City of Kwinana

Tomorrow's Kwinana

Effective planning today, helps to shape the Kwinana of tomorrow.

Local Housing Study

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1.0 Introduction

The City of Kwinana (City) has undergone rapid growth in population with more than five per cent average growth recorded in the past five years. Strong population growth is forecast over the next two decades, almost doubling to 85,000. This Study has been prepared to assist in understanding current and future housing needs and the strategies required to meet the growing and changing community needs.

The Kwinana Housing Study provides basic information about the City's demography, which includes population, households, and residential development. It also provides information about existing housing stock, population trends, opportunities and constraints on future development.

These are important considerations as the City looks to planning for housing over the next 10 to 20 years. The Study outcomes with the community input would provide the basis for the Housing and Population elements of the Local Planning Strategy.

2.0 Planning and Legislative Framework

The following State, regional, and local planning instruments have influenced the preparation and development of a Local Housing Strategy for the City:

2.1 State and Regional Planning Context

2.1.1 State Planning Strategy 2050

The State Planning Strategy 2050 (Strategy 2050), prepared by the Department of Planning, Lands and Heritage (DPLH) on behalf of the Western Australian Planning Commission (WAPC) was released in June 2014. Strategy 2050 aims to guide the sustainable development of Western Australia (WA) for the next four decades, is a collaborative whole-of-government approach to land use planning and development issues. It considers that the South West Sector, in which the City is a part, will continue to house the majority of the State's population and have the highest level and greatest range of health and education services, cultural activities and employment (p 32).

Strategy 2050 articulates a vision for 'sustained growth and prosperity' for WA, and envisages a future for its people where present and future generations enjoy high standards of living, improved public health and an excellent quality of life. Specific to housing, it envisages, by 2050, that communities will access diverse housing and services that complement their values and lifestyle choice.

2.1.2 The South Metropolitan Peel Sub-regional Planning Framework 2018

This is a subset of the over-arching Perth and Peel @3.5million strategy and has considered where future homes and jobs will be located; what community and social infrastructure will be required; better integrated use of existing infrastructure; protection of important environmental assets and critical services; and staging and sequencing of future development. Specific to housing, it sets out proposals to:

- achieve more consolidated urban form and development within the South Metropolitan Peel sub-region, and
- meet long-term housing requirements.

The Framework sets out a 1,365 infill dwelling target for Kwinana by 2050 for an estimated 3003 persons. This is equivalent to 41 dwellings per annum.

2.1.3 State Planning Policies (SPPs)

SPP 3.0 - Urban Growth and Settlement (2006)

This is a broad-sector policy, which sets out the principles and considerations pertaining to planning for sustainable urban growth and settlement. The broad objectives of this policy are to:

- provide a wide variety of housing, employment, recreation facilities, and open space;
- meet the social and economic needs of the community;
- enhance the quality of life of the community;
- promote the development of a sustainable and liveable neighbourhood form; and
- coordinate the timely provision of infrastructure and services to the new development.

SPP 3.1 - Residential Design Codes (2013)

The R-Codes Policy provides the standard required for the control of residential development throughout WA. They are also relevant for subdividing residential lands. It is administered by local governments through their individual local planning schemes. Local Governments are able to vary some of the provisions of the R-Codes through their local planning schemes and local planning policies.

The R-Codes contain “deemed-to-comply” provisions, which are essentially minimum development standards. Compliance with the R-Codes can be achieved by either satisfying the “deemed-to-comply” provisions of a specific element or by demonstrating that the “design principles” of that element have been met.

The State Government launched changes to the R-Codes Policy in February 2019 and will become operational on 24 May 2019. Consequently, the Policy is renamed as:

1. State Planning Policy 7.0: Design of the Built Environment: This is the lead policy that elevates the importance of design quality across the whole built environment. It includes 10 principles for good design and establishes the framework for integrating design review as a part of the evaluation process.
2. State Planning Policy 7.3: Residential Design Codes Volume 2 – Apartments: This is a policy for apartments and mixed-use developments which focuses on improved design outcomes for apartments, and will replace Part 6 of the R-Codes.

SPP 4.2 - Activity Centres for Perth and Peel (2010)

In SPP 4.2, Kwinana is listed as a Secondary Centre and Wandi a District Centre. The SPP 4.2 proposes to incorporate higher-density housing within and immediately adjacent to these activity centres and stipulates that local planning strategies and schemes should optimise housing potential in walkable catchments and meet density targets in these activity centres. The walkable catchment for Kwinana and Wandi centres is 400m.

Draft SPP 5.4 - Road and Rail Transport Noise and Freight Considerations in Land Use Planning (2017)

This policy seeks to minimise the adverse impact of transport noise, without placing unreasonable restrictions on noise-sensitive residential development, or adding unduly to the cost of transport infrastructure.

It also provides a standardised and consistent framework for the consideration and management of the impacts of transport noise and freight operations on new noise-sensitive development in the vicinity of major transport corridors or freight handling facilities. It also refers to new major road or rail infrastructure projects in the vicinity of existing or future noise-sensitive residential development.

SPP 7.0 - Design of the Built Environment (2019)

This policy aims to provide a broad framework for design of the built environment and achieve good design outcomes. It applies across all planning and development types such as structure planning, subdivision, and development applications across WA. It aims to provide consistency across all jurisdictions through a coordinated strategy of design quality mechanisms, which include:

- Design Principles – Performance-based approach to policy
- Design Review – Skilled evaluation expertise
- Design Skills – Skilled design expertise.

2.1.4 Other Relevant State Strategic Planning Documents

Directions 2031 and Beyond – Metropolitan Planning beyond the Horizon (2010)

The *Directions 2031*, the precursor to the Perth and Peel @3.5million, was introduced in 2010 as a high level spatial framework and strategic plan. It established a vision for future growth and provided a framework to guide the detailed planning and delivery of housing, infrastructure and services necessary to accommodate a range of growth scenarios for the metropolitan Perth and Peel region.

The Directions 2031 under the theme *Liveable* proposed an objective, “living in, or visiting, our city should be a safe, comfortable and enjoyable experience”. The strategic actions listed under the objective provide guidance to prepare a housing strategy for a local government:

Draft Liveable Neighbourhoods (2015)

Liveable Neighbourhoods is a WAPC performance-based operational policy document. It is applied throughout state and local government planning decision-making in conjunction with SPPs for the preparation and assessment of district and local structure plans, activity centre plans, and subdivision applications that are the subject of a local structure plan or activity centre plan.

The following design principles outlined in Liveable Neighbourhoods specifically provide guidance in the preparation of a local housing strategy:

- Facilitate housing diversity, responsive built form, local employment and amenity within a legible and efficient urban structure of compact walkable neighbourhoods.
- Ensure urban form and lot design facilitate safe and convenient access to services, facilities and employment in mixed land use, main-street format activity centres.
- Create a site-responsive street and lot layout that provides local amenity, safe and efficient access and promotes a sense of place.
- Provide housing density and diversity to meet the changing community needs.

Designing out Crime Planning Guidelines (2006)

The Guidelines outline urban design standards for Crime Prevention through Environmental

Design (CPTED) to reduce the potential for crime. Specifically, it provides planning principles to be adopted to designing out crime in both the public and private sectors, and a toolbox of design criteria and approaches to address crime prevention.

The Guidelines provide performance criteria for all levels of development to assist in the decision-making process. Consequently, it is important for a local government to incorporate designing out crime provisions when preparing strategies, policies, and schemes.

2.2 Local Planning Context

2.2.1 Strategic Community Plan 2017–2027

The Strategic Community Plan outlines community long-term (10+ years) vision, values, aspirations and priorities with reference to other plans, information and resourcing capabilities of a local government. This Plan is not static and a full review is required every four years with a desktop review every two years. This Plan:

- establishes the community's vision for the local government's future, including aspirations and service expectations;
- drives the development of local government area/place/regional plans, resourcing and other informing strategies, e.g. workforce, asset management and services; and
- will ultimately be a driver for all other planning.

2.2.2 Local Planning Schemes 2 & 3

The City's current Local Planning Scheme 2 (LPS2) was gazetted on 20 November 1992. This applies to all land within the City with the exception of the Hope Valley Wattleup Redevelopment area and the Kwinana Town Centre and contemplates both zoning and development control for land. Whereas Local Planning Scheme 3 (LPS3) applies to the Kwinana Town Centre, providing a further level of detail in order to achieve the most appropriate development outcome within the City Centre. As of December 2018, there have been 155 amendments made to LPS2.

The changes introduced in the *Planning and Development (Local Planning Schemes) Regulations 2015* (Regulations 2015) have provided opportunities to simplify and streamline the contents of the City's future Local Planning Scheme (LPS). In addition, the new Local Planning Scheme (which will then be known as LPS4) will have to adopt updated zone names for residential development occurring in specific planning areas. LPS4 will also be required to be consistent with the amended Model Scheme Text under the Regulations 2015.

Regulation 65 of the Regulations 2015 stipulates that a local government must review its Local Planning Scheme(s) within a given timeframe. In accordance with Regulation 66 of the Regulations 2015, Council resolved to approve the Reports of Review in the context of Local Planning Schemes 2 and 3 at its Ordinary Council held on 11 April 2018. On 29 August 2018, the WAPC advised that it had considered the Council's recommendation in relation to the Reports of Review and agreed with the recommendation. The recommendation was that the preparation of a new Local Planning Scheme be undertaken and that, upon gazettal of the new Planning Scheme, Local Planning Scheme 2 and 3 be repealed.

2.2.3 Local Planning Policies (LPP)

The City has prepared a suite of local planning policies (LPPs) on a range of planning matters to help guide development. An LPP is an important planning mechanism that provides an essential link between strategic planning documents and development on the ground.

These policies are prepared under LPS2 as a supplement to strengthen the LPS requirements, however such policies do not bind any decision-maker in respect to any development application. The decision-makers must have due regard to the objectives of a policy before making a decision. LPPs prepared by the City that are relevant to housing are:

LPP Ancillary Dwelling – Ancillary Dwelling means a 'self-contained dwelling on the same lot as a single house which may be attached to, integrated with or detached from the single house'. The objectives of this policy are:

- To provide a set of criteria for the development of ancillary dwellings and ensure its structure conforms with the existing scale and character of the locality; and
- To ensure that ancillary dwellings are provided, constructed and located in such a way as to minimise their impact on adjacent properties and provide a high standard of built form.

LPP Design Guidelines for Medium Density Development – In addition to the provisions in the Residential Design Codes (R-Codes), this Policy is prepared to assist the City in assessing, and developers in preparing medium density development applications. Matters such as lot size and orientation, building siting and design, private open space, vehicle parking and streetscape shall be considered to ensure that medium density development in Kwinana occurs in harmony with surrounds, and at highest possible standards.

LPP Development within Special Residential Zones – This Policy aims to provide a consistent development control approach to the Special Residential Zone for aspects not specifically covered in TPS2 in order to maintain the residential amenity of the area. It covers matters such as building envelop, screen fencing, bore location, driveways, non-commercial vehicles, outbuildings and front fencing.

LPP Residential Development – This Policy details the Deemed Acceptable Development Standards to meet the Performance Criteria and to comply with the R-Codes. Matters include housing density, streetscape, boundary setbacks, open space, access and car parking, site works, building height, privacy, design for climate, and incidental development.

LPP Residential Subdivision Development Guidelines: - A primary objective of this Policy is to assist in achieving the objectives of the City's Local Housing Strategy 2009. It applies to all residential subdivision and development within the City with additional planning requirements and standards being applied to Medina.

LPP Standard Conditions for Subdivision: This Policy aims to ensure that conditions of subdivision are applied in a consistent format, recognised publicly, and included in subdivision referral responses to the WAPC. These would then be reflected in delegation reports, Council Officers' reports, and minutes of Council.

2.2.4 Local Development Plans

Local development plans (previously known as detailed area plans) are detailed planning tools used for introducing specific design elements for defined local areas within larger development areas. They may include aspects such as the location of garages, vehicle access, parking, solar active/passive design, street orientation and setbacks, and used across all new development areas of Kwinana.

2.2.5 Local Housing Strategy 2009 (Housing Strategy 2009)

Council adopted a Housing Strategy in 2009. The Housing Strategy contained two key housing objectives:

1. Accommodate a reasonable increase in population and housing stock in appropriate locations; and
2. Maintain the City's provision of housing choices in response to demographic change.

The Housing Strategy 2009 proposed higher residential densities of R40 around local and neighbourhood activity centres, and for residential areas within an 800-metre walkable catchment of the Kwinana Town Centre R40 or above. Similar proposals were made to up-code areas within 400 metres of commercial, civic or recreation activity centres to R40 or above, and land within the defined Station Precinct Design Plan up to a maximum of R80.

While some of the up-coding took place (at the Medina Neighbourhood Centre and as part of new local structure planning), the majority of these proposals were not implemented. This is largely due to the lack of progression of a new Local Planning Strategy and new Local Planning Scheme, which was the intended statutory mechanism for the up-coding.

3.0 Demographic Analysis - 2011 to 2016

The following is a demographic analysis for the City of Kwinana from data gathered at the 2011 and 2016 Australian Bureau of Statistics (ABS) that provide information and details about trends and spatial distribution which are relevant to housing within the City.

3.1 Population

In 2016, the City's census population was 38,918, demonstrating an increase of 9,691 persons in the five years from 2011 to 2016 i.e. 25 per cent growth (Table 1). This reflects the significant growth of new residential developments in the City during this period.

Table 1 Population Categories

Usual residents	2016			2011			Change
Population group	**Number**	**Kwinana %**	**South West Group %[1]**	**Number**	**Kwinana %**	**South West Group %**	**2011 to 2016**
Males	19,970	51.3	49.2	14,872	50.9	49.3	+5,098
Females	18,948	48.7	50.8	14,355	49.1	50.7	+4,593

[1]South West Group comprises City of Cockburn, Town of East Fremantle, City of Fremantle, City of Kwinana, City of Melville and City of Rockingham.

When compared with Estimated Resident Population (ERP), the City had 40,058 in 2016 which grew to 41,849 in 2017 and 43,511 in 2018. On percentage terms, it is 4.47 and 3.97 for 2017 and 2018 respectively. There is a potential that a higher rate of increase in population is taking place in the newer suburbs such as Wandi, Wellard and Bertram as a result of in-migration. There is limited scope for population growth in the older suburbs such as Medina and Calista because these areas are already saturated with low density, older houses.

3.2 Education and Employment Profile

3.2.1 Education

An analysis of the qualifications of the City's residents in 2016 compared to the South West Group shows that there was a lower proportion of people holding formal qualifications (Bachelor or higher degree; Advanced Diploma or Diploma; or Vocational qualifications), and a higher proportion of people with no formal qualifications (Table 2).

Table 2 2016 Qualification Level

Qualification level - Persons aged 15+	2016		
	Number	%	South West Group %
Bachelor or Higher degree	4,314	14.3	21.4
Advanced Diploma or Diploma	2,321	7.7	9.2
Vocational	6,948	23.0	20.9
No qualification	12,444	41.2	37.9
Not stated	4,211	13.9	10.5
Total persons aged 15+	30,238	100.0	100.0

Overall, 44.9% of the population aged 15 and over held educational qualifications, while 41.2% had no qualifications, compared with 51.6% and 37.9% respectively for the South West Group.

The largest changes in the qualifications of the population in the City between 2011 and 2016 were in those with:

- Bachelor or Higher degrees (+2,471 persons)
- Vocational qualifications (+2,013 persons)
- No qualifications (+1,533 persons)
- Advanced Diploma or Diplomas (+1,010 persons)

3.2.2 Employment Status

The size of the City's labour force in 2016 was 18,829, of which 5,624 were employed part-time, and 10,801 were full time workers. Analysis of the employment status (as a percentage of the labour force) in the City in 2016 compared to the South West Group shows that there was a lower proportion in employment, and a higher proportion unemployed (Table 3).

Overall, 89.2% of the labour force was employed (55.6% of the population aged 15+), and 10.8% unemployed (6.7% of the population aged 15+), compared with 91.7% and 8.3% respectively for South West Group.

Between 2011 and 2016, the number of people employed in the City increased to an additional 4,070, however the number unemployed also showed an increase of 1,107. In the same period, the number of people in the labour force showed an increase of 5,177 or 37.9%.

Table 3 2016 Employment Status

Employment status	2016		
	Number	Kwinana %	South West Group %
Employed	16,802	89.2	91.7
Employed full-time	*10,801*	*57.4*	*56.4*
Employed part-time	*5,624*	*29.9*	*33.9*
Hours worked not stated	*377*	*2.0*	*1.4*
Unemployed (Unemployment rate)	2,027	10.8	8.3
Looking for full-time work	*1,353*	*7.2*	*5.0*
Looking for part-time work	*674*	*3.6*	*3.2*
Total labour force	18,829	100.0	100.0

The percentage of people unemployed and of those, looking for full time work was higher than that for the South West Group and is one of the highest in the Perth Metropolitan Area.

3.2.3 Occupational Structure

Table 4 shows the occupations in which the residents of the City work that may be within the City or elsewhere. This indicates the economic base and employment opportunities available in the City, education levels, and the working and social aspirations of the Kwinana population.

An analysis of the jobs held by the resident population in the City in 2016 shows the three most popular occupations were:

- Technicians and Trades Workers (3,104 people or 18.5%)
- Professionals (2,379 people or 14.2%)
- Clerical and Administrative Workers (2,182 people or 13.0%)

Table 4 2016 Occupation Status

Occupation Status	2016		
	Number	%	South West Group %
Managers	1,296	7.7	11.4
Professionals	2,379	14.2	21.9
Technicians and Trades Workers	3,104	18.5	16.2
Community and Personal Service Workers	1,964	11.7	10.9
Clerical and Administrative Workers	2,182	13.0	13.3
Sales Workers	1,627	9.7	9.1
Machinery Operators And Drivers	1,844	11.0	6.6
Labourers	2,082	12.4	8.8
Inadequately described	123	0.7	0.6
Total employed persons aged 15+	16,800	100.0	100.0

The number of employed people in the City increased by 4,076 between 2011 and 2016. The largest change in the occupation of residents between 2011 and 2016 in the City were for those employed as:

- Professionals (+1,010 persons)
- Community and Personal Service Workers (+609 persons)

- Sales Workers (+458 persons)
- Technicians and Trades Workers (+451 persons)

3.2.4 Industry of Employment

Table 5 shows the industry sectors in which the residents work that may be within the City or elsewhere. This indicates the skill base and socio-economic status of the City's residents as well as the industries and employment opportunities present in Kwinana.

Table 5 2016 City's Industry Sectors where Residents Work

Industry sector	2016		
	Number	%	South West Group %
Agriculture, Forestry and Fishing	167	1.0	0.7
Mining	718	4.3	5.0
Manufacturing	1,358	8.1	6.6
Electricity, Gas, Water and Waste Services	227	1.4	1.2
Construction	1,780	10.6	9.9
Wholesale trade	1,808	10.8	9.8
Retail Trade	530	3.2	2.6
Accommodation and Food Services	1,045	6.2	6.0
Transport, Postal and Warehousing	993	5.9	4.4
Information Media and Telecommunications	152	0.9	1.0
Financial and Insurance Services	329	2.0	2.3
Rental, Hiring and Real Estate Services	233	1.4	1.8
Professional, Scientific and Technical Services	850	5.1	6.6
Administrative and Support Services	635	3.8	3.0
Public Administration and Safety	1,123	6.7	7.1
Education and Training	1,103	6.6	9.5
Health Care and Social Assistance	1,973	11.7	12.5
Arts and Recreation Services	211	1.3	1.7
Other Services	672	4.0	3.7
Industry not classified	895	5.3	4.7
Total employed persons aged 15+	16,802	100.0	100.0

An analysis of the jobs held by the resident population in the City in 2016 shows the three most popular industry sectors were:

- Health Care and Social Assistance (1,973 people or 11.7%)
- Retail Trade (1,808 people or 10.8%)
- Construction (1,780 people or 10.6%)

The number of employed people in the City increased by 4,076 between 2011 and 2016. The largest changes in the jobs held by the resident population between 2011 and 2016 in the City were for those employed in:

- Health Care and Social Assistance (+688 persons)
- Accommodation and Food Services (+423 persons)
- Retail Trade (+401 persons)
- Education and Training (+382 persons)

3.3 Housing Demand

3.3.1. Household and Family Structure

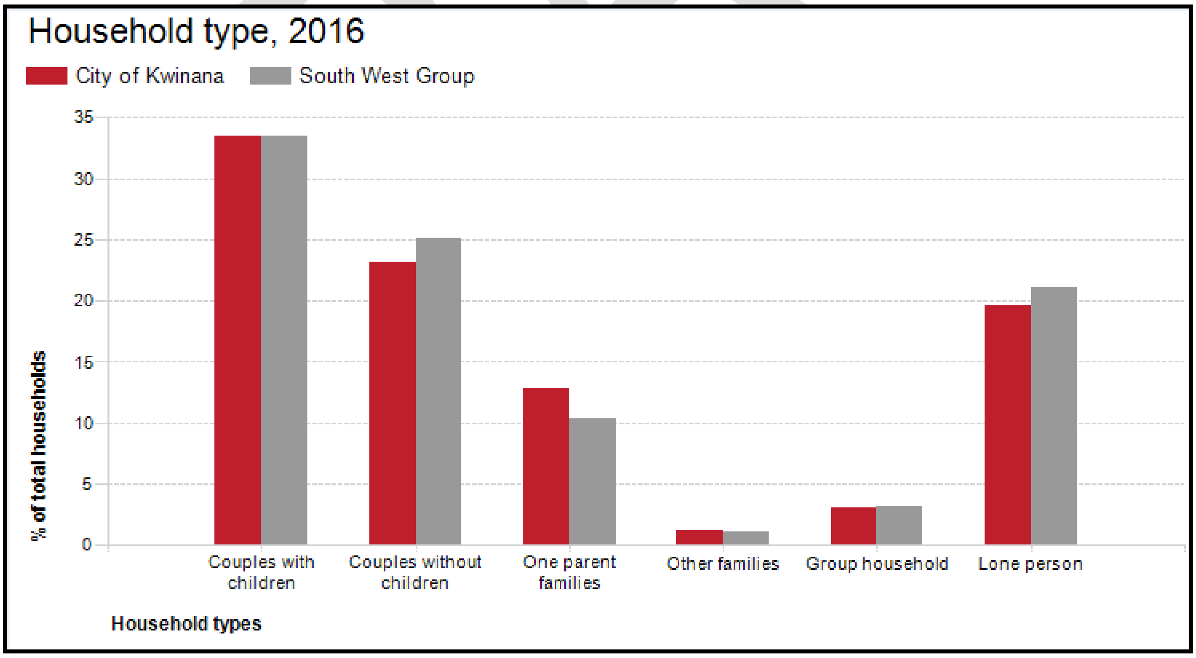
In 2016, 33.5% of households in the City were made up of Couples with children and 19.6% Lone person (Table 6).

The number of households in the City increased by 3,169 between 2011 and 2016. The largest changes in household types between 2011 and 2016 were:

- Couples with children (+1,252 households)
- Couples without children (+668 households)
- Lone person (+496 households)
- One parent families (+364 households)

Table 6 2016 Households by type

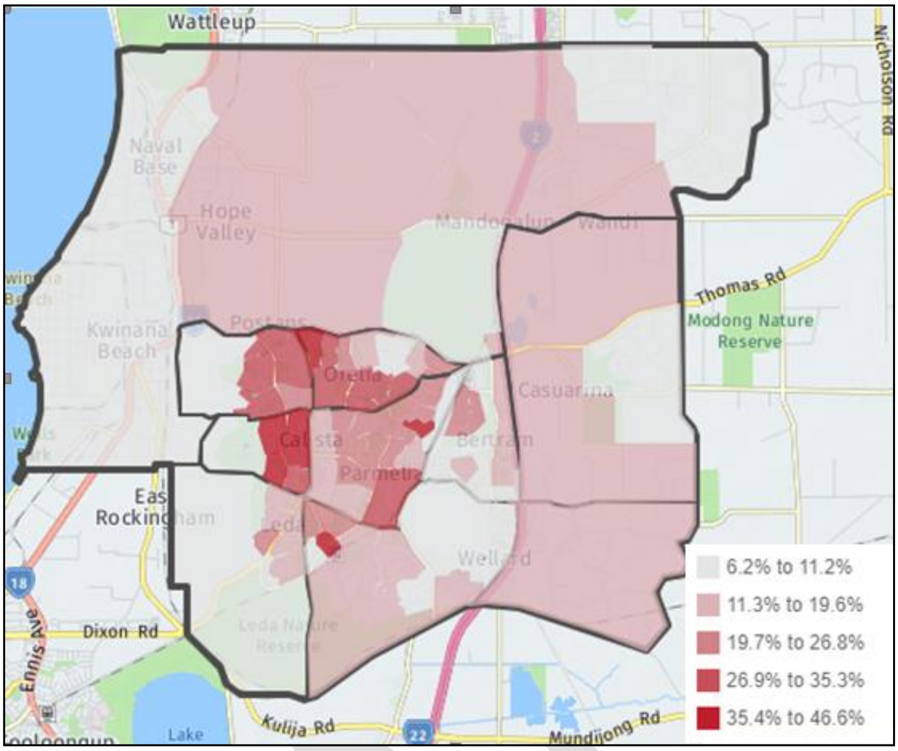
2016 Households by type	Number	%	South West Group%
Couples with children	4,622	33.5	33.5
Couples without children	3,195	23.1	25.1
One parent families	1,775	12.8	10.4
Other families	176	1.3	1.1
Group household	416	3.0	3.1
Lone person	2,703	19.6	21.1
Other not classifiable household	847	6.1	4.9
Visitor only households	81	0.6	0.9
Total	13,815	100.0	100.0



It is evident that the City's profile for household types is similar to that of the broader South West Group with the City having proportionally more one parent families.

The majority of household types are couples with or without children. Households with children make up 46% of the total households

Figure 1 Lone person households 2016

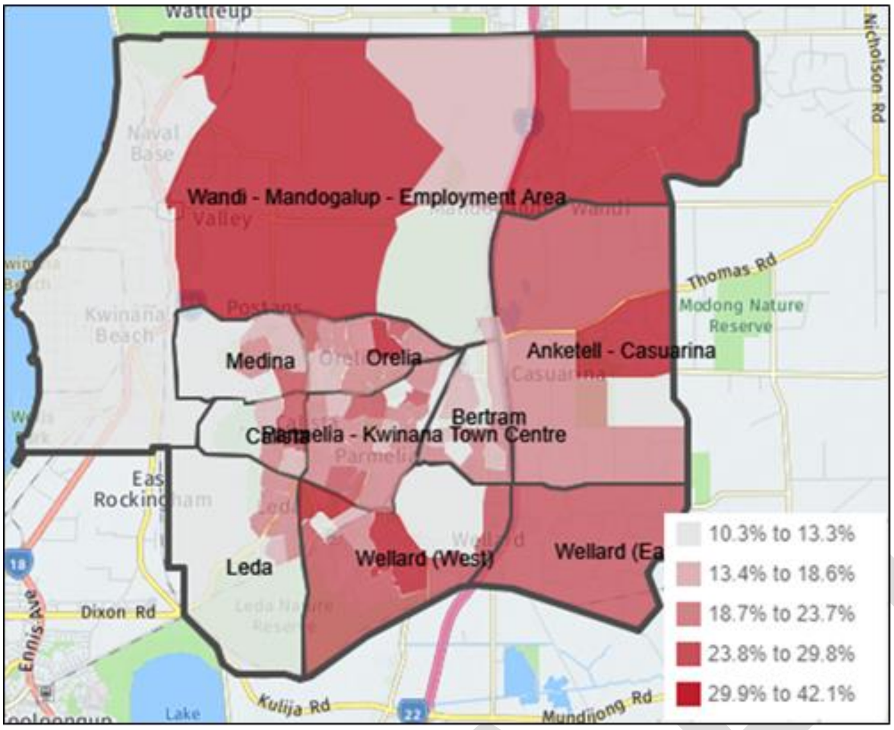


Lone person households usually occupy a dwelling without other occupants. In 2016, 19.6% of the City's total households were lone person households. On a suburb-wide basis, Calista had 39.5%, Medina 31.8%, Orelia 24.8%, Parmelia-Kwinana Town Centre 23.7%, Leda 15.8%, Bertram 14.8%, Anketell-Casuarina 13.6%, Wellard (W) 12.9%, Wellard (E) 12.7%, and Wandi - Mandogalup 12.1% lone person households.

It is evident from the data that the City's older suburbs have a higher number of lone person households (Calista had 39.5%, Medina 31.8%, Orelia 24.8%, Parmelia-Kwinana Town Centre 23.7% and Leda 15.8%). This appears to indicate the settlement history of the suburbs and the life cycle stage of these residents.

> The City's older suburbs tend to have higher proportion of lone person households and there is some correlation with dwellings (most detached) with two or less bedrooms (rather than in medium and higher density areas).

Figure 2 Couples without children households 2016.



In 2016, 23.1% of the City's total families were classed as couple families without children. On a suburb-wide basis, Wandi - Mandogalup 33.5%, Wellard (E) 28.9%, Anketell-Casuarina 28%, Wellard (W) 26.5%, Orelia 21.7%, Parmelia - Kwinana Town Centre 21.7%, Calista 20.4%, Leda 19.3%, Medina 19%, and Bertram 17.8% couples without children.

The demographic data shows that newer suburbs (Wandi - Mandogalup 33.5%, Wellard (E) 28.9%, Anketell-Casuarina 28%, and Wellard (W) 26.5%) have predominantly higher percentage of couples without children, while established areas maintain lower proportion of couples without children and could represent the empty nesters.

3.3.2 Household Size

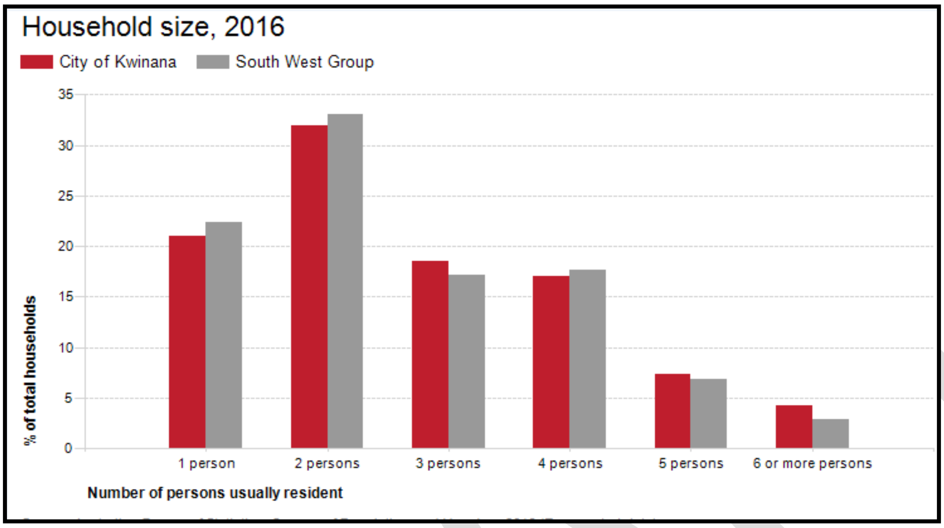
Analysis of the number of persons usually resident in a household in the City compared with the South West Group shows that there was a lower proportion of lone person households, and a higher proportion of larger households (those with 4 persons or more) (Table 7).

The largest change in the number of persons usually resident in a household in the period between 2011 and 2016 were:

- 2 persons (+818 households)
- 4 persons (+616 households)
- 3 persons (+614 households)
- 1 person (+486 households)

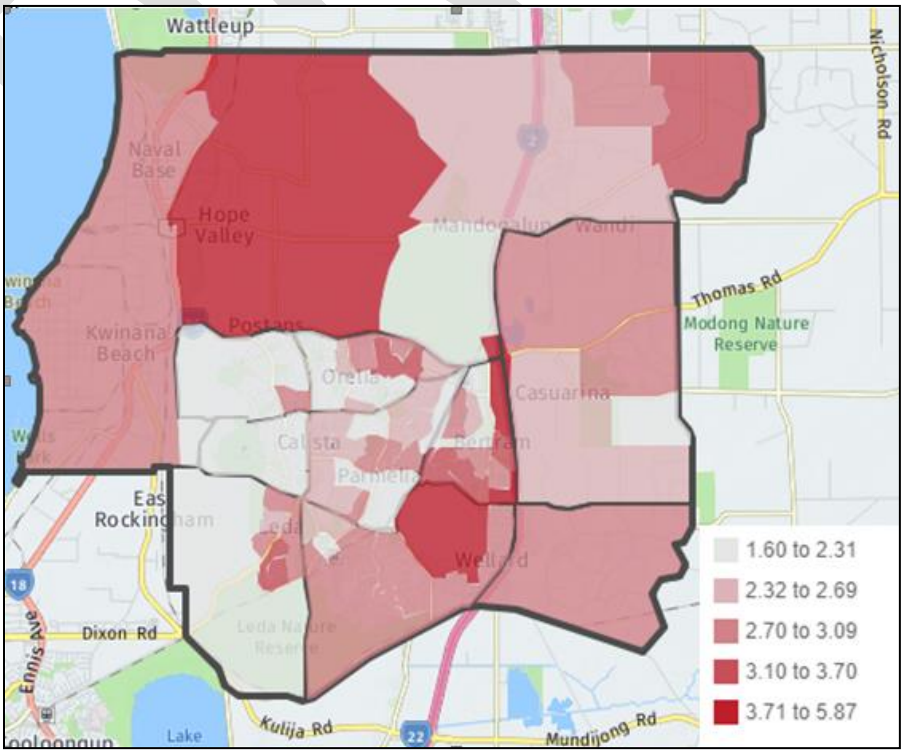
Table 7 Household Size

Household Size	Number	%	South West Group%
1 person	2,700	20.9	22.4
2 persons	4,123	32.0	33.1
3 persons	2,392	18.6	17.2
4 persons	2,192	17.0	17.7
5 persons	941	7.3	6.9
6 or more persons	541	4.2	2.9
Total households	12,889	100.0	100.0



The City's profile for household size is largely similar to that of the broader South West Group. Interestingly, the City has slightly more five and six persons households possibly a reflection of more families and potentially larger number of Special Residential or Special Rural lots.

Figure 3 below identifies the average number of persons per dwelling on a suburb-wide basis in 2016. The City had an average household size of 2.67 persons per dwelling in 2016. On a



suburb-wide basis Bertram had 3.11, Leda 3.04, Wellard 2.84, Anketell-Casuarina 2.84, Wellard (W) 2.84, Wellard (E) 2.83, Wandi-Mandogalup 2.70, Parmelia - Kwinana Town Centre 2.50, Orelia 2.46, Medina 2.20 and Calista 2.16.

Variation in household size was noticed across the City with the average household size ranged from a low of 2.16 in Calista to a high of 3.11 in Bertram. A higher average household size can indicate households with more children, larger group households or multi-family households. Smaller household sizes indicate lone person households, less families and perhaps smaller dwellings.

Household size in the City is comparatively high and can be seen as a reflection of the high numbers of households with children. This is not unexpected given the greenfield development in the City of new suburban areas.

3.3.3 Service Age Groups

Analysis of the service age groups of the City in 2016 compared to the South West Group shows that there was a higher proportion of people in the younger age groups (0 to 17 years) and a lower proportion of people in the older age groups (60+ years) (Table 8). The largest changes in the age structure in this area between 2011 and 2016 were in the age groups:

- Young workforce (25 to 34) (+2,412 people)
- Parents and homebuilders (35 to 49) (+2,242 people)
- Primary schoolers (5 to 11) (+980 people)
- Tertiary education and independence (18 to 24) (+930 people)

Table 8 2016 Service Age Groups

2016 Service age group (years)	Number	%	South West Group %
Babies and pre-schoolers (0 to 4)	3,391	8.7	6.7
Primary schoolers (5 to 11)	3,923	10.1	9.4
Secondary schoolers (12 to 17)	2,676	6.9	7.4
Tertiary education and independence (18 to 24)	3,854	9.9	9.2
Young workforce (25 to 34)	7,581	19.5	14.7
Parents and homebuilders (35 to 49)	8,515	21.9	21.2
Older workers and pre-retirees (50 to 59)	3,875	10.0	12.5
Empty nesters and retirees (60 to 69)	2,763	7.1	9.5
Seniors (70 to 84)	2,012	5.2	7.5
Elderly aged (85 and over)	324	0.8	1.9
Total	38,914	100	100

3.3.4 Dwelling Occupancy Status

In 2016, 9.6% of the City's dwellings were classified as vacant dwellings compared to 10.4% in the South West Group. While the City had a lower proportion of unoccupied dwellings, it is important to note that this varied across the City. Proportions ranged from a low of 7.5% in Wellard East to a high of 12.5% in Medina. The three areas with the highest percentages were Medina (12.5%), Wellard (West) (10.8%), and Parmelia - Kwinana Town Centre (10.6%) (Table 9).

Table 9 2016 Vacant Dwellings

2016 Vacant dwellings			
Area	**Number**	**Total dwellings**	**Percent %**
Anketell - Casuarina	31	377	8.2
Bertram	186	2,148	8.7
Calista	72	950	7.6
Leda	91	1,175	7.7
Medina	149	1,195	12.5
Orelia	195	2,046	9.5
Parmelia - Kwinana Town Centre	288	2,729	10.6
Mandogalup (Employment Area)	116	1,184	9.8
Wellard (East)	36	481	7.5
Wellard (West)	325	3,012	10.8
Wandi	113	1,118	10.1
Wellard	361	3,493	10.3
City of Kwinana	1,475	15,302	9.6
South West Group	17,439	168,095	10.4

3.3.5 Migration Pattern

A significant component of demographic change is migration, or residential mobility. Other components include births and deaths. The movement of people into, and out of an area directly influences the characteristics of the population and the demand for services and facilities they seek. Changing housing and economic opportunities such as housing affordability issues or the resources boom could trigger migration.

An analysis of the migration pattern for 2016 showed that the City received 9,311 persons from WA and 4,315 persons from outside WA, including 2,874 (7.4%) from other countries (Table 10).

Table 10 Migration Summary

Migration summary 2016	Number	%
Residents who did NOT move between 2011 and 2016	14,687	37.7%
Total residents who moved between 2011 and 2016	17,074	43.9%
Residents who had moved within the City of Kwinana between 2006 and 2011	*3,448*	*8.9%*
Residents who moved from another part of Western Australia	*9,311*	*23.9%*
Residents who moved from another part of Australia	*869*	*2.2%*
Residents who moved from another country	*2,874*	*7.4%*
Residents who moved from an unknown area	*572*	*1.5%*
Not stated - Didn't state whether or not moved	3,767	9.7%
Not applicable - Births between 2011 and 2016	3,390	8.7%
Total 2016 usual resident population	38,921	100.0%

3.3.6 City-wide Household Distribution

Table 11 below shows a comprehensive comparison of the number of persons by dwelling structure and number of bedrooms in Kwinana.

Data shows that more than 2000 dwellings having three and more bedrooms are occupied by single person households. Similarly, almost 1,700 four-bedroom dwellings are occupied by two-person Family Households and Group households.

There is a mismatch existing among larger households living in dwellings having less number of bedrooms. Data shows that 181 five-member and 71 six-member Family Households live in dwellings having three bedrooms. Similarly, 12 five-member Family Households live in two bedrooms dwellings, and three five-member and four three-member Family Households live in one bedroom dwellings.

Table 11 2016 City-wide Household Distribution

Dwelling Structure and Number of Bedrooms by Number of Persons Usually Resident (2016)	Single Person Household	Family Member Households						Group Households					
	One	Two	Three	Four	Five	Six or more	Total	Two	Three	Four	Five	Six or more	Total
Separate house													
None (includes bedsitters)	0	0	0	0	0	0	3	0	0	0	0	0	0
One bedroom	64	12	4	3	3	0	20	0	0	0	0	0	0
Two bedrooms	240	201	54	25	12	0	284	27	0	0	0	0	27
Three bedrooms	1,195	1,609	849	549	181	71	3,261	147	16	3	0	0	163
Four or more bedrooms	695	1,553	1,286	1,485	707	432	5,459	121	21	15	3	3	158
Number of bedrooms not stated	101	64	21	24	10	10	128	11	4	0	0	0	13
Total	*2,295*	*3,434*	*2,219*	*2,088*	*905*	*523*	*9,161*	*305*	*43*	*17*	*3*	*3*	*367*
Semi-detached, row or terrace house, townhouse etc.													
None (includes bedsitters)	0	0	0	0	0	0	0	0	0	0	0	0	0
One bedroom	129	9	0	0	0	0	9	3	0	0	0	0	3
Two bedrooms	236	67	10	5	0	0	81	5	0	0	0	0	5
Three bedrooms	139	106	46	31	10	10	198	6	0	0	0	0	11
Four or more bedrooms	4	22	23	14	4	0	64	0	0	0	0	0	0
Number of bedrooms not stated	28	4	0	0	0	0	6	0	0	0	0	0	0
Total	*536*	*213*	*80*	*52*	*18*	*13*	*369*	*14*	*0*	*0*	*0*	*0*	*16*
Flat, unit or apartment													
None (includes bedsitters)	0	0	0	0	0	0	0	0	0	0	0	0	0
One bedroom	0	3	0	0	0	0	6	0	0	0	0	0	0
Two bedrooms	52	73	23	8	4	0	103	23	3	0	0	0	25
Three bedrooms	16	22	10	6	3	0	45	0	0	0	0	0	0
Four or more bedrooms	0	0	0	0	0	0	3	0	0	0	0	0	0
Number of bedrooms not stated	0	0	0	0	0	0	3	0	0	0	0	0	0
Total	*68*	*105*	*28*	*20*	*7*	*0*	*156*	*23*	*3*	*0*	*0*	*0*	*25*
Other dwelling													
None (includes bedsitters)	0	0	0	0	0	0	0	0	0	0	0	0	0

One bedroom	0	0	0	0	0	0	0	0	0	0	0	0	0
Two bedrooms	0	0	0	0	0	0	0	0	0	0	0	0	0
Three bedrooms	5	15	3	4	0	0	18	0	0	0	0	0	0
Four or more bedrooms	9	4	13	9	3	3	29	0	0	0	0	0	0
Number of bedrooms not stated	0	0	0	0	0	0	3	3	0	0	0	0	3
Total	*14*	*20*	*15*	*14*	*7*	*3*	*57*	*3*	*0*	*0*	*0*	*0*	*3*
Dwelling structure not stated	9	16	8	0	3	4	28	0	0	0	0	0	4
Total	2,911	3,781	2,348	2,168	939	538	9,774	344	43	17	3	3	416

The above analysis is an indication of the affordability of some households, and the potential unavailability of desirable dwellings for Single Person Households who are keen to downsize (or rightsize).

3.4 Housing Supply

3.4.1 Residential Land Use

There has been strong growth in the residential sector of the City over a number of years, due largely to formerly Rural zoned land being rezoned to Urban and with the advent of both the Kwinana Freeway and the Perth-Mandurah rail line. The City also comprises rural and rural-residential areas generally in the north and east, and some commercial areas largely in the Kwinana Town Centre and to a lesser extent in the activity centres of the older suburbs.

The land for urban development in the City had grown from 1713 hectares to 2826 hectares during the 1992 – 2012 period equating to an average 55.65 hectares each year. In 2012, the City also had 740 hectares of undeveloped land zoned for urban development, which refers to land that is zoned urban or urban deferred areas.

As of 2019, the residential land use in the City has grown to nearly 3,320 hectares. The consumption of land for residential purposes could go up as time goes by because of the forecast increase in population, in particular in the next two decades (for more details about forecast data, refer to section 3.5).

Land Use	Area (ha)
Agricultural (Rural /Special Rural)	10324.75
Commercial	43.48
Industrial	2050.25
Education	103.15
Parkland	3996.86
Water	162.91
Residential	3320.9
Transport	1251.85
Total	**32183.55**

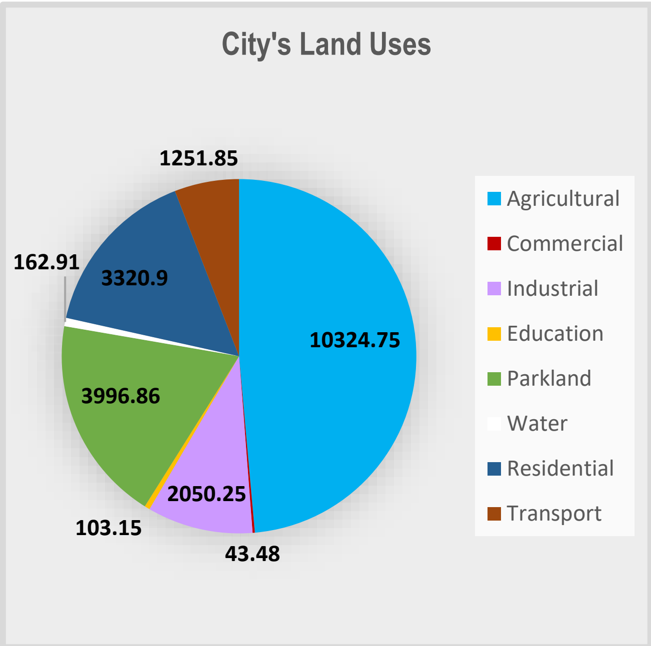


Figure 4 City's land use 2019

3.4.2 Dwelling Stock

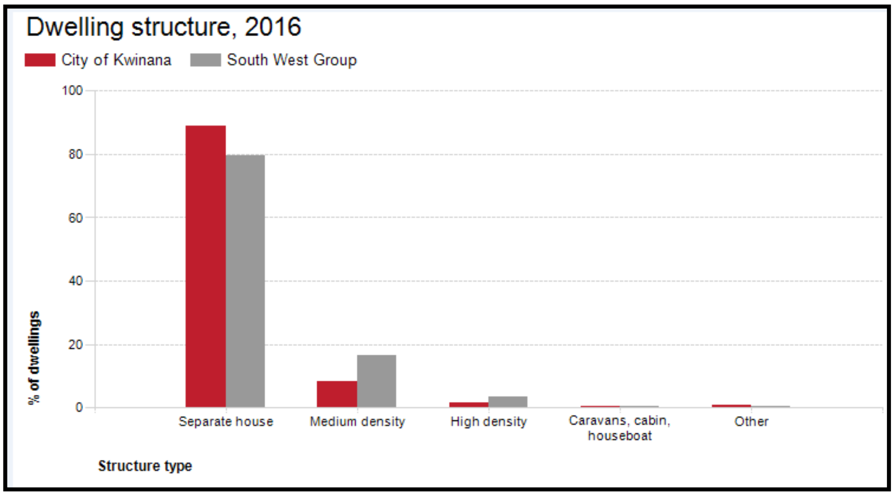
3.4.2.1 Dwelling Structure

In 2016, there were 13,607 (88.9%) separate houses in the City, 1,293 medium density dwellings, and 222 high density dwellings (Table 12). The total number of dwellings in the City increased by 3,812 between 2011 and 2016. Between 2011 and 2016, an additional 3,219 Separate houses and 470 medium density dwellings were constructed.

In the City in 2016, 9.9% of the dwellings were medium or high density, compared to 19.6% in the South West Group.

Table 12 2016 Dwelling Structure Types

2016 Dwelling Structure	Number	%	South West Group %
Separate house	13,607	88.9	79.5
Medium density	1,293	8.4	16.3
High density	222	1.5	3.3
Caravans, cabin, houseboat	20	0.1	0.4
Other	115	0.8	0.1
Not stated	45	0.3	0.3
Total Private Dwellings	15,302	100.0	100.0



Separate houses are stand-alone dwellings and separated from neighbouring dwellings by at least half a metre. On a suburb-wide basis, Anketell-Casuarina had 100%, Wellard (E) 98.1%, Leda 97.8%, Bertram 97.2%, Wellard (W) 92.1%, Medina 90.8%, Parmelia - Kwinana Town Centre 88.3%, Wandi - Mandogalup 86.2%, Orelia 77.9%, and Calista 69.2% Separate houses.

Large number of Separate houses represent the suburban character of the City, and contribute towards urban sprawl.

3.4.2.2 Number of Bedrooms

Analysis of the number of bedrooms in dwellings in 2016 as compared to the South West Group shows that there was a lower proportion of dwellings with 2 bedrooms or less, as well as a lower proportion of dwellings with 4 or more bedrooms (Table 13).

The largest changes in the number of bedrooms per dwelling in the City between 2011 and 2016 were 4 bedrooms (+1,502 dwellings), 3 bedrooms (+1,068 dwellings), 5 bedrooms or more (+136 dwellings), and 2 bedrooms (+92 dwellings).

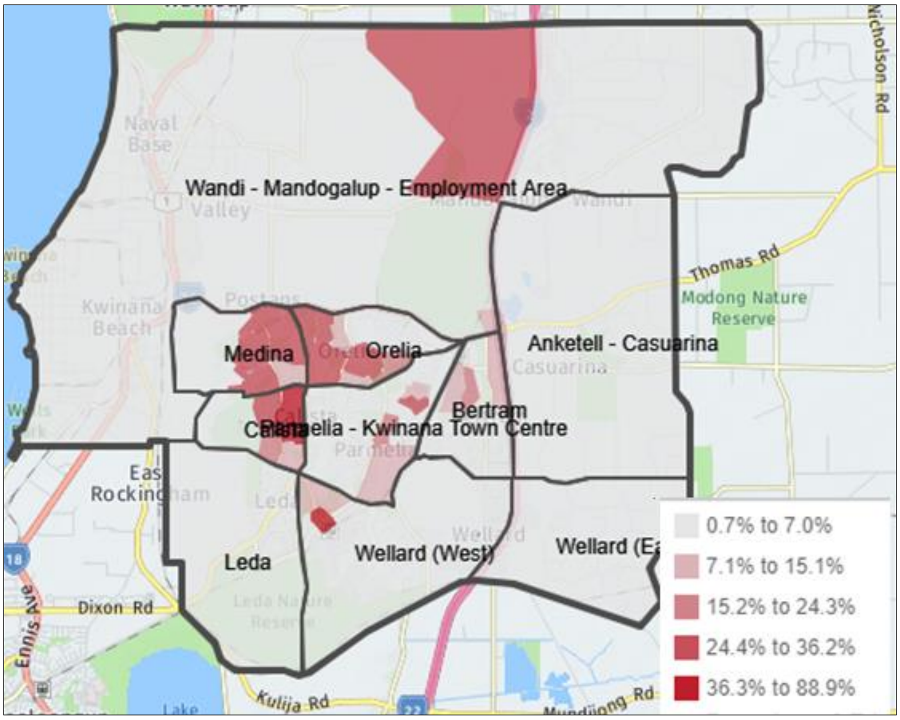
Table 13 **2016 Number of bedrooms per dwelling**

2016 Number of bedrooms per dwelling	Number	%	South West Group %
0 or 1 bedrooms	239	1.7	2.7
2 bedrooms	1,034	7.5	10.4
3 bedrooms	5,001	36.2	32.5
4 bedrooms	5,811	42.0	41.6
5 bedrooms or more	594	4.3	5.9
Not stated	1,145	8.3	6.8
Total Dwellings	13,824	100.0	100.0

In 2016, 9.2% of the City's total dwellings were classed as two bedrooms or less. On a suburb-wide basis, Medina had 27.4%, Calista 24.7%, Orelia 16.3%, Parmelia-Kwinana Town Centre 6.5%, Bertram 4.6%, Wellard (E) 3.6%, Wellard (W) 3.4%, Wandi – Mandogalup 3.1%, Leda 1.3%, and Anketell-Casuarina 0% dwellings having two bedrooms or less.

Generally, small dwellings are often occupied by single persons and couples. The data shows older suburbs excluding Leda have more dwellings having two bedrooms or less, as compared to newer suburbs. This can also be attributed to the presence of retirement villages and aged care facilities in the older suburbs. It is also noted that the Housing Authority WA manages 228 retirement dwellings within the City, including in the older suburbs.

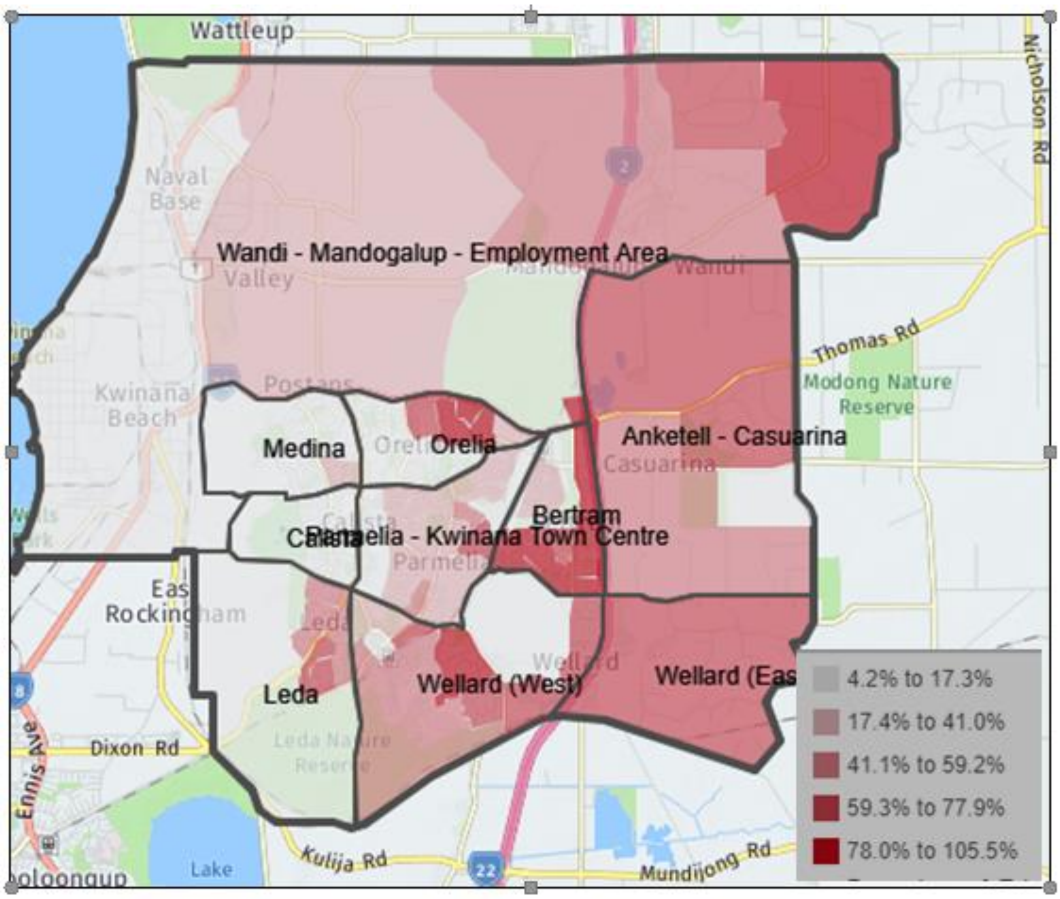
Figure 5 Dwellings with two or less bedrooms 2016



In 2016, 46.3% of all the dwellings in the City were having four bedrooms or more. On a suburb-wide basis Wellard (E) had 69.1%, Bertram 67.3%, Anketell-Casuarina 63.4%, Wellard (W) 60.3%, Wandi - Mandogalup 57.1%, Leda 55.9%, Orelia 34.9%, Parmelia-Kwinana Town Centre 33.8%, Medina 12.8%, and Calista 12.8% dwellings having four bedrooms or more.

Generally, large dwellings are often occupied by families. A large number of four+ bedroom dwellings may also indicate more recently built housing stock, as these multiple bedroom dwellings have been more popular in recent decades, which is evident from the data of newer suburbs.

Figure 6 Dwellings with four or more bedrooms 2016



The City has almost 50% less medium and higher density dwellings than the South West Group and a higher proportion of separate dwellings. This may reflect the growth in new suburbs and settlement history. Of note, the majority of dwellings with two bedrooms or less are located in the City's older areas, many comprising older separate dwellings.

3.4.2.3 Housing Tenure

In the City, 65.7% of households were either purchasing or fully owned their home, while 20.7% were renting privately. Four percent of the households were in social housing (Table 14).

Analysis of the housing tenure of the residents of the City in 2016 shows that there was a smaller proportion of households who owned their dwelling; a larger proportion purchasing their dwelling; and a larger proportion who were renters as compared to the South West Group.

Table 14 2016 Tenure type

2016 Tenure type	Number	Kwinana %	South West Group %
Fully owned	2,106	15.2	27.2
Mortgage	7,009	50.7	40.6
Renting	3,455	25.0	24.2
Renting - Social housing	*555*	*4.0*	*3.2*
Renting - Private	*2,860*	*20.7*	*20.6*
Renting - Not stated	*40*	*0.3*	*0.4*
Other tenure type	69	0.5	0.9
Not stated	1,173	8.5	7.1
Total households	13,812	100.0	100.0

The City has more people purchasing homes with mortgages than the wider South West Group. This may reflect the high amount of new suburban growth. Rental properties comprised about 25%, similar to the South West Group.

3.4.3 Residential Building Approvals

Table 15 shows a snapshot of residential building approvals for the past 11 years starting from the 2006-2007 financial year. Residential building activity depends on many factors that vary with the state of the economy, including interest rates, availability of mortgage funds, government spending, business investment, and large financial changes or shocks, such as the Global Financial Crisis of 2008-2009.

It can be seen from the data that the number of building approvals in the City fluctuated substantially from year to year simply as a result of the short-term nature of many construction projects, and the cyclical nature of the construction industry. The decrease in mining industry activities in WA since 2014 has also contributed to lower construction activities.

Table 15 Residential Building Approvals in the City

Financial year	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Residential Buildings	356	455	331	554	435	354	533	934	1,000	860	636
Annual Change	-106	+99	-124	+223	-119	-81	+179	+401	+66	-140	-224

Table 16 shows the total assessed value of building approvals for construction in the City by financial year in millions of dollars. Building approvals for an area can be highly variable over time, particularly in the non-residential sector. Construction may take several years from the date of approval.

A high rate of building approvals can indicate a growth area with a construction-led economy. A low rate of building approvals may indicate a settled area with established infrastructure, or an area with little growth.

Table 16 Assessed Value of Building Approvals in the City

Financial year	Residential $('000)	Non-residential $('000)	Total $('000)
2006-07	59,012	87,649	146,661
2007-08	80,477	32,657	113,134
2008-09	60,166	40,704	100,870
2009-10	106,890	68,639	175,529
2010-11	94,374	53,189	147,563
2011-12	76,935	26,383	103,318
2012-13	113,179	40,676	153,855
2013-14	205,838	54,403	260,241
2014-15	223,989	42,569	266,558
2015-16	222,266	33,324	255,590
2016-17	147,860	169,445	317,305

Table 16 indicates that despite the fluctuation in residential building approvals outlined in Table 15, the value of the building approvals has been steadily climbing with a minor drop in 2015-2016 financial year.

3.4.4 Housing Market

Table 17 presents a comparison of the median market values of houses and units of the City as compared to Greater Perth and Western Australia. At June 2017, the median house valuation in the City was $161,028 lower than compared to Greater Perth[2] valuations. In percentage terms, the City's average prices are 31 per cent less than that across Perth. In 2011 the percentage was 37 per cent less than Greater Perth.

Noticeable also is the decline in values from 2015 to 2017 consistent with that for the Greater Perth and State.

Table 17 Median Housing Value

Median housing value						
	Houses			Units		
Year (at June)	City of Kwinana	Greater Perth	Western Australia	City of Kwinana	Greater Perth	Western Australia
2011	330,515	524,554	497,396	197,286	389,826	385,007
2012	324,248	505,025	478,871	185,757	380,671	372,390
2013	335,932	526,786	496,421	188,829	403,098	392,444
2014	382,453	570,796	537,452	203,535	438,230	427,041
2015	398,081	573,329	534,155	211,453	431,343	422,375
2016	381,180	536,845	500,225	193,090	407,830	392,052
2017	355,263	516,291	479,243	184,864	379,904	367,211

There is a more significant difference between the percentage average value of units within the City in comparison with the value of units. The City's average value was less than 50% (48.7%) of the average value of units in Greater Perth in 2017. This percentage appears to have stayed relatively constant since 2011 at least when the percentage was a 50.6% of Greater Perth.

[2] Greater Perth consists of the Perth Metropolitan Region, City of Mandurah, and Shire of Murray.

The value of houses and apartments in the City of Kwinana are significantly less than the Greater Perth area. This suggests that Kwinana is, on average, more affordable than many other parts of Perth.

3.5 Forecast Data

3.5.1 City-wide Demographic Analysis

In 2016, the Estimated Resident Population of the City was 40,305 people. It is expected to increase by over 44,800 people to 85,158 by 2036, at an average annual growth rate of 6.45%. This is based on an increase of over 15,245 households during the same period, with the average number of persons per household rising from 2.68 to 2.81 by 2036 (Table 18).

Table 18 Forecast Population, Households and Dwellings

Forecast population, households and dwellings - Summary	Forecast year				
	2016	**2021**	**2026**	**2031**	**2036**
Population	40,305	51,746	62,902	75,270	85,158
Change in population (5yrs)	-	11,441	11,155	12,368	9,888
Average annual change	-	5.12	3.98	3.66	2.50
Households	14,740	18,559	22,443	26,480	29,985
Average household size	2.68	2.74	2.76	2.81	2.81
Population in non-private dwellings	769	855	913	971	1,029
Dwellings	15,480	19,521	23,524	27,530	30,989
Dwelling occupancy rate	95.22	95.07	95.40	96.19	96.76

3.5.2 Population Change

Nearly 45,000 persons are forecast to be added to the City's population in the next two decades, which equates to an increase of more than 15,000 households and an equal number of dwellings to the City. The population increase directly relates to migration and/or natural increase (births minus deaths). The greatest population change for the City is forecast for the period from 2027 to 2031, which is expected to have a net increase of 12,368 people (Table 19).

Table 19 Population Change Components – Forecast Period 2017-2036

Population Change Components	Forecast period			
	2017 to 2021	2022 to 2026	2027 to 2031	2032 to 2036
Births	*4,739*	*5,841*	*6,987*	*8,123*
Deaths	*920*	*1,135*	*1,391*	*1,680*
Natural increase / decrease	3,819	4,707	5,597	6,444
Net migration	7,537	6,391	6,714	3,387
Change in persons in non-private dwellings	86	58	58	58
Total population change	11,441	11,155	12,368	9,888

The City's population is forecast to continue to grow to 2031 with marginal increases in household size. This largely reflects the new growth of suburbs within the City from external migration.

Forecast increase in Service Age groups shows that for the next two decades, there will be an increase of 5,157 persons in the 60+ age categories; 12,619 in the 'Children' categories; and 25,251 in the 'Working Age' categories (Table 20).

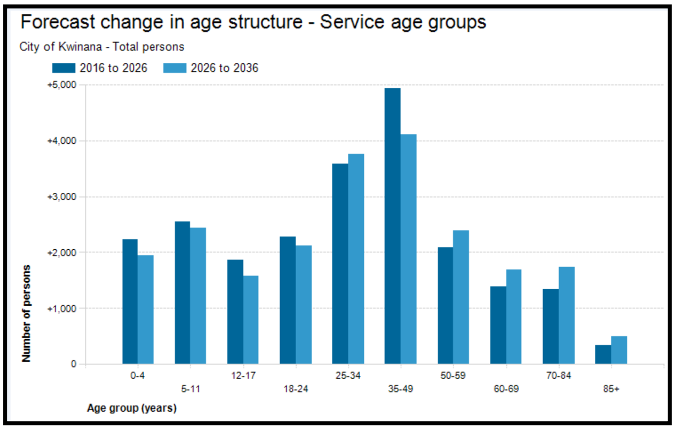
The service needs of these age groups are different; for example, persons in the 60+ age categories may need smaller, one and two bedroom dwellings that are close to activity centres in order to access daily needs, visit medical centres, and to have an active life, whereas the Children categories need more schools and recreation facilities.

Table 20 Forecast change in Age Structure - Service Age Groups

Forecast age structure - Service age groups	Age Group	2016		2026		2036		Change between 2016 and 2036
		Number	%	Number	%	Number	%	Number
Babies and pre-schoolers	(0 to 4)	3,582	8.9	5,815	9.2	7,762	9.1	4,180
Primary schoolers	(5 to 11)	4,037	10.0	6,591	10.5	9,033	10.6	4,996
Secondary schoolers	(12 to 17)	2,730	6.8	4,590	7.3	6,173	7.2	3,443
Children Category		10,349	25.7	16,996	27.0	22,968	27.0	12,619
Tertiary education and independence	(18 to 24)	4,130	10.2	6,405	10.2	8,520	10.0	4,390
Young workforce	(25 to 34)	8,071	20.0	11,659	18.5	15,412	18.1	7,341
Parents and homebuilders	(35 to 49)	8,648	21.5	13,584	21.6	17,694	20.8	9,046
Older workers and pre-retirees	(50 to 59)	3,950	9.8	6,033	9.6	8,424	9.9	4,474
Working Age Category		24,799	61.5	37,681	59.9	50,050	58.8	25,251

Empty nesters and retirees	(60 to 69)	2,814	7.0	4,209	6.7	5,894	6.9	3,080
Seniors	(70 to 84)	2,028	5.0	3,364	5.3	5,096	6.0	3,068
Elderly aged	(85+)	315	0.8	651	1.0	1,150	1.4	835
60+ Category		5,157	12.8	8,224	13.1	12,140	14.3	6,983
Total persons		40,305	100.0	62,902	100.0	85,158	100.0	44,853

Population in the 60+ age categories are expected to increase steadily in proportion to the general population i.e. 14.3% (12,177 out of 85,158) by 2036.



3.5.4 Household Types Forecast

Table 21 shows that by 2036, 47.1% of all households will consist of Lone Persons and Couples without dependents as compared to the 2016 Lone Persons and Couples without dependents households i.e. 47.5%. However, there will be a net increase of 7,126 Lone Persons and Couples without dependents households during the 2016-2036 period.

Table 21 Forecast change in Household Types

Forecast household types	**2016**		**2026**		**2036**		**Change between 2016 and 2036**
	Number	%	Number	%	Number	%	Number
Couple families with dependents	5,019	34.1	7,844	35.0	10,704	35.7	+5,685
Couples without dependents	3,795	25.8	6,050	27.0	8,322	27.8	+4,527
Group households	471	3.2	665	3.0	786	2.6	+315
Lone person households	3,195	21.7	4,513	20.1	5,794	19.3	+2,599
One parent family	1,798	12.2	2,627	11.7	3,273	10.9	+1,475
Other families	456	3.1	740	3.3	1,106	3.7	+650

Associated with the above, with forecast population growth:

1. the total amount of lone person households and one parent families requiring accommodation will increase.
2. It is also evident that the amount of all household types are increasing.

3.5.5 City-wide Forecast Change in Lone Person and Seniors Age Groups

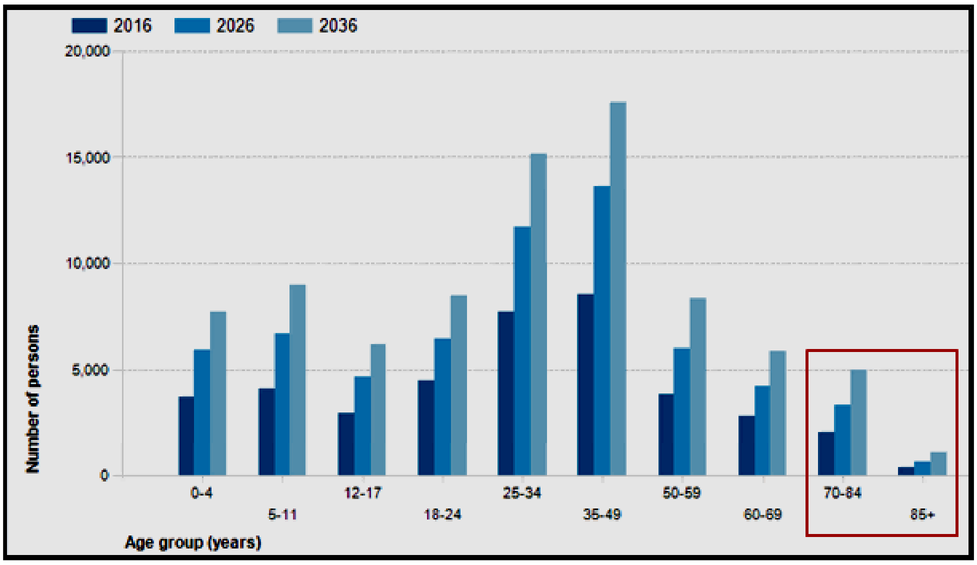
In order to understand the forecast demographic challenges for the City, the above observations should be compared and critiqued with the forecast change in demographic data given below (Table 22). The average household size and the increasing 60+ age categories have the potential to influence the number of bedrooms required for the future dwellings in the City.

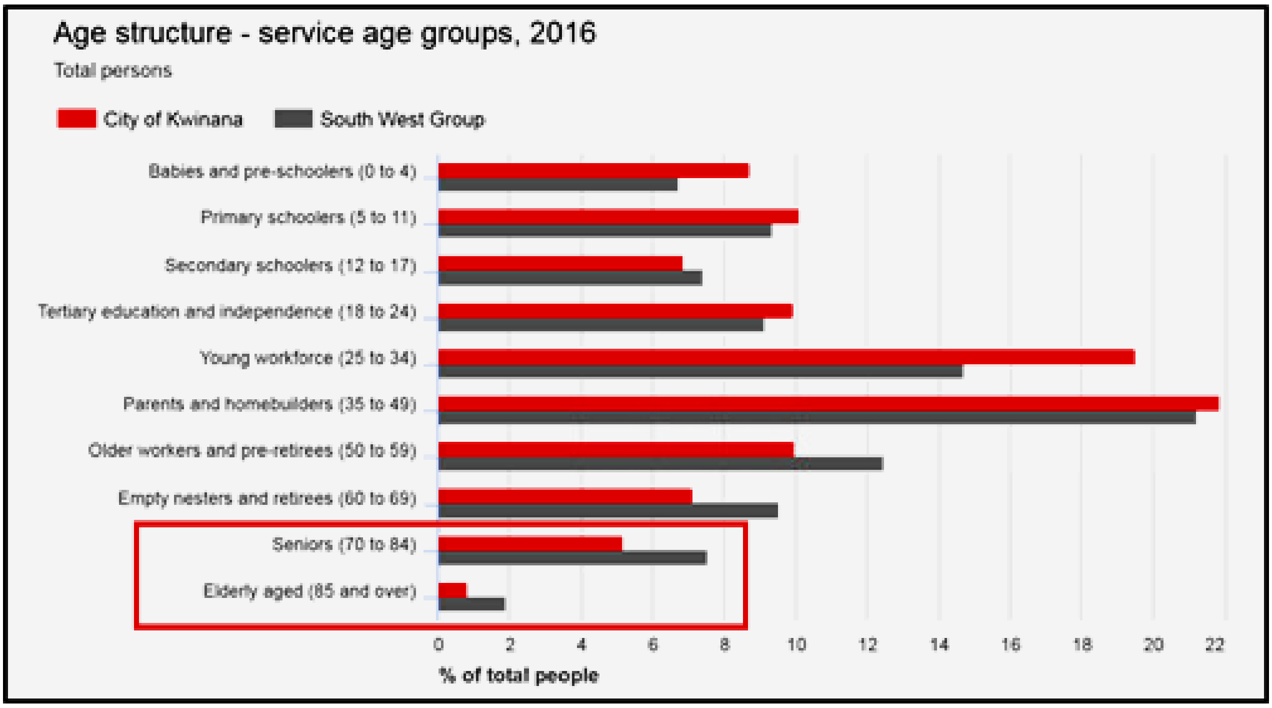
Table 22 City-wide Demographic Forecast Change

Demographic Data Forecast		**I.D. Consulting**			**Perth & Peel @3.5million**
		2016	**2026**	**2036**	**2050**
Population		40,305	62,902	85,158	*80,196*
Households		14,740	22,443	29,985	
Dwellings		15,480	23,524	30,989	*31,042*
Average Household Size		2.68	2.76	2.81	
Age Structure	0-17	10,349	16,996	22,968	
	18-59	24,799	37,681	50,050	
	60+	5,157	8,224	12,140	

In the 20 years between 2016 and 2036, an additional 2,599 Lone person households (that is an 81.3% increase in that category household group) is forecast. On a suburb-wide basis, Wellard (West) will have the greatest increase in 'Lone person households' (+654), followed by Mandogalup (+374), Casuarina (337), Orelia (+256), Wandi (211), Parmelia (210), Wellard (E) (+183), Kwinana Town Centre (+170), Bertram (+102), Leda (+63), Medina (+42), Anketell (+35) and Calista (+27).

In 2016, the City had 2,343 persons in the Seniors (70 to 84) and Elderly Aged (85 and over) demographic groups (see Table 20). These groups are projected to increase to 6,246 i.e. an additional 3,903 by 2036. This equates to 7.4 per cent of the total projected population, however in 2016 these age groups constituted only 5.8 per cent.





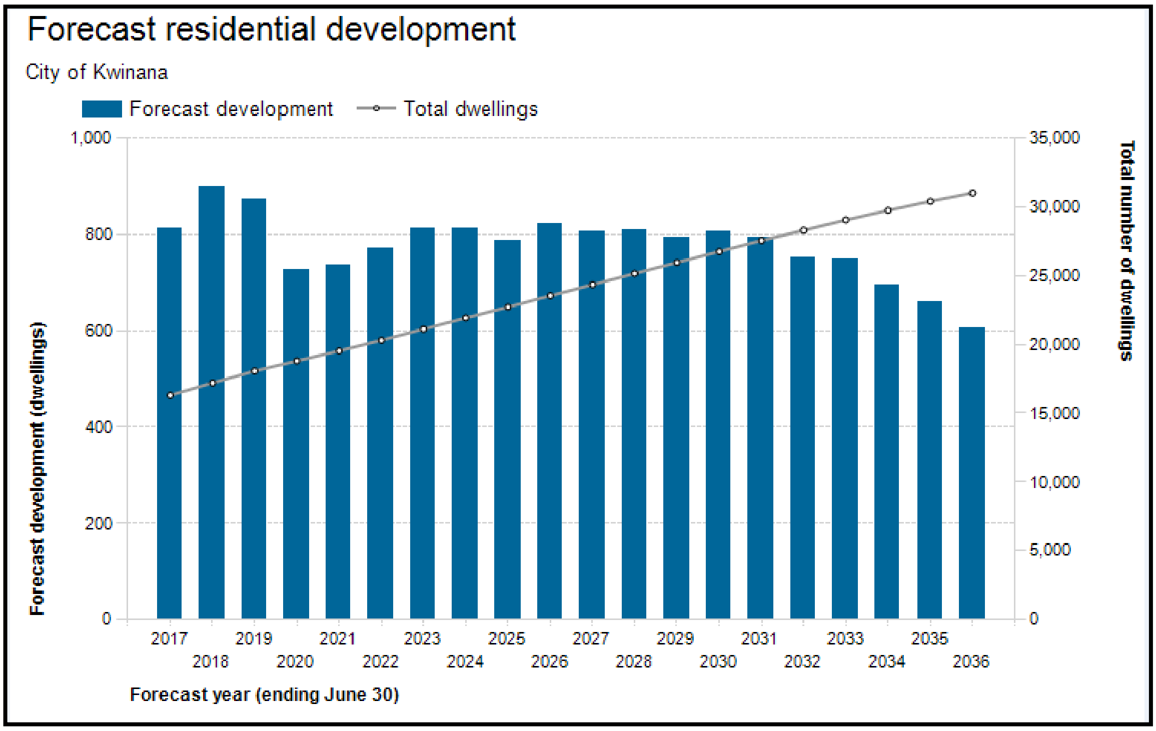
With the City's population growth to continue, importantly, the total number of persons over 60 years will increase substantially tending (but not always) to require accommodation in smaller, one and two bedroom dwellings with good access to activity centres and transport hubs.

3.5.6 *Residential development Forecast*

Residential development forecasts an increase in the number of dwellings in the City by an average of 775 dwellings per annum to 30,989 in 2036. Table 23 shows the number of new residential development forecast for each suburb in the City.

Table 23 Forecast residential development - 2016 to 2036

Forecast residential development 2016 to 2036		
Area	**Change in dwellings between 2016 and 2036**	
	Number	**%**
City of Kwinana	**+15,509**	**+100.2**
Anketell	+1,619	+1740.9
Bertram	+275	+12.6
Calista	+106	+11.1
Casuarina	+2,268	+818.8
Kwinana Town Centre	+1,061	+684.5
Leda	+71	+6.0
Mandogalup	+2,408	+3391.5
Medina	+89	+7.3
Orelia	+728	+35.1
Parmelia	+726	+28.1
Wandi	+1,304	+112.9
Wellard (East)	+1,242	+249.9
Wellard (West)	+3,612	+119.4



4.0 Future Directions

4.1 Housing Stock in Older Suburbs

Residential development in Medina started in the 1950s and other suburbs of Orelia, Parmelia and Leda in the following decades. By 1990, the character of these suburbs was established. The City's other residential suburbs of Bertram, Wellard, Wandi, Casuarina, Anketell, and Mandogalup, the housing development accelerated later in the 2000s.

While residential developments in Bertram, Wellard, and Wandi progressed fast, the other three suburbs lagged behind due to its rural nature. In the older suburbs of the City, significant amounts of dwellings are in poor condition. **Figure 7** depicts the history of residential development occurred in Kwinana.

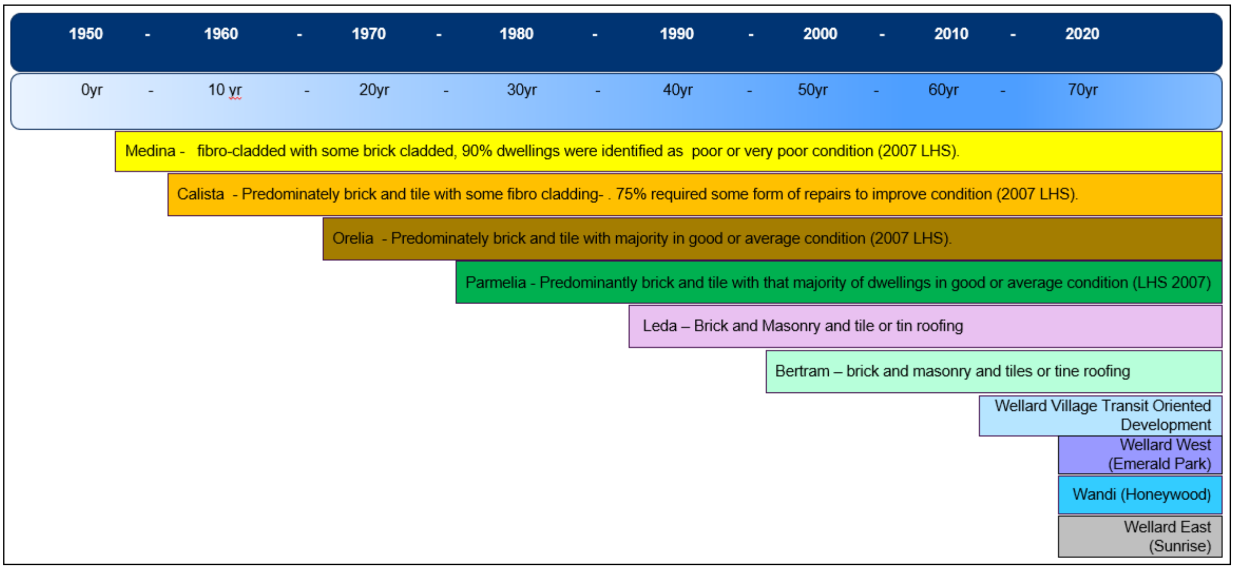


Figure 7 History of residential development occurred in Kwinana

Key observation: As some suburbs such as Medina, Calista and Orelia are over 50 years old, many dwellings in these suburbs are in poor condition well past their initial lifespan.

4.1.1 State of the Housing in the Older Suburbs

At least half of the existing dwellings in the older suburbs have passed their economic life condition. A broad analysis of the residential environment of the suburbs that was undertaken for the City's 2009 Local Housing Strategy identified the following:

Medina –

- Construction from 1950s to 1970s;
- Almost 60% of the dwellings constructed from fibro-clad materials and the rest of them brick-cladded;
- Houses reaching the end of its serviceable life;
- Almost 90 % of all dwellings in Medina are either in 'very poor' condition requiring serious repair or in 'poor' condition requiring some repair; and
- Asbestos and fibro-cement roofing of about 10% of the dwellings hazardous, and pose threat to health and well-being

Calista

- Construction from 1960s and 1970s;
- Predominantly brick and tile construction; also fibro-cladded dwellings;
- Houses reaching the end of its serviceable life;
- 10% of the dwellings are in very poor or poor condition, however approximately 75% of it do require some form of repairs; and
- Asbestos and fibro-cement roofing of about 10% of the dwellings are hazardous and pose threat to health and well-being

Leda –

- Construction started in the late 1980's;
- Housing style reflects contemporary building design and practice;
- Predominant construction material brick or masonry;
- Majority of dwellings have a tiled roof, with 17% being metal; and
- Overall condition good

Parmelia -

- Significant dwelling development in the 1970s and 1980s;
- Predominant construction materials brick and tile;
- About half of all dwellings are of good or average condition; and
- Small proportion of dwellings constructed with asbestos or fibre-cement sheeting.

Orelia –

- Public housing since 1952; then rapid growth took place from the mid-1960s into the mid-1970s;
- New dwellings from mid-90s, particularly the Windsor Hills Estate in the north;
- All dwellings constructed of brick, with 86 percent of dwellings having tiled roof;
- Almost 34% of new dwellings in the Windsor Hills Estate constructed with metal roofs; and
- Almost 49% of all dwellings are in good condition, 47% in average condition, and 3% in poor condition.

The older suburbs in the City have a predominantly higher number of R20 lots (refer to section 4.2 for details). In many instances, the original house remains (or has been partially removed or improved), but little investment for improvement or redevelopment has occurred. Commonly, subdivision of these lots has resulted in battle-axe development (see Photo below). Such development where a dwelling is constructed behind the main dwelling with a long narrow strip of land forming a driveway or axe handle may not always result in best

urban design outcomes.

There are also instances where a three lot subdivision has been carried out. In these cases, the retention of street trees and retaining canopy cover can be significant challenge (see Photo below).

4.2 *Residential Lots and its Development Capacity[3] in Older Suburbs*

The older suburbs have a predominantly higher number of R20 lots (96.8%) (Table 24). Orelia, however has lots having R25, R30, and R40 codes. Most of the lots in the older suburbs were established prior to 1990.

Table 24 Distribution of Residential Lots in the Older Suburbs

Suburbs	R20	R25	R30	R40
Medina	1,116	0	0	11
Calista	704	0	0	45
Leda	999	0	0	1
Orelia	1,536	107	15	42
Parmelia	2,559	0	0	8
Total	6,914	107	15	107

An analysis of the size of the R20 coded lots showed that more than 90% of the lots fall in the threshold of less than 900m² (Table 25).

[3] Development capacity is the theoretical maximum lots that can be created by applying the current Local Planning Scheme provisions.

Table 25 Size and Distribution of R20 lots

R20 Lots Size (m²)	Medina	Calista	Leda	Orelia	Parmelia	Total
<900	944	548	955	1447	2394	6288
900-1350	140	132	37	61	136	506
1350-1800	15	10	1	4	8	38
1800-2250	9	5	1	5	6	26
>2250	8	9	5	19	15	56
Total	1116	704	999	1536	2559	6914

Currently, R20 Lots having capacity for future subdivision exist in all older suburbs that are yet to be subdivided. Accordingly, a desktop assessment has been conducted to identify the 'development capacity' of the older suburbs and it estimated that there is an additional 897 lots (879 R20, 7 R30, 33 R25, and 188 R40) that may be created based on the current local planning scheme.

Under the City's Local Planning Scheme and current land use zones and densities, there is at present the capacity for an additional 897 lots to be created.

4.3 Retirement Living

The City has two retirement living facilities in Calista. These are Callistemon Court and Banksia Park Retirement Estate (Banksia Park).

Callistemon Court is a Joint Venture Housing Program between the City and the Department of Housing. It is a rental facility that provides 51 single bedroom and 24 two-bedroom units. This facility is open for persons of 55 years and above and is in high demand. As of April 2018, 45 persons were on the waiting list. This facility was constructed during the 1983-1996 period.

Banksia Park, which was built in four stages from 1995 to 2001 comprises of 78 Villas (two and three bedrooms) that are purchased by the occupants on a 'Lease for Life' basis.

The Housing Authority WA manages 228 retirement dwellings within the City having 104 one bedroom and 124 two bedroom dwellings[4].

4.4 State Government Infill Target

By 2036, Kwinana is expected to have an additional 44,000 new residents and they will require approximately 16,000 new dwellings.

Based on identified infill opportunities, Directions 2031 has set a medium term target of 47 per cent infill housing for the City, which equates to 799 new dwellings in the next 20 years. Recently, the *South Metropolitan Peel Sub-regional Planning Framework* has set out 1,365 as the infill dwelling target for the City by 2050 for an estimated 3003 persons. This is equivalent to 41 dwellings per annum for the next 33 years.

Current State Government strategies require an additional 799 new dwellings by 2036 and 1,365 infill dwellings by 2050.

[4] Email correspondence CM9 D18/59592 dated 25 September 2018. Provides suburb wide distribution of aged facilities.

5 City-wide Demographic issues, challenges and opportunities for consideration as part of future housing

5.1 High levels of Population Growth

A key observation made above was that:

- *The City's population growth will continue to be high and this rate will increase up to 2031 with marginal increases in household size. This largely reflects the population growth in new suburbs within the City from external migration.*

A key challenge for the City will be to ensure that the diverse housing needs of existing and new residents within the City are met over the next 20 years. Whilst the larger proportion of population will be located in new suburbs over time, it is important to note that the older suburbs are also growing but not at the same rate. It is important the level of services provided to residents meet their needs and provide the best possible environment for residents to live in. Most of the new growth will come from migration into the City from outside and much of this will be in the greenfield developments in Wellard, Anketell, Mandogalup and Casuarina.

5.2 Household Types and Sizes

5.2.1 Couples and families

The following key observations were made.

- *The majority of household types are couples with or without children. Households with children make up 46% of the total households*.

It is evident that as the City continues to grow, the largest component of household types being couples with children and single parent families (families) and couples. Many of these households are located and will be located in the newer suburbs and future suburbs of the City.

It is important that the needs of these residents for such services as schools and day care, shopping for a range of goods, access to local and regional transport networks and to live in safe, attractive neighbourhoods are considered.

These neighbourhoods should contain diversity and a mix of living options as far as possible, however as it is also evident that society is changing and that there is a trend towards more lone person households and couples who may not wish to live in larger dwellings.

<table>
<tr><th>Housing Considerations</th><th>Themes</th></tr>
<tr><td>Good neighbourhood design</td><td rowspan="6">Quality and type of built form and streetscapes in the City’s neighbourhoods

Sustainable Activity Centres (with the best mix of retail, office and residential)

Towards a better mix and diversity of dwelling types</td></tr>
<tr><td>Attractive and appropriate built forms</td></tr>
<tr><td>Quality streetscapes and trees; and</td></tr>
<tr><td>Safety and security for residents</td></tr>
<tr><td>Access to shopping and convenience goods and transport networks</td></tr>
<tr><td>Mix of housing opportunities</td></tr>
</table>

5.2.2 Housing for the 60 plus and older

The following key observations were made:

- *With the City’s population growth to continue, importantly, the total number of persons over 60 years will increase substantially and is likely to require accommodation in smaller, one and two bedroom dwellings with good access to activity centres and transport hubs.*
- *Associated with the above, with forecast population growth:*
  - *the total amount of lone person households and one parent families requiring accommodation will increase.*
  - *the amount of all household types are increasing.*
- *The City has almost 50% less medium and higher density dwellings than the South West Group and a higher proportion of separate dwellings. This may reflect the growth in new suburbs and settlement history. Of note, the majority of dwellings with two bedrooms or less are located in the City’s older areas, many comprising older separate dwellings*

The population in the 60+ age categories is expected to increase in proportion to the general population i.e. 14.3% (12,177 out of 85,158) by 2036. This group is likely to consider ‘downsizing’ or ‘right sizing’ into smaller one or two bedroom dwellings with good access to key services. This may also include Retirement Villages.

At present, the City, as a percentage of housing, has about half the number of medium and higher density dwellings than the South West Group. Further, a significant amount of the smaller two bedroom dwellings are older housing stock located in the City’s older areas.

The incremental changes in the seniors’ age groups also need to be balanced with the provision of other needs such as easy access to medical and care facilities, public transport, shopping centres, and community facilities.

The Commonwealth Department of Health and Ageing (DoHA) prescribes 105 aged care places (80 for aged care and 25 community care places) per 1000 persons aged over 70 years. Accordingly, the City requires approximately 246 beds in 2016, 420 by 2026, and 655 by 2036.

In 2015, Kwinana was allocated 86 residential care services by the Department of Health, Australian Government. Currently, Kwinana has 138 residential care places at two facilities i.e. Aegis Banksia Park and Aegis Orelia Transition Care Program.

In a local government with a high amount of separate dwellings, the challenge will be to identify the right locations for additional housing types and sizes to meet the housing needs of this group in the community (i.e. the provision of appropriate, affordable, safe, secure, sustainable, and well located housing). Such housing (including retirement villages) can be located at Activity Centres, along transport corridors or near or at the City's existing or future train stations.

Housing Considerations	Themes
The need for more housing options (particularly for more one and two bedroom dwellings)	Towards a better mix and diversity of dwelling types
Linked with the above, additional medium and high density development	Sustainable Activity Centres (with the best mix of retail, office and residential)
The need for additional retirement villages/residential care places for the aged and seniors	Increased housing opportunities along key transport nodes and corridors
Access to shopping and convenience goods and transport networks	Quality and type of built form and streetscapes in the City's neighbourhoods
Safety and security for residents	

5.3 State Government's Infill targets for the City

Two observations were made in respect to the infill targets set by the State Government via its strategic planning policies and plans (Directions 2031 and recently, the *South Metropolitan Peel Sub-regional Planning Framework)*.

- *Current State Government strategies require an additional 799 new dwellings by 2036 and 1,365 as the infill dwelling target by 2050 for the City; and*
- *Under the City's local planning scheme and current land use zones and densities, there is at present the capacity for an additional 897 dwellings to be created.*

A key challenge for the City will be to examine how best to provide the additional dwellings but this consideration should not be in isolation to the above more specific community needs and trends. These factors are not mutually exclusive but are integrated.

The State Government's position for additional dwellings is driven by a broader policy based on the wider sustainability of the Perth Metropolitan area and based on many of the demographic and planning concerns discussed in this study.

The fact that the City's current local planning scheme zones and densities allow for an additional 897 dwellings (in excess of the 2036 target) does not mean that these dwellings would be developed (this would be dependent on market forces) or that the type of development would suit future community need. These lots reflect existing R20, R30 and R40 lots scattered across the City but particularly in the older suburbs (largely as a result of the larger lot sizes in these areas).

<table>
<tr><th>Housing Considerations</th><th>Themes</th></tr>
<tr><td>The need to meet the State Governments housing strategy targets which drives the need for more housing options (particularly for more one and two bedroom dwellings)</td><td rowspan="4">Towards a better mix and diversity of dwelling types.

Sustainable Activity Centres (with the best mix of retail, office and residential).

Increased housing opportunities along key transport nodes and corridors.</td></tr>
<tr><td>Linked with the above, additional medium and high density development.</td></tr>
<tr><td>The need for additional retirement villages for the aged and seniors</td></tr>
<tr><td>Access to shopping and convenience goods and transport networks</td></tr>
</table>

5.4 *Revitalisation of the City's Older Areas*

The following observation was made;

- *As some suburbs such as Medina, Calista, Orelia are over 50 years old, many dwellings in these suburbs are in poor condition and well past their initial lifespan.*

It is apparent that the oldest suburbs of the City have aged housing stock of which, a significant portion is in relatively poor condition simply because of age. This has also to do with the type of built form in some localities such as Medina as a significant amount of dwellings were built with fibro-cladding in the 1950's.

It is inevitable that many of these homes will in time be replaced and this is already occurring but a large number of dwelling remain in poor condition.

There is significant benefit in the City considering how best to intercede in this redevelopment to ensure the best outcome possible and that these suburbs are revitalised purposely rather than left to market forces. The City already has policies in place to seek to retain some of the unique and beneficial character of the suburbs of Medina and Calista as part of new development.

It is important that the questions of how best to revitalise these suburbs be undertaken in collaboration with the community.

<table>
<tr><th>Housing Considerations</th><th>Themes</th></tr>
<tr><td>Facilitating redevelopment of well-located housing stock in the older suburbs of the City, particularly Medina, Calista and Orelia.</td><td rowspan="7">Revitalising suburbs having older housing stock.

Quality and type of built form and streetscapes in the City's neighbourhoods.

Towards a better mix and diversity of dwelling types.

Sustainable Activity Centres (with the best mix of retail, office and residential).</td></tr>
<tr><td>Maintaining the unique character of the early planning.</td></tr>
<tr><td>Attractive and appropriate built forms</td></tr>
<tr><td>Quality streetscapes and trees</td></tr>
<tr><td>Access to shopping and convenience goods and transport networks</td></tr>
<tr><td>Mix of housing opportunities</td></tr>
<tr><td>Safety and security for residents</td></tr>
</table>

6.0 Key Themes for the Local Housing Strategy to consider

A number of themes for discussion with the community has emerged from the above assessment in response to the key housing challenges for the City. These are:-

- Quality and type of built form and streetscapes in the City's neighbourhoods;
- Towards a better mix and diversity of dwelling types;
- Sustainable Activity Centres (with the best mix of retail, office and residential)
- Increased housing opportunities along key transport nodes and corridors; and
- Revitalising suburbs having older housing stock.

These themes form the basis for further engagement with the community as part of first stage of the Local Planning Strategy.