City of Wanneroo Needs Assessment

LOCAL PLANNING STRATEGY - PROJECTED FLOORSPACE AND EMPLOYMENT NEEDS TO 2041

Version Control

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City of Wanneroo Needs Assessment

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Executive Summary

This needs assessment has been prepared by the City of Wanneroo to estimate the total number of jobs and employment floor space required to meet future employment needs by 2041.

The North-West Sub Region (City of Wanneroo and City of Joondalup) was set with a target of 60% employment self-sufficiency (ESS) in Directions 2031, which is the proportion of local jobs to the local workforce. A 59.5% ESS target has been set by State Government as outlined in the North -West Sub Region Planning Framework to be achieved by 2050. *Table 1* below indicates that the region is on track to achieve the Directions 2031 60% target with the current ESS at 54.1% and projected to reach 60.0% by 2031.

Table 1: Employment Self-Sufficiency – North-West Sub-region

Employment Self Sufficiency	ESS 2001	ESS 2006	ESS 2011	ESS 2016	ESS 2021	Forecast 2031 ESS
City of Wanneroo	46.0%	44.1%	44.7%	45.2%	50.0%	53.5%
City of Joondalup	35.7%	39.1%	47.4%	54.3%	59.2%	70.2%
NW Sub Region	**39.0%**	**41.1%**	**46.1%**	**49.4%**	**54.1%**	**60.0%**

Source: City of Wanneroo Modelling based on 2021 ABS Census and forecast.id Population and Housing Forecasts, December 2021

If the ESS target for the Sub Region can be achieved by 2031, it is reasonable to set a target for the City of Wanneroo to reach its own target of 60% ESS by 2041. This is likely to be the earliest that it could be achieved. The current ESS of 50.0% for the City of Wanneroo is calculated in *Table 2* below.

Table 2: Employment Self-Sufficiency – City of Wanneroo

City of Wanneroo Employment Self Sufficiency - 2021 Census	
Resident Employed Labour Force	104,590
Local Jobs	52,245
Employment Self-Sufficiency	50.0%

Source: 2021 ABS Census, General Community Profile and Worker Population Profile

The table indicates that the City of Wanneroo has 52,245 jobs (ABS 2021) located within its jurisdiction with a local labour force living in the City of 104,601. This translates to an employment self-sufficiency of 50.0%.

It is anticipated that the City will have a labour force (employed persons) of approximately 180,599 people by 2041. This is based on the 2021 participation rate of 64.2% of working age residents being employed in the workforce. If the local labour force at 2041 reaches 180,599, the required number of local jobs to achieve an ESS target of 60% is outlined in the table below.

Table 3: Employment Self-Sufficiency 2041 Target – City of Wanneroo

Employment Self Sufficiency - 2041 Target	
Resident Employed Labour Force (2041)	180,599
Local Jobs (2041)	108,360
Employment Self-Sufficiency	60.00%
Additional Jobs Required 2021 to 2041	56,115

Source: City of Wanneroo Modelling based on 2021 ABS Census and forecast.id Population and Housing Forecasts, December 2021

Based on the 2021 ABS Census number of 52,245 jobs at 2021, the above table indicates that the additional jobs required to meet 60% ESS by 2041 is 56,115. This is a very significant increase and represents a more than doubling of the number of local jobs at 2021.

The table below shows the total floorspace and employment as shown tin the WAPC Land Use and Employment Survey, 2015 – 2017 noting that the City of Wanneroo was surveyed in 2016. The floorspace includes all four complex types being commercial, industrial, public purpose and recreation.

Table 4: City of Wanneroo 2016 Floorspace and Employment

2016 - TOTAL FLOORSPACE	Non-Retail Uses	Other Retail	Shop/ Retail	TOTAL OCCUPIED
% of Occupied	*86.9%*	*4.6%*	*8.5%*	*100.0%*
Floorspace (m2)	2,007,182	105,331	196,119	2,308,632
Employment	24,337	1,232	7,384	32,953
m2/Job ratio	82.5	85.5	26.6	70.1

Source: WAPC Land Use and Employment Survey, 2015 - 2017

The 2016 Land Use and Employment Survey indicates that 32,953 people were employed within commercial, industrial, public purpose and recreation complexes within the City. The 2016 ABS Census indicates that total employment in the City at the time was 44,002. This indicates that 11,049 people were employed in out of centre locations. This includes home based, agriculture, contractors, mobile workers (trades) and construction workers on site. In terms of forecasting future floorspace in complexes, this ratio is important. Approximately 25% of all employment within the City at 2016 was outside of a complex. Other local government areas in the Perth Metropolitan area have higher ratios and some have lower ratios indicating that this is likely to be specific to location. It is assumed that the ratio for the City will remain very similar for the purposes of projecting required floorspace in activity centres and other employment complexes.

The projected required floorspace in the City of Wanneroo at 2041 required to achieve 60% ESS is shown in *Table 5* below.

Table 5: City of Wanneroo Projected 2041 Floorspace and Employment

2041 - TOTAL FLOORSPACE	Non-Retail Uses	Other Retail	Shop/ Retail	TOTAL OCCUPIED
% of Occupied	*86.8%*	*4.6%*	*8.7%*	*100.0%*
Floorspace (m2)	4,942,896	259,389	493,339	5,695,624
Employment	59,932	3,034	19,531	82,497
m2/Job ratio	82.5	85.5	25.3	69.0

Source: City of Wanneroo Modelling and MGA Town Planners Retail Needs Assessment

This indicates a total additional floorspace requirement of 3,387,000m^2 to be delivered between 2016 and 2041. The floorspace has been modelled using a Retail Needs Assessment (RNA) for the Shop Retail land use component (for commercial and industrial areas), and the remaining non-retail data has been modelled based on a target of 60% ESS as well as population projections. The table indicates that a total of 82,497 jobs will be generated by 5,695,624m^2 of floorspace in 2041. In addition, a total of 25,863 jobs will be required in out of centre locations to reach the 108,360 jobs target needed to achieve 60% ESS. In terms of land requirements, the current situation is that the City is confident that the required land area to accommodate the above floorspace expansion is adequately planned for through the MRS, endorsed District Structure Plans and the Neerabup Industrial Area Structure Plan (currently being amended). Development timeframes for

the ultimate development of these structure plan areas are well beyond 2041.

Shop Retail, Other Retail and Non-Retail Uses summary – Commercial, Industrial, Public Purpose, and Recreation Employment Centres

The table below shows the projected 2041 floorspace and employment by land use for commercial centres. The RNA focused on the significant number of activity centres included in the below totals. Other land use floorspace and employment has been modelled around staged growth to achieve the ESS target of 60% by 2041 as well as population growth considerations. This has resulted in a robust and achievable set of target floorspaces by land use type for commercial areas.

Table 6: Projected 2041 Commercial Floorspace and Employment located in Activity Centres

2041 - COMMERCIAL FLOORSPACE	Non-Retail Uses	Other Retail	Shop/ Retail	TOTAL OCCUPIED
% of Occupied	*47.8%*	*12.3%*	*39.9%*	*100.0%*
Floorspace (m2)	528,332	135,953	441,366	1,105,651
Employment	14,788	1,576	18,229	34,593
m2/Job ratio	35.7	86.3	24.2	32.0

Source: City of Wanneroo Modelling and MGA Town Planners Retail Needs Assessment

The table below shows the projected 2041 floorspace and employment by land use for industrial centres including Wangara, Landsdale and Neerabup. In terms of retail, the model assumes that any Shop/Retail expansion in industrial areas will be very limited.

Table 7: Projected 2041 Industrial Floorspace and Employment located in Industrial Areas

2041 - INDUSTRIAL FLOORSPACE	Non-Retail Uses	Other Retail	Shop/ Retail	TOTAL OCCUPIED
% of Occupied	*95.3%*	*3.7%*	*1.0%*	*100.0%*
Floorspace (m2)	3,178,437	123,436	32,464	3,334,337
Employment	32,319	1,458	676	34,453
m2/Job ratio	98.3	84.7	48.0	96.8

Source: City of Wanneroo Modelling and MGA Town Planners Retail Needs Assessment

The table below shows the projected 2041 floorspace and employment by land use for Public Purpose employment centres.

Table 8: Projected 2041 Public Purpose Floorspace and Employment located in Urban Areas

2041 - PUBLIC PURPOSE FLOORSPACE	Non-Retail Uses	Other Retail	Shop/ Retail	TOTAL OCCUPIED
% of Occupied	*98.7%*	*0.0%*	*1.3%*	*100.0%*
Floorspace (m2)	1,167,826	0	15,773	1,183,599
Employment	12,143	0	532	12,675
m2/Job ratio	96.2	0.0	29.7	93.4

Source: City of Wanneroo Modelling and MGA Town Planners Retail Needs Assessment

The following table shows the projected 2041 floorspace and employment by land use for Recreation employment centres.

Table 9: Projected 2041 Recreation Floorspace and Employment located in Urban Areas

2041 - RECREATION FLOORSPACE	Non-Retail Uses	Other Retail	Shop/ Retail	TOTAL OCCUPIED
% of Occupied	*94.8%*	*0.0%*	*5.2%*	*100.0%*
Floorspace (m2)	68,300	0	3,736	72,036
Employment	682	0	94	776
m2/Job ratio	100.1	0.0	39.9	92.9

Source: City of Wanneroo Modelling and MGA Town Planners Retail Needs Assessment

The above provides a high-level summary of the headline figures contained in the City of Wanneroo Needs Assessment. The complete set of forecast data for the City of Wanneroo Needs Assessment in five-year intervals by complex type is shown at *Appendix 3: All Land Uses Needs Assessment.* The full Retail Needs Assessment for all commercial centres or activity centres located in the City consistent with the requirements of State Planning Policy 4.2 (Activity Centres Perth and Peel) is shown at *Appendix 1: Retail Needs* Assessment.

Delivering the above total additional floorspace of 3,387,000m^2 in the timeframe (2016 to 2041) will be challenging. The City's role in enabling the magnitude of investment and business attraction needed will require having an appropriate planning framework in place that will deliver on the required outcomes. This will mean that the Local Planning Strategy and Local Planning Scheme will need to contain sufficient flexibility to deliver orderly planning at the same time as ensuring that prospective investors, businesses and property developers have as much certainty of compliance as practicable on innovative proposals.

It should be noted that 2041 is still many years before full build out of the current identified urban and urban deferred areas within the City of Wanneroo. The timeframe for full build out is likely to be closer to 2100 at which time the population will be in the order of around 600,000.

Introduction

The City of Wanneroo Needs Assessment to 2041 report has been prepared to support the City's development of a Local Planning Strategy (LPS) and new planning scheme.

The Needs Assessment uses the SPP 4.2 Implementation Guidelines to guide the development of Needs Assessment noting that there is alignment for the majority of the recommended inclusions. It needs to be acknowledged that the unique nature of dealing with planning and growth in the City of Wanneroo means that not all sections in the guidelines are relevant in terms of providing compelling evidence for significant planning decisions and informing the LPS content.

The City is forecast to continue its rapid population growth and is expected to grow to approximately 370,000 by 2041. This is a considerable increase from an estimated population of 216,000 at 2021. The increased population will generate approximately 58,000 additional households with an average of 2.75 persons per dwelling.

The Needs Assessment report identifies the estimated future resident labourforce and identifies the required number of local jobs to meet an ESS target of 60% by 2041. This context forms the basis for estimating the amount of Shop Retail (Planning Land Use Category 5) floorspace and other land use floorspace requirements to 2041 detailed within the report. The Retail Needs Assessment has been prepared using a gravity model and has been developed to identify the future Shop Retail floorspace needs for each activity centre within the City.

This report has been developed to address the requirements contained within the Draft SPP 4.2 Implementation Guidelines for Needs Assessments and to inform the City's Local Planning Strategy. The outcomes of developing a robust Needs Assessment and implementing a Local Planning Strategy for the City will be orderly planning of activity centres and industrial areas with high functioning employment centres, generating quality employment opportunities for the local labourforce and achieving a 60% ESS.

Study Parameters

Study Area

The study area includes all of the City of Wanneroo local government area. The Needs Assessment includes a separate Retail Needs Assessment (RNA) to estimate the specific Shop Retail (PLUC 5) need for all commercial activity centres within the City. Estimated Shop Retail floorspace for each activity centre at 5-yearly intervals has been determined through a gravity retail model undertaken by MGA Town Planners on behalf of the City. The RNA considers all retail centres impacting on expenditure within the City including those centres within the neighbouring Cities of Joondalup, Stirling and Swan.

Study Period

The Draft State Planning Policy 4.2 Implementation Guidelines indicate that the Needs Assessment should have a timeframe of 15 years for a Local Planning Strategy. The timeframe for this Needs Assessment is up to and including the year 2041 due to the availability of population forecasts. It is anticipated that due to the dynamic nature of the model presented in the Needs Assessment that a number of reviews will be completed within the timeframe as new data is available such as revised population forecasts, land use survey data and future ABS Census data. As such, the Needs Assessment has included one growth scenario that will be continuously monitored. Since 2013, the City has reviewed the

RNA a number of times so this approach will also be used for the full Needs Assessment reviews.

Activity Centre Uses Assessed

All known existing and planned activity centres have been included in the Needs Assessment and all planning land use categories have been modelled at the aggregate level by complex type (Commercial, Industrial, Public Purpose, Recreation). The Shop Retail floorspace for each commercial and industrial activity centre has been estimated in the model, including timeframes for anticipated growth at most centres. Other land use types have been estimated and aggregated at the complex type level (i.e. Commercial, Industrial, Public Purpose and Recreation) and over time in 5 yearly intervals.

Data and Inputs

Verifiable data sources have been used in the Needs Assessment including Australian Bureau of Statistics Census Data, Land Use and Employment Survey data from WAPC and population forecasts from forecast.id.

The use of forecast.id was discussed with DPLH prior to commencing the modelling. DPLH provided detailed small area WA Tomorrow data for the City to compare with forecast.id.

Forecast.id Data

The City of Wanneroo population and household forecasts are undertaken by .id, (informed decisions), on behalf of the City of Wanneroo and updated periodically.

During the forecast modelling process, .id assesses what is driving population change in the area and forecasts how the age structure and household types will change as result.

Forecasts are available for the City of Wanneroo and small areas for each year to 2041. The detailed methodology of how the forecasts are developed including drivers of population change, assumptions and results are available at https://forecast.id.com.au/wanneroo . It should be noted that the City has commissioned forecast.id consulting to undertake population forecasts since 2006 and the long-term accuracy of the forecasts has been excellent. This is mainly due to the comprehensive review processes that involve the City providing key details to inform assumptions around dwelling construction forecasts.

Methodology

The methodology for projecting the future floorspace needs for the City of Wanneroo includes the following demand modelling inputs:

1. Current and projected City of Wanneroo working age population;
2. Current City of Wanneroo participation rate by age;
3. Current and projected City of Wanneroo labourforce;
4. Current City of Wanneroo local jobs and employment self-sufficiency;
5. Future Employment self-sufficiency target;
6. Projected future jobs to meet ESS target;
7. Sensitivity analysis to ensure jobs growth rate is achievable including benchmarking to viable Shop Retail floorspace growth determined through the RNA gravity model;
8. Ratio of total employment within the City (ABS)to employment within employment centres/complexes (WAPC); and
9. Historical floorspace to jobs ratios.

Using the above transparent demand modelling inputs have ensured that while the City can meet the target of 60% ESS by 2041, it will be achieved using plausible demand factors. With a projected population at 2041 of approximately 370,000 people, the City should be

able to generate the appropriate scale of floorspace to meet the demand as well as achieving a sustainable 60% ESS.

There is a considerable proportion of employment that is located in out of centre areas within the City of Wanneroo. This includes agriculture areas, mobile businesses, home based businesses, contractors and construction sites. There is a difference between the number of jobs identified in the WAPC Land Use and Employment Survey (2016), and the total number of jobs identified in the City in the 2016 ABS Census. The jobs identified in the WAPC survey are located in employment centres or complexes. The 2016 Census indicated an additional 11,000 jobs, or around 25%, above the jobs indicated in the WAPC Land Use and Employment Survey. This proportion has also been factored into the modelling to estimate future out of centre jobs that will continue to contribute a significant amount of future employment.

Strategic Context

This section provides a review of the relevant strategic documents used to inform the Needs Assessment.

State Planning Framework

State Planning Policy 4.2 (Draft)

The Draft State Planning Policy (SPP) 4.2 provides a detailed overview of activity centre types and their appropriate hierarchy. It defines activity centres as multi-functional community focal points that vary in size and function. These activity centres are to be adequately serviced by transport networks with a focus on integrating pedestrian access and walkability. Activity centres need to include a range of land uses appropriate to the centre type.

Importantly, the Draft SPP 4.2 provides implementation guidelines to support the development of planning documents and development applications. The guidelines identify two key documents to be developed using the guidelines:

- Needs Assessments to support strategies, structure plans and major developments; and
- Impact Tests to support major developments.

This Needs Assessment has been developed to support and inform the City of Wanneroo Local Planning Strategy and therefore includes the appropriate level of detail for this purpose. The RNA portion of the overall Needs Assessment has been developed to ensure that any future Impact Test for retail expansion proposals can be assessed in context of the overall retail needs of the City and likely impacts on surrounding centres.

North West Metropolitan Sub-Regional Planning Framework

The North-West Metropolitan Sub-Regional Planning Framework is a key document for informing future planning in the City of Wanneroo. It is part of the Perth and Peel @3.5 million overarching framework. It is important to note that Perth and Peel @3.5 million was developed using the key principles of Directions 2031 and Beyond (2010). Directions 2031 and Beyond set a target for ESS for the North West Sub-Region of 60% by 2031 and this is a key principle that the City of Wanneroo has considered as important since the target was introduced.

Infrastructure Requirements

The North-West Metropolitan Sub-Regional Planning Framework aims to stablish a long-term, integrated planning framework for land use and infrastructure to guide future growth across the sub-region. A key element is the staging and sequencing of urban development to inform public investment in regional community, social and service infrastructure. The Framework identifies community and social infrastructure (Plan 4), public transport infrastructure (Plan 5), regional roads (Plan 6), freight and aviation (Plan 7) and all services infrastructure (Plan 8). The implementation of all of these plans are critical enablers to generating economic growth and employment to meet the ESS targets identified in Directions 2031.

These infrastructure requirements are also supported in the Industrial Lands Steering Committee 10-Year Industrial Land Strategy. Key infrastructure to support industrial growth includes Flynn Drive upgrade from Wanneroo Rod to the future Whiteman Yanchep Highway, upgrading Neaves Road to a primary distributor, finalising the upgrade of Gnangara Road and Wanneroo Road intersection and the delivery of the Whiteman to Yanchep Highway. This highway is particularly important as it is proposed to be a new freight route that will connect Neerabup Industrial Area to Perth Airport, Kewdale Intermodal Terminal and other established industrial areas such as Malaga and Welshpool.

City of Wanneroo Context

Local Planning Framework

The City's District Planning Scheme No. 2 (DPS 2) currently provides the framework for the planning and development of land. The Scheme is supported by a number of structure plans that provide more specific detail on areas and how the land is intended to be developed or is currently being developed.

The City is now preparing a Local Planning Strategy and Local Planning Scheme No. 3. This Needs Assessment is intended to inform the development of the Local Planning Strategy.

Economic Development Strategy

The City’s Economic Development Strategy 2022 – 2032 outlines the City’s bold intentions for local economic development over the ten year period to 2032.

The strategy contains six focus areas as outlined below.

1. Business engagement and support:

   Support business through authentic engagement, process improvement, local business services, training and networking

2. Investment attraction and marketing:

   Optimise opportunities for private investment in Wanneroo through collaboration, a strong digital presence and strategic marketing.

3. Planning for the future:

   Plan for growth and investment using a flexible approach to City planning, balance sensitive land uses with economic outcomes and optimising the activation of employment locations.

4. Leadership, Innovation and sustainability:

Lead the way by embracing innovation, the circular economy, sustainable local procurement and regional collaboration.

5. Tourism industry support and development:

   Support the development of this key niche industry through regional collaboration, partnerships, marketing, product development, branding and leadership.

6. Strategic economic advocacy.

   Attract government and non-government investment for key infrastructure, gaps to service provision, policy and legislation through strategic economic advocacy.

The Economic Development Strategy indicates a target of approximately 75,000 local jobs by 2031.

Drivers of Floorspace Demand

Population Forecasts

In 2021, the total population of City of Wanneroo was estimated to be 216,162 people. It is expected to increase by over 154,000 people to approximately 370,000 by 2041, at an average annual change of 2.73%. This is based on an increase of over 58,000 households during the period, with the average number of persons per household falling from 2.85 to 2.75 by 2041.

Demographic profile

Age Profile

In 2021, the largest age group in City of Wanneroo was 35 to 39 year olds. The group that changed the most since 2016 was 55 to 59 year olds, increasing by 2,612 people.

Analysis of the five year age groups of City of Wanneroo in 2021 compared to Greater Perth shows that there was a higher proportion of people in the younger age groups (under 15) and a lower proportion of people in the older age groups (65+).

Overall, 22.1% of the population was aged between 0 and 15, and 12.0% were aged 65 years and over, compared with 19.0% and 15.8% respectively for Greater Perth.

The major differences between the age structure of City of Wanneroo and Greater Perth were:

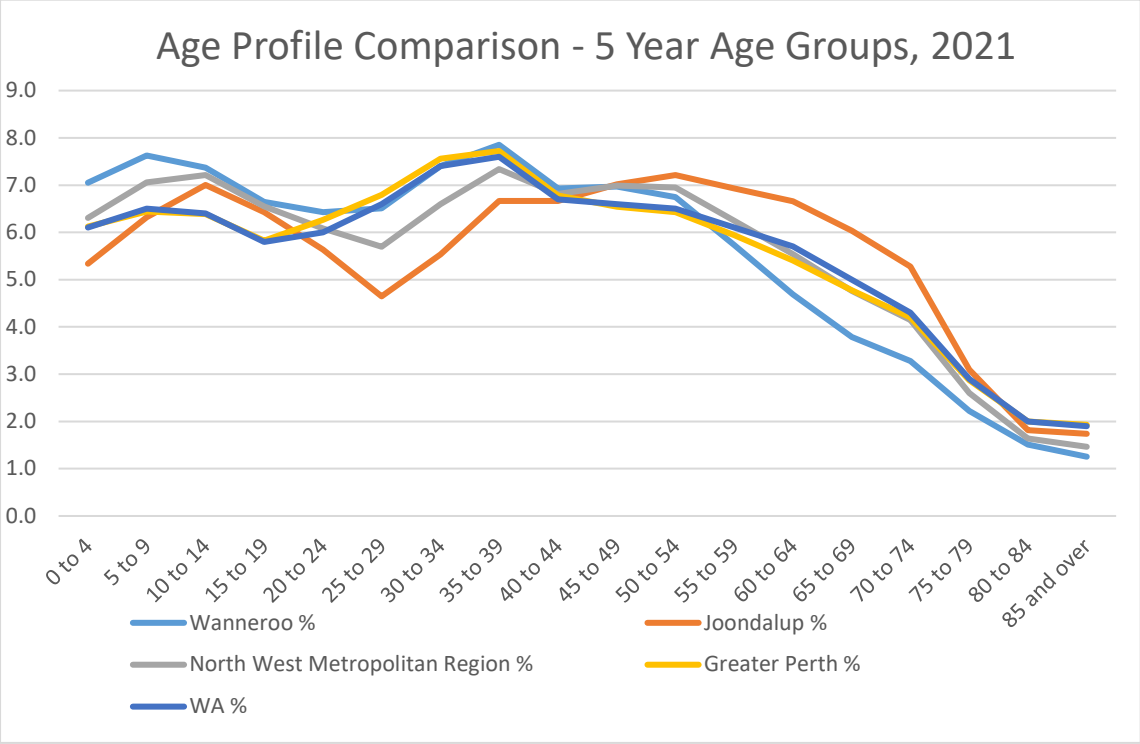
- A larger percentage of persons aged 5 to 9 (7.6% compared to 6.4%)
- A larger percentage of persons aged 10 to 14 (7.4% compared to 6.4%)
- A larger percentage of persons aged 0 to 4 (7.1% compared to 6.1%)
- A smaller percentage of persons aged 65 to 69 (3.8% compared to 4.8%)

From 2016 to 2021, City of Wanneroo's population increased by 20,892 people (11.1%). This represents an average annual population change of 2.13% per year over the period.

The largest changes in age structure in this area between 2016 and 2021 were in the age groups:

- 55 to 59 (+2,612 persons)
- 60 to 64 (+2,461 persons)
- 50 to 54 (+2,402 persons)
- 35 to 39 (+2,378 persons)

Figure 1: City of Wanneroo Population Age Profile, 2021

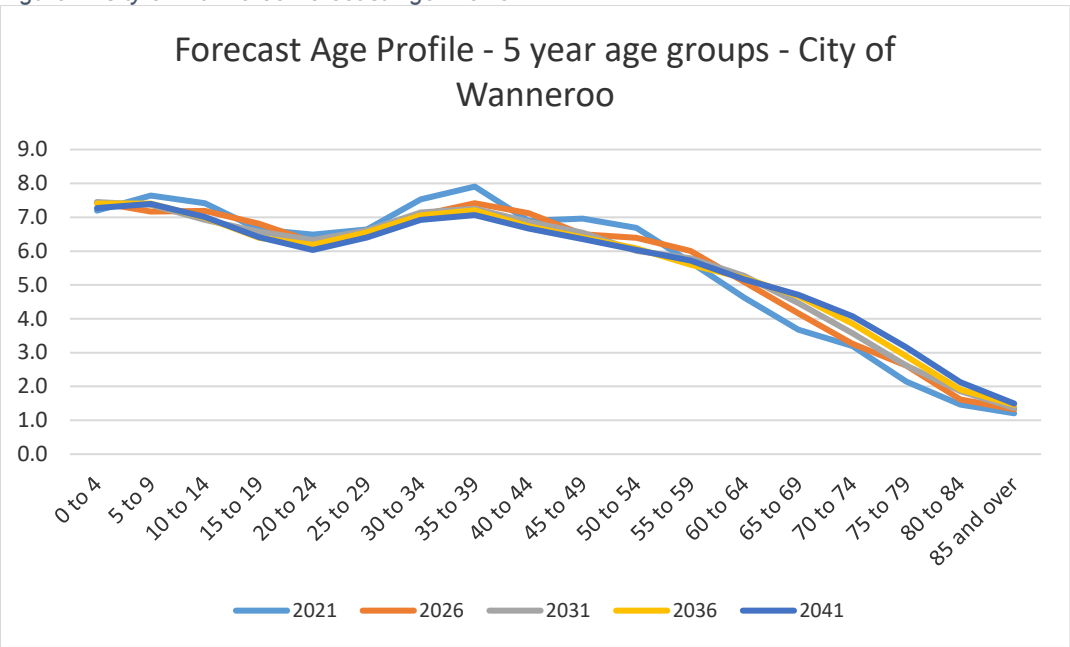


Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented in profile.id by .id (informed decisions)

The City of Wanneroo includes a generally lower proportion of older persons compared with the other areas shown on the graph. The anticipated growth over the next 20 years is unlikely to impact significantly on this proportion. For the purposes of this study, the implication is that the overall labourforce participation rate is likely to remain relatively constant with some minor shifts during the period.

The graph below illustrates the estimated shift in the age cohorts in 5 year periods to 2041.

Figure 2: City of Wanneroo Forecast Age Profile



Source: Population and household forecasts, 2021 to 2041, prepared by .id (informed decisions), December 2021.

The participation rate by age cohort at 2021 has been used in the Needs Assessment modelling for each 5-year interval to 2041. This has enabled a more accurate estimation of the future local labourforce, which is critical for calculating a more accurate future ESS estimate.

Education Profile

In City of Wanneroo, 56.2% of people aged over 15 years had completed Year 12 schooling (or equivalent) as of 2021. This was less than Greater Perth.

Analysis of the highest level of schooling attained by the population in City of Wanneroo in 2021 compared to Greater Perth shows that there was a higher proportion of people who had left school at an early level (Year 10 or less) and a lower proportion of people who completed Year 12 or equivalent.

Overall, 27.8% of the population left school at Year 10 or below, and 56.2% went on to complete Year 12 or equivalent, compared with 25.5% and 59.6% respectively for Greater Perth.

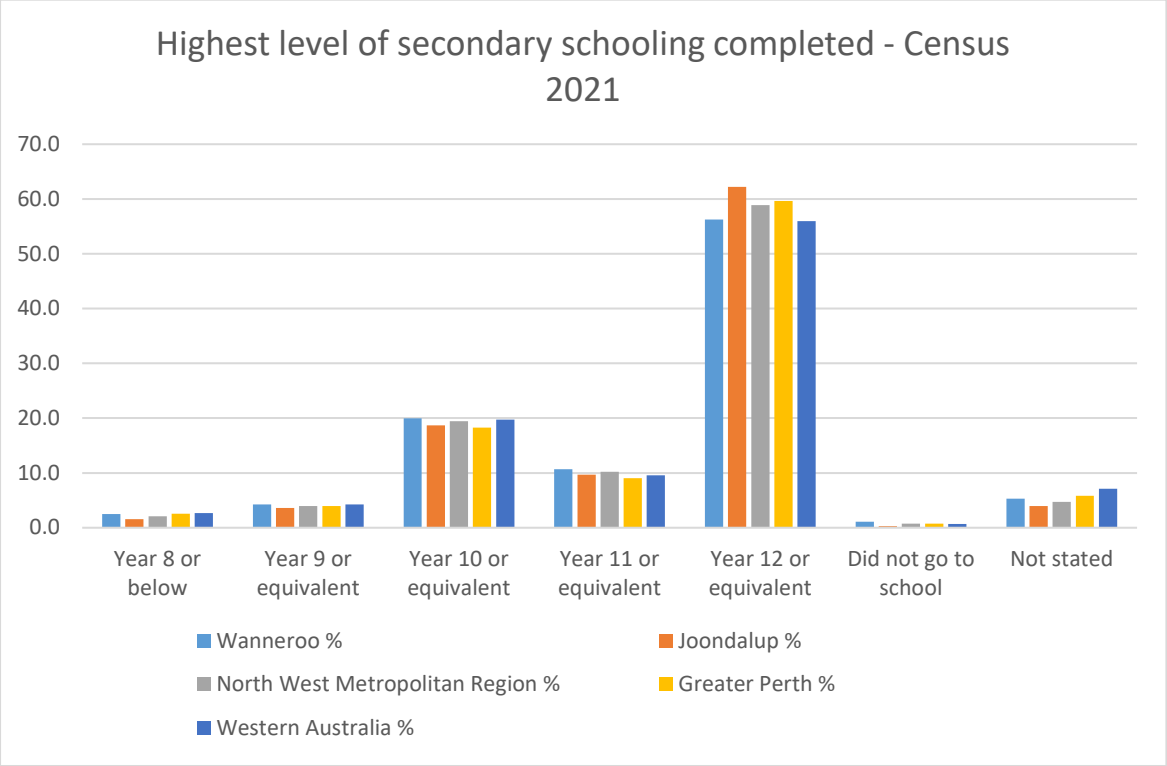
The major differences between the level of schooling attained by the population in City of Wanneroo and Greater Perth were:

- A larger percentage of persons who completed year 10 or equivalent (20.0% compared to 18.3%)
- A larger percentage of persons who completed year 11 or equivalent (10.7% compared to 9.0%)
- A smaller percentage of persons who completed year 12 or equivalent (56.2% compared to 59.6%)

The largest changes in the level of schooling attained by the population in City of Wanneroo, between 2016 and 2021 were:

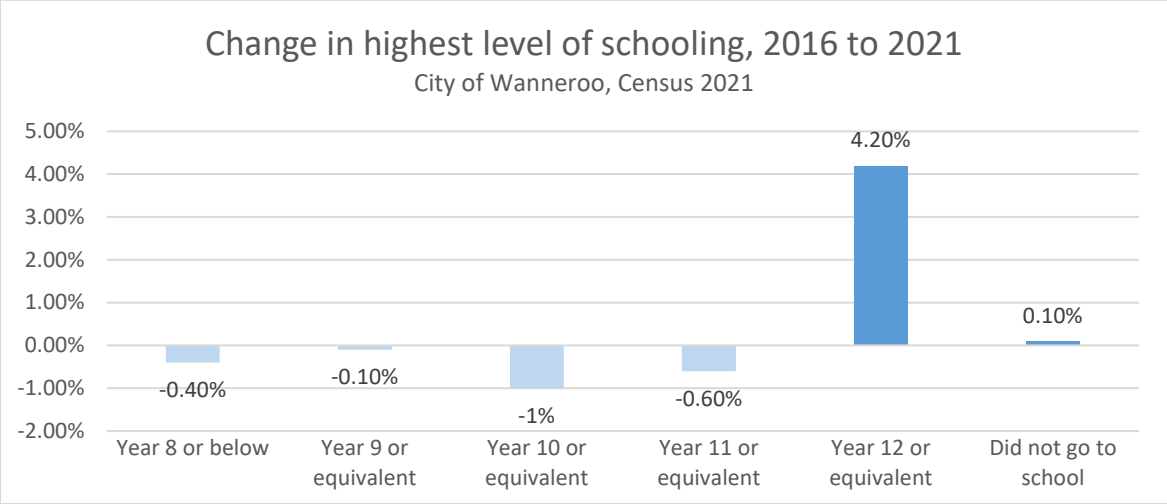
- Year 12 or equivalent (+16,230 persons)
- Year 10 or equivalent (+2,148 persons)
- Year 11 or equivalent (+1,095 persons)
- Year 9 or equivalent (+570 persons)

Figure 3: City of Wannero Highest Level of Schooling Completed, 2021



Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented in profile.id by .id (informed decisions)

Figure 4: Changes in Highest Level of Schooling, 2016 to 2021



Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented in profile.id by .id (informed decisions)

It is unlikely that over the course of the next 20 years that the highest level of schooling profile will experience significant changes that require incorporating into the demand model. The proportion of persons completing year 12 is likely to continue to increase towards the Greater Perth benchmark. Schools and tertiary education facilities are generally very well planned within the City of Wanneroo and are included as key elements in all approved District Structure Plans.

Diversity Profile

In 2021, 40.8% of people in City of Wanneroo were born overseas, compared with 36.0% in Greater Perth. Analysis of the country of birth of the population in City of Wanneroo in 2021

compared to Greater Perth shows that there was a larger proportion of people born overseas.

Overall, 40.8% of the population was born overseas, compared with 36.0% for Greater Perth. The largest non-English speaking country of birth in City of Wanneroo was India, where 2.0% of the population, or 4,238 people, were born.

The major differences between the countries of birth of the population in City of Wanneroo and Greater Perth were:

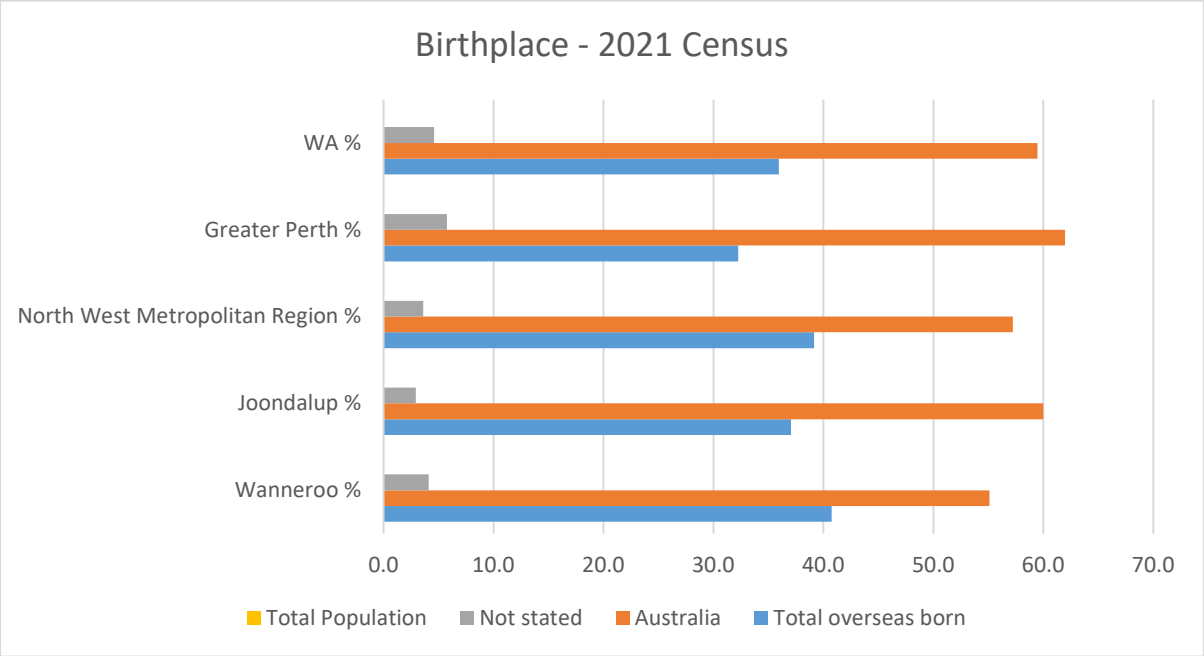
- A larger percentage of people born in United Kingdom (14.9% compared to 9.7%)
- A larger percentage of people born in South Africa (3.2% compared to 1.8%)

Between 2016 and 2021, the number of people born overseas increased by 8237 or 10.7%.

The largest changes in birthplace countries of the population in this area between 2016 and 2021 were for those born in:

- United Kingdom (+1,772 persons)
- India (+1,018 persons)
- South Africa (+839 persons)
- Philippines (+619 persons)

Figure 5: Birthplace Comparison, 2021



Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented in profile.id by .id (informed decisions)

It is anticipated that the population growth in the City will continue to be underpinned by a large cohort of migrants into the City. The above proportions are unlikely to change significantly over the long run subject to immigration policy remaining unchanged. There may be a shift in the qualifications and experience of those migrating to the City and this could have some impact on the profile of businesses that migrants commence within the City.

Socio-economic Characteristics

Household Income

In City of Wanneroo, 21.3% of households earned an income of $3,000 or more per week in 2021.

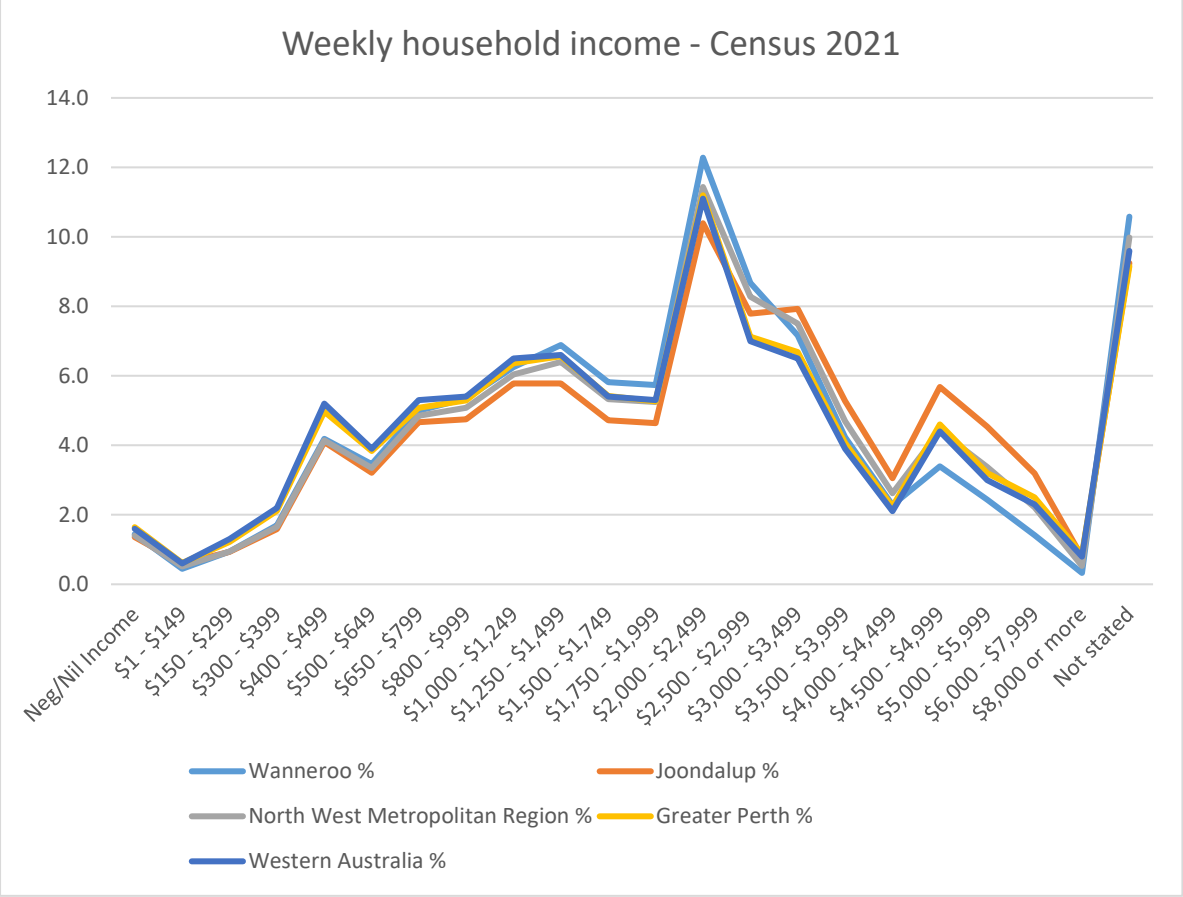
Analysis of household income levels in City of Wanneroo in 2021 compared to Greater Perth shows that there was a smaller proportion of high income households (those earning $3,000 per week or more) and a lower proportion of low income households (those earning less than $800 per week).

Overall, 21.3% of the households earned a high income and 17.2% were low income households, compared with 24.2% and 19.5% respectively for Greater Perth.

The major differences between the household incomes of City of Wanneroo and Greater Perth were:

- A larger percentage of households who earned $2,500 - $2,999 (8.7% compared to 7.1%)
- A larger percentage of households who earned Not stated (10.6% compared to 9.2%)
- A larger percentage of households who earned $2,000 - $2,499 (12.3% compared to 11.2%)
- A smaller percentage of households who earned $4,500 - $4,999 (3.4% compared to 4.6%)

Figure 6: Weekly Household Income, 2021



Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented in profile.id by .id (informed decisions)

The profile indicates a generally lower income profile for the City of Wanneroo when compared with other jurisdictions. This has implications for demand for goods and services. The RNA considers this in detail by using the expenditure data provided by Market Data Systems to model retail demand specifically for the City of Wanneroo. It is assumed that the above income profile will remain relatively the same for the purposes of forecasting floorspace demand. Future reviews of the RNA model will use the latest available expenditure data.

Mortgage Stress

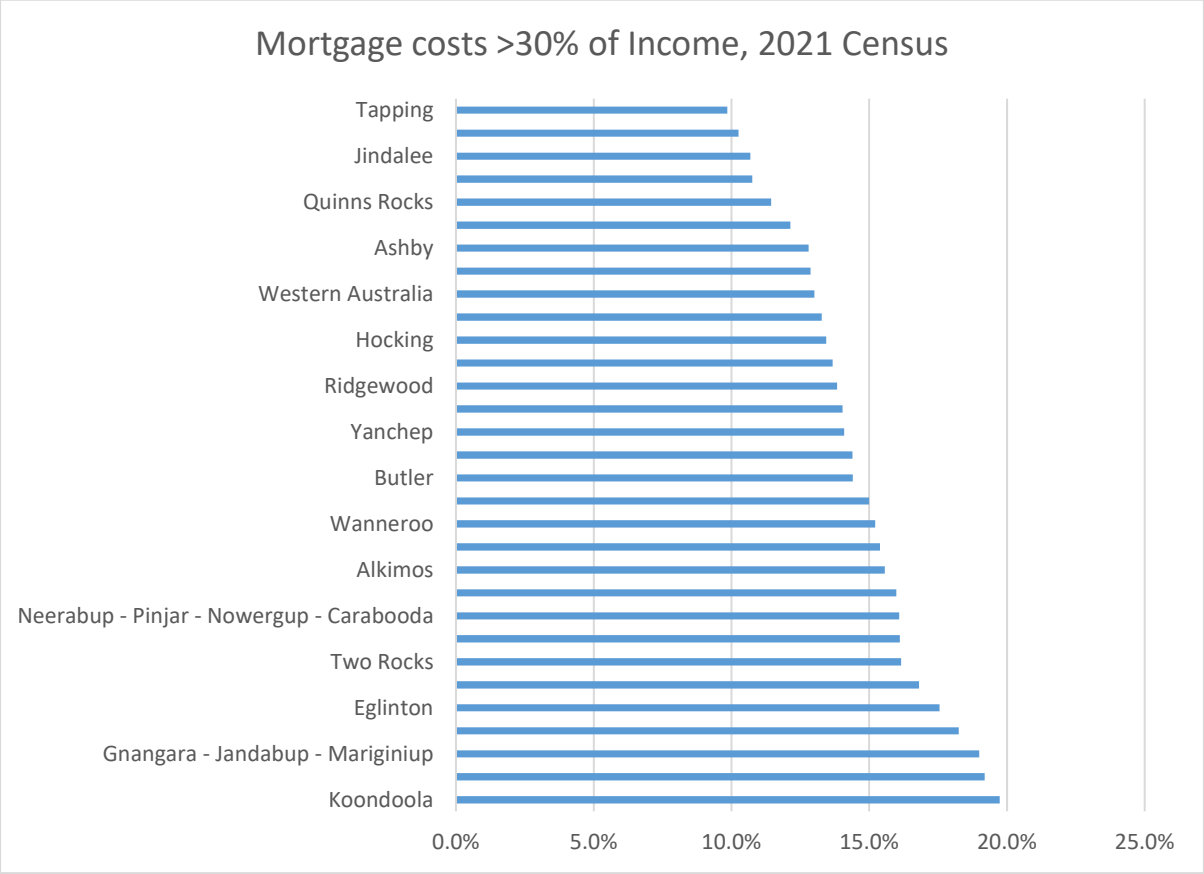
In 2021, Koondoola had the highest proportion of people experiencing mortgage stress in the City of Wanneroo.

In 2021, 14.4% of the City of Wanneroo's households with a mortgage were paying >30% of income on their mortgage compared to 13.3% in Greater Perth.

While the City of Wanneroo had a higher proportion of households paying >30% of income on a mortgage, it is important to note that this varied across the City. Proportions ranged from a low of 9.9% in Tapping to a high of 19.7% in Koondoola. The five areas with the highest percentages were:

- Koondoola (19.7%)
- Girrawheen (19.2%)
- Gnangara - Jandabup - Mariginiup (19.0%)
- Alexander Heights (18.3%)
- Eglinton (17.5%)

Figure 7: Mortgage Costs Greater than 30% of Income, 2021



Source: Australian Bureau of Statistics, Census of Population and Housing 2021. Compiled and presented in profile.id by .id (informed decisions)

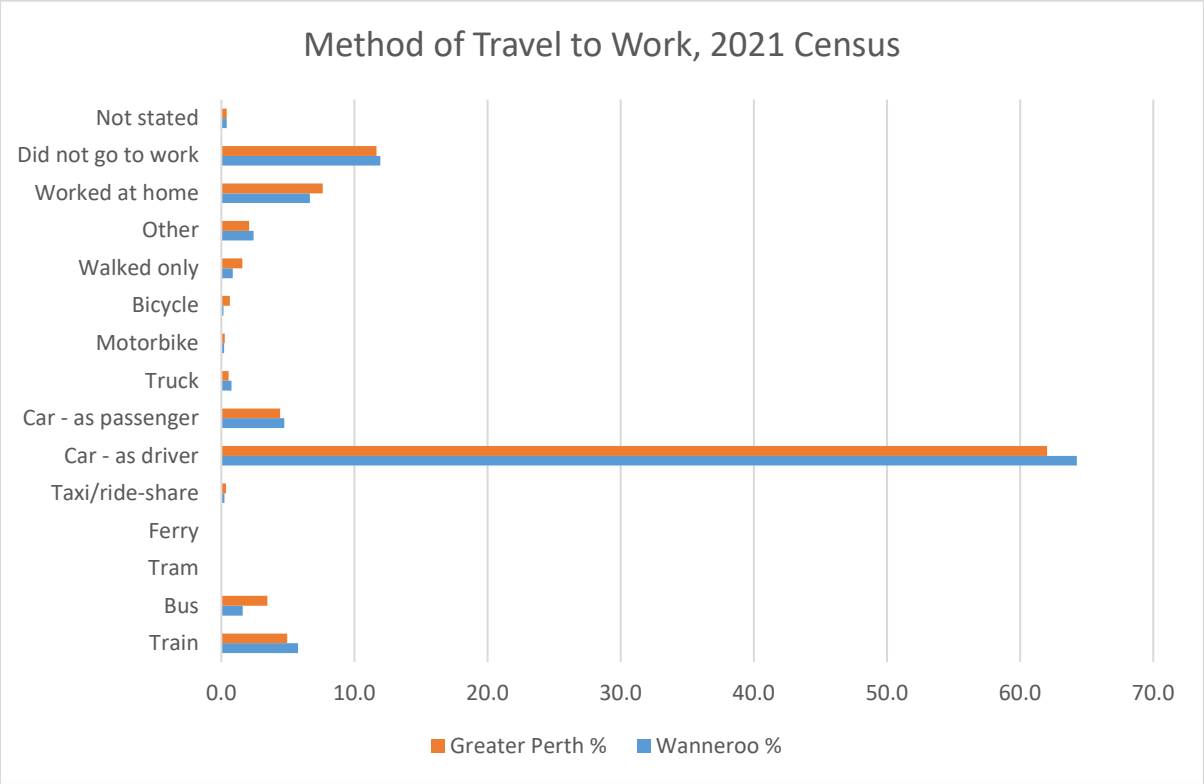
For the purposes of this study, it is assumed that elements such as mortgage stress will remain relatively constant over the next 20 years. The retail demand model used in the RNA anticipates the available expenditure for retail in order to plan for the viable amount of deliverable retail floorspace in all activity centres. The Needs Assessment and RNA will be revised periodically to adjust for any changes in expenditure profiles.

Journey to Work

In 2021 (ABS Census), 68,261 or 65.3% of the City of Wanneroo's resident workers travel outside of the area to work.

On Census Day 2021 in the City of Wanneroo, 69.0% of people travelled to work in a private car, 7.4% took public transport and 1.0% rode a bike or walked. 6.7% worked at home.

Figure 8: Method of Travel to Work, 2021



Source: Australian Bureau of Statistics, Census of Population and Housing 2021. Compiled and presented in profile.id by .id (informed decisions)

In 2021, there were 7,725 people who caught public transport to work (train, bus, tram or ferry) in City of Wanneroo, compared with 73,174 who drove in private vehicles (car – as driver, car – as passenger, motorbike, or truck).

Analysis of the method of travel to work of the residents in City of Wanneroo in 2021, compared to Greater Perth, shows that 7.4% used public transport, while 69.0% used a private vehicle, compared with 8.4% and 66.4% respectively in Greater Perth.

The major differences in persons between the method of travel to work of City of Wanneroo and Greater Perth were:

- A larger percentage of persons who travelled by car (as driver) (64.3% compared to 62.0%)
- A smaller percentage of persons who travelled by bus (1.6% compared to 3.5%)

The number of employed people in City of Wanneroo increased by 15,510 between 2016 and 2021.

The largest changes in the method of travel to work by resident population in City of Wanneroo between 2016 and 2021 were for those nominated:

- Car - as driver (+8,437 persons)
- Worked at home (+3,928 persons)
- Did not go to work (+3,675 persons)
- Other (+729 persons)

There are some key elements for consideration in the above data. The proportion of those working from home is consistent with the data showing a large proportion of jobs are outside of activity centres. The working from home component appears to account for more than a quarter of these jobs.

A key goal for the City and the State Government, is to decrease the proportion of workers travelling long distances by car to go to work. The target of 60% ESS by 2041 will greatly assist with this. The above data indicates that currently a higher proportion of the City of Wanneroo resident labourforce travels to work by car compared with the Greater Perth area. Ensuring a greater supply of jobs closer to where people live will help to lower this proportion.

Total Number of Businesses by Industry

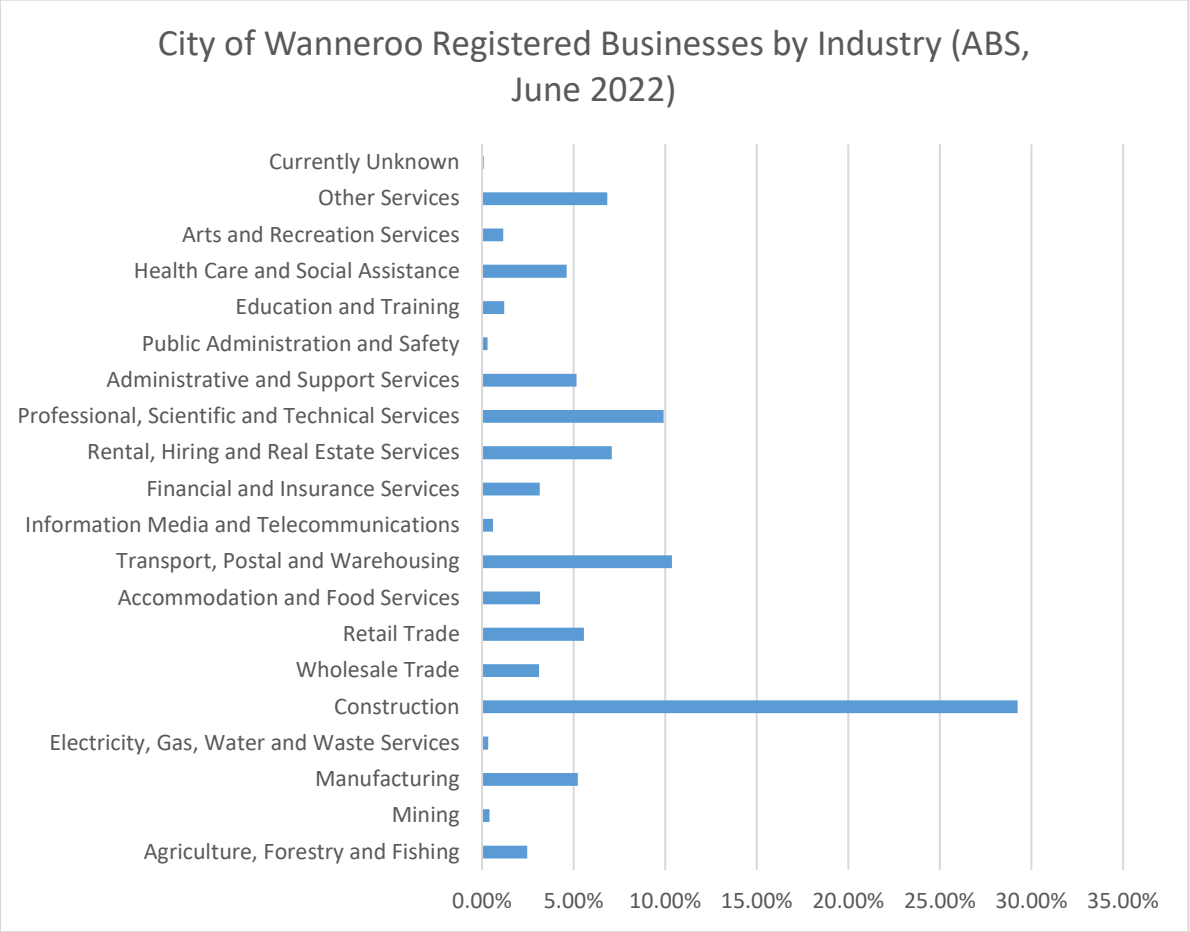
There were an estimated 14,578 total registered businesses in the City at June 2022 (ABS Cat. 8165.0 Counts of Australian Businesses, including Entries and Exits, December 2022).

The Construction industry had the largest number of total registered businesses in City, comprising 29.2% of all total registered businesses, compared to 17.4% in Western Australia.

At June 2022, the largest industries in the City based on number of total registered businesses are:

1. Construction (29.2% or 4,263 registered businesses)
2. Transport, Postal and Warehousing (10.4% or 1,510 registered businesses)
3. Professional, Scientific and Technical Services (9.9% or 1,446 registered businesses)
4. Rental, Hiring and Real Estate Services (7.1% or 1,032 registered businesses)

Figure 9: Registered Businesses, June 2022



Source: ABS Cat. 8165.0 Counts of Australian Businesses, including Entries and Exits, December 2022

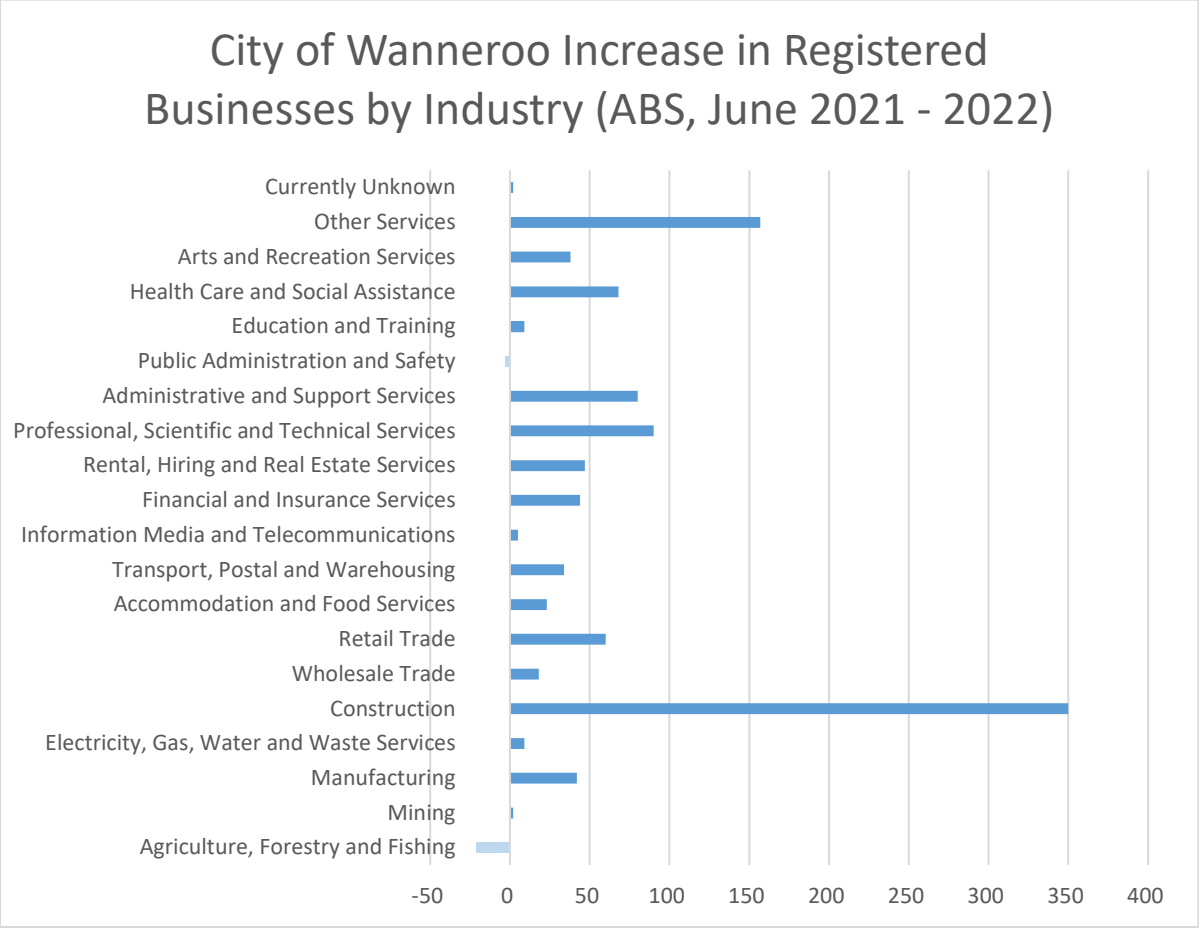
ABS Entries and Exits, Change in Total Number of Businesses by Industry

The industries with the largest increase in number of registered businesses in the City of Wanneroo between June 2021 and June 2022 were:

- Construction (+350)
- Other Services (+157)
- Professional, Scientific and Technical Services (+90)
- Administrative and Support Services (+80)

Two industries experienced a decrease in the total number of registered businesses in the City of Wanneroo between June 2021 and June 2022: Agriculture, Forestry and Fishing (-21) and Public Administration and Safety (-3).

Figure 10: Business entries and exits, 2021 to 2022



Source: ABS Cat. 8165.0 Counts of Australian Businesses, including Entries and Exits, December 2022

The aggregate number and growth of businesses is a useful indicator of the number of business premises and demand for floorspace. However, it is not particularly useful for estimating the future aggregate amount of floorspace required since businesses range greatly in the number of employees. The growth in businesses in the City as indicated in the above graph shows that the City is experiencing considerable business growth. This is consistent with a growth in overall employment in the City.

Employment Profile and Growth

An analysis of the jobs held by the local workers in the City of Wanneroo in 2021 shows the three most popular industry sectors were:

- Construction (8,040 people or 15.4%)
- Education and Training (6,312 people or 12.1%)
- Retail Trade (6,283 people or 12.0%)

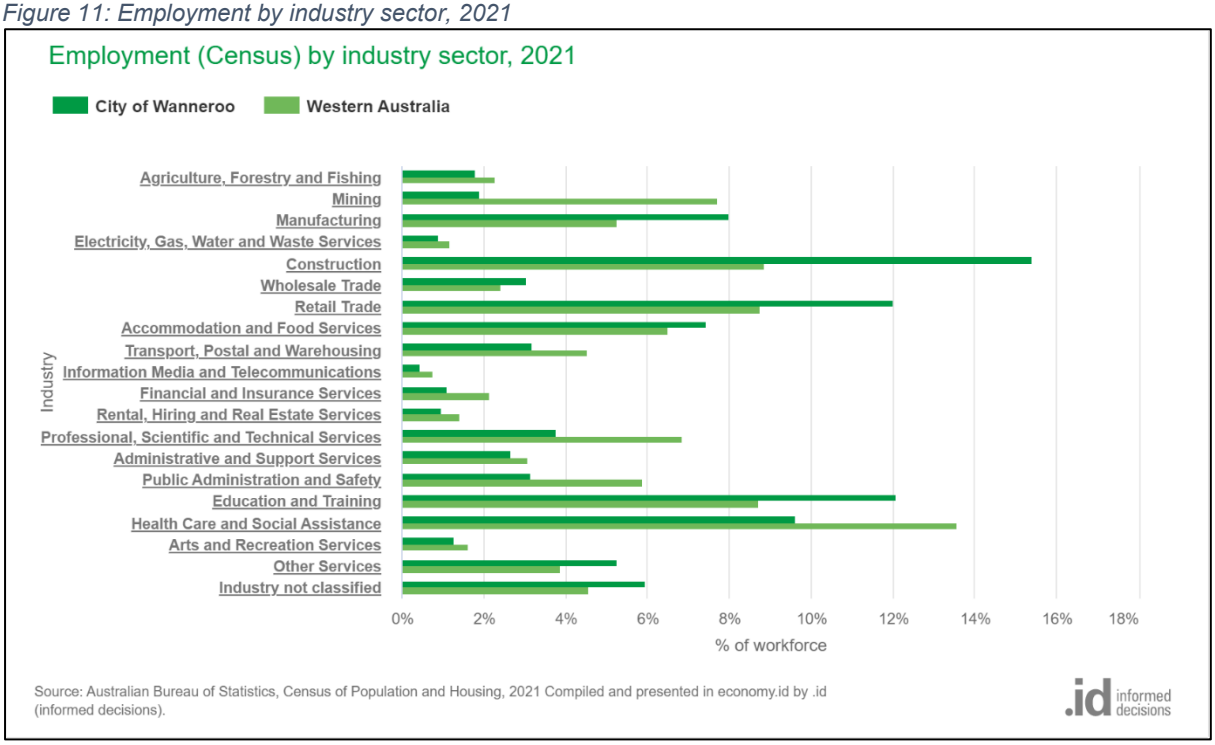
In combination, these three fields accounted for 20,635 people in total or 39.5% of the local workers.

In comparison, Western Australia employed 8.8% in Construction; 8.7% in Education and Training and 8.7% in Retail Trade.

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

- A larger percentage of local workers employed in the field of Construction (15.4% compared to 8.8%)
- A smaller percentage of local workers employed in the field of Mining (1.9% compared to 7.7%)
- A smaller percentage of local workers employed in the field of Health Care and Social Assistance (9.6% compared to 13.6%)
- A larger percentage of local workers employed in the field of Education and Training (12.1% compared to 8.7%)

Figure 11: Employment by industry sector, 2021



The largest changes in the jobs held by local workers between 2016 and 2021 in the City of Wanneroo were for those employed in:

- Health Care and Social Assistance (+1,373 local workers)
- Education and Training (+1,167 local workers)
- Construction (+1,103 local workers)
- Accommodation and Food Services (+847 local workers)

Visitor Growth

The following table highlights City of Wanneroo visitor trends over the last decade as sourced from Tourism Research Australia.

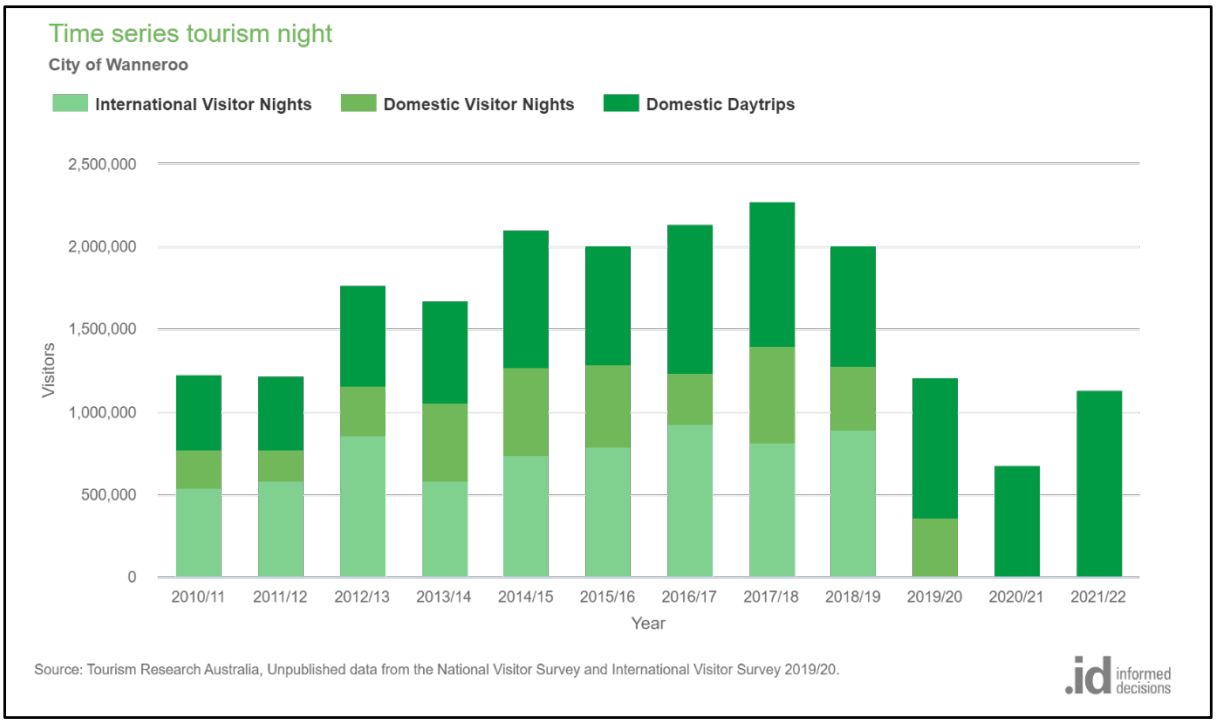
Visitor nights - Numbers						
City of Wanneroo - 2010/11 to 2021/22	**City of Wanneroo**			**Western Australia**		
Year	International Visitor Nights	Domestic Visitor Nights	Domestic Daytrips	International Visitor Nights	Domestic Visitor Nights	Domestic Daytrips
2021/22	--	--	1,135,740	--	44,326,621	19,189,670
2020/21	--	--	680,269	--	44,697,774	18,693,153
2019/20	--	364,398	848,904	--	43,419,356	19,983,747
2018/19	891,046	386,323	730,518	23,675,191	45,103,440	22,402,173
2017/18	814,637	589,593	875,958	26,544,083	40,435,061	19,206,105
2016/17	927,169	308,383	905,784	28,035,563	39,483,503	18,743,519
2015/16	794,016	492,433	723,068	27,744,645	45,195,280	20,104,244
2014/15	742,600	528,063	836,278	29,106,750	41,750,268	20,227,044
2013/14	584,809	470,247	621,041	27,437,772	37,491,038	17,546,694
2012/13	861,792	295,996	614,897	28,618,788	29,598,118	14,717,478
2011/12	581,781	195,283	440,181	26,597,131	26,885,024	14,154,159
2010/11	539,769	232,888	454,379	22,746,555	24,758,308	13,446,769

Source: Tourism Research Australia, Unpublished data from the National Visitor Survey and International Visitor Survey2021/22. Note: "--" represents unavailable data or data that has been suppressed due to a sample size of 40 or less.

In the 5 years up to 2021/22, International visitors to the City of Wanneroo were more likely to be visiting friends and relatives (VFR's), accounting for 63.8% of all visitors. Travel restrictions as a result of COVID-19 have skewed the data in recent years making it challenging to forecast visitor numbers but given the high proportion of VFR's, it is highly likely that the growth in visitors will be proportionate to growth in population and particularly the migrant population growth.

It should be noted that the City has a Tourism Strategy that is updated every 5 years and this addresses visitor growth and highlights gaps in tourism infrastructure and services requirements to facilitate this growth.

The following graph illustrates the above visitor data and indicates the impact of COVID-19 on international and interstate visitors as well as the spike in intrastate visitors to the City of Wanneroo during 2020/21 and 2021/22.



Future Needs

The following section outlines the future needs of the City of Wanneroo. The future needs have been informed by elements such as population growth, future labourforce, ESS targets, jobs requirement and floorspace needs to meet jobs targets.

Forecast Labourforce

The table below shows the 2021 employed labourforce by age in the City of Wanneroo compared with the total population by age to enable calculation of a participation rate by age. This participation rate is then applied to the forecast future population by age cohort to estimate the future employed labourforce.

Table 10: Forecast Labourforce - 2041

		2021 (Census)			2041 Labourforce Projections	
Age Cohort		Employed Labourforce	Total Population	Participation Rate	Est. Population	Employed Labourforce
15-19	years	6,458	13,890	46.5%	23,784	11,058
20-24	years	9,989	13,443	74.3%	24,231	18,005
25-34	years	22,408	29,094	77.0%	55,948	43,091
35-44	years	24,629	30,915	79.7%	53,371	42,519
45-54	years	22,991	28,677	80.2%	44,508	35,683
55-64	years	14,647	21,776	67.3%	35,454	23,847
65-74	years	3,168	14,772	21.4%	26,828	5,754
75-84	years	278	7,804	3.6%	16,676	594
85 years	and over	22	2,623	0.8%	5,777	48
	Total	**104,590**	**162,994**	**64.2%**	**286,577**	**180,599**

Source: ABS Census 2021 and forecast.id Population and Housing Forecasts, December 2021

The table indicates that the employed local labourforce will increase from 104,590 in 2021 to 180,599 in 2041.

Employment Targets

The North-West Sub Region (City of Wanneroo and City of Joondalup) has a current target of 59.5% ESS by 2050, which is the proportion of local jobs to the local workforce. The 59.5% ESS target has been set by State Government as outlined in the North -West Sub Region Planning Framework and was set at 60% in Directions 2031. *Table 11* below indicates that the region is on track to achieve 60% ESS by 2031 (Directions 2031 target) with the current ESS at 54.1% and projected to reach 60.0% by 2031.

Table 11: Employment Self-Sufficiency – North-West Sub-region

Employment Self Sufficiency	ESS 2001	ESS 2006	ESS 2011	ESS 2016	ESS 2021	Forecast 2031 ESS
City of Wanneroo	46.0%	44.1%	44.7%	45.2%	50.0%	53.5%
City of Joondalup	35.7%	39.1%	47.4%	54.3%	59.2%	70.2%
NW Sub Region	**39.0%**	**41.1%**	**46.1%**	**49.4%**	**54.1%**	**60.0%**

Source: City of Wanneroo Modelling based on 2021 ABS Census and forecast.id Population and Housing Forecasts, December 2021

If the ESS of 60% for the Sub Region can be achieved by 2031, it is reasonable to set a target for the City of Wanneroo to reach its own target of 60% ESS by 2041. This is likely to be the earliest that it could be achieved. The current ESS of 50.0% for the City of Wanneroo is calculated in *Table 12* below.

Table 12: Employment Self-Sufficiency – City of Wanneroo

City of Wanneroo Employment Self Sufficiency - 2021 Census	
Resident Employed Labour Force	104,590
Local Jobs	52,245
Employment Self-Sufficiency	50.0%

Source: 2021 ABS Census, General Community Profile and Worker Population Profile

The table indicates that the City of Wanneroo has 52,245 jobs (ABS 2021) located within its jurisdiction with a local employed labour force living in the City of 104,601. This translates to an ESS of 50.0%.

It is anticipated that the City will have a labour force (employed persons) of approximately 180,599 people by 2041. This is based on the 2021 participation rate of 64.2% of working age residents being employed in the workforce. If the local labour force at 2041 reaches 180,599, the required number of local jobs to achieve an ESS target of 60% is outlined in the table below.

Table 13: Employment Self-Sufficiency 2041 Target – City of Wanneroo

Employment Self Sufficiency - 2041 Target	
Resident Employed Labour Force (2041)	180,599
Local Jobs (2041)	108,360
Employment Self-Sufficiency	60.00%
Additional Jobs Required 2021 to 2041	56,115

Source: City of Wanneroo Modelling based on 2021 ABS Census and forecast.id Population and Housing Forecasts, December 2021

Based on the 2021 ABS Census number of 52,245 jobs at 2021, the above table indicates that the additional jobs required to meet 60% ESS by 2041 is 56,115. This is a very significant increase and represents a more than doubling of the number of local jobs at 2021.

Forecast Jobs Growth

The table below indicates the likely growth trajectory to achieve 108,360 jobs by 2041.

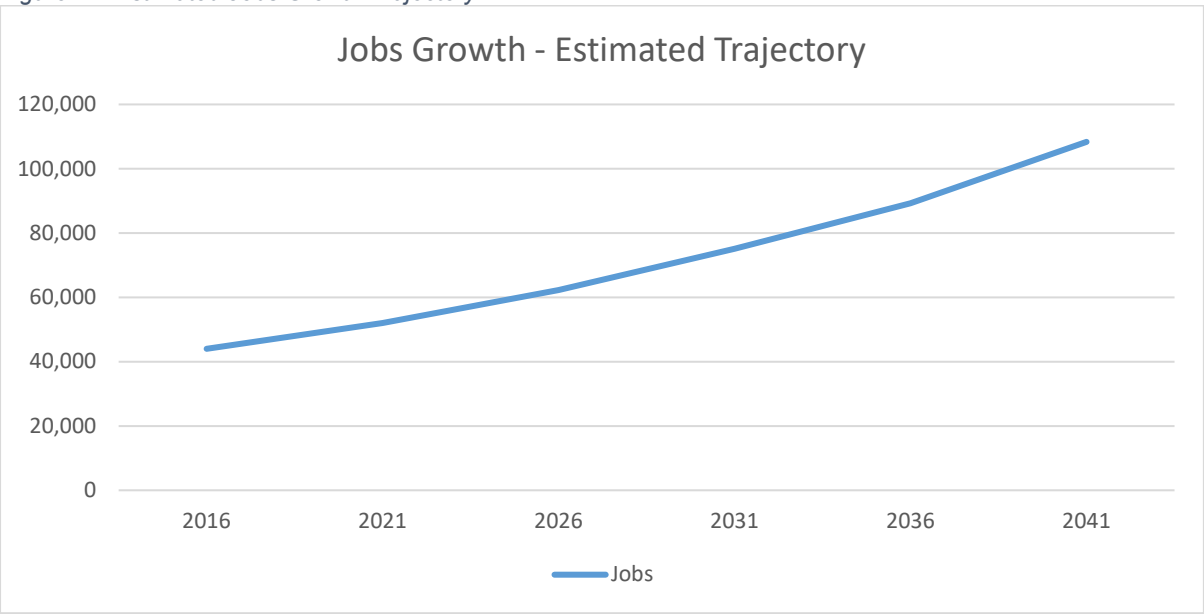
Table 14: Jobs Growth 2016 to 2041

	2016	2021	2026	2031	2036	2041
Jobs	44,002	52,040	62,320	75,140	89,286	108,360
Jobs per annum		1,649	2,056	2,564	2,829	3,815

Source: City of Wanneroo Modelling, 2023

The estimated jobs growth trajectory is illustrated below, noting that the growth will not be linear with the annual growth rate accelerating over time.

Figure 12: Estimated Jobs Growth Trajectory



Source: City of Wanneroo Modelling, 2023

Floorspace and Employment

The floorspace and associated employment within the City are best measured using the latest available WAPC Land Use and Employment Survey data. There is a considerable historical data set that is also useful in tracking historical growth and for projecting future growth.

Current Supply

The table below shows the total floorspace and employment as shown tin the WAPC Land Use and Employment Survey, 2015 – 2017 noting that the City of Wanneroo was surveyed in 2016. The floorspace includes all four complex types being commercial, industrial, public purpose and recreation.

Table 15: City of Wanneroo Total Floorspace 2016 – All Complexes (commercial, industrial, public purpose, recreation)

2016 - TOTAL FLOORSPACE	Entertainment/ Recreation/ Culture	Health/Welfare / Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*4.8%*	*16.8%*	*12.4%*	*11.3%*	*0.2%*	*3.2%*	*4.6%*	*8.8%*	*8.5%*	*27.1%*	*2.2%*	***100.0%***
Floorspace	111,751	387,664	286,726	260,064	5,770	74,742	105,331	202,699	196,119	625,899	51,867	**2,308,632**
Employment	1,275	4,661	2,007	12,856	18	690	1,232	1,322	7,384	1,260	248	**32,953**
m2/Job ratio	87.6	83.2	142.9	20.2	320.6	108.3	85.5	153.3	26.6	496.7	209.1	**70.1**

Source: WAPC Land Use and Employment Survey, 2015 - 2017

The 2016 Land use and employment survey indicates that 32,953 people were employed within commercial, industrial, public purpose and recreation complexes within the City. The 2016 ABS census indicates that total employment in the City at the time was 44,002. This indicates that 11,049 people were employed in out of centre locations. This includes home based, agriculture, contractors, mobile workers (trades) and construction workers on site. In terms of forecasting future floorspace in complexes, this ratio is important. Approximately 25% of all employment within the City at 2016 was outside of a complex. Analysis of other local government areas in the Perth Metropolitan area shows that some have higher ratios, and some have lower ratios, indicating that this is likely to be specific to location. It is assumed that the future City ratio will be very similar for the purposes of projecting required floorspace.

Future Scale - Supply Need & Demand Assessment

The projected required floorspace in the City of Wanneroo at 2041 required to achieve 60% ESS is shown below.

Table 16: City of Wanneroo Estimated Total Floorspace 2041- All Complexes

Estimated 2041 - TOTAL FLOORSPACE	Entertainment/ Recreation/ Culture	Health/ welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*4.8%*	*16.8%*	*12.4%*	*11.2%*	*0.2%*	*3.2%*	*4.6%*	*8.8%*	*8.7%*	*27.1%*	*2.2%*	***100.0%***
Floorspace	275,199	954,663	706,093	640,435	14,209	184,060	259,389	499,168	493,339	1,541,342	127,728	**5,695,624**
Employment	3,140	11,478	4,942	31,659	44	1,699	3,034	3,256	19,531	3,103	611	**82,497**
m2/Job ratio	87.6	83.2	142.9	20.2	320.6	108.3	85.5	153.3	25.3	496.7	209.1	**69.0**

Source: City of Wanneroo Modelling and MGA Town Planners Retail Needs Assessment

The table indicates that a total of 82,497 jobs will be generated by 5,695,624m^2 of floorspace in 2041. In addition, 25,863 jobs will be required in out of centre locations to reach the 108,360 jobs target needed to achieve 60% ESS (Note that the above is the occupied floorspace requirement that provides employment and any vacant floorspace that is likely to be available at any point in time would be in the order of 8% additional). In terms of land requirements, the current situation is that the City is satisfied that the required vacant (undeveloped) and appropriately zoned land area to accommodate the above aggregate

floorspace is adequately planned for through the MRS, endorsed District Structure Plans and the Neerabup Industrial Area Structure Plan (currently being amended). This is supported by a previous Employment Lands Study undertaken by Farlane and Shape Urban for the City in 2018 that indicated sufficient land supply to accommodate up to 7,000,000m^2 of floorspace. Development timeframes for the ultimate development of these structure plan areas are well beyond 2041.

Planning Land Use Categories Floorspace 2041 summary – Commercial, Industrial, Public Purpose and Recreation

The sections below outline the breakdown of projected floorspace and employment by planning land use category at 2041 for each of the four complex types.

Commercial Floorspace and Employment

The table below shows the projected 2041 floorspace and employment by land use for commercial centres. The retail needs assessment focused heavily on the significant number of activity centres included in the below totals. Other land use floorspace and employment has been modelled around staged growth to achieve ESS target of 60% by 2041 as well as population growth. This has resulted in a robust and achievable set of target floorspaces by land use type for commercial areas.

2041 - COMMERCIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*9.7%*	*8.0%*	*1.4%*	*11.1%*	*0.6%*	*3.2%*	*12.3%*	*4.1%*	*39.9%*	*9.4%*	*0.4%*	*100.0%*
Floorspace	107,520	88,489	15,394	122,507	6,403	34,989	135,953	44,785	441,366	103,501	4,745	1,105,651
Employment	1,815	1,960	239	9,735	0	369	1,576	355	18,229	84	231	34,593
m2/Job ratio	59.2	45.1	64.4	12.6	0.0	94.7	86.3	126.3	24.2	1236.1	20.5	32.0

Source: City of Wanneroo Modelling and MGA Town Planners Retail Needs Assessment

One of the key figures in the above table is the total Shop/Retail floorspace of 411,366m^2. This has been determined by the RNA developed by MGA Town Planners. Shop/Retail floorspace is an important element of the Needs Assessment as it reflects local demand modelled by the likely available expenditure. The remaining land uses have been modelled using the Shop/Retail as a baseline and factoring in historical ratios of these uses to the overall total floorspace.

The planning of activity centres in the City of Wanneroo is generally very well catered for through existing planning instruments such as the District Structure Plans. These have enabled the orderly roll out of planned centres. The above table illustrates the likely aggregate floorspace for all activity centres in 2041.

While it is possible to model the non-retail uses by centre and distribute the above floorspace through all centres, this would result in an overly prescriptive framework for activity centre development. If some centres develop additional non-retail floorspace then this will be a good result for generating additional local employment.

Industrial Floorspace and Employment

The table below shows the projected 2041 floorspace and employment by land use for industrial centres including Wangara, Landsdale and Neerabup.

2041 INDUSTRIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*1.4%*	*0.5%*	*20.7%*	*14.4%*	*0.2%*	*0.0%*	*3.7%*	*13.5%*	*1.0%*	*42.2%*	*2.3%*	*100.0%*
Floorspace	45,039	17,989	690,699	478,920	7,806	707	123,436	450,253	32,464	1,408,689	78,335	3,334,337
Employment	672	332	4,704	20,568	44	2	1,458	2,889	676	2,933	175	34,453
m2/Job ratio	67.0	54.1	146.8	23.3	176.1	287.0	84.7	155.9	48.0	480.3	448.0	96.8

Source: City of Wanneroo Modelling and MGA Town Planners Retail Needs Assessment

The total Shop/Retail land use identified in the above table has been determined through the RNA developed by MGA Town Planners. The expectation is that Shop/Retail uses in industrial areas do not expand significantly beyond current levels. Shop/Retail uses, other than that generated by demand from within the industrial area, need to be accommodated predominantly in commercial activity centres and not industrial areas.

One of the significant land uses identified above is Office/Business, with a very significant amount of floorspace being forecast in 2041. The following section provides some analysis on this land use.

Office/Business use in Wangara and Landsdale

The Wangara Industrial Area and Landsdale Industrial Area have experienced considerable growth over the last 30 years. In 1990, there was a combined floorspace of 283,234m^2 and in 2016 this had grown to 1,442,148m^2 (Source: WAPC Land Use and Employment Survey Data). In 1990, there was 15,771m^2 of Office/Business floorspace representing 5.6% of the total floorspace. The majority of this floorspace would most likely have been ancillary office floorspace associated with administration of the predominant industrial uses being manufacturing, storage and distribution and service industry.

In 2016, there was 181,061m^2 of office floorspace representing 12.6% of the total floorspace. The majority of this floorspace is likely to still be ancillary use but there is also some stand-alone office uses. However, the available data is difficult to interpret in this regard.

In 2016, the Wangara Landsdale industrial area employed 13,607 people and of these, 7,868 were employed in the Office/Business use class. While the Office/Business land use represents 12.6% of the floorspace, it also represents 57.8% of the employment generated.

With this level of office employment, it is highly likely that there is the need for ancillary office employees to require the support of professional services and other office type uses. This would likely be the primary reason why there is some pressure on the requirement for some stand-alone office uses to enable the supply of floorspace for professionals such as accountants, architects, engineers, lawyers, insurance brokers, IT/Comms, real estate agents and other typical industry related service providers.

The Planning Land Use category (PLUC) of Office/Business contains over 70 types of WA Standard Land Use Category (WASLUC) descriptions. Over 20 of these WASLUC categories would certainly fit the requirements of being able to be located within an industrial area to provide support and services directly to other industrial area businesses. In recognising this, it is recommended that planning objectives be developed to facilitate stand-alone offices as discretionary uses in a specific portion of the Wangara Industrial Area.

The location of Wangara/Landsdale and the excellent access via multiple key roads also makes the area very attractive and would also be likely to impact demand.

It should be noted that in 2007, the Office/Business floorspace was 90,452m^2 and represented 12.0% of the total 755,911m^2 in Wangara/Landsdale. This indicates that while office/Business use has certainly grown between 2007 and 2016 (in fact doubled), the proportion has remained relatively stable.

The City should expect that Office/Business uses should still continue to grow in line with historical growth but the proportion of overall use is unlikely to grow beyond around 15% of total floorspace. The above ratio indicates 14.4% at 2041.

At ultimate development, it is expected that Wangara/Landsdale will contain around 2,500,000m^2 of floorspace so if 15% of this is Office/Business, this would be 375,000m^2. If stand-alone Office/Business space represents an estimated 2% to 3%, this would be between 50,000m^2 and 75,000m^2. This 2% to 3% range estimates the office floorspace to service the needs of businesses within the Wangara and Landsdale industrial area only and is not expected to impact the demand for offices in the City's commercial areas and activity centres.

Rather than dealing with ad-hoc applications for stand-alone office developments and approving some developments that "game the system" by maximising ancillary office floorspace, the City needs to actively plan for stand-alone office floorspace in the most appropriate location and limit this type of development to that location to prevent unintended land use conflicts. The Local Planning Strategy highlights an area for this type of office development to be most appropriately located to meet the needs of the industrial area.

Neerabup Industrial Area

The Neerabup Industrial Area (NIA) will be required to deliver a significant amount of floorspace and employment in order to achieve the overall outcomes modelled to 2041. As the Wangara and Landsdale industrial areas near full development, it is expected that development at the NIA will accelerate. There are signs that this has already commenced with the majority of currently sub divided Development WA land sold out. The revised NIA Structure Plan includes an Economic and Employment Strategy Report that outlines the potential for between 20,000 and 30,000 jobs. Achieving high employment in the NIA will also be critical to achieving a sustainable ESS for the City.

Public Purpose Floorspace and Employment

The table below shows the projected 2041 floorspace and employment by land use for Public Purpose complexes within the City. The Health, Welfare & Community Services land use includes schools and health services (such as hospitals) and these uses will experience significant growth aligned to population growth.

2041 - PUBLIC PURPOSE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/Welfare /Community Services	Manufacturing / Processing/ Fabrication	Office/Business	Primary/Rural	Residential	Other Retail	Service Industry	Shop/Retail	Storage/Distribution	Utilities/Communications	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*6.2%*	*71.4%*	*0.0%*	*3.0%*	*0.0%*	*12.5%*	*0.0%*	*0.3%*	*1.3%*	*1.9%*	*3.4%*	*100.0%*
Floorspace	73,033	845,378	0	34,967	0	147,749	0	4,130	15,773	22,895	39,675	1,183,599
Employment	281	9,146	0	1,148	0	1,327	0	12	532	25	204	12,675
m2/Job ratio	260.1	92.4	0.0	30.5	0.0	111.3	0.0	335.4	29.7	929.7	194.1	93.4

Source: City of Wanneroo Modelling

Public Purpose floorspace and employment is understandably concentrated on Health/Welfare and Community Services land uses. Primary and Secondary schools will form a large proportion of this floorspace and need to be planned and rolled out in a timely manner consistent with State Government policy.

Recreation and Open Space Floorspace and Employment

The table below shows the projected 2041 floorspace and employment by land use for Recreation and Open Space complexes within the City. It is expected that growth in floorspace and employment will be in alignment with population growth.

2041 - RECREATION/ OPEN SPACE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/Welfare /Community Services	Manufacturing/ Processing/Fab	Office/Business	Primary/Rural	Residential	Other Retail	Service Industry	Shop/Retail	Storage/Distribution	Utilities/Communications	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*68.9%*	*3.9%*	*0.0%*	*5.6%*	*0.0%*	*0.9%*	*0.0%*	*0.0%*	*5.2%*	*8.7%*	*6.9%*	*100.0%*
Floorspace	49,607	2,807	0	4,041	0	616	0	0	3,736	6,257	4,972	72,036
Employment	372	39	0	209	0	0	0	0	94	62	0	776
m2/Job ratio	133.4	71.3	0.0	19.3	0.0	0.0	0.0	0.0	39.9	101.6	0.0	92.9

Source: City of Wanneroo Modelling

Recreation floorspace is an important contributor to future needs for the City and needs to be well planned and delivered in a timely fashion along with the appropriate amount of active open space to cater for local needs.

Retail Needs Assessment Summary

The complete City of Wanneroo Needs Assessment is shown at *Appendix 1: Retail Needs Assessment*. This includes a full Retail Needs Assessment for all commercial centres or activity centres located in the City consistent with the requirements of State Planning Policy 4.2 (Activity Centres Perth and Peel).

Floorspace growth for major centres (Strategic, Secondary and District) included in the RNA are summarised below:

ACTIVITY CENTRE	HEIRARCHY	MAP ID	FLOOR AREA 2019 (m^2)	FLOOR AREA 2021 (m^2)	FLOOR AREA 2026 (m^2)	FLOOR AREA 2031 (m^2)	FLOOR AREA 2036 (m^2)	FLOOR AREA 2041 (m^2)
Yanchep Strategic Centre	Strategic	1	0	0	5,000	10,000	20,000	30,000
Two Rocks Secondary Centre	Secondary	2	0	0	0	0	0	0
Alkimos Secondary Centre	Secondary	3	0	0	10,000	20,000	30,000	30,000
Ocean Keys Secondary Centre	Secondary	4	42,786	42,786	50,000	50,000	50,000	50,000
Wanneroo Secondary Centre	Secondary	5	22,064	22,064	30,000	30,000	30,000	40,000
North Two Rocks (F)	District	6	0	0	0	0	0	0
Two Rocks District Centre	District	7	2,161	2,161	6,510	6,510	6,510	6,510
District Centre (E) - Two Rocks	District	8	0	0	0	0	0	0
Yanchep District Centre	District	9	4,000	4,000	13,500	18,000	18,000	18,000
Eglinton District Centre	District	10	0	0	11,000	11,000	17,100	27,000
Butler District Centre	District	11	4,200	10,000	10,000	15,000	22,000	22,000
Banksia Grove District Centre	District	12	9,000	9,000	9,000	15,000	20,000	20,000
Kingsway City District Centre	District	13	18,149	18,149	32,000	32,000	32,000	32,000

ACTIVITY CENTRE	HEIRARCHY	MAP ID	FLOOR AREA 2019 (m^2)	FLOOR AREA 2021 (m^2)	FLOOR AREA 2026 (m^2)	FLOOR AREA 2031 (m^2)	FLOOR AREA 2036 (m^2)	FLOOR AREA 2041 (m^2)
Alexander Heights District Centre	District	14	9,416	9,416	9,416	9,416	9,416	9,416
Girrawheen District Centre	District	15	8,623	8,623	10,000	15,000	15,000	15,000

Source: MGA Town Planners Retail Needs Assessment

The Yanchep Strategic Centre will likely be developed to a scale of approximately 30,000m^2 of Shop Retail floorspace by 2041. This is well short of the ultimate development potential for the centre likely to occur after 2070. The Alkimos Secondary Centre will likely be developed to around the same scale with 30,000m^2 of Shop Retail by 2041. This is well short of the ultimate development potential for the centre likely to occur after 2050.

Two of the district centres identified in the Yanchep Two Rocks District Structure Plan (DSP) are unlikely to have commenced development within the timeframe to 2041. These are the North Two Rocks Secondary Centre (Centre F in the DSP) and the southern/central Two Rocks District Centre (Centre E in the DSP).

It should be noted that the Eglinton District Centre has included a total of 27,000m^2 of Shop/Retail at 2041. This is above what is currently approved but it is understood that the land owners would prefer to develop to this level. The RNA includes this floorspace and the resulting turnover and impacts on other centres is acceptable. Future versions of the RNA will monitor this.

The full Retail Needs Assessment is included at *Appendix 1: Retail Needs Assessment* and the Activity Centres Map for referencing centres is shown at *Appendix 2: Activity Centres Map*.

Employment Drivers to Achieve Employment Targets

The significant population relying on the future Yanchep Strategic Metropolitan Centre as a primary service delivery location will need access to higher-order services such as a university and a hospital. This will reduce the need to travel significant distances to access the services elsewhere in the Metropolitan area. It would also facilitate access to residents of surrounding areas that have lower socio-economic status who may be limited in their ability to access services elsewhere.

The implementation of the Yanchep and Two Rocks District Structure Plan and associated Local Structure Plans and Activity Centre Plans, will be critical to meeting the needs of the future population and achieving a sustainable ESS for the whole of the City of Wanneroo.

Implementation

The Needs Assessment provides the necessary analysis to inform the City's Local Planning Strategy regarding future floorspace and employment provision and distribution. The RNA is a dynamic model that is designed to be periodically updated with new information such as population forecast data and consumer expenditure data.

The Needs Assessment modelling developed for the non-retail uses will also be periodically updated with new outputs from any revised RNA as well as new data from future WAPC Land Use and Employment Surveys.

Growth Scenarios

The City of Wanneroo has worked closely with .id consulting to undertake periodic population forecasting over many years since 2006. This Needs Assessment includes the latest forecasts at 2023 noting that periodic reviews of population projections by .id, additional Census data and new WAPC Land Use and Employment data will be used to update the modelling at intervals of no more than five years. The model has been set up to achieve this and incorporate changes as new data becomes available. The City of Wanneroo is of the view that his methodology provides the best outcome of having the most up to date and logical assessment of floorspace need at any one point in time. This will be a critical element in making planning decisions with respect to future needs of the City's residents and businesses.

Appendix 1: Retail Needs Assessment

Retail Model

Preamble

A retail gravity model was prepared by MGA Town Planners to provide an indication of appropriate retail scale and distribution over time, guiding the extent of additional Planning Land Use Code 5 (PLUC 5) Shop / Retail floor space, and PLUC 6 'Other Retail' floorspace may be established over future timeframes, guided by forecast estimates of population growth prepared by Forecast ID.

The intent of the exercise is to limit the potential for adverse trade impacts on competing activity centres as development advances, enable strategic intentions to be achieved in the distribution of development potential, and achieve suitable access and retail amenity for local residents as new communities grow.

The model is dynamic, being updated regularly with new population forecasts, floorspace data and household expenditure data, to track the progression of development and inform decision making with respect to new and existing activity centres that is timely and orderly.

Study Area

The study area modelled included surrounding LGA areas such as the City of Joondalup, City of Stirling, City of Bayswater, Town of Bassendean and City of Swan. The study area applied had an extent necessary to accommodate the trade areas for other significant competing higher order centres impacting the performance of centres in the City of Wanneroo.

Retail Gravity Model and Inputs

Description

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

The model assumes that shoppers are more likely to visit 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 visit competing centres further away, including 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 reflects reality, in that it 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 above formula is applied, 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;
- population / aggregate household expenditure; and
- known turnover or metropolitan benchmarks.

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 the travel time to each competing activity centre.

Model Inputs

Household Expenditure

Household expenditure for the Western Australian PLUC 5 and PLUC 6 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; in addition to other data informing spending behaviour such as the 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 small ABS SA1 area.

Existing 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’ and PLUC 6 ‘Other Retail’ floor space. This data was embellished by incorporating known approved developments (new centres and expansions to existing centres).

Data Source: WAPC Land Use and Employment Survey 2015/2017 (Floorspace and WASLUC by Development Areas). Data supplied in June 2019.

Travel Time Measurements

Travel time measurements from each origin zone (ROM Zones) to each retail location in the study area were sought from online mapping sources and estimated for areas not yet developed with roads.

Future Floorspace

Activity centre strategies, structure plans and approved developments within LGA’s in the modelled study area were reviewed in order to incorporate future planned or approved floorspace among competing centres. The future size of many activity centres in the City of Wanneroo is already identified in district or local structure plans.

Calibration

Calibration of the model involves utilising turnover according to values reported by shopping centre owners and published by Shopping Centre News.

Population

The spatial basis for the modelling of population forecasts are small MRWA traffic zones (ROM Zones) which provide a fine-grained basis for modelling the pattern of visitation to all competing activity centres by residents in the study area. The total population counts for each ROM Zone (existing and future) were prepared by Forecast ID and the City.

Forecast ID projections are available for surrounding LGA areas, including the City of Swan and City of Joondalup. Projections produced by the Western Australian Planning Commission were utilised in respect of the City of Stirling, Town of Bassendean and City of Bayswater LGA areas.

Retail Needs Assessment Model Outputs

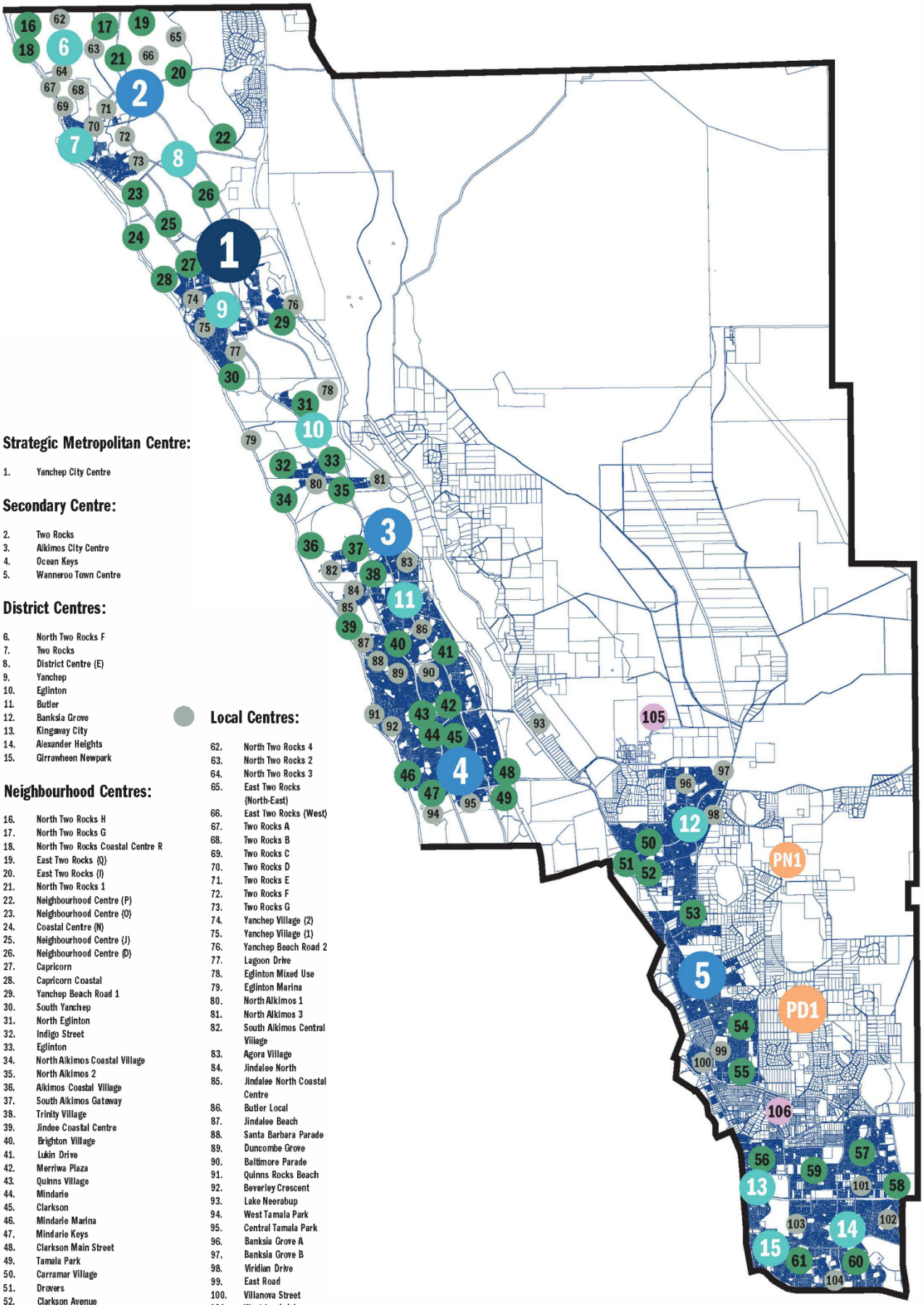
The following table shows the RNA model outputs and includes Activity Centre name, Centre type, Map ID, Shop/Retail floor areas by year and modelled turnover per m^2 by year.

ACTIVITY CENTRE	Type	MAP ID	FLOOR AREA 2019	2019 $/m2	FLOOR AREA 2021	2021 $/m2	FLOOR AREA 2026	2026 $/m2	FLOOR AREA 2031	2031 $/m2	FLOOR AREA 2036	2036 $/m2	FLOOR AREA 2041	2041 $/m2
Yanchep Strategic Centre	SMC	1	0	$0	0	$0	5,000	$9,247	10,000	$10,104	20,000	$10,184	30,000	$10,028
Two Rocks Secondary Centre	S	2	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Alkimos Secondary Centre	S	3	0	$0	0	$0	10,000	$9,285	20,000	$9,351	30,000	$9,015	30,000	$9,023
Ocean Keys Secondary Centre	S	4	42,786	$8,515	42,786	$8,163	50,000	$7,326	50,000	$7,010	50,000	$6,978	50,000	$7,026
Wanneroo Secondary Centre	S	5	22,064	$7,776	22,064	$7,546	30,000	$7,263	30,000	$7,482	30,000	$8,315	40,000	$8,768
North Two Rocks F	D	6	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Two Rocks District Centre	D	7	2,161	$14,537	2,161	$15,974	6,510	$6,130	6,510	$6,350	6,510	$6,817	6,510	$6,943
District Centre (E)	D	8	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Yanchep District Centre	D	9	4,000	$25,272	4,000	$25,661	13,500	$10,227	18,000	$11,395	18,000	$11,497	18,000	$11,529
Eglinton District Centre	D	10	0	$0	0	$0	11,000	$9,427	11,000	$11,125	17,100	$11,019	27,000	$10,235
Butler District Centre	D	11	4,200	$15,020	10,000	$14,105	10,000	$11,440	15,000	$10,434	22,000	$9,768	22,000	$9,599
Banksia Grove District Centre	D	12	9,000	$9,188	9,000	$8,753	9,000	$8,290	15,000	$8,061	20,000	$8,203	20,000	$8,552
Kingsway City District Centre	D	13	18,149	$7,304	18,149	$7,258	32,000	$6,439	32,000	$6,158	32,000	$6,259	32,000	$6,292
Alexander Heights District Centre	D	14	9,416	$11,047	9,416	$11,019	9,416	$9,821	9,416	$9,445	9,416	$9,522	9,416	$9,486
Girrawheen District Centre	D	15	8,623	$11,511	8,623	$11,490	10,000	$10,324	15,000	$9,903	15,000	$10,002	15,000	$10,003
North Two Rocks H	N	16	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
North Two Rocks G	N	17	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
North Two Rocks Coastal Centre R	N	18	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
East Two Rocks (Q)	N	19	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
East Two Rocks (I)	N	20	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
North Two Rocks 1	N	21	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Neighbourhood Centre (P)	N	22	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Neighbourhood Centre (O)	N	23	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Coastal Centre (N)	N	24	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Neighbourhood Centre (J)	N	25	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Neighbourhood Centre (D)	N	26	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Capricorn	N	27	0	$0	0	$0	0	$0	0	$0	0	$0	4,700	$9,972
Capricorn Coastal	N	28	150	$13,510	150	$13,971	150	$5,308	150	$5,775	150	$5,765	150	$5,550
Yanchep Beach Road 1	N	29	0	$0	0	$0	0	$0	0	$0	2,500	$10,206	2,500	$10,400
South Yanchep	N	30	0	$0	0	$0	0	$0	0	$0	3,000	$7,588	3,000	$7,470
North Eglinton	N	31	0	$0	0	$0	0	$0	0	$0	0	$0	2,500	$10,838
Indigo Street	N	32	0	$0	0	$0	0	$0	0	$0	0	$0	2,051	$9,917
Eglinton	N	33	0	$0	0	$0	3,250	$8,848	3,250	$10,242	3,250	$10,099	3,250	$9,318
North Alkimos Coastal Village	N	34	0	$0	0	$0	0	$0	0	$0	4,000	$8,961	4,000	$8,372

ACTIVITY CENTRE	Type	MAP ID	FLOOR AREA 2019	2019 $/m2	FLOOR AREA 2021	2021 $/m2	FLOOR AREA 2026	2026 $/m2	FLOOR AREA 2031	2031 $/m2	FLOOR AREA 2036	2036 $/m2	FLOOR AREA 2041	2041 $/m2
North Alkimos 2	N	35	0	$0	0	$0	0	$0	0	$0	0	$0	3,000	$10,391
Alkimos Coastal Village	N	36	0	$0	0	$0	1,200	$7,363	1,200	$7,863	1,200	$7,341	3,500	$7,513
South Alkimos Gateway	N	37	1,400	$15,202	1,400	$15,202	1,400	$9,930	5,000	$9,931	5,000	$9,583	5,000	$9,486
Trinity Village	N	38	3,500	$15,455	3,500	$15,075	5,400	$10,907	5,400	$10,351	5,400	$9,877	5,400	$9,840
Jindee Coastal Centre	N	39	0	$0	0	$0	2,000	$8,889	4,000	$8,362	4,000	$7,902	4,000	$7,849
Brighton Village	N	40	4,570	$13,054	4,570	$12,318	4,570	$10,200	4,570	$9,369	4,570	$8,787	4,570	$8,619
Lukin Drive	N	41	2,550	$14,582	2,550	$13,777	2,550	$12,040	2,550	$11,161	2,550	$10,688	2,550	$10,591
Merriwa Plaza	N	42	2,784	$15,052	2,784	$14,285	2,784	$12,415	2,784	$11,504	2,784	$11,046	2,784	$10,941
Quinns Village	N	43	1,891	$12,383	1,891	$11,790	1,891	$10,197	1,891	$9,442	1,891	$9,062	1,891	$8,955
Mindarie	N	44	1,794	$12,705	1,794	$12,136	1,794	$10,615	1,794	$9,935	1,794	$9,655	1,794	$9,581
Clarkson	N	45	693	$12,880	693	$12,287	693	$10,743	693	$10,096	693	$9,854	693	$9,822
Mindarie Marina	N	46	1,359	$7,747	1,359	$7,428	1,359	$6,631	1,359	$6,294	1,359	$6,216	1,359	$6,211
Mindarie Keys	N	47	1,511	$9,501	1,511	$9,108	1,511	$8,190	1,511	$7,837	1,511	$7,803	1,511	$7,858
Clarkson Main Street	N	48	0	$0	0	$0	2,800	$8,485	2,800	$8,121	2,800	$8,110	2,800	$8,185
Tamala Park	N	49	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Carramar Village	N	50	3,142	$12,459	3,142	$11,893	5,500	$11,192	5,500	$10,776	5,500	$10,913	5,500	$11,261
Drovers	N	51	3,855	$15,681	3,855	$15,225	3,855	$14,289	3,855	$14,024	3,855	$14,362	3,855	$14,677
Clarkson Avenue	N	52	0	$0	1,100	$10,417	1,100	$9,797	1,100	$9,462	1,100	$9,660	1,100	$9,954
Ashby	N	53	4,640	$8,758	7,100	$8,402	7,100	$8,101	7,100	$8,338	7,100	$9,010	7,100	$9,567
Pearsall	N	54	2,100	$8,411	2,100	$8,268	2,100	$7,767	2,100	$7,658	2,100	$8,149	2,100	$8,375
Wyatt Grove	N	55	4,250	$8,543	4,250	$8,376	4,250	$7,971	4,250	$8,041	4,250	$8,812	4,250	$9,203
Madeley	N	56	0	$0	1,250	$10,452	1,250	$9,563	1,250	$9,201	1,250	$9,431	1,250	$9,513
Landsdale Forum	N	57	1,679	$11,176	1,679	$11,091	1,679	$9,927	1,679	$9,635	1,679	$9,745	1,679	$9,654
East Landsdale	N	58	0	$0	0	$0	5,197	$11,459	5,197	$11,036	5,197	$11,150	5,197	$11,090
Darch	N	59	3,550	$9,093	3,550	$9,029	3,550	$8,094	3,550	$7,741	3,550	$7,884	3,550	$7,898
Koondoola	N	60	2,087	$10,880	2,087	$10,884	2,087	$9,762	2,087	$9,480	2,087	$9,546	2,087	$9,510
Summerfield	N	61	4,572	$9,469	4,572	$9,464	4,572	$8,541	4,572	$8,306	4,572	$8,372	4,572	$8,357
North Two Rocks 4	L	62	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
North Two Rocks 2	L	63	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
North Two Rocks 3	L	64	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
East Two Rocks (North-East)	L	65	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
East Two Rocks (West)	L	66	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Two Rocks A	L	67	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Two Rocks B	L	68	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Two Rocks C	L	69	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Two Rocks D	L	70	0	$0	0	$0	0	$0	0	$0	0	$0	2,000	$7,543
Two Rocks E	L	71	0	$0	0	$0	0	$0	0	$0	0	$0	0	$0
Two Rocks F	L	72	0	$0	0	$0	0	$0	0	$0	0	$0	2,000	$8,112
Two Rocks G	L	73	0	$0	0	$0	0	$0	0	$0	0	$0	2,000	$8,220
Yanchep Village (2)	L	74	100	$16,248	100	$16,651	100	$6,208	1,500	$5,221	1,500	$5,292	1,500	$5,233
Yanchep Village (1)	L	75	100	$17,021	100	$17,249	100	$6,880	100	$7,684	100	$7,773	100	$7,811
Yanchep Beach Road 2	L	76	0	$0	0	$0	0	$0	0	$0	1,000	$7,265	1,000	$7,396

ACTIVITY CENTRE	Type	MAP ID	FLOOR AREA 2019	2019 $/m2	FLOOR AREA 2021	2021 $/m2	FLOOR AREA 2026	2026 $/m2	FLOOR AREA 2031	2031 $/m2	FLOOR AREA 2036	2036 $/m2	FLOOR AREA 2041	2041 $/m2
Lagoon Drive	L	77	0	$0	350	$19,172	350	$7,120	350	$8,050	350	$8,020	350	$7,883
Eglinton Mixed Use	L	78	0	$0	0	$0	0	$0	0	$0	0	$0	250	$7,054
Eglinton Marina	L	79	0	$0	0	$0	850	$5,966	850	$7,395	850	$6,707	850	$6,214
North Alkimos 1	L	80	0	$0	0	$0	0	$0	0	$0	1,051	$11,319	1,051	$10,526
North Alkimos 3	L	81	0	$0	0	$0	1,000	$5,957	1,000	$6,428	1,000	$6,340	1,000	$6,046
South Alkimos Central Village	L	82	0	$0	0	$0	0	$0	0	$0	0	$0	1,500	$7,660
Agora Village	L	83	240	$13,114	240	$12,536	240	$9,411	1,500	$8,800	1,500	$8,298	1,500	$8,215
Jindalee North	L	84	0	$0	0	$0	500	$10,143	500	$9,555	500	$9,098	500	$9,071
Jindalee North Coastal Centre	L	85	0	$0	0	$0	0	$0	0	$0	0	$0	300	$5,308
Butler Local	L	86	1,200	$15,705	1,200	$14,655	1,200	$12,220	1,200	$11,211	1,200	$10,507	1,200	$10,315
Jindalee Beach	L	87	0	$0	0	$0	0	$0	0	$0	0	$0	500	$8,659
Santa Barbara Parade	L	88	0	$0	0	$0	0	$0	0	$0	0	$0	500	$4,785
Duncombe Grove	L	89	0	$0	0	$0	0	$0	0	$0	0	$0	500	$4,357
Baltimore Parade	L	90	983	$15,281	983	$14,496	983	$12,289	983	$11,300	983	$10,702	983	$10,504
Quinns Rocks Beach	L	91	215	$9,672	215	$9,232	215	$7,991	215	$7,297	215	$6,932	215	$6,785
Beverley Crescent	L	92	0	$0	0	$0	0	$0	0	$0	0	$0	1,500	$3,492
Lake Neerabup	L	93	1,092	$8,097	1,092	$7,723	1,092	$6,700	1,092	$6,373	1,092	$6,295	1,092	$6,510
West Tamala Park	L	94	0	$0	0	$0	250	$9,293	250	$8,857	250	$8,786	250	$8,815
Central Tamala Park	L	95	0	$0	0	$0	0	$0	400	$9,195	400	$9,198	400	$9,296
Banksia Grove A	L	96	0	$0	1,200	$7,181	1,200	$6,743	1,200	$6,662	1,200	$6,868	1,200	$7,387
Banksia Grove B	L	97	0	$0	0	$0	0	$0	0	$0	0	$0	500	$6,328
Viridian Drive	L	98	0	$0	0	$0	0	$0	0	$0	0	$0	200	$5,481
East Road	L	99	700	$8,807	700	$8,760	700	$8,211	700	$8,371	700	$8,720	700	$8,835
Villanova Street	L	100	0	$0	0	$0	0	$0	0	$0	0	$0	700	$4,708
West Landsdale	L	101	0	$0	0	$0	0	$0	0	$0	0	$0	1,100	$9,457
Alinjarra Village	L	102	520	$10,348	520	$10,352	520	$9,191	520	$8,865	520	$8,948	520	$8,900
Marangaroo	L	103	574	$10,824	574	$10,792	574	$9,674	574	$9,260	574	$9,350	574	$9,346
Hainsworth	L	104	662	$10,825	662	$10,835	662	$9,792	662	$9,593	662	$9,663	662	$9,638
Neerabup Industrial	I	105	253	$5,591	253	$5,310	1,500	$4,950	1,500	$4,732	1,500	$4,736	1,500	$4,871
Wangara Industrial	I	106	30,964	$7,226	30,964	$7,136	30,964	$6,589	30,964	$6,400	30,964	$6,715	30,964	$6,854
East Wanneroo PD1	D	PD1	0	$0	0	$0	0	$0	0	$0	5,000	$6,674	5,000	$7,098
East Wanneroo PN1	N	PN1	0	$0	0	$0	0	$0	0	$0	2,000	$4,769	2,000	$5,171

Appendix 2: Activity Centres Map



Strategic Metropolitan Centre:

1. Yanchep City Centre

Secondary Centre:

2. Two Rocks
3. Alkimos City Centre
4. Ocean Keys
5. Wanneroo Town Centre

District Centres:

6. North Two Rocks F
7. Two Rocks
8. District Centre (E)
9. Yanchep
10. Eglinton
11. Butler
12. Banksia Grove
13. Kingsway City
14. Alexander Heights
15. Girrawheen Newpark

Neighbourhood Centres:

16. North Two Rocks H
17. North Two Rocks G
18. North Two Rocks Coastal Centre R
19. East Two Rocks (Q)
20. East Two Rocks (I)
21. North Two Rocks 1
22. Neighbourhood Centre (P)
23. Neighbourhood Centre (O)
24. Coastal Centre (N)
25. Neighbourhood Centre (J)
26. Neighbourhood Centre (D)
27. Capricorn
28. Capricorn Coastal
29. Yanchep Beach Road 1
30. South Yanchep
31. North Eglinton
32. Indigo Street
33. Eglinton
34. North Alkimos Coastal Village
35. North Alkimos 2
36. Alkimos Coastal Village
37. South Alkimos Gateway
38. Trinity Village
39. Jindee Coastal Centre
40. Brighton Village
41. Lukin Drive
42. Merriwa Plaza
43. Quinns Village
44. Mindarie
45. Clarkson
46. Mindarie Marina
47. Mindarie Keys
48. Clarkson Main Street
49. Tamala Park
50. Carramar Village
51. Drovers
52. Clarkson Avenue
53. Ashby
54. Pearsall
55. Wyatt Grove
56. Madeley
57. Landsdale Forum
58. East Landsdale
59. Darch
60. Koondoola
61. Summerfield

Local Centres:

62. North Two Rocks 4
63. North Two Rocks 2
64. North Two Rocks 3
65. East Two Rocks (North-East)
66. East Two Rocks (West)
67. Two Rocks A
68. Two Rocks B
69. Two Rocks C
70. Two Rocks D
71. Two Rocks E
72. Two Rocks F
73. Two Rocks G
74. Yanchep Village (2)
75. Yanchep Village (1)
76. Yanchep Beach Road 2
77. Lagoon Drive
78. Eglinton Mixed Use
79. Eglinton Marina
80. North Alkimos 1
81. North Alkimos 3
82. South Alkimos Central Village
83. Agora Village
84. Jindalee North
85. Jindalee North Coastal Centre
86. Butler Local
87. Jindalee Beach
88. Santa Barbara Parade
89. Duncombe Grove
90. Baltimore Parade
91. Quinns Rocks Beach
92. Beverley Crescent
93. Lake Neerabup
94. West Tamala Park
95. Central Tamala Park
96. Banksia Grove A
97. Banksia Grove B
98. Viridian Drive
99. East Road
100. Villanova Street
101. West Landsdale
102. Alinjarra Village
103. Marangaroo
104. Hainsworth

Industrial Centres:

105. Neerabup Industrial
106. Wangara Industrial

Potential Centres:

PN1. East Wanneroo NC
PD1. East Wanneroo DC

City of Wanneroo

Appendix 3: All Land Uses Needs Assessment

2016 Land Use and Employment – WAPC Land Use and Employment Survey

2016 - COMMERCIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community	Manufacturing / Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*10.2%*	*8.4%*	*1.5%*	*11.7%*	*0.6%*	*3.3%*	*12.9%*	*4.3%*	*36.8%*	*9.9%*	*0.5%*	*100.0%*
Floorspace	43,661	35,933	6,251	49,747	2,600	14,208	55,207	18,186	156,800	42,029	1,927	426,549
Employment	737	796	97	3,953	0	150	640	144	6476	34	94	13121
m2/Job ratio	59.2	45.1	64.4	12.6	0.0	94.7	86.3	126.3	24.2	1236.1	20.5	32.5

2016 INDUSTRIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*1.3%*	*0.5%*	*20.4%*	*14.2%*	*0.2%*	*0.0%*	*3.7%*	*13.3%*	*2.3%*	*41.7%*	*2.3%*	*100.0%*
Floorspace	18,289	7,305	280,475	194,477	3,170	287	50,124	182,836	31,397	572,032	31,810	1,372,202
Employment	273	135	1910	8352	18	1	592	1173	654	1191	71	14370
m2/Job ratio	67.0	54.1	146.8	23.3	176.1	287.0	84.7	155.9	48.0	480.3	448.0	95.5

2016 PUBLIC PURPOSE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*6.2%*	*71.4%*	*0.0%*	*3.0%*	*0.0%*	*12.5%*	*0.0%*	*0.3%*	*1.3%*	*1.9%*	*3.4%*	*100.0%*
Floorspace	29,657	343,286	0	14,199	0	59,997	0	1,677	6,405	9,297	16,111	480,629
Employment	114	3714	0	466	0	539	0	5	216	10	83	5147
m2/Job ratio	260.1	92.4	0.0	30.5	0.0	111.3	0.0	335.4	29.7	929.7	194.1	93.4

2016 - RECREATION/ OPEN SPACE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*68.9%*	*3.9%*	*0.0%*	*5.6%*	*0.0%*	*0.9%*	*0.0%*	*0.0%*	*5.2%*	*8.7%*	*6.9%*	*100.0%*
Floorspace	20,144	1,140	0	1,641	0	250	0	0	1,517	2,541	2,019	29,252
Employment	151	16	0	85	0	0	0	0	38	25	0	315
m2/Job ratio	133.4	71.3	0.0	19.3	0.0	0.0	0.0	0.0	39.9	101.6	0.0	92.9

2021 Land Use and Employment - Projected

2021 - COMMERCIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*10.2%*	*8.4%*	*1.5%*	*11.6%*	*0.6%*	*3.3%*	*12.9%*	*4.2%*	*37.0%*	*9.8%*	*0.4%*	*100.0%*
Floorspace	52,565	43,261	7,526	59,893	3,130	17,106	66,466	21,895	191,022	50,601	2,320	515,785
Employment	887	958	117	4,759	0	181	771	173	7,889	41	113	15,890
m2/Job ratio	59.2	45.1	64.4	12.6	0.0	94.7	86.3	126.3	24.2	1236.1	20.5	32.5

2021 INDUSTRIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*1.3%*	*0.5%*	*20.5%*	*14.2%*	*0.2%*	*0.0%*	*3.7%*	*13.4%*	*1.9%*	*41.8%*	*2.3%*	*100.0%*
Floorspace	21,639	8,643	331,850	230,100	3,751	340	59,305	216,326	31,217	676,812	37,637	1,617,620
Employment	323	160	2,260	9,882	21	1	700	1,388	650	1,409	84	16,879
m2/Job ratio	67.0	54.1	146.8	23.3	176.1	287.0	84.7	155.9	48.0	480.3	448.0	95.8

2021 PUBLIC PURPOSE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*6.2%*	*71.4%*	*0.0%*	*3.0%*	*0.0%*	*12.5%*	*0.0%*	*0.3%*	*1.3%*	*1.9%*	*3.4%*	*100.0%*
Floorspace	35,214	407,604	0	16,859	0	71,238	0	1,991	7,605	11,039	19,130	570,679
Employment	135	4,410	0	553	0	640	0	6	256	12	99	6,111
m2/Job ratio	260.1	92.4	0.0	30.5	0.0	111.3	0.0	335.4	29.7	929.7	194.1	93.4

2021 - RECREATION/ OPEN SPACE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*68.9%*	*3.9%*	*0.0%*	*5.6%*	*0.0%*	*0.9%*	*0.0%*	*0.0%*	*5.2%*	*8.7%*	*6.9%*	*100.0%*
Floorspace	23,918	1,354	0	1,948	0	297	0	0	1,801	3,017	2,397	34,733
Employment	179	19	0	101	0	0	0	0	45	30	0	374
m2/Job ratio	133.4	71.3	0.0	19.3	0.0	0.0	0.0	0.0	39.9	101.6	0.0	92.9

2026 Land Use and Employment - Projected

2026 - COMMERCIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*9.4%*	*7.7%*	*1.3%*	*10.7%*	*0.6%*	*3.1%*	*11.9%*	*3.9%*	*42.0%*	*9.0%*	*0.4%*	*100.0%*
Floorspace	63,124	51,951	9,038	71,923	3,759	20,542	79,817	26,293	282,554	60,765	2,786	672,553
Employment	1,066	1,151	140	5,715	0	217	925	208	11,670	49	136	21,277
m2/Job ratio	59.2	45.1	64.4	12.6	0.0	94.7	86.3	126.3	24.2	1236.1	20.5	31.6

2026 INDUSTRIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*1.3%*	*0.5%*	*20.6%*	*14.3%*	*0.2%*	*0.0%*	*3.7%*	*13.4%*	*1.7%*	*41.9%*	*2.3%*	*100.0%*
Floorspace	25,611	10,230	392,771	272,341	4,439	402	70,192	256,039	32,464	801,060	44,546	1,910,096
Employment	382	189	2,675	11,696	25	1	829	1,643	676	1,668	99	19,884
m2/Job ratio	67.0	54.1	146.8	23.3	176.1	287.0	84.7	155.9	48.0	480.3	448.0	96.1

2026 PUBLIC PURPOSE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*6.2%*	*71.4%*	*0.0%*	*3.0%*	*0.0%*	*12.5%*	*0.0%*	*0.3%*	*1.3%*	*1.9%*	*3.4%*	*100.0%*
Floorspace	41,802	483,872	0	20,014	0	84,568	0	2,364	9,028	13,104	22,709	677,461
Employment	161	5,235	0	657	0	760	0	7	304	14	117	7,255
m2/Job ratio	260.1	92.4	0.0	30.5	0.0	111.3	0.0	335.4	29.7	929.7	194.1	93.4

2026 - RECREATION/ OPEN SPACE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*68.9%*	*3.9%*	*0.0%*	*5.6%*	*0.0%*	*0.9%*	*0.0%*	*0.0%*	*5.2%*	*8.7%*	*6.9%*	*100.0%*
Floorspace	28,394	1,607	0	2,313	0	352	0	0	2,138	3,582	2,846	41,232
Employment	213	23	0	120	0	0	0	0	54	35	0	444
m2/Job ratio	133.4	71.3	0.0	19.3	0.0	0.0	0.0	0.0	39.9	101.6	0.0	92.9

2031 Land Use and Employment - Projected

2031 - COMMERCIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*9.6%*	*7.9%*	*1.4%*	*11.0%*	*0.6%*	*3.1%*	*12.2%*	*4.0%*	*40.6%*	*9.3%*	*0.4%*	*100.0%*
Floorspace	77,497	63,780	11,095	88,300	4,615	25,219	97,991	32,280	326,714	74,600	3,420	805,511
Employment	1,308	1,413	172	7,016	0	266	1,136	256	13,494	60	167	25,288
m2/Job ratio	59.2	45.1	64.4	12.6	0.0	94.7	86.3	126.3	24.2	1236.1	20.5	31.9

2031 INDUSTRIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*1.3%*	*0.5%*	*20.6%*	*14.3%*	*0.2%*	*0.0%*	*3.7%*	*13.4%*	*1.4%*	*42.1%*	*2.3%*	*100.0%*
Floorspace	31,019	12,390	475,696	329,840	5,376	487	85,012	310,096	32,464	970,187	53,951	2,306,517
Employment	463	229	3,239	14,165	31	2	1,004	1,989	676	2,020	120	23,939
m2/Job ratio	67.0	54.1	146.8	23.3	176.1	287.0	84.7	155.9	48.0	480.3	448.0	96.3

2031 PUBLIC PURPOSE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*6.2%*	*71.4%*	*0.0%*	*3.0%*	*0.0%*	*12.5%*	*0.0%*	*0.3%*	*1.3%*	*1.9%*	*3.4%*	*100.0%*
Floorspace	50,771	587,688	0	24,308	0	102,712	0	2,871	10,965	15,916	27,581	822,812
Employment	195	6,358	0	798	0	923	0	9	370	17	142	8,811
m2/Job ratio	260.1	92.4	0.0	30.5	0.0	111.3	0.0	335.4	29.7	929.7	194.1	93.4

2031 - RECREATION/ OPEN SPACE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*68.9%*	*3.9%*	*0.0%*	*5.6%*	*0.0%*	*0.9%*	*0.0%*	*0.0%*	*5.2%*	*8.7%*	*6.9%*	*100.0%*
Floorspace	34,485	1,952	0	2,809	0	428	0	0	2,597	4,350	3,456	50,078
Employment	259	27	0	146	0	0	0	0	65	43	0	539
m2/Job ratio	133.4	71.3	0.0	19.3	0.0	0.0	0.0	0.0	39.9	101.6	0.0	92.9

2036 Land Use and Employment - Projected

2036 - COMMERCIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*9.5%*	*7.8%*	*1.4%*	*10.9%*	*0.6%*	*3.1%*	*12.1%*	*4.0%*	*41.1%*	*9.2%*	*0.4%*	*100.0%*
Floorspace	89,029	73,271	12,746	101,439	5,302	28,971	112,572	37,083	383,365	85,701	3,929	933,407
Employment	1,503	1,623	198	8,061	0	306	1,305	294	15,833	69	192	29,383
m2/Job ratio	59.2	45.1	64.4	12.6	0.0	94.7	86.3	126.3	24.2	1236.1	20.5	31.8

2036 INDUSTRIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*1.3%*	*0.5%*	*20.7%*	*14.3%*	*0.2%*	*0.0%*	*3.7%*	*13.5%*	*1.2%*	*42.2%*	*2.3%*	*100.0%*
Floorspace	37,118	14,826	569,235	394,699	6,434	582	101,729	371,073	32,464	1,160,962	64,560	2,753,682
Employment	554	274	3,876	16,951	37	2	1,201	2,381	676	2,417	144	28,513
m2/Job ratio	67.0	54.1	146.8	23.3	176.1	287.0	84.7	155.9	48.0	480.3	448.0	96.6

2036 PUBLIC PURPOSE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community	Manufacturing / Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*6.2%*	*71.4%*	*0.0%*	*3.0%*	*0.0%*	*12.5%*	*0.0%*	*0.3%*	*1.3%*	*1.9%*	*3.4%*	*100.0%*
Floorspace	60,888	704,792	0	29,152	0	123,178	0	3,443	13,150	19,087	33,077	986,768
Employment	234	7,625	0	957	0	1,107	0	10	443	21	170	10,567
m2/Job ratio	260.1	92.4	0.0	30.5	0.0	111.3	0.0	335.4	29.7	929.7	194.1	93.4

2036 - RECREATION/ OPEN SPACE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*68.9%*	*3.9%*	*0.0%*	*5.6%*	*0.0%*	*0.9%*	*0.0%*	*0.0%*	*5.2%*	*8.7%*	*6.9%*	*100.0%*
Floorspace	41,357	2,341	0	3,369	0	513	0	0	3,115	5,217	4,145	60,057
Employment	310	33	0	175	0	0	0	0	78	51	0	647
m2/Job ratio	133.4	71.3	0.0	19.3	0.0	0.0	0.0	0.0	39.9	101.6	0.0	92.9

2041 Land Use and Employment - Projected

2041 - COMMERCIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*9.7%*	*8.0%*	*1.4%*	*11.1%*	*0.6%*	*3.2%*	*12.3%*	*4.1%*	*39.9%*	*9.4%*	*0.4%*	*100.0%*
Floorspace	107,520	88,489	15,394	122,507	6,403	34,989	135,953	44,785	441,366	103,501	4,745	1,105,651
Employment	1,815	1,960	239	9,735	0	369	1,576	355	18,229	84	231	34,593
m2/Job ratio	59.2	45.1	64.4	12.6	0.0	94.7	86.3	126.3	24.2	1236.1	20.5	32.0

2041 INDUSTRIAL FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*1.4%*	*0.5%*	*20.7%*	*14.4%*	*0.2%*	*0.0%*	*3.7%*	*13.5%*	*1.0%*	*42.2%*	*2.3%*	*100.0%*
Floorspace	45,039	17,989	690,699	478,920	7,806	707	123,436	450,253	32,464	1,408,689	78,335	3,334,337
Employment	672	332	4,704	20,568	44	2	1,458	2,889	676	2,933	175	34,453
m2/Job ratio	67.0	54.1	146.8	23.3	176.1	287.0	84.7	155.9	48.0	480.3	448.0	96.8

2041 PUBLIC PURPOSE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*6.2%*	*71.4%*	*0.0%*	*3.0%*	*0.0%*	*12.5%*	*0.0%*	*0.3%*	*1.3%*	*1.9%*	*3.4%*	*100.0%*
Floorspace	73,033	845,378	0	34,967	0	147,749	0	4,130	15,773	22,895	39,675	1,183,599
Employment	281	9,146	0	1,148	0	1,327	0	12	532	25	204	12,675
m2/Job ratio	260.1	92.4	0.0	30.5	0.0	111.3	0.0	335.4	29.7	929.7	194.1	93.4

2041 - RECREATION/ OPEN SPACE FLOORSPACE & EMPLOYMENT	Entertainment/ Recreation/ Culture	Health/ Welfare/ Community Services	Manufacturing/ Processing/ Fabrication	Office/ Business	Primary/ Rural	Residential	Other Retail	Service Industry	Shop/ Retail	Storage/ Distribution	Utilities/ Comms	TOTAL OCCUPIED
	ENT	HEL	MAN	OFF	PRI	RES	RET	SER	SHP	STO	UTE	
% of Occupied	*68.9%*	*3.9%*	*0.0%*	*5.6%*	*0.0%*	*0.9%*	*0.0%*	*0.0%*	*5.2%*	*8.7%*	*6.9%*	*100.0%*
Floorspace	49,607	2,807	0	4,041	0	616	0	0	3,736	6,257	4,972	72,036
Employment	372	39	0	209	0	0	0	0	94	62	0	776
m2/Job ratio	133.4	71.3	0.0	19.3	0.0	0.0	0.0	0.0	39.9	101.6	0.0	92.9