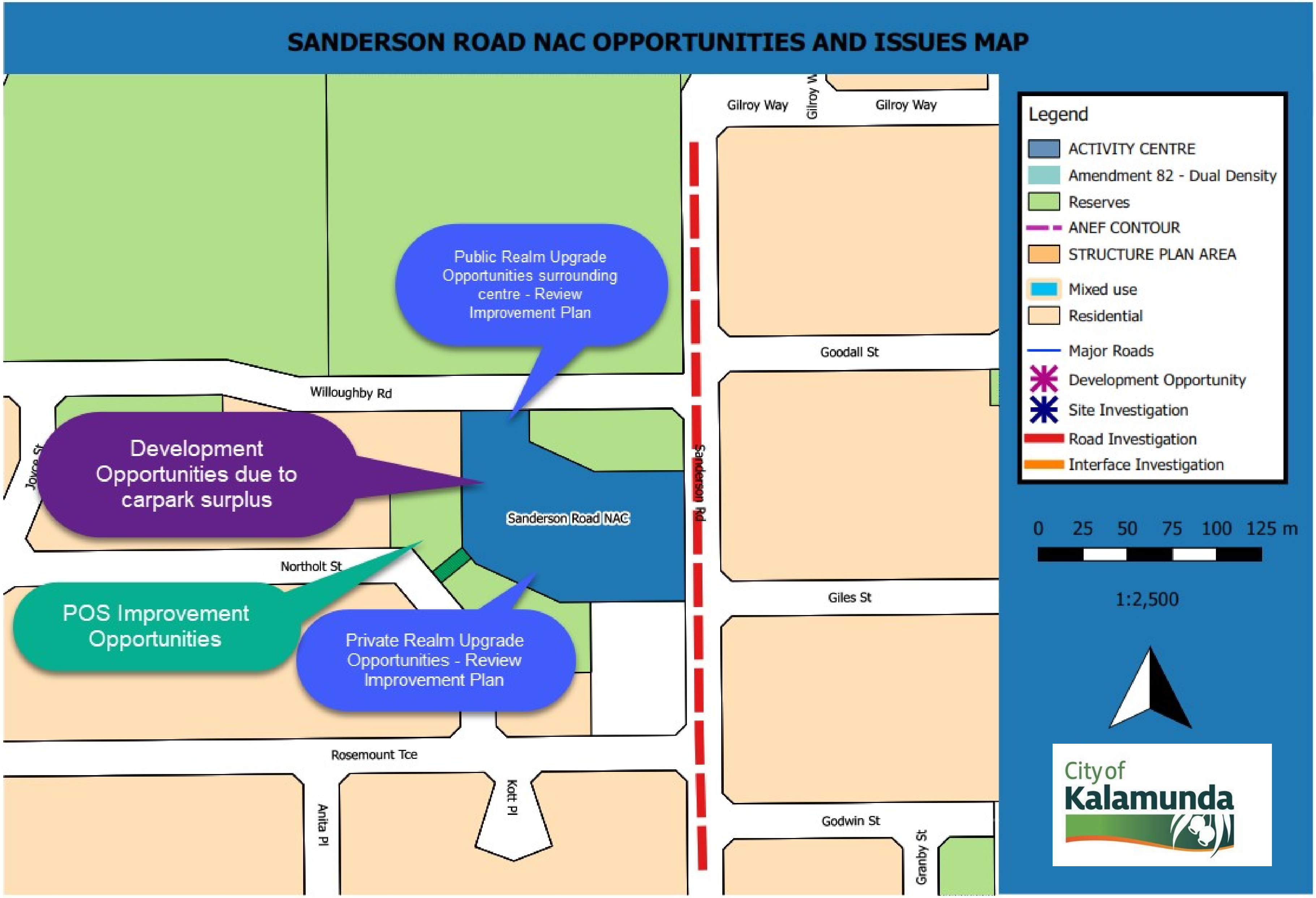

HIGH WYCOMBE EAST NAC OPPORTUNITIES AND ISSUES MAP
STIRLING CR
25 ANEF
20 ANEF
KALAMUNDA RD
High Wycombe East NAC
High Wycombe LAC West
Private Realm Upgrade Opportunities - Review Improvement Plan
Review Structure Plan land use allocation
Opportunities for POS Improvement
Improved interface opportunities
Investigate most appropriate zoning
Kalamunda Road investigation
Redevelopment and Landscaping Opportunities
Roundabout Design Review
Private Realm Upgrade Opportunities - Review Improvement Plan
Legend
ACTIVITY CENTRE
Amendment 82 - Dual Density
Reserves
ANEF CONTOUR
STRUCTURE PLAN AREA
Mixed use
Residential
Major Roads
Development Opportunity
Site Investigation
Road Investigation
Interface Investigation
0 50 100 150 200 250 m
1:5,000
City of Kalamunda

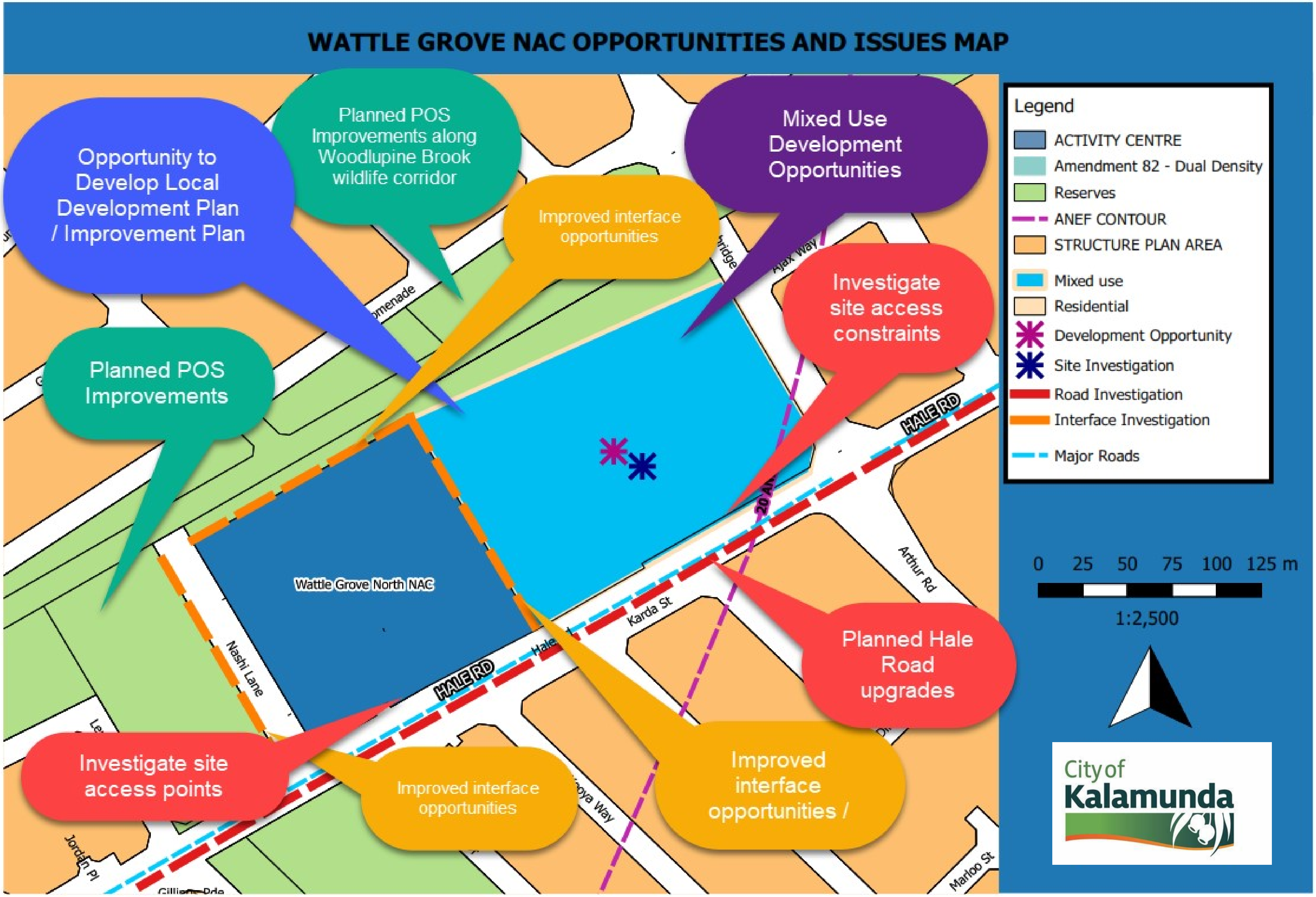
HIGH WYCOMBE WEST NAC OPPORTUNITIES AND ISSUES MAP



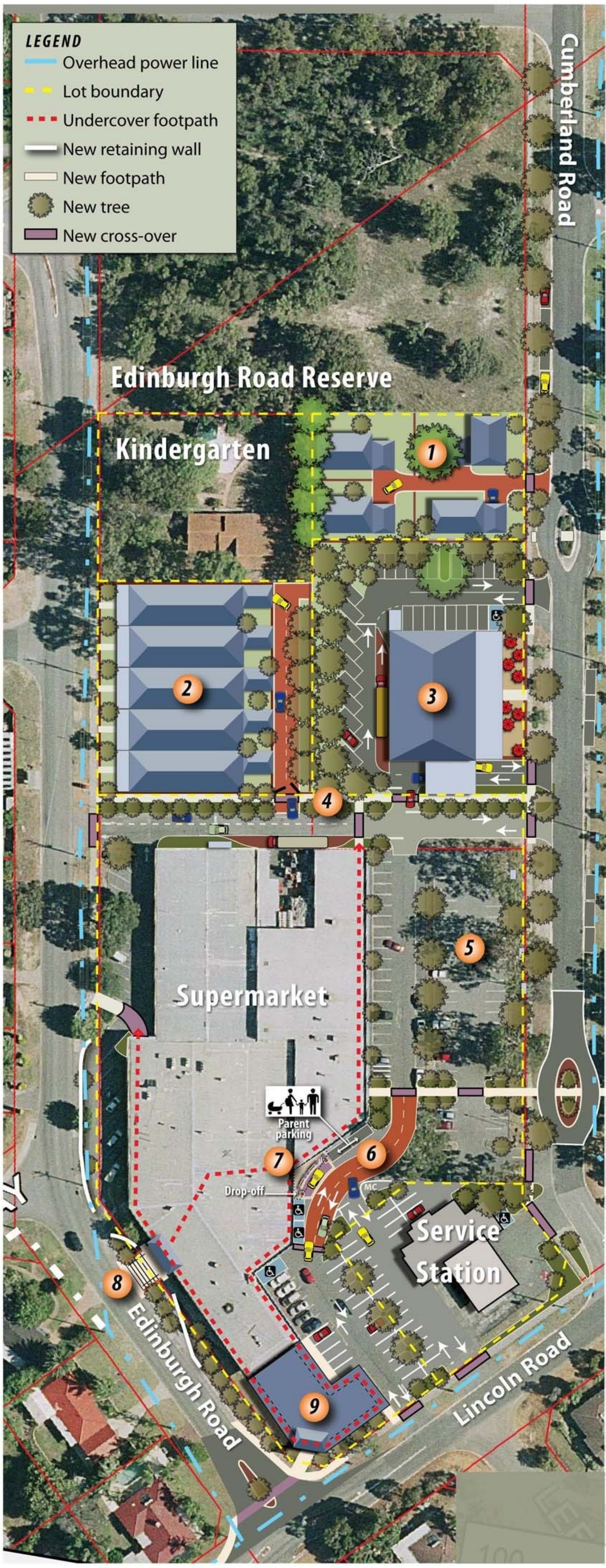
KALAMUNDA GLADES NAC OPPORTUNITIES AND ISSUES MAP




SANDERSON ROAD NAC OPPORTUNITIES AND ISSUES MAP
Gilroy Way
Gilroy Way
Public Realm Upgrade Opportunities surrounding centre - Review Improvement Plan
Goodall St
Willoughby Rd
Joyce St
Development Opportunities due to carpark surplus
Sanderson Rd
Sanderson Road NAC
Northolt St
Giles St
POS Improvement Opportunities
Private Realm Upgrade Opportunities - Review Improvement Plan
Rosemount Tce
Kott Pl
Anita Pl
Godwin St
Granby St
Legend
ACTIVITY CENTRE
Amendment 82 - Dual Density
Reserves
ANEF CONTOUR
STRUCTURE PLAN AREA
Mixed use
Residential
Major Roads
Development Opportunity
Site Investigation
Road Investigation
Interface Investigation
0 25 50 75 100 125 m
1:2,500
City of Kalamunda


WATTLE GROVE NAC OPPORTUNITIES AND ISSUES MAP
Opportunity to Develop Local Development Plan / Improvement Plan
Planned POS Improvements along Woodlupine Brook wildlife corridor
Improved interface opportunities
Mixed Use Development Opportunities
Investigate site access constraints
Planned POS Improvements
Wattle Grove North NAC
Planned Hale Road upgrades
Investigate site access points
Improved interface opportunities
Improved interface opportunities /
HALE RD
HALE RD
Karda St
Nashi Lane
Arthur Rd
Marloo St
Ajax Way
Jordan Pl
Legend
ACTIVITY CENTRE
Amendment 82 - Dual Density
Reserves
ANEF CONTOUR
STRUCTURE PLAN AREA
Mixed use
Residential
Development Opportunity
Site Investigation
Road Investigation
Interface Investigation
Major Roads
0 25 50 75 100 125 m
1:2,500
City of Kalamunda

APPENDIX 6 – EXISTING IMPROVEMENT PLANS (TO BE REVIEWED)



Introduction

This plan aims to illustrate key redevelopment and enhancement options for the Edinburgh Road Local Shopping Centre. It should be read in conjunction with Figure 1: Issues and Figure 2: Opportunities.

1. Part of the existing tavern lot could be subdivided to create medium density homes which would overlook the adjacent reserve and help provide a wider choice of housing for Foothills residents. Housing should be designed to conserve significant existing trees on the lot, and some on-street visitor parking could be supplied on Cumberland Rd.

2. This part of the supermarket lot is under utilised car parking. It could be developed as 'terrace style' housing, possibly with two storey elements to take advantage of views to the Darling Scarp and surrounding reserves.

3. There are a number of options for improvements to this lot - see Figure 2 Point 3 for details. The option illustrated left is for a new tavern / restaurant building with an alfresco area overlooking the reserve, a drive-through bottle shop, a dedicated loading zone and landscaped buffer areas between the tavern and adjacent lots. The existing significant eucalypt should be retained in the lot parking set-out and redevelopment.

4. Walking/ cycling access routes through the Centre ( ) could be made clearer and more pedestrian friendly with landscaped buffers and shade planting, clear crossover points ( ) so that motorists are made more aware of pedestrians, better connections to undercover footpaths and wider median refuges at crossing points on Edinburgh Rd and Cumberland Rd.

5. Car parks could be planted with more shade trees for shopper comfort and to give the Centre a better setting. Trees will need to be planted in improved soil, reticulated and protected from vehicle damage. Suitable species would include those pictured below. Smaller growing trees need to be planted closer together to give good shade cover.

Chinese Elm | *Liquidambar* | *Euc. leucoxylon* | *Euc. torquata* | *Native Peppermint* | *Euc. nicholii*

6. Redevelopment of the Service Station has resulted in an additional vehicle entry/exit point at the Supermarket's front doors. This area now has 4 access points and there is the potential for congestion and confusion. Line marking a dominant through-route, removing parking bays which require drivers to reverse into the four-way intersection, adding speed humps or slow points to reduce vehicle speeds, and landscaping nibs will help traffic move more freely through this zone. In addition, a dedicated drop-off bay for shoppers and taxis would be useful, and the two western bays could be reserved for parents with young children to make their visit to the Centre easier.

7. The area adjacent to the drop-off bay could be enhanced with comfortable waiting benches, colourful planted pots, a bike rack, bins, a trolley collection rail and excellent night lighting. These would provide an added sense of welcome to the Centre's customers.

8. The Edinburgh frontage of the shopping centre could be improved with new attractive retaining walls, suitable street tree planting, steps at the eastern entry (where scouring shows shoppers are tramping up the embankment) and colourful photographic panels such as have been installed on the western facade of the Centre.

9. A well designed addition to the Centre on the corner of Edinburgh and Lincoln Rds would give the building a better street-front presence (see Figure 2, Point 4 for details). Possible tenants for this new section could include a relocated medical centre (this is currently in the residential area opposite) or a bottleshop if the tavern site is re-developed. In the interim however, signage should be enhanced and the appearance of this corner improved.

Please note, the changes illustrated on this plan are concepts shown for discussion - details will be developed once this concept has been finalised.

N

AUGUST 2010

scale

0 5 25m

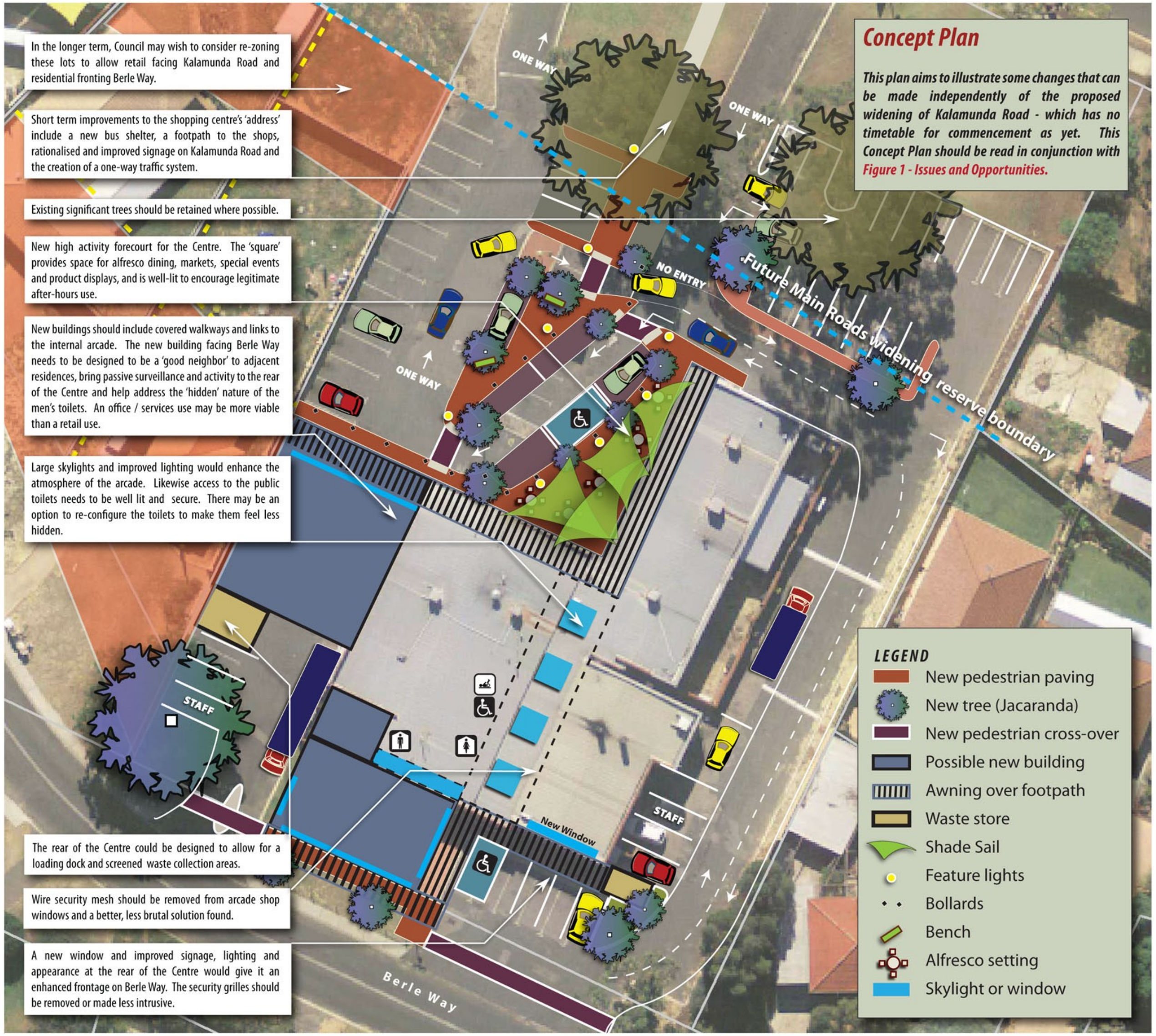
Edinburgh Road Centre

Concept Plan (DRAFT)

Figure 3

Prepared for the Shire of Kalamunda by Chris Antill Planning and Urban Design and Sally Malone Design.

shire of kalamunda



Welcoming forecourt to encourage Centre users to stay longer and attract diners to food outlets.

Centre awning clad with new facade and well designed set of signage.

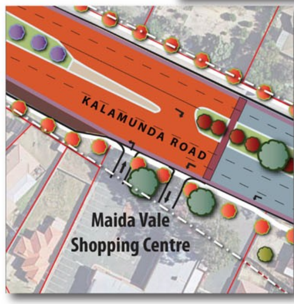
Shade tree planting and feature lighting.

Security grilles removed, or tucked out of view during opening hours.

Short stay and disabled parking bays placed at the front of the Centre.

The 'Artist's Impression' above aims to show how making the front of the Centre less vehicle dominated and more people friendly, and giving the facade a modest 'face lift' could make it a more attractive destination and give it a better profile on Kalamunda Road.

The existing building appearance is dated and dominated by security paraphernalia such as bollards and grilles. In addition, the wide expanse of road paving does little for the Centre's appearance.



When road widening works are undertaken on Kalamunda Road, the design should consider turning pockets into the shopping centre, retention of significant trees, designated pedestrian crossing points, improved bus facilities and landscaping, as illustrated in the concept sketch left.

Please note, the changes illustrated on this plan are concepts shown for discussion - details will be developed once this concept has been finalised.

OCTOBER 2010

N scale 0 2 10m

Maida Vale Shopping Centre

Concept Plan (DRAFT)

Figure 2

Prepared for the Shire of Kalamunda by Chris Antill Planning and Urban Design and Sally Malone Design.

shire of kalamunda

Please Note - These drawings have been prepared to show streetscape enhancement opportunities for discussion. Exact tree locations, road design and traffic details will be finalised at a later date.

Kalamunda Road ~ High Wycombe

Improvement Plan

Plan 3 of 5

Drawings prepared for the Shire of Kalamunda by Chris Antill Planning and Urban Design and Sally Malone Design.

N

scale 0 20 40m

October 2010

shire of kalamunda

Shopper sitting / eating area buffered from Service Station, Shopping Centre footpath widened and shop awnings extended.

New facade, awning signs and 'brand' to clearly identify businesses as part of a local shopping centre. A fresh, coordinated colour palette should be used to give the Centre a 'lift'.

New Centre sign and designated zone for 'A' frame signs and promotion banners.

Turning pocket provided to Centre entry.

Wheel stops are used to keep cars back from footpaths and metal posts replaced with colourful concrete 'cubes'. These double as seating and can be designed to hold promotion banners.

Feature lighting to ensure Centre is well lit at night.

Take away / short stay bay.

Line marking to manage traffic flows.

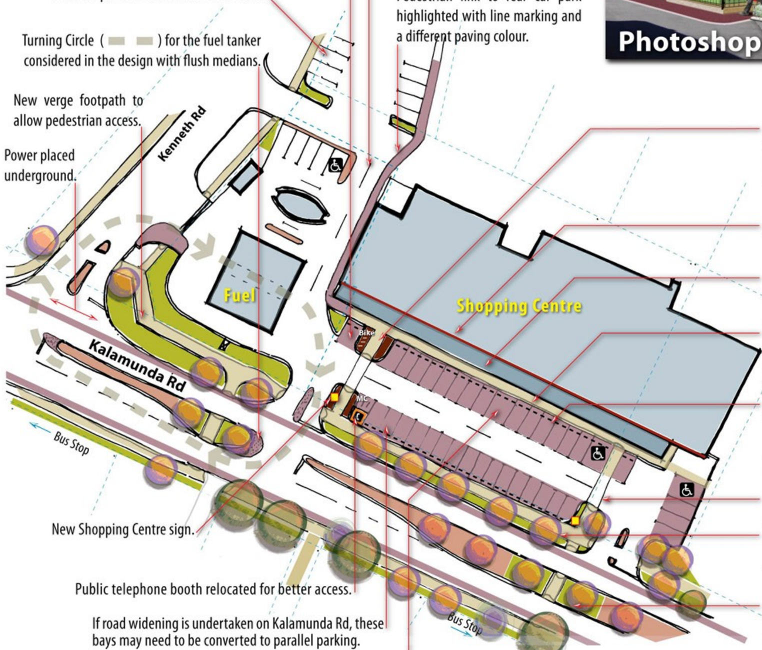
Rear car park enhanced and line marked.

Pedestrian link to rear car park highlighted with line marking and a different paving colour.

Turning Circle (▬ ▬) for the fuel tanker considered in the design with flush medians.

New verge footpath to allow pedestrian access.

Power placed underground.



New Shopping Centre sign.

Public telephone booth relocated for better access.

If road widening is undertaken on Kalamunda Rd, these bays may need to be converted to parallel parking.

Boot loading / short stay bay.

Landscaping and 'nibs' added to help manage traffic, create an entry into the shopping zone, provide a safe pedestrian crossing point and accommodate a public 'phone, bicycle and motorcycle parking.

New shop facade signage, designed as a set to tie all the shops together and reduce visual clutter.

New extended awning over footpath for improved all-weather cover for shoppers.

Shopfront footpath widened and re-paved to improve the shopper's amenity, and address level changes and drainage issues.

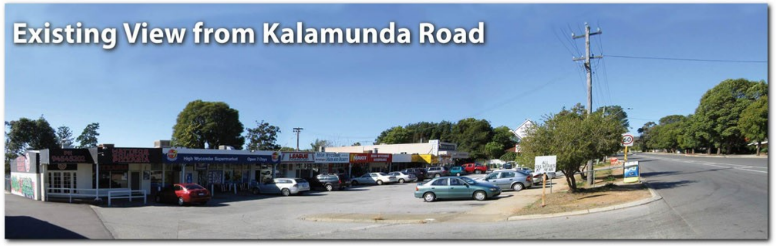
Wheel stops to the front of car bays to prevent vehicles overhanging the footpaths.

All car parks connected to allow entry / exit points to be reduced and to improve internal circulation (central entry / exit off Kalamunda Rd closed).

Verge enhanced with landscaping and a small retaining wall to prevent gravel from spilling onto footpath.

Improvements to Kalamunda Rd including landscaping to highlight the Centre, turning pockets, cycle lanes and two dedicated pedestrian crossing points.

Concept Plan View



Concept Outline

These drawings illustrate the opportunities set out in Figure 1, and aim to provide suggestions as to how some of the issues facing the Centre could be addressed.

A number of factors will need to be resolved before enhancement works can be finalised and detailed, these include:

- ***agreements between individual lot owners to allow reciprocal and unrestricted vehicle access between lots;***
- ***agreement between businesses to coordinate signage and a 'brand' for the Centre, and***
- ***finalisation of Shire plans which may result in a widened and improved Kalamunda Rd.***

Please note, the changes illustrated on this plan are concepts shown for discussion - details will be developed once this concept has been finalised.

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NTS
JULY 2010

Kenneth Road Shopping Centre

Concept Plan (DRAFT)

Figure 2

Prepared for the Shire of Kalamunda by Chris Antill Planning and Urban Design and Sally Malone Design.

shire of kalamunda

Formalised footpath to give access to the centre (currently a bush track).

Improved pedestrian links from the school.

One entry / exit point only to manage vehicle movement, improve pedestrian safety and allow more efficient parking and tree planting set-out.

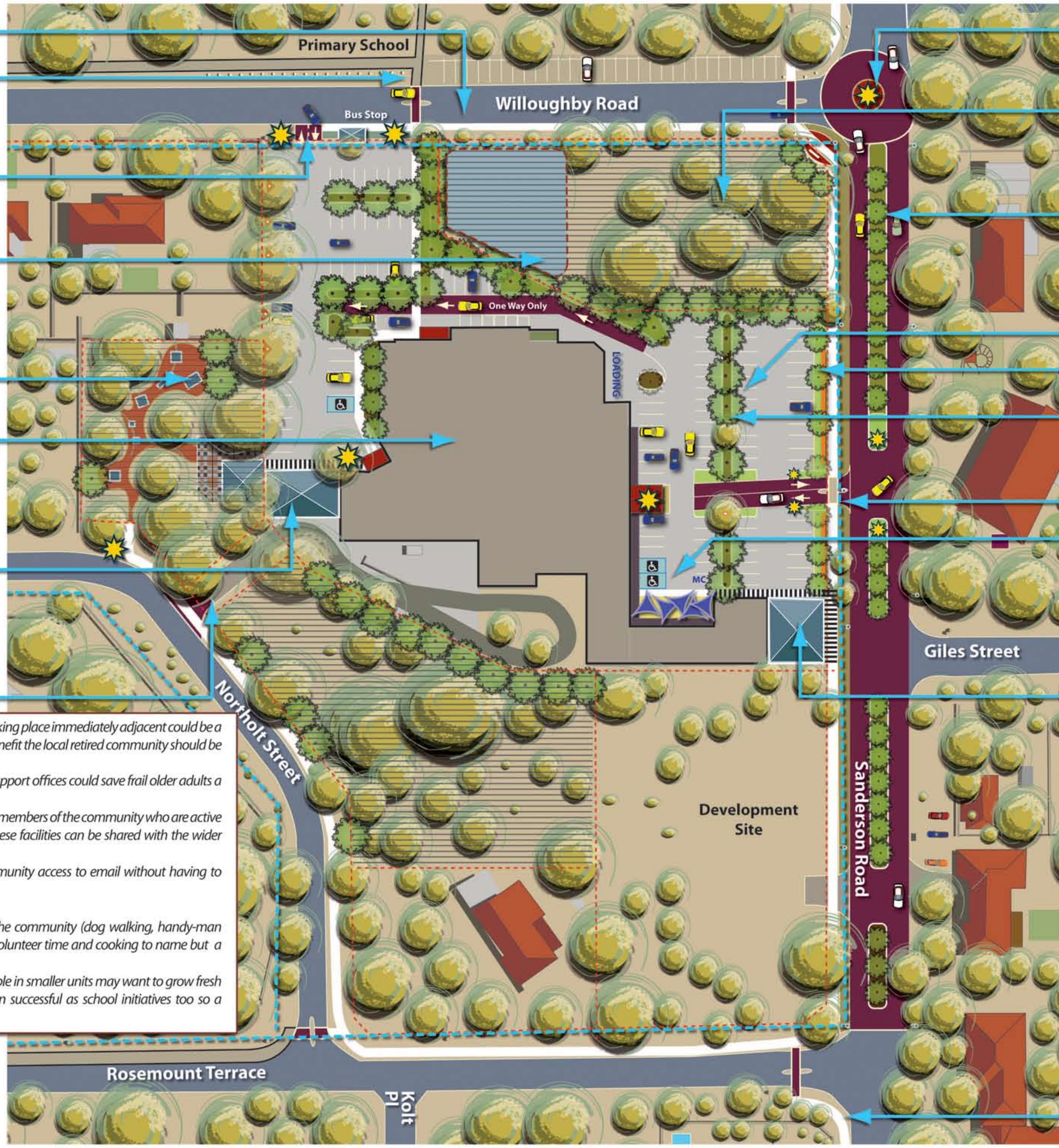
OPTION: Possible location for a community service facility (see ** inset). The bushland in this zone is severely degraded.

New play area installed in the reserve. Designed to take advantage of the shade, level changes and assets of the reserve. Buffering planting to neighbouring property boundaries.

Upgrade public toilets within centre, provide baby change facilities.

New building to lot boundary. Building needs to be activated and address adjacent reserve and carpark opposite. Option to provide a lease on the reserve for an outdoor eating area overlooking the playground.
(See Fig. 4 for a concept sketch)

New service entry provided off Northholt Street to reduce conflict between pedestrians and service vehicles and to improve appearance of the rear of the centre.



*** The development of a new retirement facility currently taking place immediately adjacent could be a real asset to the Centre. An assessment of what facilities would benefit the local retired community should be undertaken. For instance –*

- *a shared office between the Shire and Government aged support offices could save frail older adults a long journey;*
- *a "men's shed" and "ladies lounge" could provide facilities for members of the community who are active but don't have space for tools etc in their smaller homes. These facilities can be shared with the wider community including the adjacent school;*
- *a great little "book café" with internet may give the community access to email without having to purchase and manage computers at home or;*
- *mothers' club and toy library*
- *a job centre where retired people can advertise skills to the community (dog walking, handy-man services, child minding, tutoring, vacation house-watching, volunteer time and cooking to name but a few);*
- *a community garden may also be an option, as retired people in smaller units may want to grow fresh herbs etc but not have the room - these gardens have been successful as school initiatives too so a partnership may be appropriate.*

New roundabout with a feature in the centre and footpaths & landscaping to verges.

Protect and enhance bush reserves. Formalise pathways and provide seating. Edge with pine bollards.

Sanderson Road widened and a median created. This allows tree planting away from power lines and slows traffic at the Centre, giving it more of an address.

Rationalisation of internal vehicle movement to slow it down and reduce pavement areas. One-way or two-way can be considered. Needs to be matched with service entry improvement to south of centre.

Low wall with business signage.

Additional shade tree planting to car parks.

Main entry re-aligned to give a view to building doorway, and entry improved with banners / landscaping / signage / lighting etc.
(See Fig. 3 for a concept sketch)

Improved frontage to these shops with colourful but robust street furniture, shade awnings, planter boxes and clear, safe pedestrian access. Develop new "active" tenancies along face of existing building which open onto the carpark.

New building with active frontage built to edge of lot with verandah over footpath wrapping around to provide shaded access to Centre entry.

LEGEND

- Existing tree
- New tree
- New footpath
- New building
- New red asphalt
- Entry feature
- Council reserve
- Power line
- New awning over footpath
- Planted median or nib

Improved pedestrian links from the Lesmurdie Rd bus routes.

Prepared for the Shire of Kalamunda by Chris Antill Planning & Urban Design and Sally Malone Design

February 2010

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Sanderson Road Shopping Centre ~ Local Centre Improvement Concept

Figure 2 ~ Concept Plan

scale
0 10 20m

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APPENDIX 7 – REFERENCES

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