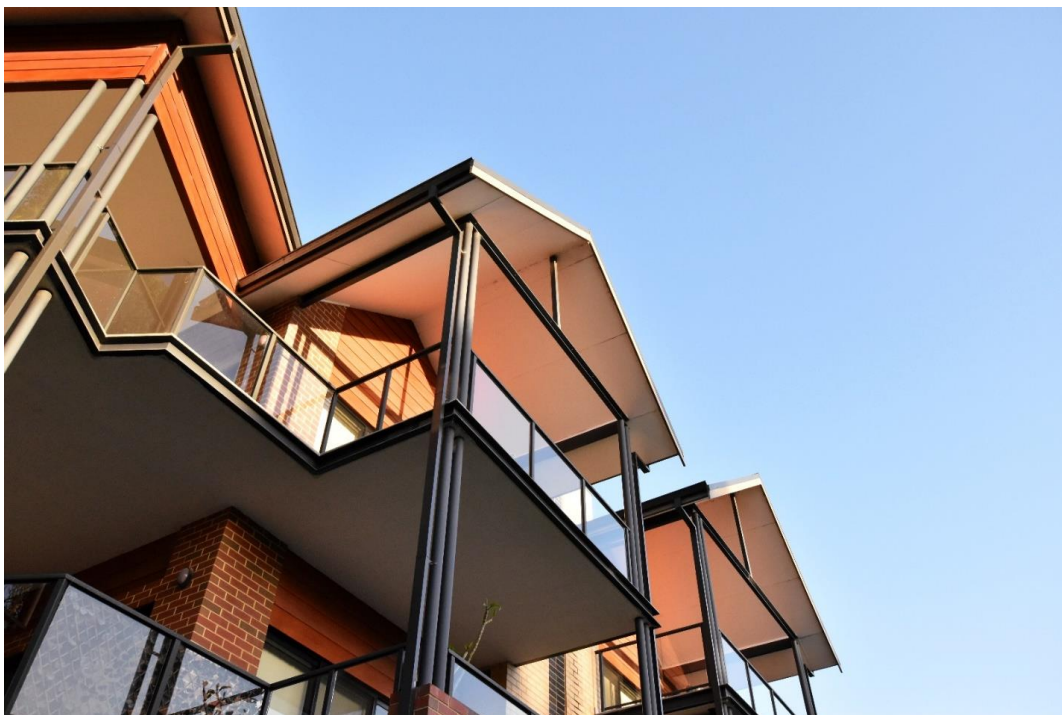




Draft Local Housing Strategy 2020-2025



March 2020

City of Kalamunda – Draft Local Housing Strategy

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1. Role of the Local Housing Strategy

The City of Kalamunda (City) recognises that there are significant social, health, environmental and economic benefits that are realised when appropriately located, effectively zoned, and diverse housing opportunities are available to the community. At its very core, the City will thrive on its ability to facilitate dwelling diversity that meets community requirements, as this will facilitate the growth of community, provision of passive surveillance and local safety, and the interaction of individuals and community within space.

The City recognises it has a changing and ageing population and many within the community that will want to age in place and remain within the City well into retirement. It is the City's goal to identify opportunities for people to stay whilst facilitating the necessary and appropriate housing forms to accommodate this trend.

The City is committed to ensuring that current and future residents feel that their housing needs are being met and, to this end, has developed the Local Housing Strategy 2020 - 2025 (LHS) to meet these needs. The LHS, through strategies and recommended actions, informs and focuses the planning framework at a strategic level to assist with delivering housing needs. The City then undertakes the strategies and actions over the next five years through the implementation of the Local Planning Scheme, local planning policies, guidelines, information sheets and investigation areas. Proposals are assessed against the objectives and priorities of the LHS and, where inconsistent, will generally not be supported. The implementation of the Strategy's recommendations will guide a coordinated approach to improving housing diversity for the existing and future community of the City.

The purpose of this Strategy document is to:

1. Analyse patterns of housing development with consideration given to local social, economic and environmental factors.
2. Identify areas for future investigation and community engagement.
3. Provide realistic and achievable strategies and actions which will improve the diversity, quality and accessibility of housing within the City of Kalamunda
4. Promote more sustainable development practices.

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1.1 Vision

The vision for future housing in the City is to:

Deliver a range of attractive and functional housing types co-located in close proximity to activity centres and transport nodes to cater for a diverse and changing population, whilst retaining or improving the character, amenity and safety of existing precincts.

1.2 Objectives

The strategies and actions recommended in Table 2 are focussed around five key objectives:

1. Simplify and update the City's local planning framework
2. Facilitate development within walking distance of shops, schools, transport routes and community facilities.
3. Guide the design of new developments to respect existing neighbourhood character and encourage high quality, safe urban form.
4. Guide Council, Officers, and applicants when considering applications for the development of housing in existing and future development areas.
5. Ensure housing supply aligns with expected population growth.

2. EXECUTIVE SUMMARY

The LHS is one of six sub-strategies which inform the preparation of the Local Planning Strategy. The Local Planning Strategy is a document reviewed approximately every five years in accordance with the State Government Local Planning Manual (2010). The intention is to provide a local 'snapshot' of strategic planning related profiles, data, and mapping which will assist with the coordinated delivery of key projects and priorities.

The Local Planning Strategy includes the following sub-strategies:

- Local Housing Strategy
- Industrial Development Strategy
- Activity Centre Strategy
- Public Open Space Strategy
- Environmental Land Use Planning Strategy
- Rural Strategy

The LHS provides a review of the State and local planning framework and identifies State housing density targets which apply to the City. The Western Australian Planning Commission's (WAPC) Perth and Peel @ 3.5 Million strategic document identified an additional dwelling target of 11,450 and estimated additional population of 25,190 by 2050 for the City. Figures provided by Profile ID (the City's population projection program)

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and census data estimated the City contained approx. 22,786 dwellings and a population of approx. 57,449 in 2016. This indicates an increase in dwelling and population compared to the WAPC's North-East Sub-regional Planning Framework 2018 (NE Framework) statistics which shows that in 2011, the City contained 21,180 dwellings and a population of 56,490. Overall this means the total increase of dwellings from 2011 to 2016 was 7.1% while the population increased by 1.7%. A comparison of the local demographic profile and current dwelling types identified a shortfall in diverse housing types, particularly in relation to the delivery of aged care facilities and accommodation, and housing for smaller households.

The City and/or State Government is currently considering several investigation areas, which are outlined in this document, to identify opportunities to deliver on these targets and diversify housing opportunities.

Consultation undertaken in December 2018 found the community were receptive to considering alternative types of housing, with 96% of respondents confirming they would consider living in an alternative housing type. Due to the feedback from the community, the City has included actions to investigate opportunities for alternative housing typologies.

Alternative housing types have also been identified as one way of assisting with providing options for aging in place. In 2016, 15.8% of the City's population was aged between 65 and 85. Currently most accommodation comes in the form of nursing homes or aged care facilities with some in-home assisted care. There is scope to investigate alternative options such as integrated or multi-generational aged care developments by co-located aged care and child care centres, or supporting age friendly cooperative housing (such as a village with shared communal facilities) which have been shown to boost social welfare and could provide more options as the population ages.

There is envisaged to be a need for 500 – 900 additional aged care beds to be delivered by 2036 to meet the predicted demand for the ageing population (refer section 13 – Aged Accommodation). This may include expansion of existing, or establishing new aged residential care facilities.

Summary of key strategies and actions:

1. Preparing a new Local Planning Scheme No. 4.
2. Investigation Areas progressed to determine future land uses.
3. Reviewing the performance of the existing Dual Density areas within walking distance of activity centres and public transport.
4. Supporting and incentivising innovative housing options to diversify housing types.
5. Investigate 'normalising' the Local Planning Scheme No. 3 zoning for existing structure plans which have been substantially developed.

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3. Summary of Local Housing Strategy 2014

This document replaces the Local Housing Strategy 2014 which identified actions to be undertaken by the City between the years 2014 and 2019 to guide strategic housing density changes around town centres and investigation areas. Table 1 provides a summary of the previous key actions, an assessment of the current status, and recommendations for new actions set out in this revised document.



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Table 1. Local Housing Strategy Actions 2014

Local Housing Strategy Actions 2010	Description	Status	Recommendations for Local Housing Strategy 2020-2025
Walkable Neighbourhoods	<ul style="list-style-type: none"> Applying a density code of R20/60 to properties within a radius of 400m of the Forrestfield District Centre. Applying dual density codes of up to R40 in and around the Kalamunda District Centre and surrounding neighbourhood centres. 	Incorporated as part of the City's Local Planning Scheme No. 3 Amendment No. 82 – Dual Density Codes and gazetted in February 2018.	No further action required.
Increased Density Abutting Major Transport Corridors/High Frequency Bus Routes	<ul style="list-style-type: none"> Increased density introduced to properties within 200m to 800m from major public transport routes and transport nodes, with 	Incorporated into development of the Forrestfield North District Structure Plan area adjacent to the future Forrestfield North	No further action required.

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	the exception of Tonkin and Roe Highways.	Train Station and Dual Density Areas around Activity Centres.	
Increased Density for Lots Directly Adjacent to District Open Space	<ul style="list-style-type: none"> Applying a dual density code of R20/30 or R20/40 to lots which abut or surround district open space. 	Incorporated as part of the City's Scheme Amendment No. 82 – Dual Density Codes and gazetted in February of 2018.	Incorporated into action 2.1 for further investigation.
Housing Opportunity Precincts	<ul style="list-style-type: none"> Identification of four 'Housing Opportunity Precincts' for the introduction of greater housing diversity. Locations identified in portions of Kalamunda, Forrestfield, High Wycombe and Maida Vale. 	Incorporated as part of the City's Scheme Amendment No. 82 – Dual Density Codes and gazetted in February of 2018.	Incorporated into action 4.2 and 5.1. Review any areas that were not included and determine if revised residential coding is required.
Multi-Unit Housing Code	<ul style="list-style-type: none"> Investigation of new provisions of the Residential Design Codes. 	Noted as 'Accepted' by the City.	No further action required.

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Developer Contributions for Community Infrastructure	<ul style="list-style-type: none"> • Proposal to implement a new Developer Contribution Plan (DCP) in accordance with State Planning Policy 3.6. • The DCP would apply to all land within the City that would be subdivided or developed for residential purposes. • The DCP would ensure that necessary community infrastructure is provided. 	<p>The City currently contains, or has substantially progressed, three DCP areas:</p> <ol style="list-style-type: none"> 1. Cell 9 Wattle Grove 2. Forrestfield/High Wycombe Industrial Area Stage 1 3. Maddington Kenwick Strategic Employment Areas (MKSEA), Wattle Grove <p>Community Development Services are in the process of investigating a City-wide DCP for community infrastructure.</p> <p>Preparation of a DCP local planning policy recommended as part of the Industrial Development Strategy and currently underway.</p>	Incorporated into action 3.3 for further investigation.
Reduction in the Required Minimum Number of Aged	<ul style="list-style-type: none"> • Include provisions in the City's Local Planning Scheme to allow consideration of single 	Incorporated as part of the City's Scheme Amendment No. 74, gazetted in December of 2016.	No further action required.

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Persons Dwellings for Single Developments	developments that propose less than five Aged and Dependent Persons Dwellings.		
Identification of Large Sites Suitable for the Development of Aged Accommodation Complexes	<ul style="list-style-type: none"> List of sites considered to be appropriate for the development of Aged Accommodation Complexes. 	Included in the previous Local Housing Strategy	No further action required.
Prepare a Streetscape Enhancement Strategy	<ul style="list-style-type: none"> The purpose of the strategy would commit the City to upgrading streetscapes in the noted housing opportunity precincts. Intended to cover street tree preservation and planting, verge maintenance, crossover construction and location, new street furniture and footpaths. 	Street tree considerations Included in the Environmental Land Use Planning Strategy and will be covered through the Street Tree Masterplan.	Incorporated into action 2.7 for further development as part of the City's Street Tree Masterplan.
Carry out Detailed Investigations of the Likely			Ongoing.

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Implications of Greater Residential Infill and the Development of New Urban Areas	<ul style="list-style-type: none"> To be undertaken to determine the capacity of existing service infrastructure and the potential future upgrades required. 	To be addressed during investigation and planning for each area subject to land use and density change.	
Identify Superfluous City Owned Land for Development.	<ul style="list-style-type: none"> Prepare a program that would bring this additional land onto the market for purchase by developers. 	<p>The Hester Report 2011 identified City land assets and provided recommendations for future transfer or management.</p> <p>The Public Open Space Strategy 2018 identified land suitable for potential transfer, each site will be the subject of individual investigation and public consultation.</p>	Incorporated into action 5.4 to prepare an updated Land Rationalisation Strategy.

The actions highlighted in Table 1 have been incorporated into actions to be completed over the next five years which are summarised in Table 2 – Strategies and Actions Summary 2020-2025.

4. SUMMARY OF STRATEGIES AND ACTIONS 2020

The Strategy is a long-term plan, which outlines the future recommendations for housing development within the City. Despite a great level of attention to detail to assess future housing requirements in a holistic manner, the City understands that with a lengthy implementation timeframe, situations and circumstances will change. Implementation of certain aspects of the LHS will be contingent on the publication of Local Planning Scheme No. 4 and associated Scheme Amendments and Local Planning Policies to support aspects of

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development. Within the implementation phase of the LHS, the City will prioritise the strategies and actions based on available resources, funding and priorities.

Key objectives, directions and actions as determined from the above opportunities, as well as other aims of the City of Kalamunda, are detailed in Table 2 below.

Table 2. Strategies and Actions Summary 2020 – 2025.

Short Term	Medium Term	Long Term
1-3 years	4-8 years	9 + years

Objective		
Strategy	Action	Implementation and priority
Simplify and update the City's local planning framework		
1.0 Ensure the City's land use planning framework is contemporary and reflects the requirements of the <i>Planning and Development</i>	1.1 Prepare a new Local Planning Scheme No. 4 in accordance with the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> deemed provisions.	Timeframe: Short term Partners: Approval Services Indicator: New Local Planning Scheme is adopted.

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(Local Planning Schemes) Regulations 2015.	<p>1.2 In conjunction with the preparation of Local Planning Scheme No. 4 or future Local Planning Scheme Amendments, investigate in collaboration with the Western Australian Planning Commission, normalising Structure Plan land use and residential density identifications.</p> <p>Structure plans to be reviewed for normalising into the Local Planning Scheme include:</p> <ol style="list-style-type: none"> 1. Forrestfield Industrial Area Structure Plan 2. Forrestfield U7 Outline Development Plan 3. High Wycombe Urban Area U2 – Larwood Crescent 4. Karingal Green U2 Outline Development Plan 5. High Wycombe U2 Outline Development Plan 6. Urban Area U4 Structure Plan 7. Maida Vale Cell 6 U6 8. Canning Location 311 Structure Plan 	<p>Timeframe: Short term</p> <p>Partners: Approval Services, Western Australian Planning Commission</p> <p>Indicator: New Local Planning Scheme or Local Planning Scheme Amendment is adopted.</p>
	<p>1.3 Investigate the revocation of Local Development Plans where appropriate development standards are already provided for under the Local Planning Scheme No. 3, the Residential Design Codes and/or Local Planning Policy.</p>	<p>Timeframe: Short term</p> <p>Partners: Approval Services, Western Australian Planning Commission</p>

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		<p>Indicator: Confirmation from the Western Australian Planning Commission that the Local Development Plans should be revoked.</p> <p>Report prepared outlining the Local Development Plans required to be revoked.</p>
	<p>1.4 Prepare a discussion paper, for presentation to Council, investigating the implications of the State Government's <i>Government Sewerage Policy 2019</i> and in particular, its impact on wastewater requirements in the City's existing peri-urban areas. The discussion paper will include an analysis of potential impacts including but not limited to:</p> <ul style="list-style-type: none"> i. Community desires and aspirations through engagement ii. Amenity and character iii. Lot sizes iv. Water and the environment v. Existing vegetation vi. Movement network 	<p>Timeframe: Short term</p> <p>Partners: Approval Services, Asset Services, Water Corporation, Department of Health, Department of Water and Environment Regulation</p> <p>Indicator: Report prepared investigating the impact of the <i>Government Sewerage Policy 2019</i> on existing zonings.</p>
Facilitate development within walking distance of shops, schools, transport routes and community facilities.		

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2.0 Provide healthy, safe and walkable suburbs for local residents.	<p>2.1 Review the performance of Scheme Amendment 82 – Dual Density areas.</p> <p>The review is to include:</p> <ol style="list-style-type: none"> 1. Review of Local Planning Policy No.9 – Dual Density. 2. Review boundaries and impact of Dual Density infill on the character of streetscapes and built form and provide analysis of subdivisions which have occurred under the policy to-date. 3. Investigate applying a single standard code with appropriate development standards under the Local Planning Scheme. 4. Investigate the provision of on-street parking for any areas zoned R40 up to R80 to account for reduced onsite parking and visitor bays. 	<p>Timeframe: Short term</p> <p>Partners: Approval Services</p> <p>Indicator: Review completed, and report prepared which provides recommendations.</p>
	<p>2.2 Undertake community consultation to inform investigations around The Glades commercial development at Lot 100 (121) Canning Road, Kalamunda.</p>	<p>Timeframe: Medium term</p> <p>Partners: Approval Services</p> <p>Indicator: Community consultation undertaken and direction established.</p>
	<p>2.3 Investigate the potential (including community engagement and environmental considerations) for Aged Care developments at the following sites:</p> <ol style="list-style-type: none"> 1. Heidelberg Park 2. Cambridge Reserve 	<p>Timeframe: Short term</p> <p>Partners: Approval Services, Kalamunda Aged Care Advisory Committee, Western Australian Planning Commission</p>

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	<p>3. Lot 608 (6) Dixon Road, Kalamunda</p> <p>4. Lot 609 (30) Byron Road, Kalamunda</p>	<p>Indicator: Investigation complete and recommendations made for Council review.</p>
	<p>2.4 Improve access to activity centres and major transport routes by advocating for efficient local bus services from the Forrestfield Airport Link to local and district town centres.</p>	<p>Timeframe: Short term</p> <p>Partners: Public Transport Authority, Transperth</p> <p>Indicator: City to liaise with partners and provide recommendations for improved connectivity following completion of Forrestfield North train station.</p>
	<p>2.5 Further investigate an extension to the Bicycle Plan 2017 providing a coordinated strategic approach to connecting the Forrestfield North train station, activity centres, bike trails and tourist attractions with dedicated cycling lanes and infrastructure.</p> <p>Investigations are to consider Healthy Active by Design principles as outlined by the Heart Foundation and provide recommendations for improving active transport links. This may include but is not limited to improving links between existing streets, frequently used trails or routes, and new structure plan</p>	<p>Timeframe: Short term</p> <p>Partners: Public Transport Authority, Transperth, Asset Services, Approval Services</p> <p>Indicator: City to investigate and provide recommendations following completion of Forrestfield North train station. Bicycle Plan reviewed, and</p>

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	areas as well as providing end of trip facilities, storage or bike repair stations.	report prepared with recommendations for improving connectivity and facilities, supported by a proposed cost schedule for consideration by Council.
Guide the design of new developments to respect existing neighbourhood character and encourage high quality and safe urban environments		
3.0 Increase the quality of built form, public realm and character of existing suburbs whilst improving crime levels through Crime Prevention Through Environmental Design (CPTED) principles.	3.2 Prepare a discussion paper in alignment with the City's Community Safety Crime Prevention Plan 2020-2025 investigating crime rates within City of Kalamunda suburbs and provide recommendations for Designing Out Crime through urban design and infrastructure improvements through the planning process.	Timeframe: Short term Partners: Approval Services, Community Safety, Asset Services Indicator: Investigation completed and recommendations provided for Council review.
	3.3 Initiate a review of the Municipal Heritage Inventory to update records after the year 2020 and reflect changes for consistency with the <i>Heritage Act 2018</i> .	Timeframe: 3-5 years

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		<p>Partners: Kalamunda and Districts Historical Society, State Heritage Office</p> <p>Indicator: Investigation completed and recommendations provided for Council review.</p>
<p>Guide Council, Officers, and applicants when considering applications for the development of housing in existing and future development areas.</p>		
<p>4.0 Improve the design, quality and sustainability of new housing.</p>	<p>4.1 Investigate and prepare a 'Sustainability Bonus' local planning policy to guide higher quality streetscape outcomes and provide bonuses, exemptions or incentives for sustainable features such as; solar panels or other renewable energy, rainwater tanks, raingardens, greywater recycling, tree retention, revegetation, biophilic design, a 'closed loop' construction and waste plan or shared facilities for social interaction (eg; co-working spaces or artist studio).</p>	<p>Timeframe: Short term</p> <p>Partners: Approval Services</p> <p>Indicator: Policy is completed for Council review.</p>
	<p>4.2 Within five years of adopting this Strategy, undertake detailed analysis of housing stock age, socioeconomic conditions and development patterns to identify areas approaching the precursors</p>	<p>Timeframe: Medium term</p> <p>Partners: Approval Services</p>

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	to redevelopment and require further analysis and community engagement. Note: Include High Wycombe Investigation area as part of this analysis (refer Map 2 – Investigation Areas).	Indicator: Analysis completed and recommendations made.
Ensure housing supply aligns with expected population growth		
5.0 Facilitate more housing choice for residents and increase dwelling diversity.	5.1 Investigate subdivision and development opportunities for investigation areas as part of the new Local Planning Strategy and Local Planning Scheme No. 4 (refer Map 2 – Investigation Areas).	Timeframe: Short term Partners: Approval Services Indicator: Analysis completed and recommendations made.
	5.2 Investigate the development of local planning policies and/or scheme provisions to support innovative housing developments to increase housing diversity and support opportunities for aging in place (i.e. tiny houses on wheels).	Timeframe: Short term Partners: Approval Services Indicator: Policy developed for Council review.
	5.4 Review the impact of updated ANEF contours and provide recommendations regarding future planning considerations in these areas.	Timeframe: Short term Partners: Approval Services, Perth Airport

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		Indicator: Report developed and recommendations made for Council review.
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5. Housing Density Targets

All properties with current subdivision potential under the Scheme are highlighted maroon as shown in Map 11 – Subdivision Potential. This equates to approximately 6,459 properties that could be subdivided under current zoning including Dual Density areas.

The North-East Subregional Planning Framework target for additional dwellings for the City of Kalamunda is 11,450 by 2050.

Table 3 shows the investigation areas which have potential for development and the predicted increase in population and dwellings. Descriptions of each Investigation Area can be found in Section 7 – Investigation Areas. At this relatively early stage of the planning process, it is not feasible to adopt certain estimates therefore a range has been provided to account for variations in the implementation of planning and market factors. These estimations are preliminary and are subject to more detailed planning and investigations, and approval processes. For the purpose of comparison against the NE Framework target the median estimate of the range has been utilised as a representative figure.

Current projections estimate between 7, 627 – 15,951 additional dwellings predicted to be developed based on current subdivision potential, potential yields within the investigation areas identified within the WAPC NE Framework and Dual Density areas (refer Table 3). While estimates based on a lower residential site density could potentially result in a shortfall against the NE Framework dwelling targets at 7,627, these estimates are conservative and assume low levels of take up of development and lower density housing being delivered in the identified areas. The City is likely to meet density dwelling targets identified by the NE Framework based on a more realistic and median estimate between the lower and higher projections.

Table 3. Predicted housing densities for Investigation Areas by 2050

Investigation Area	Estimated Dwellings	Median of Estimated Dwelling Range
Dual Density	1,442 – 2,626	2,034
Forrestfield North	3,000 - 6,500*	4,750*
Maida Vale South	2,625**	2,625**
Wattle Grove South	560-4,200**	2,380**
Total	7, 627 – 15,951	11,789

* Forrestfield North estimated dwelling range is based on the take up of development in the LSP and will be dependent on the establishment of the planning framework, private sector investment and infrastructure delivery.

** The direction of Wattle Grove South and Maida Vale South is dependent on community engagement, further concept planning and detailed designs.

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It is noted the population figures provided in this report are based on Forecast id. and Economy id projections to 2036, while potential dwelling yields (refer Table 3 above) are based on total land area and zoning which aligns with the NE Framework estimates to 2050. The potential dwelling yields are desktop projections which are based on Investigation Areas and Dual Density areas. The dwelling projections are likely to fluctuate in response to market influences such as population growth and housing demand over time.

6. QUICK DATA RESULTS

There is a wide variety of residential developments within the boundaries of the City. These range between new areas or urban growth, established communities and areas that are undergoing urban renewal, to peri-urban or semi-rural locations. Strategically located infill redevelopment, such as Dual Density areas, will assist in increasing visitation to existing community hubs and centres whilst providing a variety of housing typologies. The opportunity for further housing growth in select areas of the City, such as Forrestfield North, will provide new diverse housing types that are expected to bring new residents to the area and cater for changing demands.

To understand the current housing trends, the demographics, population, age, income, employment and education within the City were updated and reviewed (refer Appendix 3 – Demographics). Analysis of the housing stock was also undertaken which included the introduction of Dual Density Areas, comparison between household size and dwelling type, housing age, lot size and current housing stock (refer Appendix 4 – Housing Analysis). Key findings are summarised below:

6.1 Local Profile

The City of Kalamunda's housing stock primarily consists of three or four-bedroom dwellings, while the largest proportion of household size is two person households. This indicates there is an overabundance of houses with 3-5 bedrooms and that future development should account for smaller sized households (refer Appendix 3 – Demographics).

The City's priority should therefore focus on creating housing diversity, in particular dwellings for small households such as singles or couples. One method to pursue this is through investigation into alternative housing options (refer section 15 – Innovative Housing). Another method to encourage housing diversity is through Dual Density areas which are required to provide a mixture of dwelling types for lots less than 1000m².

6.2 Population

The City of Kalamunda currently has a population of around 61, 623 (Forecast id. 2017). Population growth is expected to occur primarily on the Swan Coastal Plain with Forrestfield and High Wycombe currently experiencing the highest forecast population

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and highest residential densities. Most of the City's population growth is expected to take place in Forrestfield, Wattle Grove, High Wycombe and Maida Vale, whereas Gooseberry Hill, Kalamunda and Lesmurdie will see steady growth in the foreseeable future. It should be noted that the majority of Forrestfield North resides in High Wycombe, which has been assessed independently and impacts upon High Wycombe's demographic information.

Forrestfield, Wattle Grove, High Wycombe and Maida Vale will account for 85% of the City's increased population over the next 18 years (refer Appendix 3 – Demographics).

Investigation Areas of Forrestfield North, Maida Vale South and Wattle Grove South areas may grow from a small population into larger district localities. The future direction of Wattle Grove South is dependent on the outcomes of community engagement, concept and detailed planning

6.3 Age Demographics

The City will see a higher than average population growth heavily skewed towards older age groups. In 2016 15.8% of the City's population were aged between 65 and 85 (Forecast id. 2017). Concurrently between the years 2011-2021 there is a forecast reduction in the number of 18-24 years old's. Kalamunda, Gooseberry Hill and Lesmurdie are predicted to have the greatest rise in young families and the elderly. Whereas Forrestfield, Wattle Grove, Maida Vale and High Wycombe are predicted to have a greater rise in older family groups (5-24 and 35-54) and the elderly (refer Appendix 3 – Demographics). Young families and the elderly will account for significant amount of the population increase. Teenagers, young adults and empty nesters will have limited rise in population.

The data indicates there will be significant demand for in-home services and significant demand for additional care facilities, beyond those implied in the forecasts, by 2036. Given there are currently 243 confirmed beds, to meet the demands of a predicted 1,135 population (in non-private residences) it is estimated 500 – 900 additional aged care beds would be required by 2036. Refer section13 – Aged Accommodation for more information.

6.4 Income, Employment and Education

In terms of education residents are relatively consistent with the Western Australian average. Forrestfield, Wattle Grove, Maida Vale and High Wycombe have greater levels of low and moderate income earners, lower levels of high education and higher levels of employment than Greater Perth. Whereas Kalamunda, Gooseberry Hill and Lesmurdie have greater levels of moderate and high-income earners, greater levels of high education and greater levels of employment than Greater Perth.

6.5 Housing Growth

The locations of housing growth tends to follow the trends of population growth. Forrestfield, Wattle Grove, Maida Vale and High Wycombe will experience the largest

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development of new dwellings with a combination of greenfield development and urban infill. Growth within Kalamunda, Lesmurdie and Gooseberry Hill will be low and mostly contributed from small pockets of urban infill around commercial centres.

6.6 Dual Density Areas

Dual Density zoning means that a property which previously had a lower density code such as R20, may now be able to apply for a higher density zone such as R20/R40. To apply for the higher code, landowners are required to meet the criteria of Local Planning Policy No.54 Dual Density Guidelines. To qualify for Dual Density, properties were reviewed for the following traits:

- a) close to activity centres or public open space
- b) close to key transport nodes
- c) connection to sewer
- d) housing stock generally pre-1980's or lot sizes in excess of 1000m²

Estimates indicate if all Dual Density properties are subdivided at the higher code then it could result in a maximum yield of 4,376 additional dwellings. This could result in between 1,442 – 2,626 additional dwellings by 2050 when comparing projections between lower and higher code uptake. At this stage approximately 95 properties were subdivided under a Dual Density area between Sept 2017 – Sept 2019 which amounts to about 1.6% of all properties with Dual Density. Realistically, market factors and development restrictions such as the provision of sewer, bushfire risk, topography or environmental constraints will mean that, with a take up rate of approximately 2% per annum, Dual Density may result in a median of 2,034 additional dwellings by 2050. Refer to Appendix 4, Section 24.1 – Dual Density and Map 5 – Dual Density Areas for more information.

6.7 Comparison between Household and Dwelling Type

Based on the above census and demographic data, it is noted that there is a large number of dwellings within the City that have three or four bedrooms, but only two or three persons as regular residents. Of note, is the large variance between two-bedroom, two person households (513) and four-bedroom, two person households (3084). A larger than average aged population suggests that smaller and more universally accessible housing may be required in the future as more people choose age-in-place. Housing with lesser numbers of rooms will appeal to young professionals while accounting for the large discrepancy between persons in residence in households vs. number of bedrooms in the residence. It is considered that new young families will be able to utilise housing stock vacated by 'empty-nesters'. Refer Appendix 4 – Housing Analysis for more information.

6.8 Housing Age

Map 8 – Age Stock shows visually the distribution and age of housing stock in the City. The mapping shows Cell 9 Wattle Grove, the Hales Forrestfield, Maida Vale Cell 6, Maida Vale U4, High Wycombe U2, and a small cluster near St Brigid's College in Lesmurdie as

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newer dwelling builds post-2001. The area north of High Wycombe/South of Kalamunda Road, Forrestfield and much of the hills escarpment areas are Pre-1980's which means the housing stock is old and primed for redevelopment or major renovation. Considering this, the areas of Forrestfield and High Wycombe/Maida Vale have been included within the Dual Density Areas and are likely to be subdivided and re-developed (Refer Appendix 4 – Housing Analysis).

6.9 Lot Size

Generally properties on the urban fringe located east of the Darling Hills consist of larger lot sizes of 1000m² or larger. The areas of Forrestfield and High Wycombe generally have lot sizes between 700m² and 1000m² which is reflective of the older housing stock. The areas of Cell 9 Wattle Grove, The Hales Forrestfield, Maida Vale Cell 6, Maida Vale U4, and High Wycombe U2 generally have smaller lot sizes between 450-700m² which are more urbanised. Lots less than 450m² are relatively scarce and scattered within Cell 9 Wattle Grove, the Hales Forrestfield, and within High Wycombe. Very few lots less than 450m² are located on the escarpment with the exception of a few properties close to Kalamunda town centre (Refer Map 7 – Lot Size and Appendix 4 – Housing Analysis).

6.10 Housing Stock

In summary the data indicates that larger lot sizes around 1000m² and above are located east of the Darling Hills tend to contain older pre-1980's housing stock. Newer areas which have recently been redeveloped are classified as post-2001 and include Cell 9 Wattle Grove, The Hales Forrestfield, Maida Vale Cell 6, Maida Vale U4, and High Wycombe U2 and generally have smaller lot sizes between 450-700m² which are more urbanised. Smaller lot sizes tend to be focussed around areas with connection to the sewer network, particularly on the Swan Coastal Plain where there are less topographical constraints (Refer Appendix 4 – Housing Analysis).

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7. INVESTIGATION AREAS**Investigation Areas Background**

There are currently two categories of Investigation Areas; those identified in the NE Framework, and projects undertaken on the initiative of the local government. Confirmation of investigation areas which were previously identified but will no longer be pursued are listed in Table 6.

Table 4: Current Investigation Areas

Pickering Brook Townsite	WAPC Planning Investigation Area
Wattle Grove South	WAPC Urban Expansion and Urban Investigation Area
Forrestfield North	Identified by Metronet for strategic planning
Cambridge Reserve	City investigation area
Heidelberg Park	City investigation area in partnership with DPLH (Department of Planning, Lands and Heritage)

Table 5: Potential Future Investigation Areas

Hillview Golf Course – Planning Investigation Area	WAPC Planning Investigation Area
Maida Vale South	WAPC Urban Expansion Area
The Glades	City investigation area
Forrestfield Dual Density Investigation Area	City investigation area
Halleendale Road, Walliston	City investigation area
Rural Zoning Rationalisation	City investigation area

Table 6: Areas no longer under investigation

High Wycombe Investigation Area	City investigation area
Graham Road and Ocean View Parade	Resident-led initiative

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Foothills Investigation Areas	City investigation area



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8. Current Investigation Areas

Each of the Framework Investigation Areas have been described as follows.

8.1 Pickering Brook Townsite Expansion – WAPC Planning Investigation Area

In October 2017, the WAPC refused an MRS Amendment request from the City's Council for an area within Pickering Brook to be rezoned from Rural to Urban. The key reasoning behind the refusal was due to the area not being identified in the Framework, bushfire constraints and priority water catchment considerations. In March 2018, the State Government released the final Framework which identifies the area in Pickering Brook as a Planning Investigation Area. The investigation area is generally bound by Weston Rd, Repatriation Rd, Carinyah Rd and Isaacs Rd, stopping at Davey Rd. Figure 1 shows the planning investigation area plus a small section of existing urban land zoned R2.5 south of Pickering Brook Rd. Table 3 of the Framework states that the key considerations for the future planning of Pickering Brook are:

- Identification and protection, where appropriate, of priority agricultural land
- Impacts on public drinking water resources (Middle Helena Catchment – Priority Area 2)
- Bushfire risk
- Availability of reticulated water and wastewater infrastructure

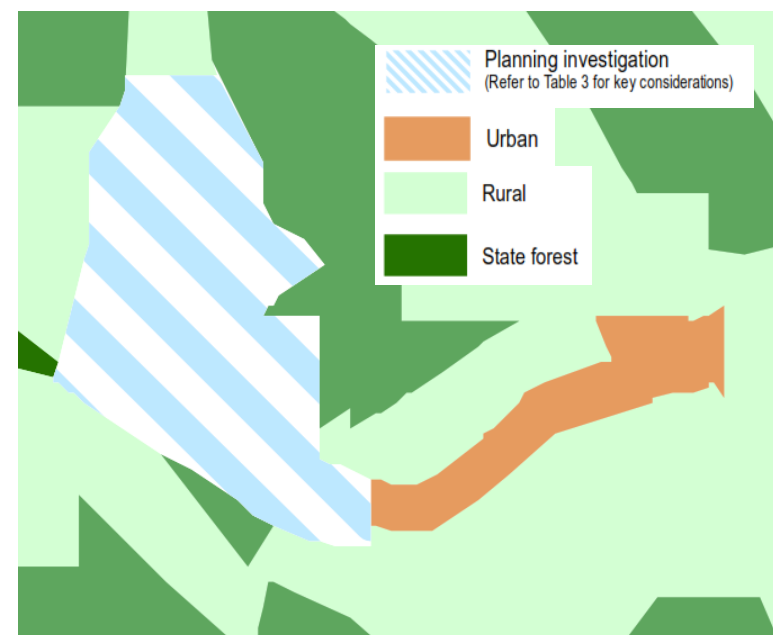


Figure 1. Pickering Brook Townsite Expansion investigation area (NE Framework)

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In October 2018, the DPLH announced the formation of a Working Group to support a Taskforce to develop a Sustainability and Tourism Strategy for Pickering Brook and the surrounding area. The Strategy includes two key parts, one which investigates the possible expansion of the Pickering Brook townsite and the other to develop a strategy for economic development initiatives including the growth of tourism activities in the broader hills region. The working group consists of representatives from DPLH, DWER, DFES, DPIRD, Tourism WA, City of Armadale, City of Kalamunda and Member for Kalamunda who will undertake technical studies and prepare a report for consideration by the Taskforce.

The role of the Working Group and Taskforce is to consider the following key factors:

1. Townsite sustainability / Community services
2. Tourism and Economic Diversity
3. Priority Agricultural Land
4. Bushfire risk and management
5. Drinking Water Catchments
6. Water and wastewater service infrastructure

The Taskforce consists of the Ministers for Planning, Agriculture and Tourism, and the WAPC Chair who will ultimately decide on the future recommendations for the area. The City will incorporate recommendations and formulate appropriate actions subject to the findings of the Taskforce as part of the Rural Strategy.

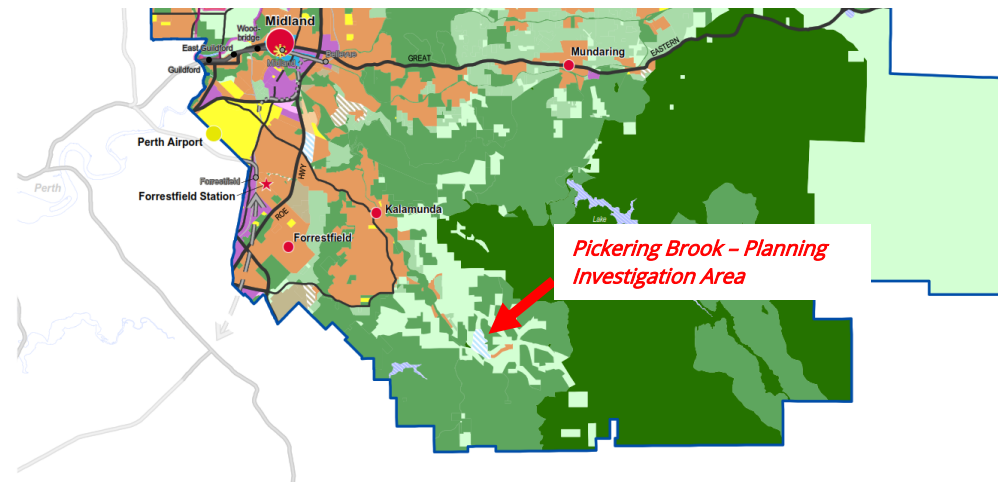


Figure 2. Pickering Brook Townsite Expansion investigation area macro map (NE Framework)

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8.2 Wattle Grove South – WAPC Urban Expansion and Investigation Area

The Framework has identified a significant portion of an area in Wattle Grove, known by project name as Wattle Grove South, as an Urban Expansion area / Investigation area (refer Fig 3). In July 2018, the Council considered a preliminary feasibility investigation over the area to determine the appropriate path forward for future planning, technical investigations and community consultation. In February 2019, the Council resolved that the City would not consider any industrial land use outcomes for the area. Further to the Council decision, the area for analysis was also expanded slightly to include some properties north of Welshpool Road east (refer Fig 4).

Depending on the outcomes of community consultation, environmental investigations and concept planning, the preparation of a strategic District Structure Plan may be initiated. The objective for this area identified in the Framework is to retain landscape characteristics and vistas, retain ecological linkages, manage bushfire risk and investigate service requirements.

Figure 3. Wattle Grove South Investigation Area (NE Framework)

Wattle Grove South desktop projections based on 280ha (400ha minus 30% equal to 120ha for roads, POS and drainage).

Scenario 1: Estimated 15 households per hectare and 2.6 persons per dwelling = 4200 households = 10,920 persons

Scenario 2: Estimated 10 households per hectare and 2.6 persons per dwelling = 2800 households = 7280 persons

Scenario 3: Estimated 5 households per hectare and 2.6 persons per dwelling = 1400 households = 3640 persons

Scenario 4: Estimated 2 households per hectare and 2.6 persons per dwelling = 560 households = 1456 persons

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The future direction of Wattle Grove South is dependent on the outcomes of community engagement, concept and detailed planning. For the purposes of the LHS, a range from Scenario 1 – Scenario 4 has been used to calculate potential dwelling estimates in section 5 – Housing Density Target Results. Note these are desktop estimates only and may vary subject to detailed planning and the results of community consultation.

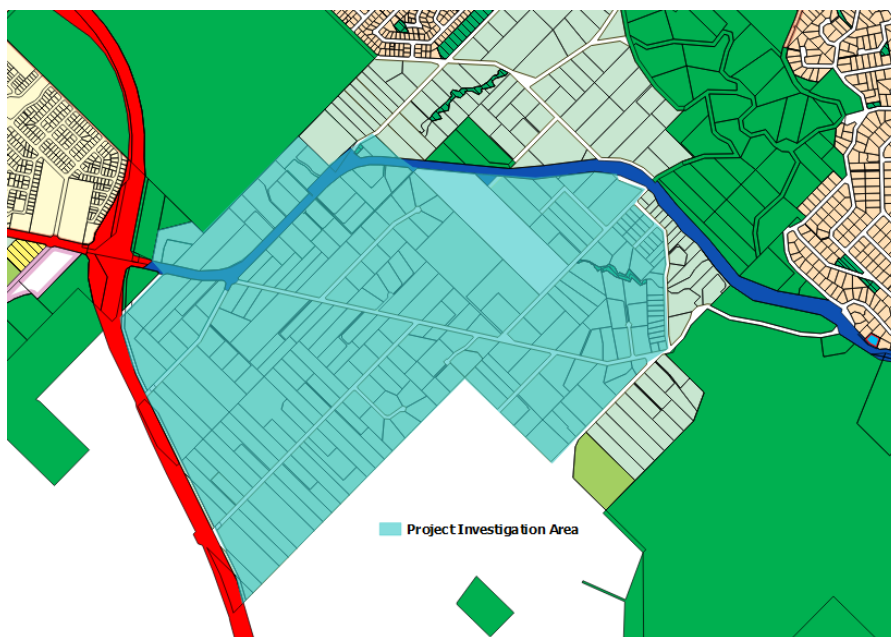


Figure 4. Wattle Grove investigation area (based on Council and community engagement)

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8.3 Forrestfield North Project Area

Figure 5. Graphical representation of Forrestfield Airport Link train station. (Source: Metronet, 2019)

The Forrestfield North District Structure Plan (DSP) area incorporated an area of 264.1ha. The DSP area has been divided into three sections for simplicity;

1. the Transit Oriented Development (TOD) Precinct,
2. the Residential Local Structure Plan (LSP) precinct (123ha), and
3. the Industrial precinct which historically formed part of Stage 1 of the Forrestfield/High Wycombe Industrial Area. Refer Figure 6 for a map showing the allocation of the three precincts.

Currently, construction of the Forrestfield North train station is well underway and anticipated to be completed by the end of 2021 (refer concept of station entry Fig 5). In June 2019, the State Government announced the then Metropolitan Redevelopment Authority (now Development WA) is to be involved in the planning of the TOD precinct immediately adjacent to the train station with a Metropolitan Redevelopment Area (MRA) to be placed over this precinct. By placing the MRA over the precinct Development WA will have planning control of the precinct.

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Figure 6. Map showing the precincts in Forrestfield North development area.

The Residential LSP for the area was endorsed by Council at the Special Council Meeting on 3 December 2018 and is in the process of being finalised for approval with the WAPC. The Stage 1 Forrestfield/High Wycombe Industrial Area is approximately 50% developed and has required road widening/extensions to facilitate industrial development.

The City is in the process of finalising of the Transit Oriented Development Precinct LSP (TOD LSP) so population and dwelling projections can be calculated. The TOD LSP will likely feature medium/high density residential, commercial, existing industrial and mixed-use developments.

Desktop projections for Forrestfield North:

Residential Precinct dwelling projections currently predict a population growth of 6,339 dwellings which equates to approximately 14,053 persons.

District Structure Plan predictions estimated up to 11,550 persons between the two precincts. This number is likely to be exceeded.

Forecast id predicts a 2036 population for Forrestfield North of 6,613 persons.

Population and dwelling growth predictions for the TOD precinct will be reviewed further as part of the finalisation of the LSP.

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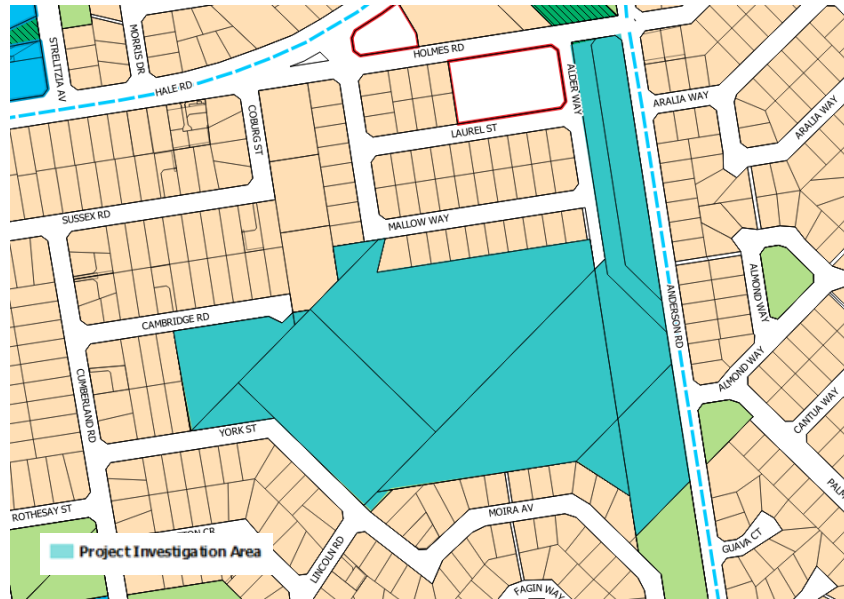
8.4 Cambridge Reserve – Project Area

Figure 7. Cambridge Reserve investigation area

Cambridge Reserve Enhancement Project proposes to transform Cambridge Reserve (currently classified as a passive open reserve – refer Fig 8) into improved public open space, with a portion proposed to be rezoned for residential development and aged care purposes.

In 2012/2013, the City undertook technical investigations to explore the requirements of developing a portion of Cambridge Reserve for the purposes of residential development and improved open space.

Cambridge Reserve is approx. 11 ha of Local Open Space located between Anderson Road, York Street, Cambridge Road, and Mallow Way in Forrestfield (refer Fig 7). The project also includes a portion of the power easement to the east (approx. 2ha).

Local government may, with the approval of the Minister for Lands (Minister) and Department of Planning, Lands and Heritage (DPLH) transfer certain recreation reserves for development purposes and apply the proceeds from rezoning and development to capital improvements in the general locality. The



Figure 8. Aerial map of Cambridge Reserve

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In 2017/18, the City decided to revisit the project and engaged planning and design consultants to revise the concept with the intent of providing an aged care component to the project and revise the concepts for landscape improvements which are less maintenance intensive and more sympathetic to the natural environment.

The Concept Design was released to the public for comment in early July 2018. Community submissions were reviewed and the Concept Plan modified accordingly. The Council resolved to adopt the final Cambridge Reserve Community Enhancement Concept Plan and initiate the transfer process at the Ordinary Council Meeting 26 Feb 2019. All funding from the development will be directly invested in the reserve itself and surrounding reserves / facilities in the locality.

Since Council resolved to endorse the Concept Plan, the City has forwarded the application to the DPLH to initiate the transfer process. In 2019, on the advice of DBCA the DPLH requested further information and the City is undertaking this work concurrently with supporting technical studies including hydrology, flora and fauna, and a bushfire management plan which will support and inform the final concept plan.

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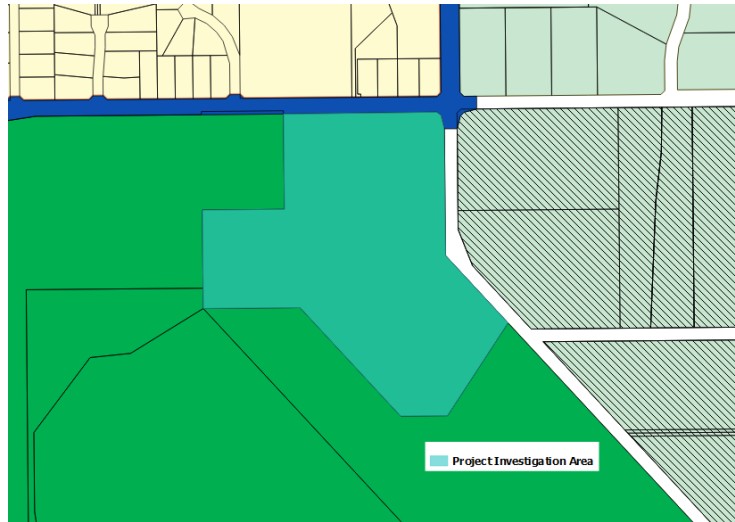
8.5 Heidelberg Park – Project Area

Figure 9. Heidelberg Park investigation area

The community consultation results showed a preference for the site to be used for aged care and public open space improvements. In December 2019, the City requested the WAPC to initiate an MRS Amendment to re-zone the cleared north-east portion of the site from Parks and Recreation to Urban to enable an aged care site, whilst retaining the bushland portion to the west as Parks and Recreation (refer Fig 9).

Heidelberg Park is located at the corner of Canning Road and Pomeroy Road in Carmel at the address Lot 800 (420) Canning Road (refer Fig 10). The site is currently zoned 'Parks and Recreation' under the MRS and has no LPS3 zone. The park is owned by the State Government but managed by the City.

A 2011 report by Hester Property Solutions indicated the lot was underutilised and had potential for alternative uses. Following the preparation of numerous technical reports, the City conducted community consultation in June 2019 to determine how the area should be improved or enhanced.

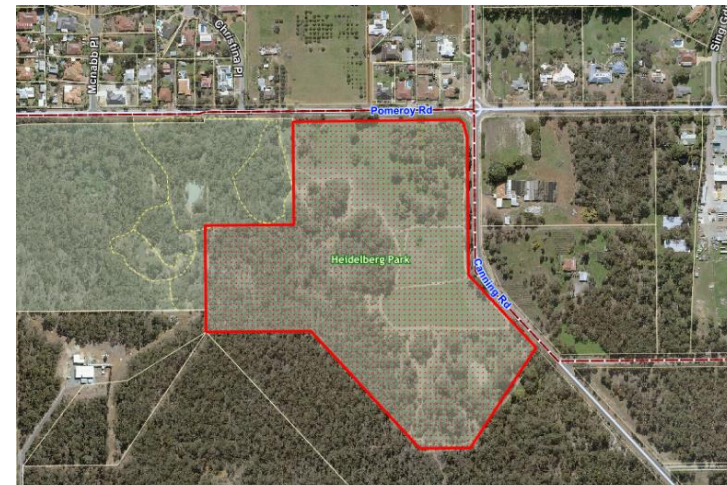


Figure 10. Aerial photograph of Heidelberg Park, Carmel

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9. Potential Future Investigation Areas

The following investigation areas have been identified as potential opportunities for strategic planning, further investigations and further community engagement:

9.1 Hillview Golf Course – WAPC Planning Investigation Area



Figure 11. Hillview Golf Course investigation area (NE Framework)

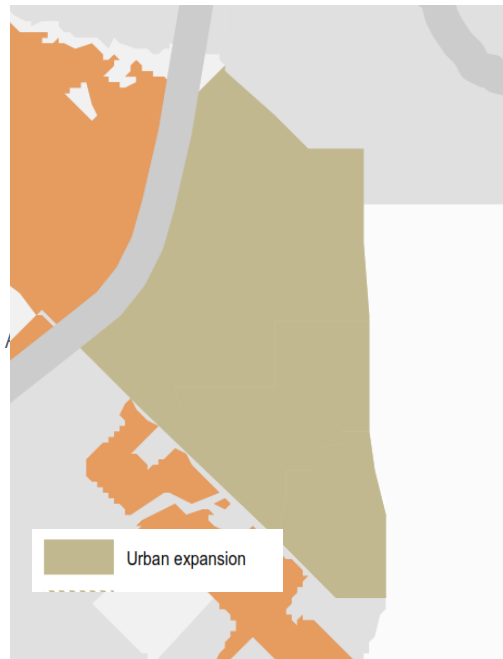


Figure 12. Aerial showing location of Hillview Golf Course

The Hillview Golf course has been identified by the Framework as a planning investigation area (refer Fig 11). The key considerations for the investigation area are the regional recreational needs analysis and land tenure. The site is located adjacent to Roe Hwy and in close proximity to Perth Airport. The site is also positioned between existing residential areas, is accessed via residential roads and in close proximity to a primary school and a significant regional sporting precinct (refer Fig 12).

The City's position on the future land use for Hillview Golf Course will be determined following planning investigations, further information to be provided by the DPLH and consideration by Council and comprehensive community consultation at an appropriate time.

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9.2 Maida Vale South – WAPC Urban Expansion Area

An area south of Maida Vale and in the north-east area of Forrestfield has been identified in the Framework as an Urban Expansion area (refer Fig 13). Most of the land parcels are zoned Rural under the Metropolitan Region Scheme (MRS) and have been subject to rural and semi-agricultural type uses since the 1980's. As such, much of the land may have been cleared of endemic vegetation or degraded, although in some instances pockets of high quality vegetation may still exist and, where appropriate, may be protected through the planning process. Other aspects such as the extension of sewer, natural waterways or wetlands, and geology will also influence the feasibility of future development in this area.

While the City is yet to receive any formal requests to amend the LPS3, or to progress a Structure Plan for the area, progression of the necessary technical studies and documents have been progressed by the private sector. In this respect, any future requests to amend the MRS and/or LPS3 will need to be supported by appropriate environmental and other supporting technical investigations.

Figure 13. Maida Vale South investigation area (NE Framework)

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Based on an area of 175ha, three scenarios were generated for Maida Vale South which give estimated population projections depending on which density is applied.

Desktop projections based on 175ha.

Scenario 1: Estimated 20 households per hectare and 2.6 persons per dwelling = 3,500 households = 9,100 persons

Scenario 2: 15 households per hectare and 2.6 persons per dwelling = 2,625 households = 6,825 persons

Scenario 3: Average of 450m² lots (175ha – 30% for roads, POS and drainage) and 2.6 persons per dwelling = 2,722 households = 7,077 persons.



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9.3 The Glades – Investigation Area

Figure 14. The Glades investigation area

Community consultation and site analysis is required to inform future opportunities in the area with consideration to the following factors; location near an activity centre, access to public transport, access to and capacity of the sewerage network, tree canopy cover, larger lot sizes, aged care provision and the general character of the area.

An action to undertake community engagement on The Glades to explore possible opportunities has been included in Section 4 – Summary of Strategies and Actions.

As part of the City's Dual Density investigations, the area around Neighbourhood Activity Centre 121-123 Canning Road, Kalamunda, also known as The Glades, was identified as having the potential for dual density (refer Fig 14 and 15). Lots north of the Glades shopping centre and adjacent to Canning Road we rezoned R20/R30 as part of Scheme Amendment 82.

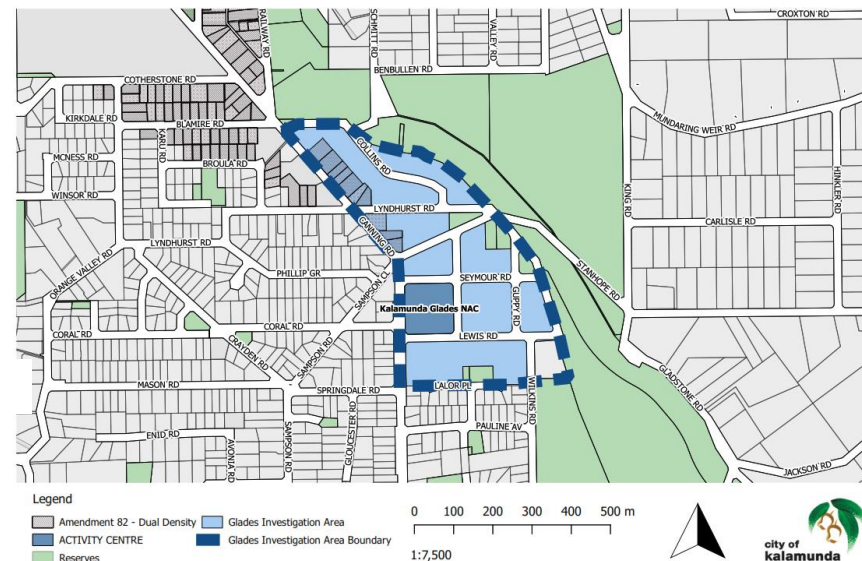


Figure 15. The Glades investigation area

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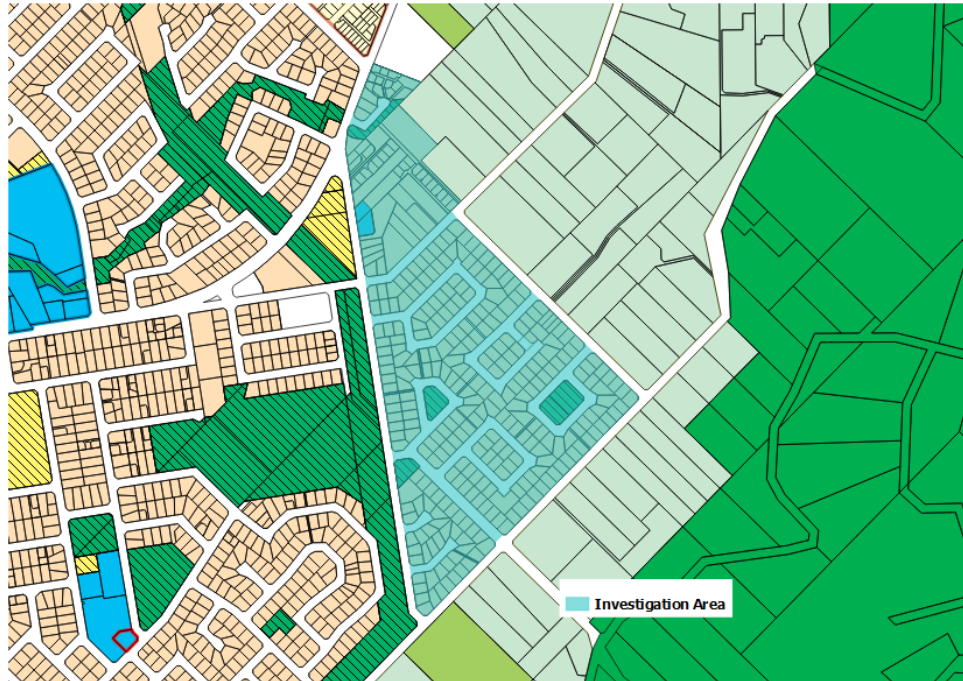
9.4 Forrestfield Dual Density – Investigation Area

Figure 16. Forrestfield Dual Density investigation area

The suburb of Forrestfield has already been identified as suitable for rezoning as a result of the Dual Density areas (refer Map 5 – Dual Density Areas). An area to the east of Anderson Rd, bounded by Wandoo Road and Lewis Road, which is zoned R20, connected to sewer presents an opportunity to be included in the Dual Density area. The average lot size is predominantly 700 – 999m² and the area is currently about 95% developed with residential houses. The housing stock age is predominantly pre-1980s with small pockets aged 1980 – 2000 which shows it may be reaching an age suitable for re-development.

When the progress of the Dual Density is reviewed, this area will be included in the review (refer Fig 16). The review will provide a recommendation as to whether the Dual Density zoning should be extended to include these properties or remain at the current zoning. Part of the investigation will also include engagement with landowners.

An action to investigate this Forrestfield area, including community engagement, for potential dual density has been included in section 4 – Summary of Strategies and Actions.

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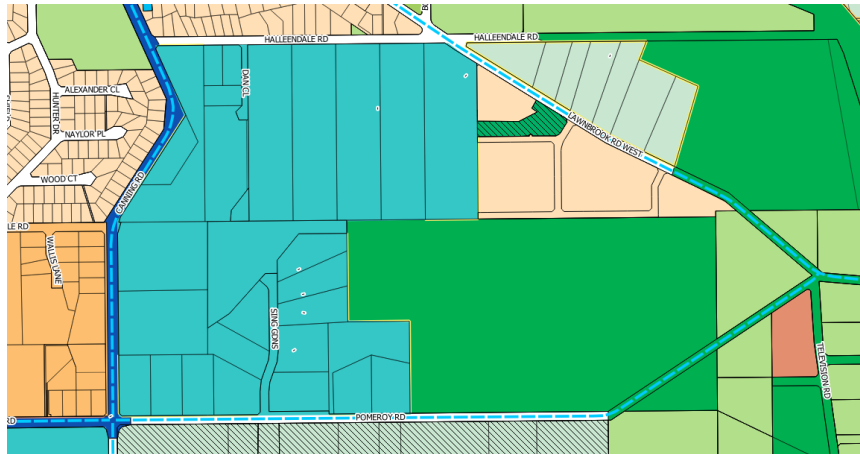
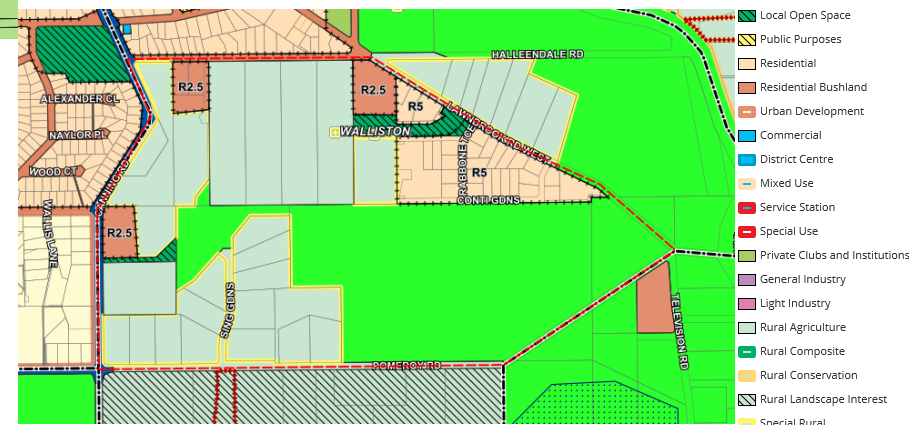
9.5 Halleendale Road, Walliston – Investigation Area

Figure 17. Halleendale Road investigation area

Next steps for the area include community consultation with landowners to determine future land uses in this area and their aspirations. It is considered that development within this area will be primarily driven by landowners, who will be required to provide supporting documentation and formal requests for rezoning prior to any further planning being undertaken. It is considered an overarching Structure Plan or guiding plan may be appropriate for the area to coordinate the delivery of Public Open Space and appropriately manage drainage and required road network through the area. The Metropolitan Region Scheme will also be required to be amended from 'Rural' to 'Urban' to facilitate any residential use.

Some landowners along Halleendale Road and Dan Close have previously approached the City to explore development opportunities within the area (refer Fig 17). The lots in this area are currently a mixture of Special Rural and Residential R2.5 coding. Council previously approved the development of a pocket of R5 coded land (the Conti Gardens Estate) adjacent to this site (refer Fig 18). In this regard, the area has been subject to encroaching urban development for a number of years.

Figure 18: LPS3 zoning map of Halleendale Road investigation area.



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9.6 Rural Zoning Rationalisation – Project

The current Local Planning Scheme No. 3 (LPS3) was first developed in 2007 which sets out the zoning for all properties in the City. Over the years, there have been many amendments to the Scheme to keep it updated, however it is now due for review because in 2015, the *Planning and Development (Local Planning Schemes) Regulations* (the Regulations) came into effect. Schedule 2 – Deemed Provisions of the Regulations provides a framework for zoning to improve consistency of zoning across local government areas. This means zoning in the Scheme needs to be rationalised, simplified and brought into alignment with the Regulations and other State Planning Policies and Position Statements. Amendments of a Local Planning Scheme are also required to be reviewed and consolidated every five years in accordance with Div 5; Section 88, Part (2) of the *Planning and Development Act 2005*.

The Hills Rural Study 2014 also recommended the rationalisation of rural zones and that a Priority Agriculture Zone be introduced to protect land which is deemed to be of State, Regional or Local significance for food production. The Pickering Brook Working Group and Taskforce is investigating and updating Priority Agriculture areas as well as analysing factors such as bushfire risk, public drinking water considerations, tourism and diversification opportunities, and future expansion of the Pickering Brook Townsite. These factors will all be taken into consideration when the rural zoning rationalisation is reviewed as part of the City of Kalamunda Rural Strategy and having regard for the recommendations from the Working Group and Taskforce.



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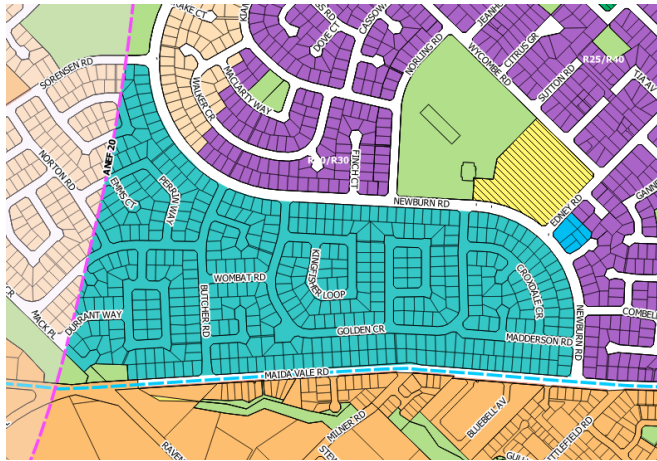
10. Areas no longer under investigation**10.1 High Wycombe Investigation Area**

Figure 19. High Wycombe Investigation Area

The original study area of Forrestfield North identified a residential area north of the future train station containing approximately 380 lots within the suburb of High Wycombe for investigation (refer Fig 19 and 20). This area was initially identified in Amendment 82 – Dual Density Areas but was removed when the amendment was initiated in October 2015 due to the announcement of the Forrestfield-Airport Rail Link. There was a need to fully consider the appropriate density and development outcomes in the area, given its proximity to the new station.

Having regard to the proximity to the future train station, it is considered that there may be merit in considering higher densities in this area in the long term, however at the current time the area is not considered suitable for rezoning investigations for the following reasons:

1. The age of the housing stock within the area ranges between 1980's-2000's with dwellings that are positioned in a way that would require demolition in order to subdivide and redevelop. In this regard, most of the houses are established and halfway through the typical useful lifespan of a dwelling and are not generally ready for renewal.
2. The uptake of the re-zoned residential areas in Forrestfield North is currently unknown.
3. There are extensive areas of dual density that have not yet taken the opportunity to develop at the higher density code in close proximity.
4. There is limited demand for additional dwellings given current investigation areas will likely meet or exceed State Government targets.

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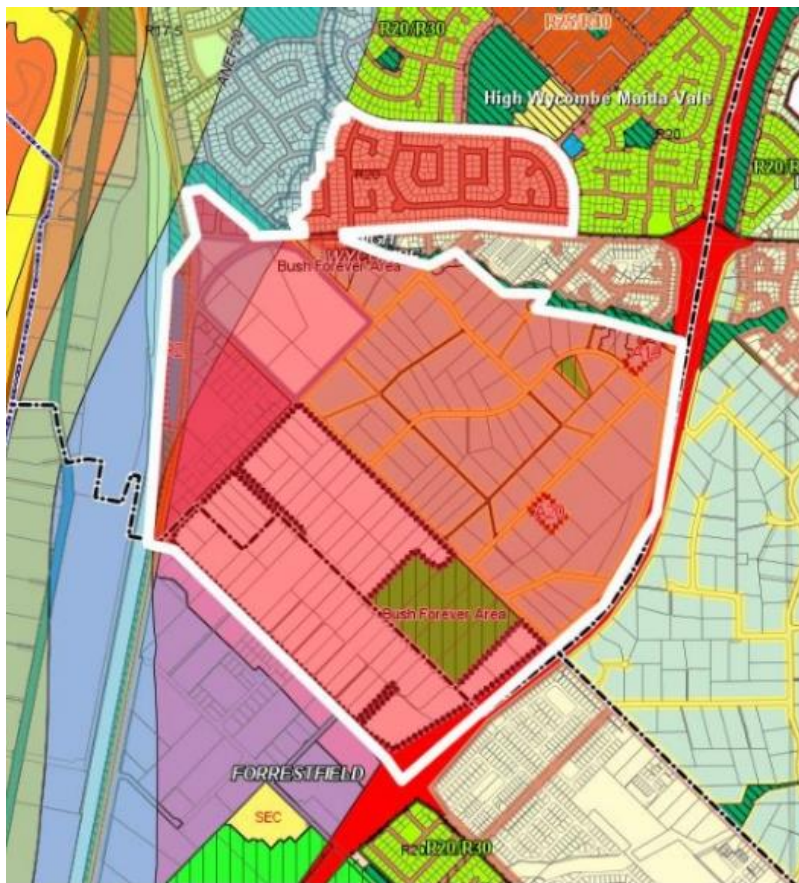


Figure 20. Map showing the original study area of Forrestdale North.

It is envisaged that a review of the area would be a long-term initiative for consideration in the next Local Housing Strategy, subject to finalisation of the train station, the progress of Forrestdale North, uptake of Dual Density coded areas and demand for housing in the general locality. Changes to the investigation boundary may occur due to updated ANEF contours as a result of the Perth Airport proposed new runway (refer section 18 – Development Constraints).

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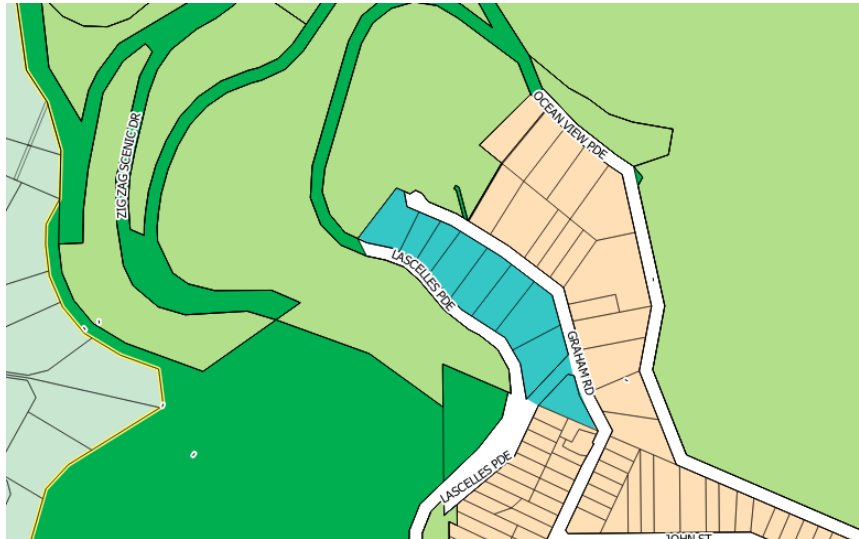
10.2 Graham Road and Ocean View Parade, Gooseberry Hill

Figure 21. Graham Road, Gooseberry Hill investigation area

Scheme Amendment 14 which included Lot 1, 2, 293 and 295-300 Graham Road, Gooseberry Hill (refer Fig 21) proposed higher residential density, however was refused by the Minister for Planning on the 17 August 2017. These lots are currently R2.5, with the intention to rezone to R5 or R10 to align with the zoning of properties further south. The reason for refusal was because the amendment proposed to increase density and therefore risk to persons and property in a bushfire prone area, which was deemed inconsistent with State Planning Policy 3.7 Planning in Bushfire Prone Areas.

The determination was not supported as per section 87 of the *Planning and Development Act 2005* and the determination could not be reconsidered or rescinded. Due to the decision by the Minister, it is therefore recommended that this area will no longer be investigated for development purposes due to the inherent bushfire risk and decision of the Minister.

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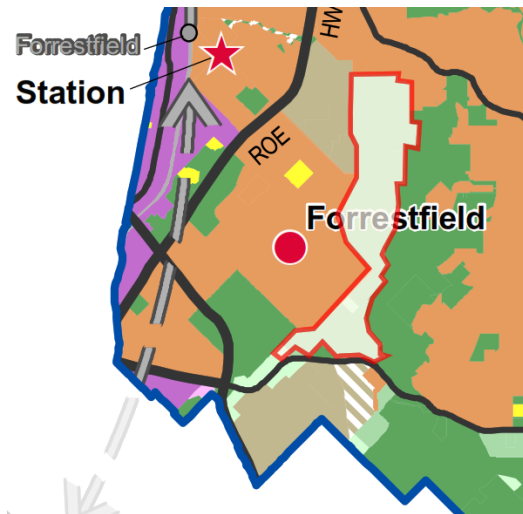
10.3 Foothills Investigation Area

Figure 22. Location of Foothills Investigation Area which is no longer under investigation.

At the foothills of the Darling Scarp, most of the land is zoned rural under the MRS and does not have reticulated sewer. The lots in this area are larger and generally special rural or residential lifestyle lots, yet are located within relatively close proximity to activity centres. A Structure Plan was adopted which included the area in 1992 which made various recommendations for industrial, rural and urban land uses (refer Fig 23). The City's previous Local Planning Strategy adopted 2013 further identified key areas of land east of Hawtin Road in Maida Vale and Forrestfield as part of a Foothills Investigation Area. However, this area was not supported by the WAPC in the release of the NE Framework 2018 and was not identified for urban expansion or investigation purposes. Instead Maida Vale South and Wattle Grove South are identified in the Framework as Urban Expansion or Investigation areas within this region.

There may be merit in retaining the 'Foothills' areas as a 'green belt' buffer to Mundy Regional Park and be retained primarily as rural-residential lifestyle lots.

Retaining a rural-residential outcome through this area would enable the retention of lifestyle lots and contribute towards diverse lifestyle opportunities in the City. This would also assist with managing 'landscape scarring' which refers to the effect when rooftops encroaching into the view of the hills as seen from the Swan Coastal Plain. This is particularly relevant as the area has limited access to servicing infrastructure and has bushfire planning and topographical constraints. Due to the investigation areas such as Forrestfield North, Maida Vale South and Wattle Grove South, there is no requirement to investigate opportunities in the rest of the Foothills area to meet housing targets.

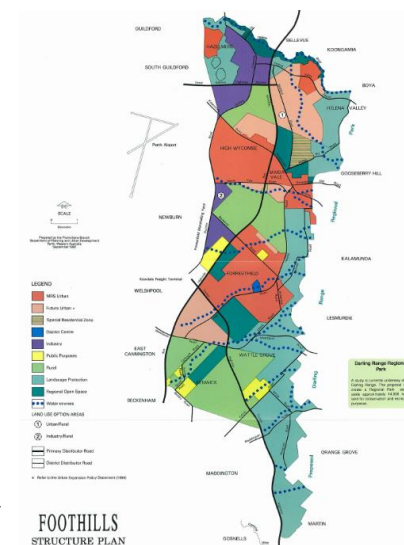


Figure 23. Foothills Structure Plan 1992

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11. Affordable Housing

The Department of Communities has developed an Affordable Housing Strategy in 2010, which was originally driven by increases in population and a sharp increase in housing prices. The strategy acknowledged these issues and identified actions to provide new opportunities to low and moderate income groups, with a goal to provide 30,000 affordable homes by 2020. It is considered that the City will undertake an investigation into the ways in which such housing can be facilitated within the City of Kalamunda, though the predominant work in this regard will be driven by landowners and developers.

The rationale for the locations of increasing densities within the City have taken into account the draft State Policy document Liveable Neighbourhoods (2015). Specifically, Objective 7.1 of Element 1 – Community Design which states as follows:

“Provide higher-density housing in areas close to activity centres (neighbourhood and above), high frequency public transport, and public open space through a mix of housing types and lot sizes to support self-contained activity centres and facilitate an increase in the use of public transport, walking and cycling.” (WAPC, 2015)

Design Principle 6 of Liveable Neighbourhoods outlines that providing a variety of housing density and diversity will meet changing community needs and facilitate housing affordability within the area. These density changes are dependent upon the location and surrounding area context, which includes the provision of public transport and other services as noted above.

12. Accessible Housing

It is important to consider how current housing stock meets the needs of a diverse community and whether housing can be improved to be more accessible to those with different needs and abilities. In 2018, the Australian Building Codes Board (ABCB) developed the Accessible Housing Options Paper (Options paper). The Options paper provided estimated costings for the possible inclusion of minimum accessibility standards for housing in the National Construction Codes. Submissions on the paper were collected between September and November 2018 and a total of 179 submissions were received. The next stage of this project is to develop a Regulation Impact Statement (RIS) which will provide an analysis of the findings and make a recommendation for or against the regulation of housing accessibility in Australia. The intention of this project is to consider whether changes to the National Building Construction Codes would help make standard housing more accessible to people with varying abilities, and whether it would be financially feasible to implement.

You can find out more about the Options Paper and subsequent progress via the ABCB website here: <https://www.abcb.gov.au/Initiatives/All/Accessible-Housing>

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13. Aged Accommodation

The City of Kalamunda Aged Accommodation Strategy 2016 prepared by MacroPlan Dimasi on behalf of the City found in 2016 there was 4,950 residents between 65-84 and 390 residents 85 or older. In the next ten years this will increase to 5,580 residents and 570 residents respectively. Two thirds of the buyers are predicted to be couples, and the rest predominantly single women.

Since 2006-2011 there was an appreciable shift in the proportion of residents 55 years or older which rose from 21% in 2001 to 26.7% in 2011. This equates to an increase of approximately 4,372 people. Figure 24 shows the age distribution from 2001 to 2011. For comparison the proportion of residents in Western Australia aged 55 or older increased at almost half this rate, from 20.2% to 23.8%. Figure 25 shows the distribution of retirement villages and aged care facilities in the City in 2016, which indicates a lack of facilities in the hills region to support residents ageing in place. This can be compared to Table 7 which outlines current aged care facilities in the City and estimates projected numbers based on recent or pending development approvals.

Table 7: Snapshot of aged care facilities in 2020

Facility, Address and Owner	No Beds Provided
Sunshine Park (Baptistcare) Brady Rd, Lesmurdie	36
Parry House (Amana Living) Warlingham Dr, Lesmurdie	40
Villa Maria (Mercy Health) Lesmurdie Rd, Lesmurdie	36
Donovan Village (Southern Cross) Lewis Rd, Forrestfield	65
Valencia Nursing Home Valencia Road, Carmel (Roshana Pty Ltd)	66
Total existing beds	243
Existing approvals (but not yet built)	No. Beds Proposed
Gavour Gavour Rd, Wattle Grove (Ross Leighton)	100
Valencia Nursing Home Valencia Road, Carmel (Roshana Pty Ltd)	120 proposed 66 existing (54 additional)

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Total beds approved but not built	154
Current Development Applications	No. Beds Proposed
Karingal Green Calophylla Way, High Wycombe	160
Parry House Warlingham Dr, Lesmurdie	96 total 40 existing (56 additional)
Potential future beds (pending development approval)	216

Based on Table 7 it is estimated that the City currently contains approximately 243 aged care beds with potential for this to rise to around 613 depending on progress of existing or pending development approvals (refer Table 7). Occupancy rates of existing facilities average at 96% indicating a critical shortfall of facilities within the City and surrounding areas. Given 1,135 persons are estimated to be in non-private dwelling accommodation by 2036 (refer Appendix 3 - 23.2 Age Demographics Table 3.4) there is an estimated shortfall of approximately 892 beds based on a no-change scenario or shortfall of 522 with consideration to potential beds in the current application scenario. See calculations below:

No change scenario

1,135 persons in non-private dwelling accommodation – 243 current beds =
892 bed shortfall

Current application scenario

1,135 persons in non-private dwelling accommodation – 613 existing and proposed beds = 522 bed shortfall

These figures indicate there is still a need to increase the number of aged care facilities to provide for approximately 500 - 900 additional beds by 2036

Key recommendations of the Aged Accommodation Strategy included:

1. That the City not directly undertake retirement or aged care developments;
2. Encourage providers that will utilise City support services;
3. Use Government assets (including State Government land) to encourage retirement living and aged care developments; and
4. Prioritise sites close to existing amenities (shops/public transport) which also helps address social isolation that can occur with typical retirement villages.

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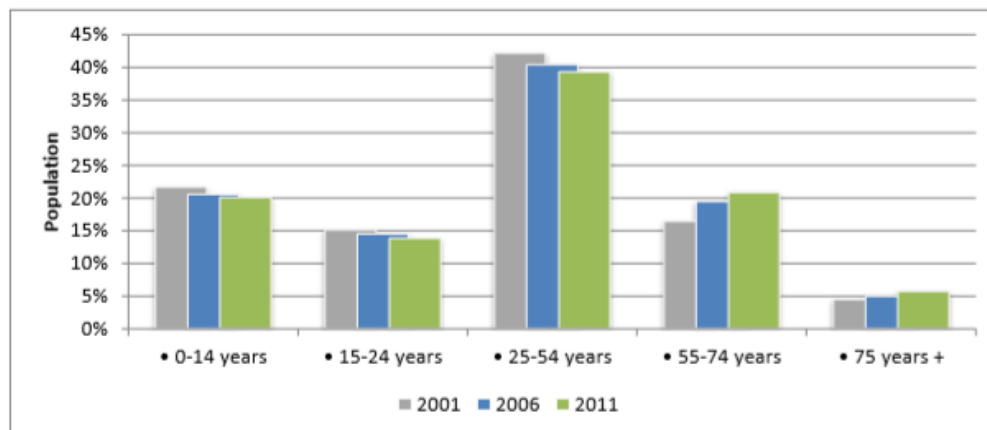


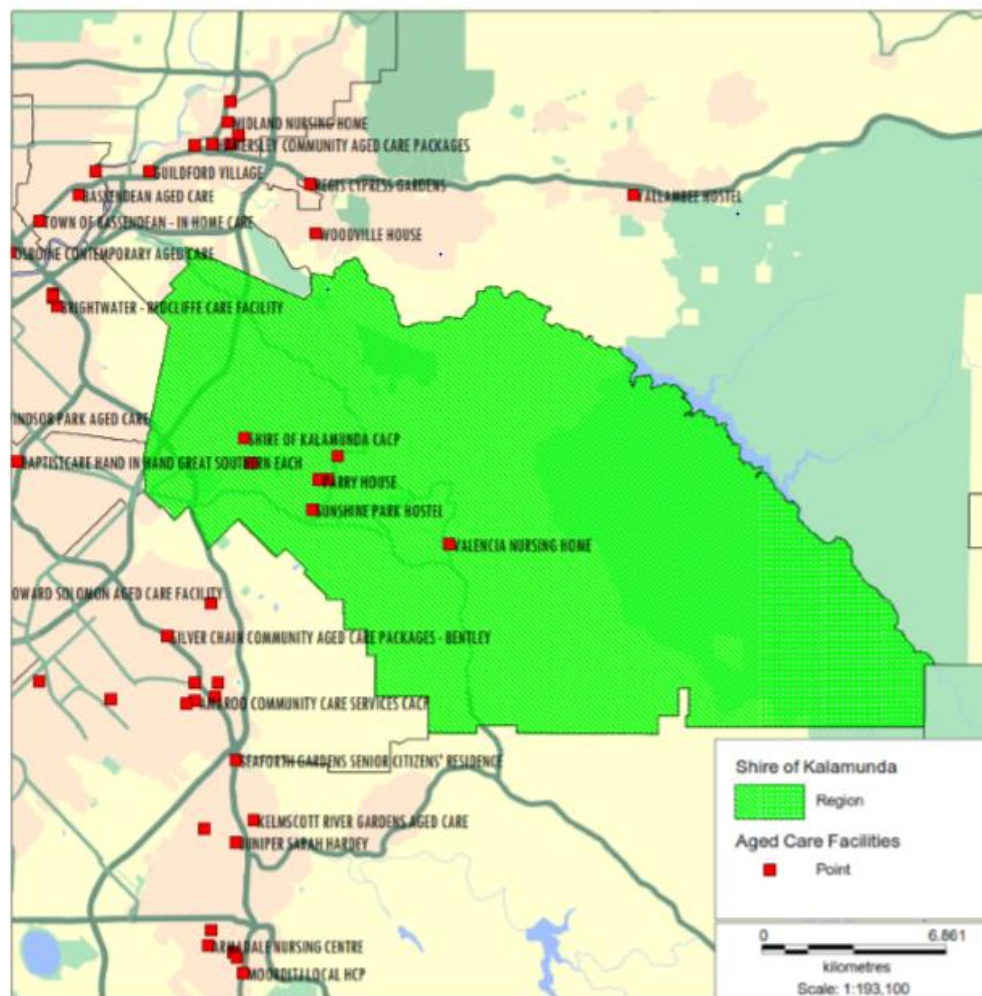
Figure 24: Resident population distribution by age 2001-2011. Source ABS Census 2011.

The City is currently investigating sites suitable for Aged Care Accommodation and cooperating with State Government agencies – refer section 8 and 9 Investigation Areas for more information. Section 14.3 - Intergenerational housing also discusses the benefits of multi-use aged care facilities for boosting social interaction and informal care arrangements.

In October 2019 the WAPC also released a Draft Position Statement on Residential Aged Care which made recommendations for changing land use permissibility in Local Planning Schemes to encourage aged care in a larger range of zones. The draft Position Statement also emphasised a more strategic approach to delivering Aged Care sites including facilitating public-private partnerships. While this general intent to have a strategic led approach is appropriate, further guidance and support is required from State Government on managing the inherent constraints of delivering aged residential care and establishing clear policy guidance to assist local governments with facilitating aged care in appropriate locations.

The City is supportive of efforts to increase or expand Aged Care sites however acknowledges that Aged Care facilities can be quite intensive land uses that require significant supporting infrastructure.

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Source: MacroPlan Dimasi 2015

Figure 25: Map showing the distribution of retirement villages and aged care facilities within the City and surrounds. Current as of 2016.

14. Heritage

Places considered to have cultural heritage significance for the local community are included in the local Municipal Inventory of Heritage Places. A Municipal Inventory is a list of places that, in the opinion of the Local Government, are or may become of cultural heritage significance. The current Municipal Inventory includes individual place records that briefly locate and describe each place, outline its significance and provide a recommendation for the management of its cultural heritage values. The Municipal Inventory also includes a Thematic Framework that outlines the history of the City and is used to assess the cultural significance of places.

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The previous *Heritage of Western Australia Act 1990* was recently replaced by *The Heritage Act 2018*. The *Heritage Act 2018* requires all local government authorities in Western Australia to compile, and periodically review and update, a Municipal Inventory which is now referred to as a Local Heritage Survey. The City and the Kalamunda and Districts Historical Society compiled the current Municipal Inventory in 1996 which was reviewed and updated in 2015, then amended in 2019 to include the Heritage Area – Welshpool Road East Avenue of Lemon Scented Gums. An action to review and update the list after the year 2020 has been included in section 4 - Summary of Strategies and Actions. One of the more notable heritage buildings within the City is the Kalamunda Hotel shown in Figure 26.



Figure 26. Image of the historic Kalamunda Hotel (right) next to the new Kalamunda hotel (left).

15. INNOVATIVE HOUSING

Over the last decade, there has been a noticeable trend towards single storey detached dwellings and house and land packages resulting in the development of large areas with little variation in dwelling diversity or appearance. Profile id (2016) determined that in the Greater Perth area 74.6% of Perth housing stock within the metropolitan region was single detached housing, followed by 19.6% medium density and 5.1% high density housing types. The Profile id statistics show a significant difference between the number of single detached housing and proportion of medium density housing. Recent focus by research institutions and planning authorities on “the missing middle” relating to

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attached streetscapes, also known as terrace housing, has reignited discussion about housing diversity and whether current housing stock meets the needs of the population. The City has already taken steps to improve housing diversity via the Design Guidelines in Dual Density coded areas which require a mixture of dwelling types on lots less than 1000m². As such a key focus of the LHS is to identify opportunities to introduce housing diversity or de-constrain the local planning framework to allow greater creativity and flexibility in housing design.

The following is a breakdown and discussion of community consultation undertaken between November 2018 and March 2019 and at the City of Kalamunda Innovative Housing Expo held Sunday 2nd of December 2018.

Figure 27 shows that out of 75 survey responses 96% confirmed they would consider living in an alternative housing type. In order of preference the survey results indicated people would consider living in tiny homes on wheels (24.5%), following by cooperative housing (13.6%) and micro housing (13.6%), then modular housing (13.1%) and co-living (12%) shown in Figure 28. Surprisingly only 8.1% of respondents were interested in Aged Care which is a key priority for the City, however this is likely because 61.5% of respondents were under the age of 46.

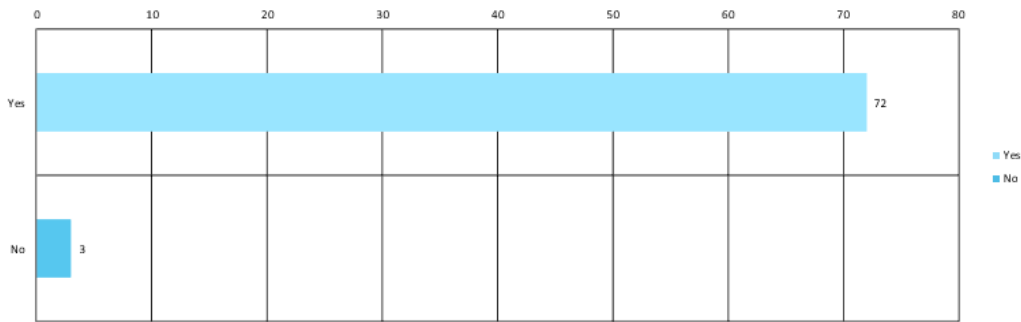


Figure 27. Graph showing how many respondents would consider living in an alternative housing type.

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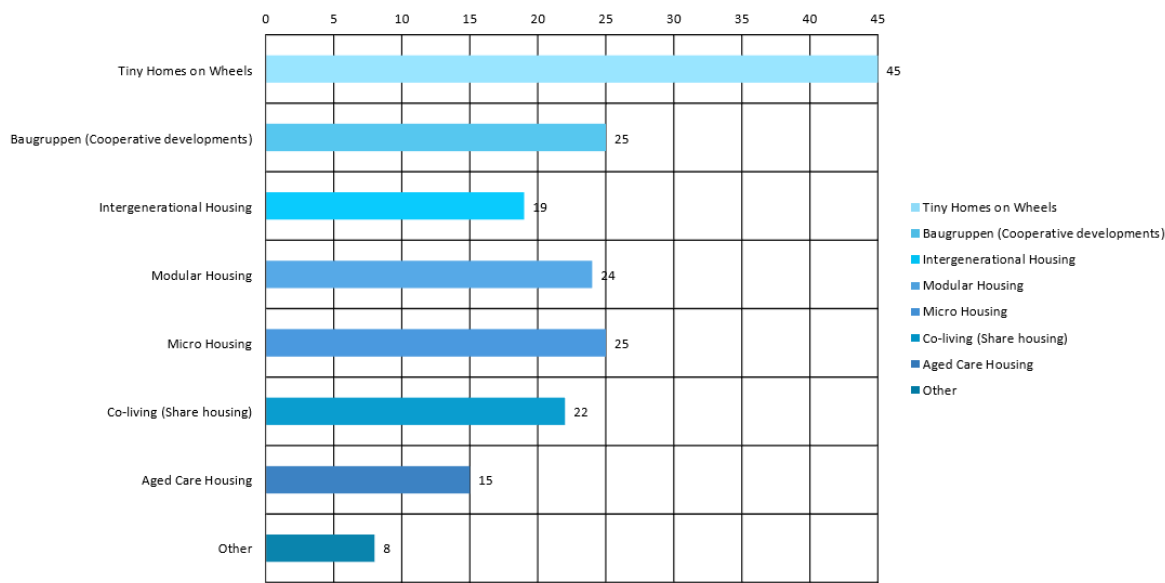


Figure 28. Graph showing the types of alternative housing the community would consider living in.

The types of alternative housing people would consider living in directly correlated with the types of housing people wanted to see more of in the City. The top three types of housing respondents wanted to see more of were tiny homes on wheels, followed by micro-housing then cooperative housing and modular housing (refer Fig 29).

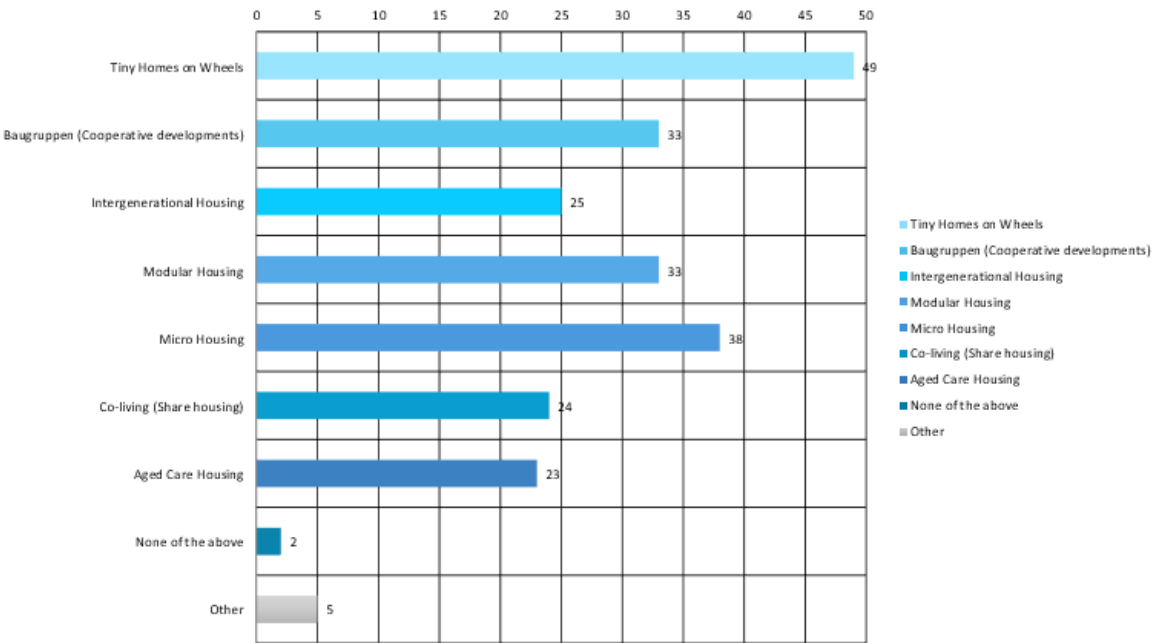


Figure 29. Graph showing types of alternative housing the community would like to see more of.

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Respondents indicated that the main benefits from living in alternative housing would include more affordable living and reduced environmental impact, followed by retention of the urban forest and reduced urban sprawl (refer Fig 30).

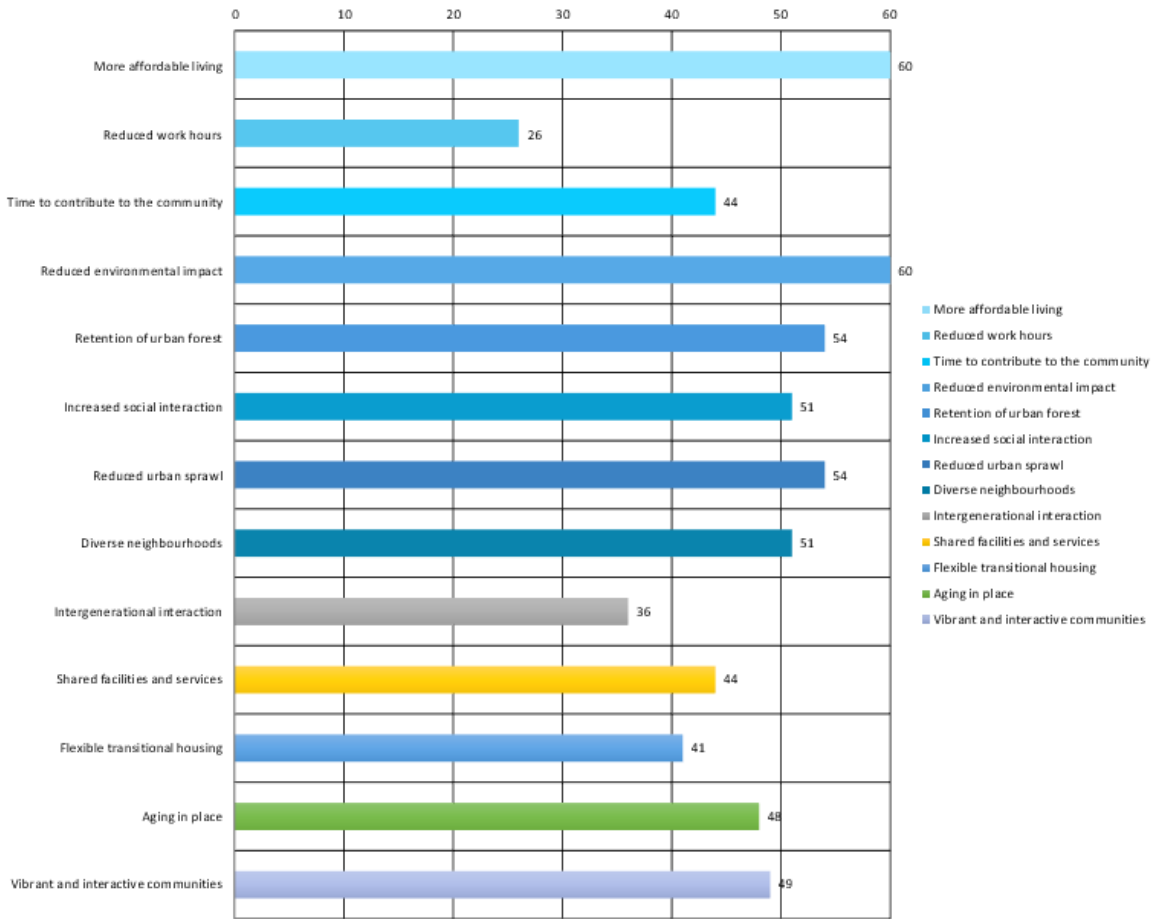


Figure 30. Graph showing community values and priorities

Various types of innovative housing have been explored as potential for introducing housing diversity in the City of Kalamunda as follows:

15.1 Tiny Homes

While there is no formal definition, in the United States tiny houses are considered dwellings which are 400 square feet (37.16m²) or less. The Australian Tiny House Association considers a tiny house as ‘a moveable dwelling up to 50m² suitable for residential use’ (ATHA. 2019). There are two major types of tiny houses to consider,

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permanent and portable. Permanent tiny houses are relatively easy to address as they would need to comply with the National Building Construction Codes as per a regular dwelling. Portable tiny houses, often referred to as THOW (tiny houses on wheels) are habitable dwellings which are built with the character and functionality of a permanent house but are built on a trailer and not permanently fixed to the land (refer Fig 31).

THOW are not a new concept but rather a re-emergence of a culture responding to increased housing costs, financial stress, economic depression, and more recently as an eco-friendly sustainable alternative. The Global Financial Crisis of 2007-2008 spurred the construction of tiny dwellings as unemployment increased, lending decreased and, in some cases, cost of housing became unattainable. Nowadays the tiny house movement has had a resurgence due to growing concern over the increasingly large size of detached housing, overblown housing costs, and a growing movement of conscious consumers choosing to downsize for environmental considerations or for simplicity. The tiny house movement has therefore re-emerged to address a gap in housing diversity and provide a flexible, alternative housing option.



Figure 31. Typical tiny home on wheels. (Photo credit: Stephanie Brokenshire, 2018)

THOW have become popular in Europe, Canada and America and are emerging in Australia as an affordable and practical housing type. As tiny houses are built on wheels, are self-contained and able to be removed from a property they provide a solution to many of the typical constraints to development such as bushfire risk, connection to sewer or effluent disposal in a public drinking water source area and preservation of environment values. As such tiny homes on wheels are considered an innovative housing typology worth investigating.

Other uses for THOW include;

1. primary dwelling;
2. ancillary accommodation;

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3. independent aged care accommodation;
4. tiny house village;
5. tourism accommodation;
6. emergency relief housing;
7. housing for people with travelling careers (ie; travelling nurses and teachers), or;
8. housing for people experiencing homelessness.

In Western Australia portable THOW fit within a 'grey area' of planning regulation as they are technically licensed as a roadworthy vehicle, caravan or trailer, yet unlike caravans are designed to be permanently habitable and often inhabited on the same property for months or years at a time. If classified as a caravan THOW are subject to The *Caravan Parks and Camping Grounds Act (1995)* and *Regulations (1997)* which means an owner cannot live in for more than three days without a permit from the local government, or more than 12 consecutive months with a permit. This means that tiny house owners wishing to legally park a tiny house on a property for a few years at a time would either need to prove they have not been living there consecutively for 12 months and apply for a renewed permit from the local government, or be forced to move to a different local government every year.

Alternatively, if classified as a dwelling THOW would be subject to the *National Building Construction Codes* but many of the criteria conflict, for example; energy efficiency ratings, stair gradients, and bedroom loft ceiling heights. In the hope of obtaining housing security tiny house owners wish to have a way of applying for legal approval to reside on a property for more than 12 months at a time. There may also be potential for tiny house communities where tiny houses can be placed on a property with communal living areas such as a kitchen, studio, workshop, vegetable gardens, or BBQ facilities.

Due to the support shown by the community through consultation, the City of Kalamunda intends to undertake investigations into how best to introduce tiny homes on wheels into the planning context, which may include Local Planning Scheme provisions and/or a Local Planning Policy. In July 2019 the Shire of Augusta-Margaret River similarly announced an intention to include tiny houses within their Local Planning Strategy and to develop a scheme amendment and local planning policy to introduce tiny houses on wheels as a separate housing typology.

15.2 Cooperative Housing

Cooperative Housing, also referred to as Baugruppen, describes developments which are designed and led by residents for residents. They can be not-for-profit and designed to suit the needs of the future residents with a communal, social element. Local examples include award winning projects such as Green Swing in Lathlain and White Gum Valley in Fremantle.

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Green Swing consists of two developments, Genesis and The Siding which was completed in 2017 and consists of two townhouses and five apartments with rooftop outdoor areas, solar energy, bike storage, power outlets for electric vehicles and is in close proximity to an urban orchard (refer Fig 32). The development is located on a 1000m² block zoned R60, 100m from a train station and reported an 80% saving in carbon emissions.



Figure 32. Image of 'The Siding' development by Green Swing. (Source: The Green Swing. 2019)

The Sustainable Housing for Artists and Creatives (SHAC) Eco Village in White Gum Valley offers 12 affordable residential units for local artists, as well as a communal workshop and exhibition space (refer Fig 33). This development delivered by Access Housing is part of the larger Landcorp development which also houses Gen Y demonstration homes amongst detached dwellings, terrace housing and apartments. Among other features the dwellings offer solar energy and battery storage, water tanks, native gardens, and are built to a zero-carbon energy principle.



Figure 33. Image render of SHAC completed construction in 2017. (Source: ArchitectureAU. 2019)

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15.3 Inter-Generational Housing

Another form of cooperative housing is inter-generational housing. It is becoming more common for young people to stay at homes for longer or families to pool resources to develop land or to arrange to have multiple generations of the same family (grandparents, parents, children) living within the same property. This can create issues if the development in question presents as a structure that does not comply with the Residential Design Codes, specifically in relation to increased numbers of bathrooms, laundry's, or kitchens. In some instances the City can assist families seeking this outcome by offering variations or considering these as a 'Use Not Listed' under the Local Planning Scheme. Another approach to intergenerational living includes co-housing elderly people and young people so they can interact for better mental health and wellbeing as well as subsidised accommodation. An example of intergenerational student accommodation would be Cooina Aged Care Centre in Gympie Queensland where six nursing students can apply to live at the village for a reduced rate in return for volunteering to read, play games, cook or organise events for residents (USC 2019). Intergenerational aged care accommodation is a popular model adopted in Europe but still in the early stages in Australia.

Other options include co-locating childcare centres near aged care facilities, a local Perth example of this is Queenslea where assisted living apartments, residential aged care and intergenerational childcare are to be developed on a site in Claremont-on-the-Park starting in 2019 for completion in 2021 (Lucas 2019). A similar joint venture by MercyCare and Georgiou Developments on Cecil Avenue in Cannington is proposed to include a mixed-use development with facilities for aged care accommodation, youth and affordable housing close to a transit-oriented development (TOD) precinct (MercyCare 2019).

The City will review the changing trends in regard to this cultural shift and investigate the possibility of applying provisions to facilitate such development within the City.

15.4 Modular Housing

Modular Housing was the third most popular alternative housing option for residents. This is consistent with the trend towards affordable and transportable housing to provide a flexible alternative. Modular housing could consist of transportable's or 'dongas', retrofitted sea containers, or small units which can be connected to form a larger space. They can be constructed offsite in pre-fabricated panels or designed as a single unit which can be transported and fixed onsite (refer Fig 34 and 35). Modular Housing will likely require no change to the planning framework considering they are already an accepted dwelling type under the *National Construction Codes*. As modular housing is a low-cost option it will be important to ensure they are designed and clad in a material which is complementary to the existing character of the area.

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Modular housing does offer many advantages for modern-day construction however including lower budget, shorter timeframes, simplified construction, bushfire fire rated, use of alternative materials, high energy efficiency and ability to be innovative with design, arrangement and treatment.



Figure 34. Example of a modular home (Source: Archiblox. 2019)



Figure 35. Examples of a modular home. (Source: Modscape. 2019)

15.5 Micro Housing

Micro housing could be considered a dwelling between 50m² and 100m², larger than a tiny house but smaller than a standard house (refer Fig 36). In March 2018 the WAPC released a Draft Position Statement for Housing on Lots Less than 100sqm. The position statement is intended to provide local governments with interim guidance for the location and development of smaller sized lots and mechanisms to ensure consistent application across the state. The position statement mainly focussed on attached streetscape style or terrace style housing however may be applied to detached micro housing or tiny houses on wheels.

The City has included a Strategy to undertake a review of this information and look to drafting provisions to allow such housing typology to be applied for within specific and appropriate areas of the City. Some of the areas where this may apply include Forrestfield North and within local Activity Centres.

Micro housing can be single storey, with a mezzanine loft or contain multiple storeys to maximise the living area whilst reducing the building footprint. One of the key considerations with micro-housing is that due to the limited area on the property these types of dwellings should be located close to larger open space areas, public transport and activity centres.

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Figure 36. Image of a modern style micro-house (Source: DeZeen. 2018)

15.6 People Experiencing Homelessness

The definition of homelessness does not just refer to those living on the street, but also people in shelters, boarding houses, temporary housing (such as couch surfing) or those living in severely crowded houses. In 2018 the Australian Bureau of Statistics prepared a map showing the distribution of homelessness by suburb (ABC News. 2018). Within the City of Kalamunda, Forrestdale and Wattle Grove combined are considered to have the highest number with an estimated 49 people experiencing homelessness (refer Figure 37 – Map showing concentration of people experiencing homelessness). By comparison Perth City was considered to have 641 people experiencing homelessness, while the suburbs of Kalamunda, Maida Vale and Gooseberry Hill combined are considered to have around 29 people.

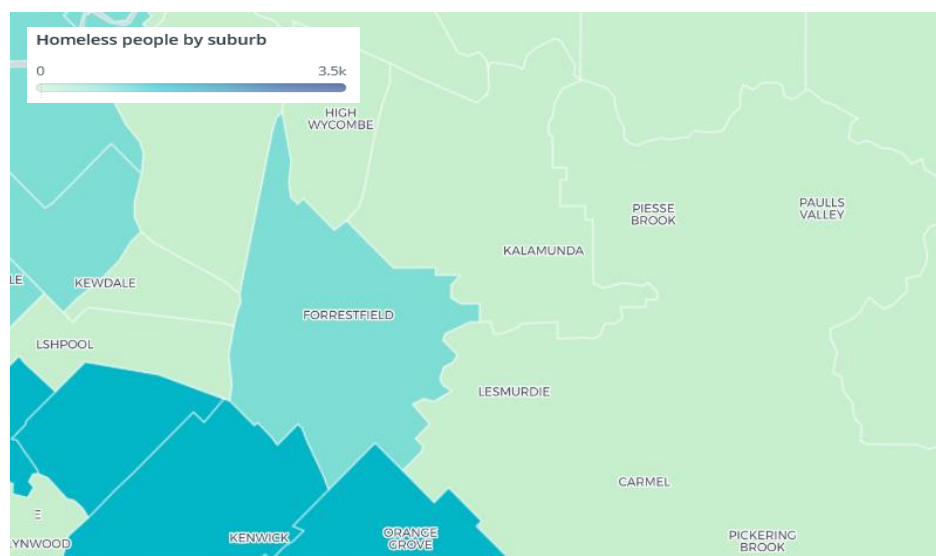


Figure 37. Map showing concentration of people experiencing homelessness (ABC News. 2018)

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In some cases, innovative housing options may be suitable for addressing homelessness. For example, in early 2019 a Launch Housing tiny house village for the homeless was established on vacant VicRoads land in Footscray and Maidstone (refer Fig 38). The village consists of 57 transportable tiny homes for people with a chronic experience of homelessness and is a model which could potentially be applied to Western Australia. An action to investigate ways to support innovative housing has been included in section 4 – Summary of Strategies and Actions 2020, which may be applied to projects to address homelessness.



Figure 38. Image of transportable housing for the homeless in Melbourne, Victoria (Source: Launch Housing. 2019)

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16. Structure Plans and Local Development Plans

Currently the City has 13 Structure Plans (formerly referred to as Outline Development Plans) and 18 Local Development Plans (formerly referred to as Detailed Area Plans) which are in effect, some of which are nearly a decade old and reaching the end of their operational life cycle (refer Table 8).

A structure plan is a spatial plan that coordinate land uses, location and density of housing, road layout, pedestrian and cycle network, public open space, school sites, servicing infrastructure, community purpose sites and activity centre locations.

Local development plans are a planning tool used to control built form outcomes on particular lots, when proponents or local government are concerned about the relationship between lot layout and built form at subdivision and development stage. They are particularly important for lots where design coordination is required to ensure that buildings work for both the private occupier and the surrounding public realm.

16.1 Normalising Structure Plans

A number of the Structure Plans outlined in Table 8 have been identified to be 'normalised' which means amending the Local Planning Scheme to change the zoning of land from the generic 'Urban Development' Zone to be in line with the existing land use for the areas which have been developed. Where areas are undeveloped and a structure plan is outdated and no longer fulfilling its intended purpose, the normalisation process will amend the zoning to reflect the prevailing land use and density of the area or Outline Development Plan/Structure Plan. An amendment to the local planning scheme would rezone the land and the structure plan would no longer be necessary or in effect. This would simplify the planning process for both applicants and the City, reducing the number of planning documents, and associated duplication of requirements being considered during assessment of development and subdivision applications. Accordingly, Normalisation could result in faster approvals and exemptions from the requirement for development approval.

Of the 13 active structure plans 8 are proposed to be normalised into the Local Planning Scheme.

16.2 Spot Structure Plan Amendments

Spot structure plan amendments (spot amendments) refers to proposals that seek to reclassify land use or increase density for an individual lot or a small number of lots within a structure plan.

Often older Structure Plans areas include lower densities than new urban areas. This has resulted from changes to State Government density targets and associated policy responses over time. Some of the City's older Structure Plan areas have provided

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densities across broad areas of land of approximately R20, whereas newer Structure Plan areas generally incorporate higher densities and include provision for diverse housing stock, to maximise the density of population around activity centres, public transport infrastructure and areas of high amenity such as public open space. In the context of a spot amendment within an older structure plan area, often proposals will incorporate higher densities within or directly adjacent to established and lower density residential areas.

Spot amendments are assessed on the merit of the specific proposal, however often these proposals may not be consistent with the expected density, character and built form of the area and may cause challenges associated with building bulk, scale, retention of vegetation, overshadowing or privacy.

More recently the City has experienced an increase in applications for spot amendments to Structure Plans, partly because the process to amend a Structure Plan is faster and simpler than a proposal to amend the Local Planning Scheme.

Structure Plans are determined by the WAPC, having regard to the advice of the City and other matters considered through the planning process (including community engagement). Given the City is not the determining authority for Structure Plans, even if the City does not support a proposed spot structure plan amendment, the WAPC is required to make the ultimate decision, which may or may not be in line with the City's recommendation.

Applications to amend a Structure Plan generally take 6-12 months. Applications to amend a Local Planning Scheme zone generally take over 12 months due to the procedural requirements for processing a scheme amendment request, including referral to the EPA and WAPC, advertising, and ultimately determination by the Minister for Transport; Planning.

By normalising the land use intent and density of Structure Plans into a Local Planning Scheme, applicants seeking 'spot' rezoning in these areas would undergo a more rigorous assessment as a Local Planning Scheme amendment and the City would be in a position to not adopt the amendment where it considers the proposal to be inconsistent with orderly and proper planning. This will likely result in a more consistent and coordinated approach to planning for the City's existing and established urban areas in the future.

Some of the Structure Plans that are recommended to be normalised include relatively small areas of undeveloped land, with the Structure Plan map indicating future roads or public open space that should be coordinated (eg. Forrestfield U7 Outline Development Plan). In these cases, it is recommended that the City investigate, in collaboration with the WAPC mechanisms to coordinate infrastructure as part of the normalisation process, while the land use and density is normalised under the Scheme as outlined above.

A list of current Structure Plans, including the Structure Plans that are proposed to be normalised are outlined in Table 8.

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16.3 Local Development Plans

The City currently has 18 active Local Development Plans. The intent of a Local Development Plan is to set out guidance for future development for site specific development standards. This predominantly relates to variations to the Residential Design Codes, however some of the City's Local Development Plans address noise attenuation, bushfire risk and industrial design standards.

Under the *Planning and Development (Local Planning Schemes) Regulations 2015*, approval of a Local Development Plan should only be revoked if the Scheme is amended so that the development to which the plan relates is a non-conforming use (a use that is no longer permitted by the Scheme). However, some of the City's Local Development Plans were created many years ago and apply to areas that have been developed and established. In those instances, where appropriate development standards are provided for under the LPS3, the Residential Design Codes and Local Planning Policy, Local Development Plans should be revoked. Accordingly, an action has been recommended to investigate the revocation of Local Development Plans that no longer serve a practical purpose.

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Table 8. List of Existing Structure Plans

Structure Plans							
	Current List	To be Normalised	Adopted	Last Modified	Approx. Percentage Developed	Housing Stock	Additional Notes/Recommendation for Investigation
1.	Draft Forrestfield North Residential Precinct	N	Adopted by Council 3 December 2018. Yet to be approved by the WAPC.	2018	Not applicable.	Pre-1980's to 2000 on rural lifestyle lots. Housing stock ready for redevelopment.	New structure plan being prepared. On 10 December 2019 the WAPC requested modifications and resubmission for final approval. The LSP is anticipated to be submitted to the WAPC by mid-2020 for final approval.
2.	The Hales Local Structure Plan, Forrestfield	N	June 2017		30%	Lot size: ~350m ² - 450 ² . Some R60 product adjacent to open space.	Under development. Once all subdivisions have been finalised and developed: a) Normalise residential land in accordance with the structure plan density and land use. b) Public Open Space to Local Scheme Reserve (Local Open Space).
3.	Forrestfield/High Wycombe Industrial Area Stage 1	N	2013	2018	35%	Undeveloped lots are typically rural lifestyle lots. Lots newly developed for light industrial purposes.	Development Contribution Plan and Structure Plan still active. No change proposed.
4.	Forrestfield Industrial Area Structure Plan	Y	2002	2002	95%	Adopted prior to the Forrestfield/High Wycombe Stage 1 Industrial Area. A majority of lots are developed, and structure plan reverts industrial zoning to local planning scheme.	Light Industry and General Industry zone currently identified on the LPS 3 Map. Recommend investigating an amendment to LPS 3 to incorporate development requirements for a suitable buffer to Crumpet Creek and landscaping strip to Berkshire Road.

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						Structure Plan includes a 25m setback to Crumpet Creek and 20m landscape buffer to Berkshire Road.	
5.	Forrestfield U7 Outline Development Plan	Y	1994	2013	70%	Age: 2001 – Present Lot Size: ~450 – 700sqm with portions of 1000sqm+	<p>Normalise all residential land in accordance with the structure plan density.</p> <p>In collaboration with the WAPC investigate normalisation of Landowner Area 4, Lots 18, 21 and 523 (340, 344 and 350) Hawtin Road, Forrestfield as these lots require coordination of road and public open space infrastructure.</p> <p>Regarding the density of Landowner Area 4, given R20 subdivision has already occurred within the R12.5 area, normalise both R12.5 and R20 areas to the R20 density under the Scheme.</p> <p>Align non-residential land uses to be rezoned to the closest corresponding zone under the Scheme as follows:</p> <ul style="list-style-type: none"> a) Forrestfield Christian School to Private Clubs and Institutions. b) Public Open Space to Local Scheme Reserve (Local Open Space). c) The site of the corner of Berkshire Road and Apricot Street to Commercial. d) Child Care Centre at Lot 9000 (4) Warda Crescent, Forrestfield to either Private Clubs and Institutions or Residential. e) Lot 15406 (167) Berkshire Road to Local Scheme Reserve (Local Open Space), or alternative land use following investigation of transfer potential in accordance with the Public Open Space Strategy. <p>Where the structure plan does not currently identify a land use intent, the zone will be</p>

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							retained as Urban Development and a new structure plan will be required in accordance with LPS 3.
6.	High Wycombe Urban Area U2 – Larwood Crescent ODP U2	Y	2012		60%	Age: 2001 – Present Lot Size: ~450 – 700sqm	In collaboration with the WAPC investigate normalisation of Lot 817 (51) Norwich Way, Lot 818 (15) Larwood Crescent and Lot 13 (296) Adelaide Street, High Wycombe, as these lots require coordination of road infrastructure. Normalise all residential lots in accordance with the structure plan density and land use. Align the Public Open Space lots to Local Scheme Reserve (Local Open Space).
7.	Karingal Green ODP U2, High Wycombe	Y	Unknown 2000 -2003		95%	Age: 2001 – Present Lot Size: ~450 – 699sqm	Normalise all residential lots in accordance with the structure plan density. Non-residential land uses to be rezoned to the closest corresponding zone or reserve under the Scheme: a) Residential Aged Care at Lots 265 and 266 (23 and 19) Calophylla Way, Lot 500 (53) Hawkevale Road, and Lot 359 (17) Buttercup Crescent, High Wycombe to Private Clubs and Institutions. b) Recreation Reserve and Drainage Reserve to Local Scheme Reserve (Local Open Space).
8.	High Wycombe Cell U2 Outline Development Plan	Y	2005		100%	Age: 2001 – Present Lot size: ~500-700sqm	Normalise all developed residential lots in accordance with the structure plan density Non-residential land uses to be rezoned to the closest corresponding zone under the Scheme: <ul style="list-style-type: none"> Public Open Space to Local Scheme Reserve (Local Open Space). Lifestyle Village to Private Clubs and Institutions. Village Centre to Commercial. In collaboration with the WAPC investigate normalisation of Lot 13 (562) Kalamunda

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							Road, High Wycombe, and Lot 16 (540) Kalamunda Road, High Wycombe, as these lots require coordination of road infrastructure.
9.	Lot 399 Sorenson Road, High Wycombe	N	2015		N/A	Not applicable. Currently an operating market garden.	Currently an operating market garden and Structure Plan required to coordinate future development and subdivision.
10.	Urban Area U4 Structure Plan	Y	2005	2014	100%	Age: 1980 – Present Lot size: ~500-650sqm	Normalise all residential land in accordance with the structure plan density. Any Public Open Space adjacent to and located outside of the Poison Gully Creek Regional Reserve to be rezoned to Local Scheme Reserve (Local Open Space).
11.	Wattle Grove Cell 9 Outline Development Plan	N	2000	2015	90%	Age: Primarily 2001- Present with some remaining Pre-1980's Lot size: ~400 – 700sqm	Subject to shared infrastructure costs pursuant to Schedule 11 of the Scheme. Residential areas are largely built out. Some larger mixed use lots and sections of residential remain undeveloped. Recommend retaining until outstanding lots have developed to finalise infrastructure cost sharing arrangements.
12.	Maida Vale Cell 6 U6	Y	1995	2015	90%	Age: Mixture of 2001 – Present day and 1980 - 2000 Lot Size: ~450 – 700sqm, with pockets of both 1000sqm+ and 450sqm or less	Normalise all developed residential land in accordance with the structure plan density and land use. Align non-residential land uses to be rezoned to the closest corresponding zone under the Scheme: a) Neighbourhood Centre to Commercial. b) Public Open Space to Local Scheme Reserve (Local Open Space).
13.	Canning Location 311 Structure Plan (August 2014)	Y	1980	2014	95%	Age: Mixture of 2001 – Present day and 1980 – 2000 Lot Size: 2000-4000sqm	All lots developed except Lot 6 Pomeroy Rd which is a 2.8ha lot. Normalise entire area by rezoning to Residential R5 under the Scheme. The structure plan map shows building envelopes and effluent disposal envelopes as this is known flood risk area. Through the normalisation process, investigate other

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							mechanisms to manage the building envelopes and effluent disposal envelopes through appropriate scheme, policy or Local Development Plan provisions.
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For more information refer Map 6 – Structure Plan Areas.

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17. TRANSPORT**17.1 Transport Corridors**

Currently public transport options for residents only includes bus services, however the construction of Forrestfield Airport Link train station launched in 2017 will increase the opportunity to connect with Perth Airport, Perth City, and inner metropolitan areas. The train station will provide direct links to suburbs connected by rail improving mobility of residents and decrease reliance on private vehicles. Having a direct passenger rail connection is also anticipated to assist with visitation and tourism rates to the City as bus services will provide direct connections between the train station and local activity centres.

As the City is experiencing multiple investigation areas which may result in increased housing and commercial precincts, the road network will need to account for increased traffic volumes and the potential effects on lane capacity and intersection level of service. In particular, on district road connectors owned by Main Roads but under the management of the City of Kalamunda. Currently all large-scale developments are required to provide a Traffic Impact Assessment or Statement if it is considered to impact local roads, and provide parking as required by the Local Planning Scheme.

17.2 Cycling Infrastructure

The City of Kalamunda is currently a cycling hotspot for all types of users, ranging from professional riders, to recreational users and those commuting to and from work. Cycling has defined social, economic and environmental benefits, such as reduced mortality rates (Fishman, Schepers & Kamphuis 2015), decrease in heart disease and cancer (Torjesen 2017) and reducing traffic congestion, which could cost Perth \$1.9 billion by 2020 (DPLH 2018). In 2017 the City produced The Bicycle Plan. This was adopted in June 2018.

The key goals of the Bicycle Plan include:

- a) Increased safety through better paths and road treatments
- b) More and diverse cycling and shared paths and road treatments
- c) Public transport options for cyclists
- d) Enhancing the cyclability around Forrestfield Train Station
- e) Increasing education to enhance participation of community members.

The Bicycle Plan promotes a pedestrian and cycling friendly environment with safe access to an active and healthy lifestyle. The Bike Plan 2017 will also ensure requirements are in place for end of trip facilities in new developments. A mixture of local, strategic and principal routes link all to high quality cycling connections; major trip generators such as shopping centres, industrial areas and educational facilities; and regional routes. The plan also aims to increase various cycling networks, including the introduction of additional primary, secondary, local and training routes, as well as designated safe active streets.

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One of these includes the Hill Spine secondary route linking Midland to Kalamunda and Lesmurdie.

The implementation of the plan also includes elements such as creating a Safe Active Street between Zig Zag Scenic Drive and Hills Street; having a high quality shared path along the Kalamunda Railway Heritage Trail between Hill Street and Elizabeth Street; and protected and buffered cycle lanes along Railway and Canning Road (refer Fig 39). Key projects of The Bicycle Plan have been allocated high and moderate priority so completion of stages will consistently occur over the next 10 years.

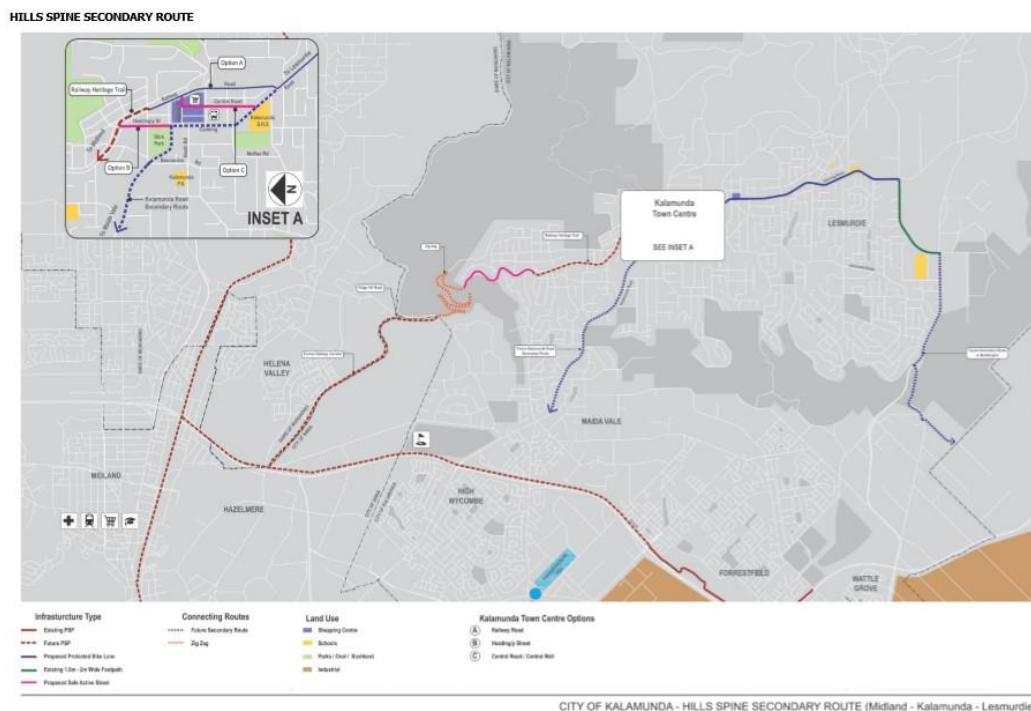


Figure 39. Hill Spine Secondary Route from City of Kalamunda Bicycle Plan 2017

18.DEVELOPMENT CONSTRAINTS

18.1 Sewer

The provision of sewer is a key limiting factor to development within the City. Sections of High Wycombe, Maida Vale, Forrestfield, Wattle Grove and Kalamunda town centre have access to sewer which is reflected in the more intensive urbanisation of these areas (refer Map 9 – Sewerage Network). The Government Sewerage Policy 1996 stated no lots under 2000m² were to be subdivided without a connection to sewer, this means the areas without sewer tend to consist of larger properties and dictates the areas of likely future expansion. Sewerage infrastructure is limited by topography as it is largely gravity fed which is why the City, particularly the hills region, has a more limited sewerage network

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than other metropolitan local governments. This also means areas lower than the sewerage line would likely require pump stations.

The Draft Government Sewerage Policy was prepared in 2017 to reflect the improvement in effluent treatment systems and was formally adopted in 2019. The Government Sewerage Policy 2019 is operational from 23 September 2019. One of the key changes to the Government Sewerage Policy include subdivision to an average lot size of 1,000m² where effluent disposal can be contained onsite and it is in accordance with the zoning. When the Government Sewerage Policy is formally adopted the City will be required to review the impact on current lot sizes and determine whether further investigations are required.

18.2 Stormwater

The standard treatment for stormwater drainage within private property depends on the location and type of development. Most hills areas and some foothills areas have low permeability, where the stormwater cannot soak away into the ground fast enough. This often occurs in areas with clay soils or on rocky outcrops. Areas with low permeability will require detention systems as part of development and building approvals, which then requires a connection to the City's stormwater system. In this case the stormwater design ensures that water discharging meets predevelopment flow conditions. However, a lot connection point may not be available in all areas, as some streets have no underground stormwater system and prior development has not generated a need for a public system. Areas that do have a stormwater system may not be able to cope with increased flows as older areas (with no lot connections) are developed and then require new lot connections. The City is currently undertaking investigations to determine the current level of stormwater infrastructure and identify areas for improvement works.

Investigation Areas are generally assessed through a Stormwater Strategy (also known as a Local Water Management Strategy or Urban Water Management Plan) to determine the extent of connections and potential upgrades required to the public stormwater system.

18.3 Topography

Topography is also a constraint to development which is reflected in larger lot sizes within the Darling Scarp and Darling Plateau region. In some cases, the steepness of slopes is a prohibiting factor to subdivision as the area of space suitable for building is restricted. In the Darling Plateau rural regions topography is a limiting factor due to rocky outcrops unsuitable for planting commercial orchards or building, such as steep gradients where machinery cannot access. Topography therefore is a primary consideration when considering the existing pattern of settlement and lot sizes, as well as potential for future growth and expansion.

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18.4 ANEF Contours

Perth Airport is undertaking a review of the Perth Airport Masterplan and proposing a New Runway (refer Figure 39 – Perth Airport amended ANEF contours). The ANEF (Aircraft Noise Exposure Forecast) contours have therefore been updated to reflect the new flight patterns and models of aircraft. ANEF contours are important because it indicates the level of noise exposure for residents living near the airport.

The modelling shows a reduction in airport noise, particularly for areas of High Wycombe and Wattle Grove. The reason for the modifications is a change in runway usage based on weather data which results in an increase in 30 ANEF south of the airport and decrease in the northern residential areas. Perth Airport also uses another method of modelling noise called N65 which described noise at 65 decibels (dBA). Generally, 70 dBA outdoors will correspond to 60 dBA indoors which is considered the sound level which will disturb a conversation and other indoor activities. In consideration of Perth’s outdoor lifestyle Perth Airport adopted a sound level of 65 dBA which corresponds to an indoor noise level of 55 dBA which is referred to as the N65 contours (refer Figure 40 – Perth Airport N65 Noise Contours).

The City will need to review properties impacted by the amended noise contours in accordance with State Planning Policy 5.1 – Land Use Planning in the Vicinity of Perth Airport, and determine the appropriate housing density.

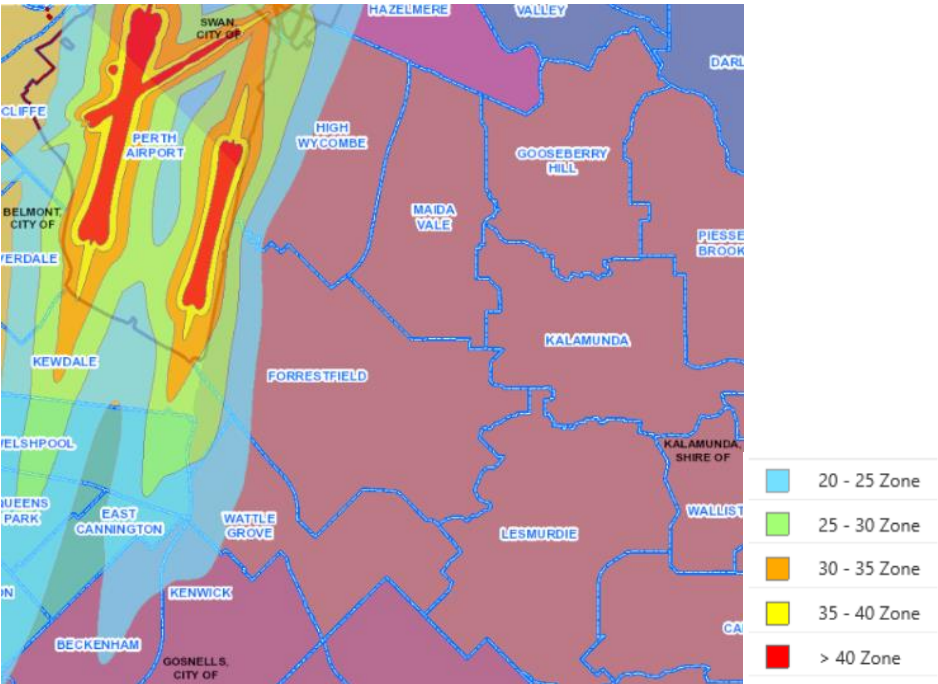


Figure 39. Perth Airport amended ANEF contours.

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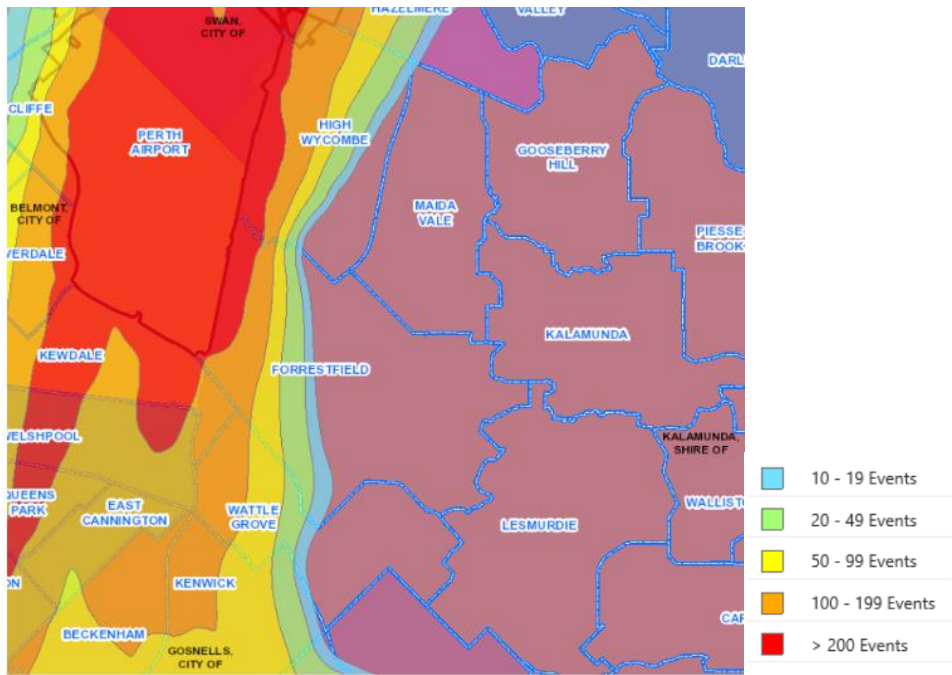


Figure 40: Perth Airport N65 noise contours

18.5 Bushfire Prone Areas

The entirety of the rural area of the City is designated as Bushfire Prone by the Department of Fire and Emergency Services mapping systems. *State Planning Policy 3.7 – Planning in Bushfire Prone Areas* assists in guiding development within areas that have been designated as bushfire prone by outlining fire hazard ratings that are appropriate for development, informing on steps that can be taken to mitigate higher bushfire hazard, and noting land uses that are more appropriate for high fire hazard areas. In situations when development may create a significant bushfire threat it is referred to the Department of Fire and Emergency Services for review. Development within bushfire prone areas will need to accord with the requirements of the Department of Fire and Emergency Services or else it is unlikely to be supported by the City.

Landowners within Bushfire Prone Areas are required to engage a qualified bushfire consultant to undertake a Bushfire Attack Level (BAL) Assessment which will provide them with a rating. The outcome of the BAL rating which varies from Low to FZ (flame zone) will then dictate the types of bushfire resistant materials for any house in accordance with Australian Standard AS3959.

18.6 Character

It is acknowledged that urban infill and meeting density targets is a State Government priority, however the type and quality of infill development does have an impact on character. Character is a combination of what the streetscape looks like, the architecture

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or dwelling types, local vegetation type and community activation. Areas of the City such as the foothills investigation area (refer section 7 – Foothills Investigation Area) including locations near Holmes Road, Waterfall Road, and the Sadler Drive/Hawkvalley Crescent precinct, or hills region including Kalamunda, Lesmurdie, Gooseberry Hill and Walliston, and rural regions such as Pickering Brook, Carmel, Bickley, and Paulls Valley are deemed to have distinctive character worth retaining. These areas are generally characterised by larger lots, tree canopy cover, city or valley views and localised activity centres. These are factors which distinguish the City from other local government areas and make it a desirable place to live. Infill or rezoning in these characteristic areas therefore should be carefully considered with regard to the impact on these traits, and sensitive to the fact that dwelling diversity also encompasses residents seeking a 'tree change' or a rural or residential bushland lifestyle.

19.SUMMARY

In conclusion the City has completed 5 out of 11 of the recommendations of the Local Housing Strategy 2014. The remaining recommendations which are currently underway or require further investigation have been incorporated into the actions in this document to be progressed over the next five years (refer section 4 – Summary of Strategies and Actions 2020-2025).

The housing analysis found that infill development will primarily occur within the more urbanised suburbs of Wattle Grove, Forrestfield, High Wycombe, and Maida Vale located on the swan coastal plain. Increased housing densities in these areas is less constrained than the suburbs of Kalamunda, Walliston, Carmel, Bickley, Paulls Valley, and Pickering Brook which are subject to factors such as bushfire risk, environmental values, sewerage and reticulated water.

Overall new housing is likely to occur near MaidaVale/High Wycombe, Forrestfield, Forrestfield North and Kalamunda Activity Centre locations. Overall, the NE Framework target of 11,450 additional dwellings by 2050 is likely to be met or exceeded by the progression of City investigation areas and Dual Density areas with an estimated median of 11,789 additional dwellings by 2050.



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20. DISCLAIMER

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

The City of Kalamunda's Local Housing Strategy 2020 – 2025 (LHS) has been developed for the purpose of being a "point in time" document with respect to, amongst other things, facilitate and manage growth and changes to the population, the natural environment and ongoing development.

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

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

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

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

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

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APPENDIX 1: GLOSSARY OF TERMS

Term	Description
ABCB	Australian Building Codes Board
DBCA	Department of Biodiversity, Conservation and Attractions
DFES	Department of Fire and Emergency Services
DPIRD	Department of Primary Industries and Regional Development
DPLH	Department of Planning, Lands and Heritage
DSP	District Structure Plan
DWER	Department of Water and Environmental Regulation
LPS3	City of Kalamunda Local Planning Scheme No. 3
LSP	Local Structure Plan
MKSEA	Maddington Kenwick Strategic Employment Area
MRS	Metropolitan Region Scheme
NE Framework	North-East Sub-regional Planning Framework 2018
R-Code	Relates to zoning defined by State Planning Policy 7.3 – Residential Design Codes
THOW	Tiny house on wheels
TOD	Transit Oriented Development
WAPC	Western Australian Planning Commission



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APPENDIX 2

STATE AND LOCAL PLANNING CONTEXT



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APPENDIX 2: STATE AND LOCAL PLANNING CONTEXT**21. State Policy Framework**

The City is guided by State Government strategies, policies and legislation that inform the provision and development of housing densities and development sites. In addition to this the City has a local planning framework.

State Planning documents are critical for establishing the parameters for the development of housing stock and density. They include the following documents:

21.1 Metropolitan Region Scheme (MRS)

The Metropolitan Region Scheme (MRS) focuses on land use in the Metropolitan area and defines current and future land uses and provides the legal basis for strategic planning in the Perth metropolitan area. The MRS is the document on which Local Governments base their Local Planning Scheme. The strategies prepared by the City are required to be consistent with the land uses prescribed under the MRS.

Directions 2031 guides the planning framework for accommodating significant urban growth in Perth through to 2031. Directions 2031 provides a framework to help guide the future delivery of housing, infrastructure and services to accommodate for the predicted growth of metropolitan Perth and Peel region.

21.2 Directions 2031 and Beyond: Metropolitan Planning Beyond the Horizon

Directions 2031 and Beyond released in 2010 is a high level strategic plan for the Perth and Peel region that establishes a vision for a green, vibrant, more compact and accessible future City. This document identifies state targets for infill and greenfield development by the year 2031.

The North East Sub-Regional Planning Framework is one of three frameworks prepared for the outer sub-regions of Perth and Peel based on the principles of Directions 2031 and Beyond (refer Figure 2.1). The Framework includes the City of Swan, Shire of Mundaring and City of Kalamunda local government areas and identifies urban expansion areas Wattle Grove (South), Maida Vale (South), and planning investigation areas Pickering Brook Townsite Expansion and Hillview Golf Course. The document also identifies urban infill dwellings targets for the City including an additional dwelling target of 21,040 for an estimated 46,770 additional residents by 2050.

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Figure 2.1. Map of the North East Sub-Region (Source: North East Sub-Regional Planning Framework March 2018)

21.3 Perth and Peel @ 3.5million

The draft *Perth and Peel Green Growth Plan for 3.5 million* is a State Government strategic document developed by the WAPC incorporating recommendations from the Environmental Protection Authority's (EPA) *Interim strategic advice on Perth and Peel @ 3.5 million: Environmental Impacts Risks and Remedies* released August 2015.

The draft *Perth and Peel Green Growth Plan for 3.5 million* aims to support a projected 70% population growth with clearing of only 3% of the Coastal Plain and clearing of less than 1% on the Darling Scarp. Over 30 years, the objectives will be delivered through implementing a series of Action Plans.

The City aims to incorporate targets identified in the Perth and Peel Growth Plan at 3.5 million by supporting high quality infill development and confining greenfield developments particularly on the Darling Scarp and Swan Coastal Plain. Greenfield development describes the release and development of land not previously urbanised, whereas infill development relates to increasing and developing land that is already urbanised.

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The draft *Perth and Peel Green Growth Plan for 3.5 million* was suspended as of June 2018 pending further review by an independent panel. The review will address ongoing costs, risks, and benefits of adopting the plan.

21.4 The State Planning Strategy 2050

The State Planning Strategy 2050 is used to inform planning policies and decisions throughout Western Australia (WA). The State Planning Strategy provides the strategic context for planning and development decisions throughout the State. The State Planning Strategy guides development of local planning strategy and provides a framework by which Government can plan for the State's physical and social infrastructure, environment, food security, land availability, economic development, housing accessibility, security, education and training.

21.5 State Planning Policy (SPP) 3: Urban Growth and Settlement

This policy outlines the principles that apply for planning for growth and settlement in Western Australia. It outlines the importance of delivering social, economic and environmental objectives including choice in housing, accessibility and services in WA. This policy will help guide the objectives of the LHS including promoting sustainable development and improving the diversity and quality of the provision of housing.

21.6 State Planning Policy 7.1: Residential Design Codes Volume 1

Replaces the previous version State Planning Policy 3.1: Residential Design Codes. An integral document that provides controls and provisions for residential design and development. Also referred to as the R-Codes this document provides minimum built form standards to guide housing design and highlights ways to ensure residents achieve better outcomes during the residential development process. The R-codes relate to this strategy by providing a comprehensive basis for the control of residential development and housing throughout the City.

21.7 Design WA

Design WA is a State initiative to ensure that good design is at the centre of development in Western Australia. The Design WA suite of documents is designed to eventually replace the R-Codes and includes SPP 7 – Design of the Built Environment, and SPP 7.3 – Residential Design Codes Volume 2 Apartments, which applies to residential apartments (multiple dwellings) in areas coded R40 and above in mixed use development or activity centres. The document outlines design principles, processes and considerations that apply to the built environment to ensure that a high standard of living is provided in new developments.

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21.8 Liveable Neighbourhoods

Liveable Neighbourhoods is a State government operational policy for the design and assessment of regional, district and local structure plans, as well as subdivision for infill and greenfield urban development in WA. Liveable neighbourhoods was prepared in 2009 and in 2015 the WAPC initiated a review of the document which is eventually intended to form part of the Design WA project. Liveable neighbourhood focusses on designing for community, walkability to amenities and services, an efficient movement network, activity centres, urban water management, site responsive lot design, public open space and criteria to guide education sites.

Other State Government planning documents which influence housing trends are included below in Table 2.1.

Table 2.1. List of State Government documents guiding housing development in Western Australia.

Affordable Housing Strategy 2010 - 2020	Notes a lack of affordable housing stock within Western Australia and places emphasis on planning to allow greater density and choice within the housing market.
Policy No. SPP 3.6: Developer Contributions for Infrastructure	Sets out clear principles and considerations that apply to development contributions for the provision of infrastructure in new and established areas.
Policy No. SPP 3.7: Planning in Bushfire Prone Areas	Sets out guidelines for development controls, standards and permissibility's within areas designated as bushfire prone.
Policy No. SPP 4.2: Activity Centres for Perth and Peel	Specifies broad requirements for the planning and development of new activity centres.
Policy No. SPP 5.1: Land Use Planning in the Vicinity of Perth Airport	Applies to land that is situated in the vicinity of Perth Airport and currently is, or may be, affected by aircraft noise.
Policy No. SPP 5.4: Road and Rail Transport Noise	Promotes a system of development in which sustainable land use and transport are mutually compatible. Seeks

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and Freight Considerations
in Land Use Planning

to minimise traffic noise impacts while ensuring adequate infrastructure provision.

22. Local Planning Context

Listed below are the key local planning documents the City utilises in the development of housing stock:

22.1 Planning and Development Act and Regulations

Planning in WA is primarily governed by the *Planning and Development Act 2005* which delegates authority for planning processes and provides the scope of responsibilities for government agencies. In addition to this the *Planning and Development (Local Planning Schemes) Regulations 2015* outlines key planning processes and procedures, as well as providing a template for creating Local Planning Schemes.

22.2 The Local Planning Scheme

Local Planning Scheme No.3 (LPS3) is one of the most important documents in local planning as it sets out the planning framework and requirements for land use planning within the City. The LPS3 includes zoning, permissible land uses, car parking ratios, special considerations for unique land uses and compliance processes among other criteria. One of the key actions recommended in this Strategy is to undertake a full review of the LPS3 to update it to be consistent with the *Planning and Development (Local Planning Schemes) Regulations 2015* which provides Schedule 1 - Model Provisions for Local Planning Schemes to make Local Planning Schemes more consistent across local governments in WA.

22.3 Aged Accommodation Strategy

The Aged Accommodation Strategy 2016 found that the City contains a higher than average population of aged persons than the rest of the Metropolitan Region. The Aged Accommodation Strategy made four key recommendations; that the City not directly undertake aged care developments, encourage aged care providers, utilise government assets for aged care facilities, and prioritise sites close to existing transport and amenities.

Other key local planning documents are outlined in Table 2.2 below.

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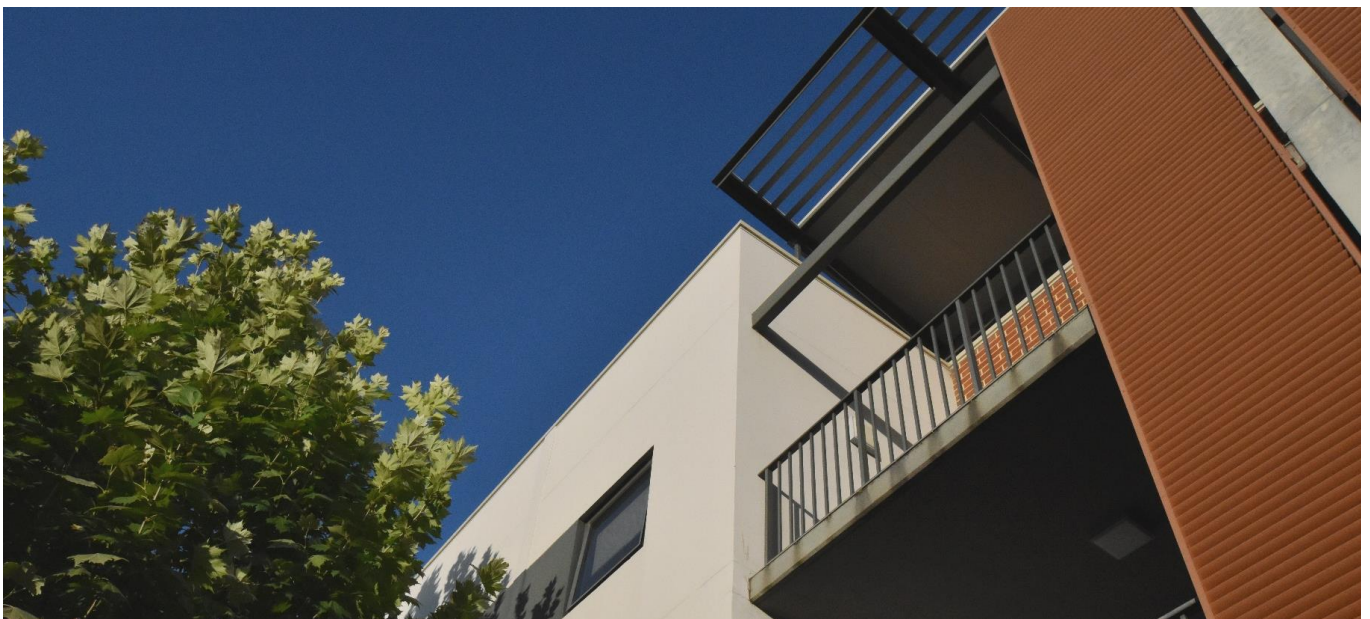
Table 2.2. Relevant Local Planning Documents

Kalamunda Advancing 2027	Local City document that outlines the visions of the City of Kalamunda. Of key interest here is 'Priority 3: Kalamunda Develops' and associated Objective 3.1 'To plan for sustainable population growth'.
Structure Plans and Local Development Plans	Structure plans are established over large areas proposed for development to guide the delivery of housing density, essential infrastructure and green space. The City currently has a total of 13 structure plans and 18 Local Development Plans. Many of these plans are old and intended to be 'normalised' and incorporated into the new Local Planning Scheme to simplify the development process.
Forrestfield North District Structure Plan	A location of new development based upon the construction of the new Forrestfield train station. The area has a high potential for varied housing stock development, walkable catchment areas and other key facilities.
P-Dev 50: Ancillary Dwellings	A local planning policy which guides requirements for ancillary dwellings (also known as granny flats) including setbacks, location and size and height requirements.
P-Dev 51: Planning and Development Compliance Policy	Outlines the processes involved in undertaking compliance action and prosecution for unlawful development activities.
P-Dev 54: Dual Density Design Guidelines	Provides criteria to guide development in areas up-coded with a dual density code within the areas of Kalamunda, Maida Vale/High Wycombe and Forrestfield.
P-Dev 60: Design Advisory Committee	A local planning policy which identifies situations where a proposed development requires assessment by an expert panel which make recommendations for improvement Design Advisory Committee
P-Dev 61: Retention and Upgrade of Grouped Dwellings	A local Planning policy which outlines how a grouped dwelling is required to be upgraded to satisfy subdivision conditions of approval.

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APPENDIX 3

DEMOGRAPHICS



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APPENDIX 3: DEMOGRAPHICS**23. Local Profile**

While the available housing stock can have an impact upon the demographics of an area, existing residents also impact upon the future housing stock. Forecast. ID (2017) determined the City of Kalamunda has a higher than average aged population. It is considered that this population demographic will begin to affect the demand for various types of housing stock within the City in the coming years.

Figure 3.1 shows the percentage of households and number of residents in the Greater Perth metropolitan region in 2016 which shows the highest proportion is usually 2 persons per household, followed by 1 persons and then by 3-4 persons. These finding are consistent with the trend Australia-wide. Table 3.1 shows the relative size of households within the City.

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Table 3.1: Dwelling type and occupancy rates in City of Kalamunda. Source Australian Bureau of Statistics 2016.

	Number of Bedrooms in Private Dwelling	None	One	Two	Three	Four	Five	Six or More	Not Stated	Not Applicable	Total
Number of Persons Usually Resident in Dwelling	One	10	243	614	1905	1007	91	20	158	0	4048
	Two	11	63	513	2927	3084	346	41	110	0	7095
	Three	0	9	82	1149	1694	251	51	35	0	3271
	Four	0	0	36	896	2134	339	49	12	0	3466
	Five	0	3	8	222	935	266	55	15	0	1504
	Six	0	0	0	65	229	114	39	4	0	451
	Seven	0	0	0	3	59	44	19	0	0	125
	Eight or More	0	0	0	8	42	26	17	4	0	97
	Not Applicable	4	25	26	38	48	0	4	877	1686	2708
	Total	35	353	1276	7214	9230	1474	291	1220	1686	22779

Figure 3.1 and 3.2 can be used to compare the type of households within Greater Perth against the household size. The household type is predominantly for couple with children, however the number of persons resident is predominantly two persons, which indicates a significant proportion of the Greater Perth population are in houses larger than the number of actual occupants and subsequently may be seeking to downsize.

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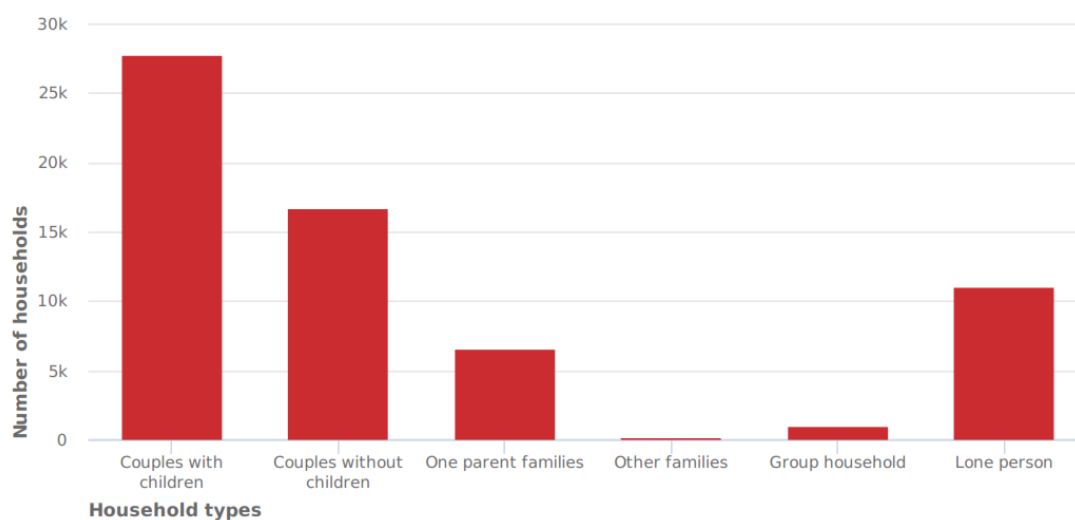


Figure 3.1. Graph showing household types in Greater Perth 2011-2016 (Source: Profile id²)

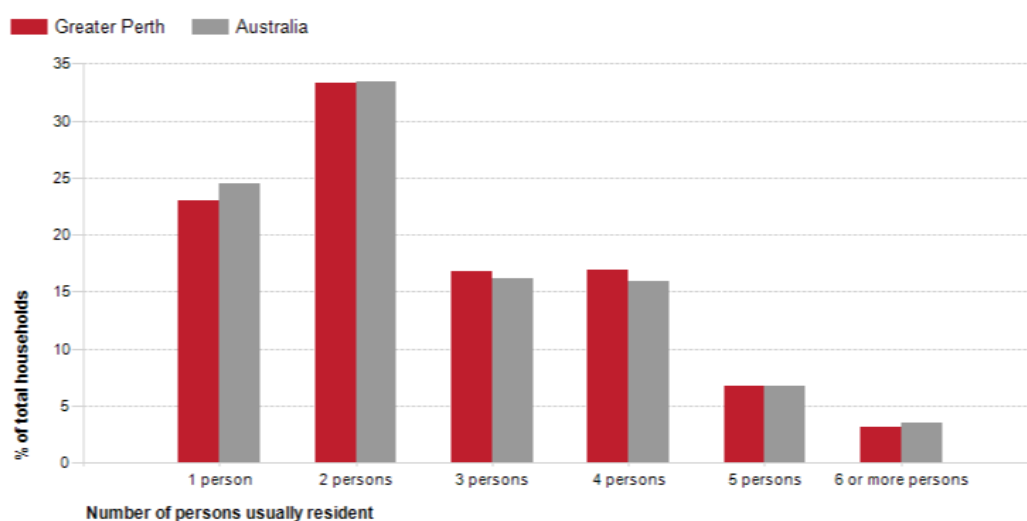


Figure 3.2. Graph showing Greater Perth household size 2016 (Source: Profile id²)

Key housing occupancy findings:

1. There is a large proportion of three or four bedroom houses that have one or two regular occupants within the City.
2. Future development should account for the lack of houses with less bedrooms in order to account for 'empty nesters' or retirees looking to downsize but remain within the community.

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23.1 Population

Forrestfield and High Wycombe currently experience the highest forecast population in addition to the highest residential densities. Most of the City's population growth is expected to take place in Forrestfield, Wattle Grove, High Wycombe and Maida Vale, whereas Gooseberry Hill, Kalamunda and Lesmurdie will see steady growth in the foreseeable future. Forrestfield, Wattle Grove, High Wycombe and Maida Vale will account for 85% of the City's increased population over the next 18 years.

The City has a 2018 population forecast of 60,739 and is predicted to rise to 76,179 persons by 2036 as per Forecast ID 2017 – refer Figure 3.3. A rise of 25.42% over the next 18 years. It should be noted that the ABS Estimated Resident Population has the City's population listed as 58,946, demonstrating that current projections are not being met (Economy. id 2018). Forrestfield and High Wycombe currently provide the highest forecast population in addition to the highest residential densities. Most of the City's population growth is expected to take place on the Swan Coastal Plain, whereas the Darling Hills is expected to see steady growth.

Forrestfield, Maida Vale and Forrestfield North are anticipated to experience the greatest growth rates over this 18-year period (refer Figure 3.4). Not included in Figure 3.4 Forecast id population projections is Wattle Grove South and Maida Vale South, which have been identified for investigation in the NE Framework (refer section 7- Investigation Areas). It should be noted that the majority of Forrestfield North resides in High Wycombe, which has been assessed independently and impacts upon High Wycombe's demographic information.

All localities are predicted to rise in population by over 10% over the next 18 years except for Wattle Grove 9.77%, Gooseberry Hill at 2.41% and Lesmurdie at 0.22% (refer Table 3.2 – City of Kalamunda Population Forecast).

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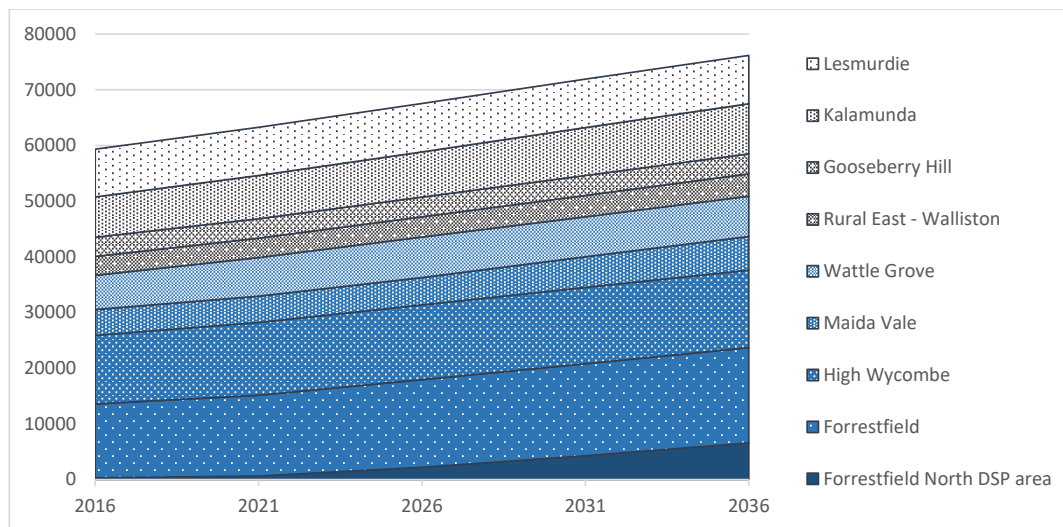


Figure 3.3: Graph showing population projections to 2036. Source Forecast ID 2017.

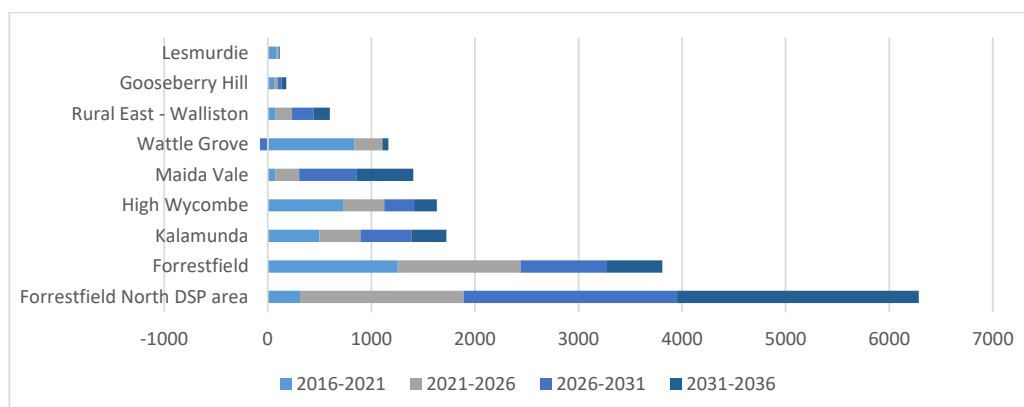


Figure 3.4: City of Kalamunda location of population growth 2016-2036. Source Forecast ID 2017.

For more information regarding population growth refer to Appendix 3: Table 3.2 – City of Kalamunda Population Forecast.

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Table 3.2. City of Kalamunda Population Forecast

	Forecast 2018 pop.	Forecast 2036 pop.	Change 2018-36	Change 2018-36 Percentage	Land Area (ha)	Forecast Population Density 2018 (persons per hectare)	Forecast Population Density 2036 (persons per hectare)
Kalamunda	7,517	8,969	+1452	19.31%	1,064	7.06	8.43
Lesmurdie	8,605	8,694	+89	1.03%	1,365	6.30	6.37
Gooseberry Hill	3,467	3,620	+153	4.41%	895	3.87	4.04
Rural East- Walliston	3,420	3,991	+571	16.69%	24,626	0.14	0.16
Wattle Grove	6,586	7,229	+643	9.77%	867	7.60	8.34
Forrestfield	13,614	17,079	+3465	25.45%	1702 (+30ha in Forrestfield North)	7.99	10.03
Forrestfield North DSP	310	6,613	+6,303	2033.86%	264	1.17	25.05
High Wycombe	12,563	13,936	+1,373	10.92%	811 (+234ha in Forrestfield North)	15.49	17.18
Maida Vale	4,657	6,048	+1,391	29.88%	841	5.54	7.19
City of Kalamunda	60,739	76,179	+15,440	25.42%	32,436	1.87	2.35
Total All Suburbs							

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Key population demographic findings:

1. Forrestfield, Wattle Grove, Maida Vale and High Wycombe will account for the majority of the City's population growth.
2. Forrestfield areas and Maida Vale will account for the highest population growth overall.
3. Forrestfield North, Maida Vale South and Wattle Grove South areas may grow from a small population into large district localities.
4. Gooseberry Hill and Lesmurdie will experience limited population growth.
5. Kalamunda to experience the highest population growth in relation to Lesmurdie and Gooseberry Hill.
6. The City will see a higher than national average increase in persons over the age of 55.

To City will continue to progress Investigation Areas (refer Map 2) to deliver key infill growth areas. These key growth areas should provide an ample housing supply to facilitate the future population growth of the City. In response to an increase in the aged population an action to investigate sites appropriate for aged care has also been identified in section 4 – Summary of Strategies and Actions 2020 - 2025.

23.2 Age Demographics

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

The forecast age structure in the City between 2016 and 2036 is expected to see significant population increases in young families (ages 0-14 and 30-49) and the elderly (65+). Teenagers and young adults (15-29), and 'empty nesters' (50-64) are predicted to have a smaller rise in population. A number of suburbs differ in their forecasted age

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structure. Kalamunda, Gooseberry Hill and Lesmurdie are predicted to have their greatest rise in young families and the elderly. Whereas Forrestfield, Wattle Grove, Maida Vale and High Wycombe are predicted to have a greater rise in older family groups (5-24 and 35-54) and the elderly. The Forrestfield North DSP area is predicted to have its greatest increase from young adults (20-39). However young families and empty nesters are anticipated to be well established in the area.

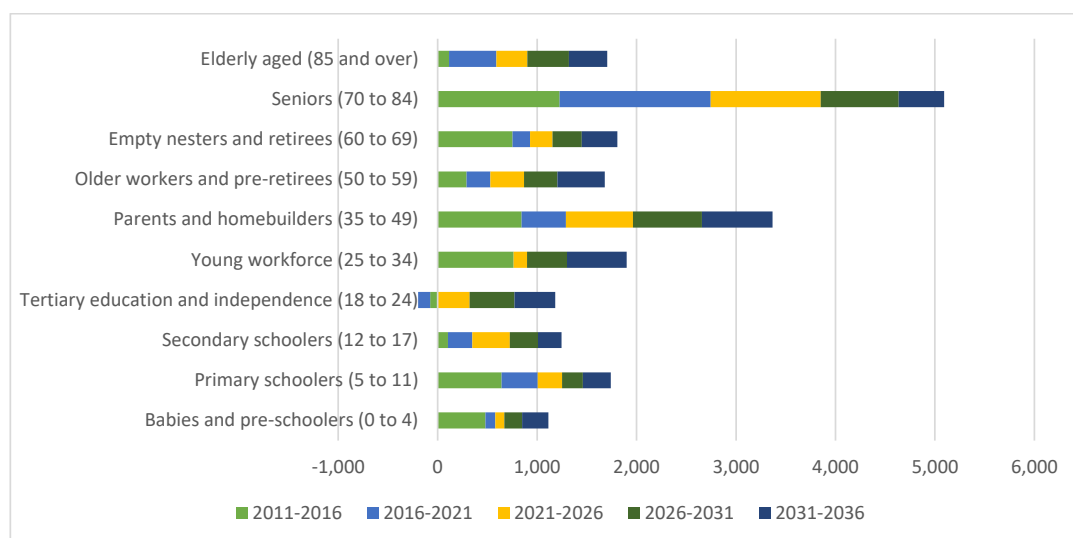


Figure 3.5: City of Kalamunda population change by service age (persons). Source Forecast ID 2017.

The consequence is a reduction in the proportion of parents and homebuilders (35 to 39) from 20.8% to 19.6% of the population and a substantial increase in the proportion of over 70 year old people from 9.0% to 10.4% of the population (refer Figure 3.5 and 3.6).

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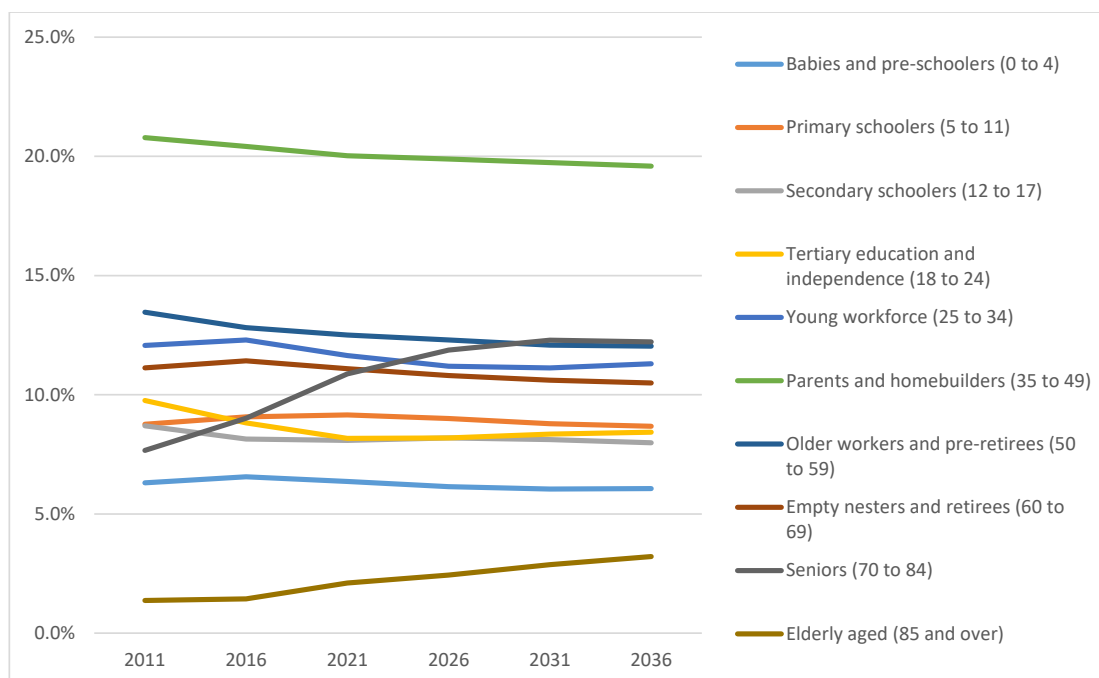


Figure 3.6: City of Kalamunda population change by service age cohort (proportion of total). Source Forecast ID 2017.

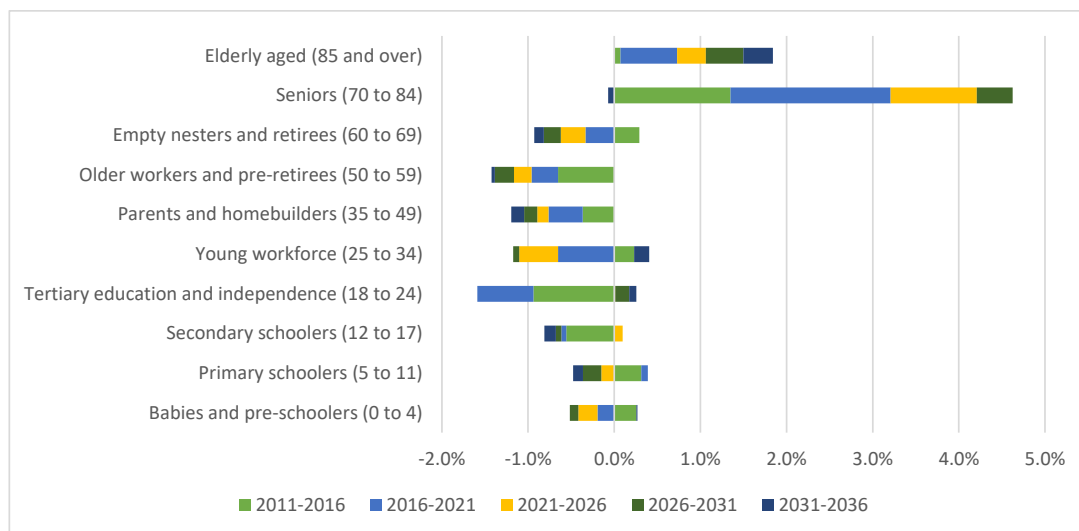


Figure 3.7: City of Kalamunda population by service age cohort (change in proportion of total). Source Forecast ID 2017.

Population growth in the City is heavily skewed towards increases in older age groups, showing a substantial increase in elderly aged 70 and over in the future (refer Figure 3.7).

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

It is estimated that at least 50% or more of the 635 persons counted in non-private dwellings are in aged care accommodation or nursing homes. Population id forecasts an increase in persons in non-private dwellings in Kalamunda from 635 (2011) to 1,135 (2036). However, over this time the number of elderly aged over 85 residing in non-private dwellings are predicted to increase more than three-fold from 774 to 2,478 (refer Table 3.4). An implication from this is that there will be significant demand for in-home services and significant demand for additional care facilities, beyond those implied in the forecasts, by 2036. Between 2020 and 2036, there is likely to be a need for approximately 500 – 900 additional aged care beds in the City given that currently there are currently 243 existing beds (refer section 13 – Aged Accommodation). These might be expansion of existing facilities or establishing new ones.

Table 3.3: Historic Population Growth, City of Kalamunda and Metropolitan Perth (Source ABS Regional Population Growth, Cat. 3218.0)

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

Table 3.4: Selected age and non-private dwelling projections. (Source Population ID, SMC0.)

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

This projection is supported by WA average care and staffing ratios. Using WA average ratios, there should be an additional 506 residential care places and an additional 243 home care places in Kalamunda between 2011 and 2036 (refer Table 3.5).

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Table 3.5: Kalamunda, Operational Aged Care Places (modelled on WA Ave ratios)

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

Aged care is a substantial employer. The aged care workforce could nearly double from 955 in 2011 to over 2,227 in the City by 2036 (refer Table 3.6), with an almost even split of staff between residential aged care and community aged care.

Table 3.6: Kalamunda, Aged Care Workforce to 2036

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

Key findings of population age and non-private dwelling projections:

1. Young families and the elderly will account for significant amount of the population increase.
2. Teenagers, young adults and empty nesters will have limited rise in population.
3. Kalamunda, Gooseberry Hill and Lesmurdie will have the greatest population rise from young families and the elderly.
4. Forrestfield, Wattle Grove, Maida Vale and High Wycombe will have the greatest population rise from established families and the elderly.
5. The Forrestfield North DSP area will have the greatest population contribution from young adults.

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6. Younger age groups tend to require the provision of larger group housing or single houses.

7. Older age groups tend to require the provision of smaller units, single bedroom dwellings or smaller houses.

8. Between 2020 and 2036, there is likely to be a need for approximately 500 – 900 additional aged care beds in the City given that currently there are currently 243 existing beds

23.3 Income, Employment and Education

Income, employment and education levels will impact the generation of housing stock. Forrestfield, Wattle Grove, Maida Vale and High Wycombe have greater levels of low and moderate income earners, lower levels of high education and higher levels of employment than Greater Perth. Whereas Kalamunda, Gooseberry Hill and Lesmurdie have greater levels of moderate and high-income earners, greater levels of high education and greater levels of employment than Greater Perth (refer Fig 3.8).

In terms of education residents are relatively consistent with the Western Australian average (refer Table 3.7). The Australian Bureau of Statistics reports that of people aged over 15 in the year 2016; 16.3% completed year 12 as their highest level of educational attainment, 19.5% had completed a Certificate III or IV and 9.5% had completed an Advanced Diploma or Diploma.

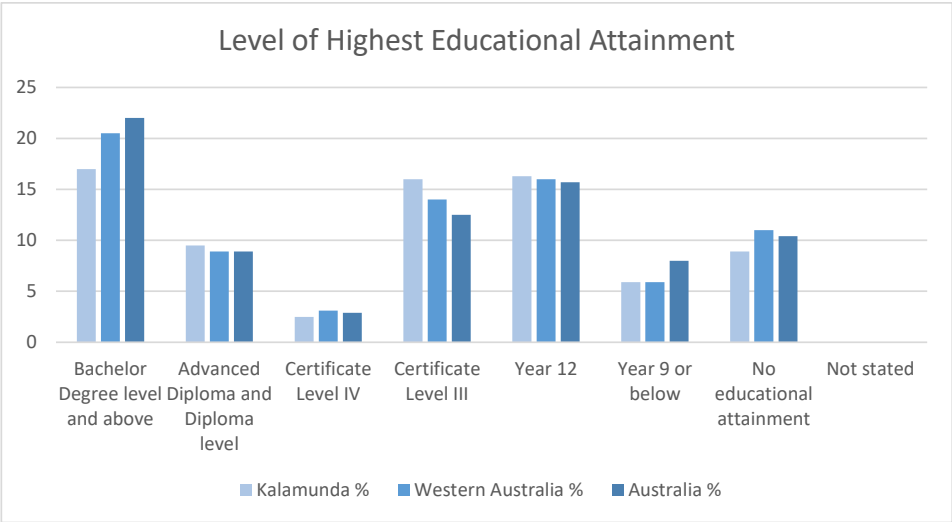


Figure 3.8 Graph showing levels of education in the City of Kalamunda

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Table 3.7. Table showing level of education in the City of Kalamunda local government area compared to State and National average.

Level of highest educational attainment People aged 15 years and over	Kalamunda (\$)	%	Western Australia	%	Australia	%
Bachelor Degree level and above	7,851	17.0	410,272	20.5	4,181,406	22.0
Advanced Diploma and Diploma level	4,379	9.5	177,631	8.9	1,687,893	8.9
Certificate level IV	1,622	3.5	62,656	3.1	551,767	2.9
Certificate level III	7,409	16.0	279,448	14.0	2,442,203	12.8
Year 12	7,559	16.3	318,674	16.0	2,994,097	15.7
Year 11	2,841	6.1	107,858	5.4	941,531	4.9
Year 10	6,196	13.4	235,001	11.8	2,054,331	10.8
Certificate level II	14	0.0	940	0.0	13,454	0.1
Certificate level I	4	0.0	209	0.0	2,176	0.0
Year 9 or below	2,753	5.9	117,996	5.9	1,529,897	8.0
No educational attainment	173	0.4	10,572	0.5	145,844	0.8
Not stated	4,102	8.9	220,701	11.0	1,974,794	10.4

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

This shows the largest growth in employment for Kalamunda residents is generally some distance away.

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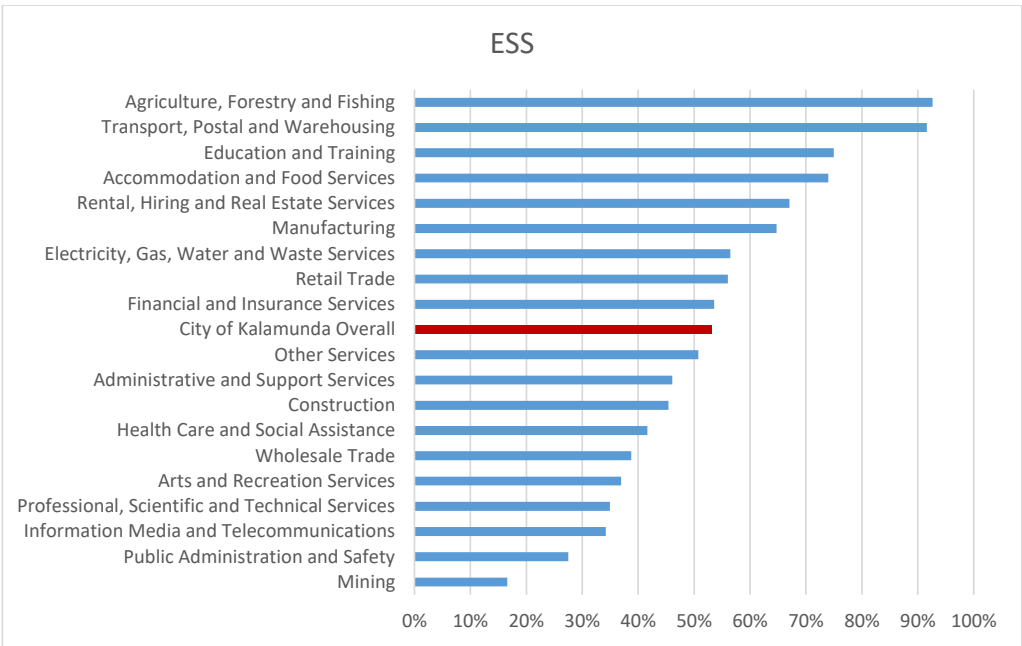


Figure 3.9: City of Kalamunda – Employment Self-Sufficiency by Industry, 2016. (Source: ABS Census 2016 Employment, Industry Sector by Place of Work and Place of Usual Residence)

The ABS Census 2016 (shown in Fig 3.9) indicates the greatest proportion of local residents are employed in the agricultural/forestry/fishing sector, with transport/postal/warehouse the second largest employer, followed by education and training. Overall just over 50% of residents are employed within the City.

Key findings:

1. Income, employment and education levels impact ability to purchase housing stock.
2. A variety of housing stock is needed to ensure that all demographics can be catered for.

A persons career will affect the type of housing they prefer, as such it is important to facilitate functional and multifaceted housing stock for community's that have different requirements to suit their economic and employment needs.

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APPENDIX 4

HOUSING ANALYSIS



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APPENDIX 4: HOUSING ANALYSIS**24. Housing Growth**

Housing growth tends to reflect population growth trends. Forrestfield, Wattle Grove, Maida Vale and High Wycombe are anticipated to experience the largest amount of new dwellings, as a result of new developments and urban renewal. Kalamunda is expected to experience significant growth as a result of urban renewal mostly in close proximity to the town centre. Gooseberry Hill and Lesmurdie are anticipated to experience limited growth mostly due to development constraints such as retaining environmental areas, building constraints due to the nature of the undulating rocky landscape, bushfire risk and maintaining the character and amenity of the area.

See Table 4.1 for further details.

Table 4.1: Forecast change in dwellings between 2016-2036

City of Kalamunda	+6988	+31.97%
Kalamunda	+556	+19.07%
Lesmurdie	+ 151	+ 5.15
Gooseberry Hill	+ 54	+4.08%
Rural East - Walliston	+197	+16.82%
Wattle Grove	+546	+28.8%
Forrestfield	+1728	+33.22%
Forrestfield North DSP	+2124	+1913.51%
High Wycombe	+983	+21.17
Maida Vale	+649	+39%

Significantly, the City currently has over 90% of its residents living in separate houses, which is reflective of the dominant dwelling structure. There are also very few medium and high-density dwelling typologies (grouped dwellings, terrace houses, units and apartments) in the City which reflects the low-density nature of the area. There has been very minimal change in these typologies between 2011 and 2016 (refer Table 4.3). Forecasts for 2016-2036 indicate dwelling growth for the City of Kalamunda is predicted to grow by 31.9% (refer Table 4.1 and 4.2).

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Table 4.2: Dwelling growth for City of Kalamunda between 2016-2036. Source Forecast ID 2017.

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

Table 4.3: Dwelling Structure (Source Profile id 2017)

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

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When comparing the largest housing type the data shows Kalamunda contains 93.3% separate houses, while Greater Perth averages at 74.6% separate housing. The data indicates separate houses formed the largest component of housing types in the City between the years 2011 and 2016, followed by medium density housing. The only type of housing which reduced over those five years was high density housing.

Key housing growth findings:

1. Forrestfield, Wattle Grove, Maida Vale and High Wycombe will experience the largest development of new dwellings
2. Growth in these areas will be a combination of greenfield growth and urban infill.
3. Growth within Kalamunda, Lesmurdie and Gooseberry Hill will be mostly contributed from urban infill.
4. Growth in Kalamunda, Lesmurdie and Gooseberry Hill is constrained by environmental areas, the landscape, bushfire risk and maintaining the areas character.

24.1 Dual Density Areas

In January 2018 Scheme Amendment 82 was approved by the Minister which confirmed rezoning for the areas of Maida Vale/High Wycombe, Forrestfield and Kalamunda close to activity centres (refer Map 5 – Dual Density Areas). Dual Density zoning means that a property which previously had a lower density code such as R20, may now be able to apply for a higher density zone such as R25/R40. To apply for the higher code landowners are required to meet the criteria of Local Planning Policy P-DEV 54 Dual Density Guidelines. In principal applying higher density close to existing activity centres means a greater number of people will have access to existing facilities. Dual Density aims to ensure that the opportunity for diverse housing stock within the City is made available close to activity centres and key transport nodes, with connection to the sewer network.

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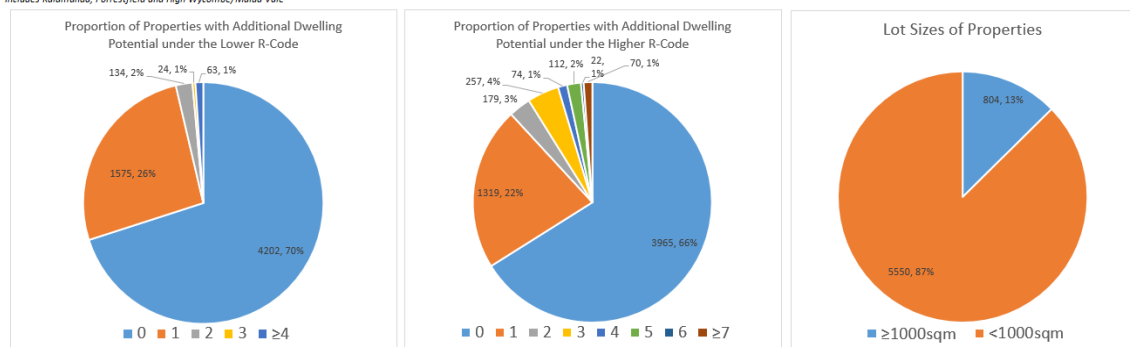
Key Statistics for Housing Opportunity Precincts*Includes Kalamunda, Forrestfield and High Wycombe/Maida Vale*

Figure 4.1. Key Statistics for Dual Density Areas

Key Statistics show 87% properties which have a Dual Density code have a site area <1000sqm which means they are required to provide a mixture of dwelling types, and that 66% have potential for a two-lot subdivision (refer Fig 4.1). Even if landowners do not want to subdivide at the higher code 70% of properties may be able to subdivide at the lower density code. Between Sept 2017 and Sept 2019 a total of 95 Dual Density properties out of 5998 were subdivided which amounts to an uptake of approximately 1.6%. Uptake is expected to be slower when the policy is first released until the market adapts to the new requirements so generally an uptake of around 2% per annum is expected.

Table 4.4. Total number of lots affected by Dual Density areas.

Total Number of Lots										Total
Precinct	R10/R20	R10/R30	R12.5/R30	R20/R30	R20/R40	R25/R35	R25/R40	R25/R60*	R30/R40	
Kalamunda	283	62	0	0	100	0	0	0	269	714
Forrestfield	0	0	0	1936	510	347	523	212	0	3528
High Wycomr	0	0	227	622	21	0	802	84	0	1756
Total	283	62	227	2558	631	347	1325	296	269	5998

Table 4.5. Total number of additional dwellings

Total Number of Additional Dwellings			
Precinct	Under Lower R-Code	Under Higher R-Code	Average
Kalamunda	469	1274	872
Forrestfield	1033	1665	1349
High Wycombe/Maida Vale	902	1437	1170
Total	2404	4376	3390

Overall there are 5,998 existing properties which are affected by Dual Density Areas which in theory could result in 4,376 additional properties based on all properties developing at the higher code (refer Table 4.4 and 4.5). Therefore, a range between 1,442 – 2,626 additional dwellings may be developed by 2050 (refer calculations below).

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Based on these assumptions this may result in an average uptake of 3,390 additional dwellings (median of the higher and lower code yields). Based on existing patterns of development since adoption the realistic uptake will likely be much less, around 2% uptake per annum, more likely to result in around 2,034 additional dwellings by 2050.

Total potential dwelling and population increase from Dual Density areas is calculated as follows:

4,376 dwellings x 2.6 persons per dwelling = **11,377.6 additional persons**

95 Dual Density properties subdivided / 5998 total properties = 0.01567 x 100 = **1.6% uptake between Sept 2017 and Sept 2019.**

However market factors and development restrictions such as provision of sewer, bushfire risk, topography or environmental constraints will mean that realistically, with a take up rate of approximately 2% per annum.

Based on these projections the number of projected dwellings by 2050 can be calculated as follows:

2% x 2,404 dwellings = 48.1 dwellings per year

48.1 dwellings x 30 years = **1,442.40 additional dwellings by 2050 at lower code**

2% x 4,378 = 87.5 dwellings per year

87.5 dwellings x 30 years = **2,625.6 additional dwellings by 2050 at higher code**

Calculations based on median projections outlined in Table 4.5:

2% x 3390 dwellings = **67.8 dwellings per year**

67.8 dwellings x 16 years = **1,084.8 dwellings by 2036.**

1,084.8 additional dwellings x 2.6 persons per dwelling = **2,820.5 additional persons by 2036**

67.8 dwellings x 30 years = **2,034 additional dwellings by 2050.**

2,034 additional dwellings x 2.6 persons per dwelling = **5,288.4 additional persons by 2050**

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These rough estimates indicate a slow and steady update of Dual Density coded areas over the next few decades contributing to infill housing. An action to review the progress of Dual Density areas and investigate any areas for expansion has been recommended in section 4 – Summary of Strategies and Actions 2020 – 2025. It is worth noting Map 11 – Subdivision Potential has included Dual Density Areas as having subdivision potential at the higher density code.

24.2 Comparisons Between Household and Dwelling Type

Based on the above census and demographic data it is noted that there is a large number of dwellings within the City that have three or four bedrooms, but only two or three persons as regular residents. Of particular note is the large variance between two-bedroom, two person households (513) and four-bedroom, two person households (3084). This indicates larger multiple-bedroom dwellings are being utilised by smaller households which appears to correspond with the findings of the Western Australian Planning Commission's (WAPC) study *The Housing We'd Choose: a study for Perth and Peel*.

As part of the study undertaken by the WAPC it was found that across the metropolitan region there was a strong preference for single houses. However, when this was compared to the financial viability of purchasing such a house it was determined that there was a severe oversupply of single houses within the metropolitan region, which has led to an undersupply of semi-detached housing and apartments, though it is expected that the demand for these types of dwelling will increase in the coming years.

It was determined by the WAPC that while the ideal of the single house remained, a large portion of the population indicated a willingness to move to higher-density living under certain circumstances. Price is one of these such circumstances as there is currently a lack of affordable housing options for both renters and buyers within the metropolitan region.

In support of the statements of lack of housing affordability made by the WAPC, research undertaken by Rowley et al. as part of their document *Modelling housing need in Australia to 2025* states that it is expected that future housing need across the whole of the Country will be for an additional 1.7 million dwellings by 2025. It is considered there will continue to be a shortfall in affordable housing unless full assessment is made of the housing need of each State to adjusting the supply in that area accordingly.

Provision of housing stock within the City of Kalamunda should meet the changing demographics and future needs of residents. A larger than average aged population suggests that smaller and more easily accessible housing may be required in the future as more people choose age-in-place. As noted above, housing with lesser numbers of rooms will appeal to singles, young professionals or down-sizers while accounting for the large discrepancy between persons in residence in households vs. number of bedrooms

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in the residence. It is considered that new young families will be able to make use of housing stock that will be vacated by 'empty-nesters', with potential to redevelop such sites as the family grows and changes.

Of particular challenge in ensuring that housing demand and supply are met is altering the current housing 'ideal' held by the majority of the population for single houses. Should future housing supply meet future housing demand and satisfy future demographics within the City a number of beneficial outcomes will be realised, including a more efficient use of land in the urban areas of the City and the potential for cheaper housing.

24.3 Classification of Housing Age

Following identification of the study area data was gathered regarding the lot size of each property within the study area and the most recent date of a building licence being issued for a 'Residence' by the City. The data gathered from this study was then mapped, with the final objective of this stage being able to identify the housing stock age for each property, with an average for the entire suburb.

For the purposes of this Strategy 'Housing Age' has been based on inspection of the most recent 'Residential' development to take place on the site. The residence is grouped under one of three classifications, as follows:

Table 4.6: Housing age and use classification

Housing Age	Expected Housing Stock on Site
2001 - Current	It is expected that residences that fall within this classification are constructed to more modern building requirements and energy rating systems. The housing stock at this age is considered new and unviable to be redeveloped.
1980 - 2000	Dwellings constructed within this period are expected to be still useable as effective residences. However, they may not comply with current building standards and requirements. Housing stock at this age is not considered ready for redevelopment, but may be viable or necessary in certain situations.
Pre 1980's	It is considered that residences that fall within this classification have reached or exceeded their expected operational lifetime. It is considered that dwellings within this age classification will not be able to meet energy efficiency requirements and may be costly to upgrade or are in some form of disrepair. Housing of this age is generally expected to be redeveloped.

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Distribution of housing age within the City is shown in Map 8 – Age Stock. The results of the mapping highlight Cell 9 Wattle Grove, The Hales Forrestfield, Maida Vale Cell 6, Maida Vale U4, High Wycombe U2, and a small cluster near St Brigid's College in Lesmurdie as newer dwellings build post-2001.

The area north of High Wycombe/South of Kalamunda Road, Forrestfield and much of the hills escarpment areas are Pre-1980's which means the housing stock is old and ready for replacement. Considering this, the areas of Forrestfield and High Wycombe/Maida Vale have been included within the Dual Density Areas and are likely to be subdivided and re-developed. Re-development on the escarpment however, is limited by availability of sewer and bushfire risk, and therefore landowners would be more inclined to renovate or build additions to the existing house as the property ages.

24.4 Classification of Lot Size

For the purposes of this Strategy 'Size of Lot' is determined through cadastral data for each lot that falls within the study area. The lot is given one of the following classifications, as follows:

- 450m² or less
- 450-700m²
- 700m²-1000m²
- 1000m² +

Refer Map 7 - Lot Size for more information.

The results show the majority of the remaining rural areas located east of the base of the escarpment (with the exception of Forrestfield North previously zoned Rural) have larger lot sizes 1000m² or larger. This reflects the limited sewerage network in these areas. Under the current Government Sewerage Policy generally no subdivision to less than 2000m² is supported because more area is required for effluent disposal. The State Government is in the process of revising the Draft Government Sewerage Policy which may affect subdivision potential in these areas. As any changes to the area required for effluent disposal may affect subdivision potential, an action to review lot size and zoning considering new policy provisions has been added to Section 3 – Summary of Strategies and Actions 2020.

The areas of Forrestfield and High Wycombe generally have lot sizes between 700m² and 1000m² which is reflective of the older housing stock. The areas of Cell 9 Wattle Grove, The Hales Forrestfield, Maida Vale Cell 6, Maida Vale U4, and High Wycombe U2 generally have smaller lot sizes between 450-700m² which are more urbanised. Lots less than 450m² are relatively scarce and scattered within Cell 9 Wattle Grove, the Hales

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Forrestfield, and within High Wycombe. Very few lots less than 450m² are located on the escarpment with the exception of a few properties close to Kalamunda town centre.

In summary the City generally consists of larger lot sizes 1000m² or above, with the smaller lot sizes concentrated in urban areas on the Swan Coastal Plain where the topography is flatter and with access to sewer. The newer urban areas are more likely to contain lot sizes less than 450m².

24.5 Housing Stock Results

Following analysis of housing stock age and lot size, as well as an assessment of the mapped data, the following conclusions can be drawn regarding each suburb within the City of Kalamunda (refer Table 4.7).

Table 4.7: Results when comparing lot size and housing stock age

Suburb	Housing Age Results
Forrestfield	<ul style="list-style-type: none"> Forrestfield's Housing Stock is significantly aged, with the majority of dwellings from the 'Pre 1980s' designation. The average lot size within the area is the '700 – 999sqm' classification. There are some small pockets of smaller lot sizes, and a few outlying lots that are 1000sqm or greater in the area close to the Forrestfield Shopping Centre. Generally, the more recently created smaller lot sizes have corresponding younger housing stock.
Forrestfield North	<ul style="list-style-type: none"> Locations within the proposed Forrestfield North area are all identified as 1000sqm or more, and have an average housing stock that falls within the '1980 – 2000' classification. The Forrestfield North development area will be covered by the current and future Forrestfield North District Structure Plan.
High Wycombe	<ul style="list-style-type: none"> Large portions of '1980 – 2000' housing stock is present in High Wycombe, along with a substantial amount of 'Pre 1980s' stock. Pockets of newer development are appearing on the fringes of the suburb. The average lot size of the area is '700 – 999sqm'.

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	<ul style="list-style-type: none"> • Pockets of 1000sqm or greater land are located on the very fringe of High Wycombe, along with a smattering of lots through the south end of the suburb. • A small pocket of 1000sqm plus land is located near Edwards Road and Wycombe Road. • The fringes of the suburb also contain an intensification of '450 – 699sqm' lots. These are generally in line with the newer housing stock appearing on the fringe of the suburb.
Maida Vale	<ul style="list-style-type: none"> • Housing Stock in Maida Vale is generally aged, with the majority of stock between '1980 – 2000' and the second largest stock age being from the 'Pre 1980s' categorisation. • The oldest stock is concentrated at the central area of the suburb, with the middle to fringe areas of the suburb containing the '1980 – 2000' stock. • Small pockets of newer development are located toward the centre of the suburb. • The predominant lot size within Maida Vale is 1000sqm or more, with a small contingency of lots that are 700sqm or less towards the centre of the suburb.
Gooseberry Hill	<ul style="list-style-type: none"> • The majority of properties within Gooseberry Hill fall within the 'Pre 1980s' classification. • There is a large majority of 1000sqm or more properties within the suburb. • The large lot sizes alongside the older housing stock and apparent lack of development suggests that Gooseberry Hill is subject to some external impact that is constraining development.
Kalamunda	<ul style="list-style-type: none"> • The majority of Kalamunda's housing stock falls into the 'Pre 1980s' category. • Small pockets of newer development have begun appearing in streets close to the Town Centre, however these are sporadic and very much in the minority. • With the exception of some '700 – 999sqm' and '449sqm or less' lots in the Town Centre Kalamunda is predominantly covered by lots that are 1000sqm or more.

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Lesmurdie	<ul style="list-style-type: none"> • The majority of housing stock within Lesmurdie is well aged, with 'Pre 1980s' stock dominating the area, followed by '1981- 2000'. • Some pockets of new development have occurred in small areas along Lesmurdie Road and Fasolo Close. • The predominant lot size in Lesmurdie is 1000sqm or more. • There are a few small 'pockets' in the suburb that have 700 – 999sqm lot sizes.
Walliston	<ul style="list-style-type: none"> • Walliston contains a majority of 1000sqm or more lots, with a smack portion of the northern end of the suburb containing lots that fall into the '700 – 999sqm' category. • The majority of houses in the northern end of the suburb are part of the 'Pre 1980s' category. • This age classification extends through the rest of the suburb, with a few lots with development classified in the '1981 – 2000' period. • There are some sporadic developments within the suburb that fall under the '2001 – present' housing stock age.
Wattle Grove	<ul style="list-style-type: none"> • The western end of Wattle Grove has predominantly new housing stock on it. It is considered that this is due to the Cell 9 Structure Plan currently in effect over the area. • The remainder of Wattle Grove to the east has much older housing stock with small patches of newer development. • Any lots that are not impacted by the Cell 9 Structure Plan are 1000sqm in size or greater. • Within the Cell 9 area the lot sizes are more varied but are generally within the '450 – 699sqm' range category.

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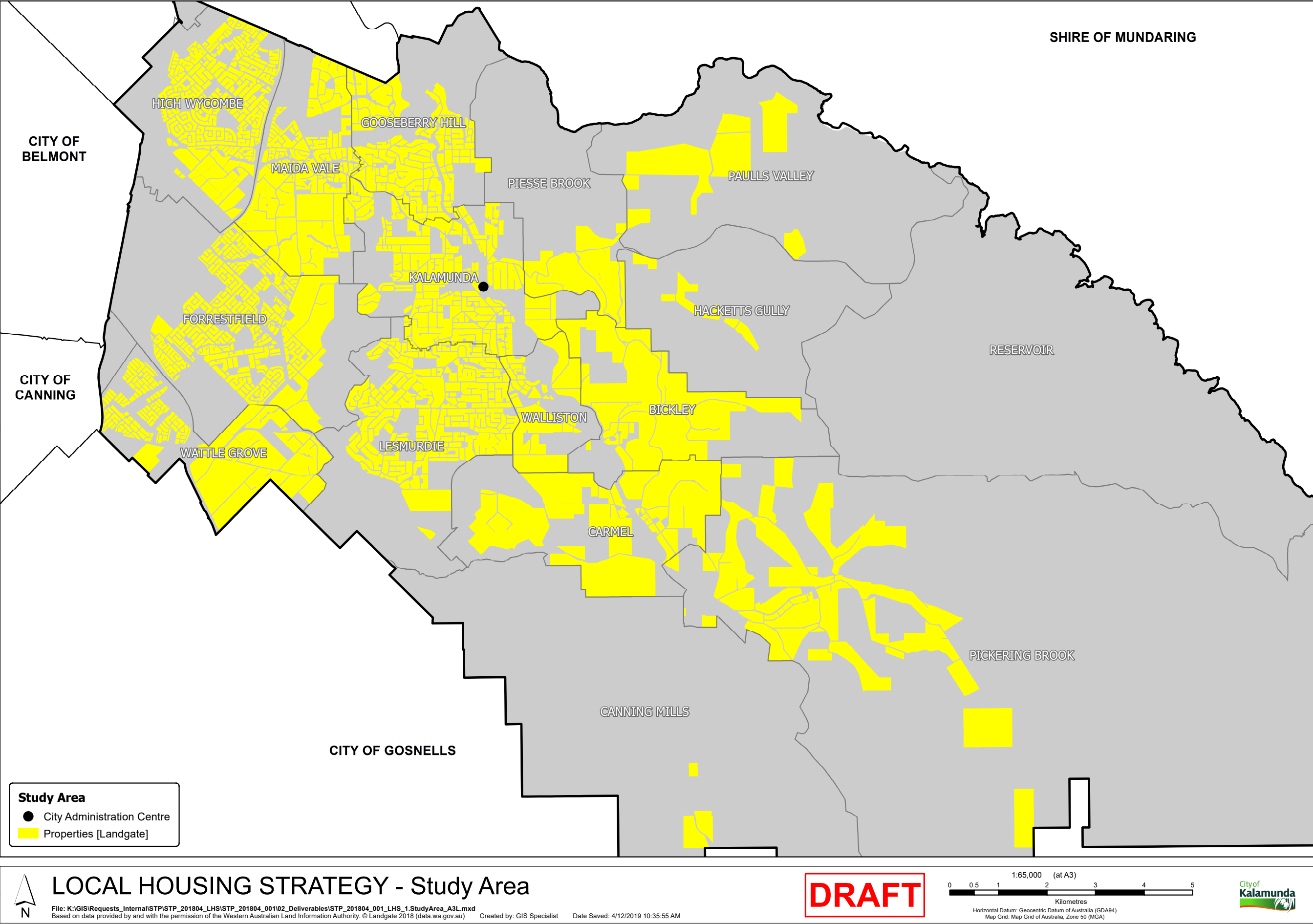
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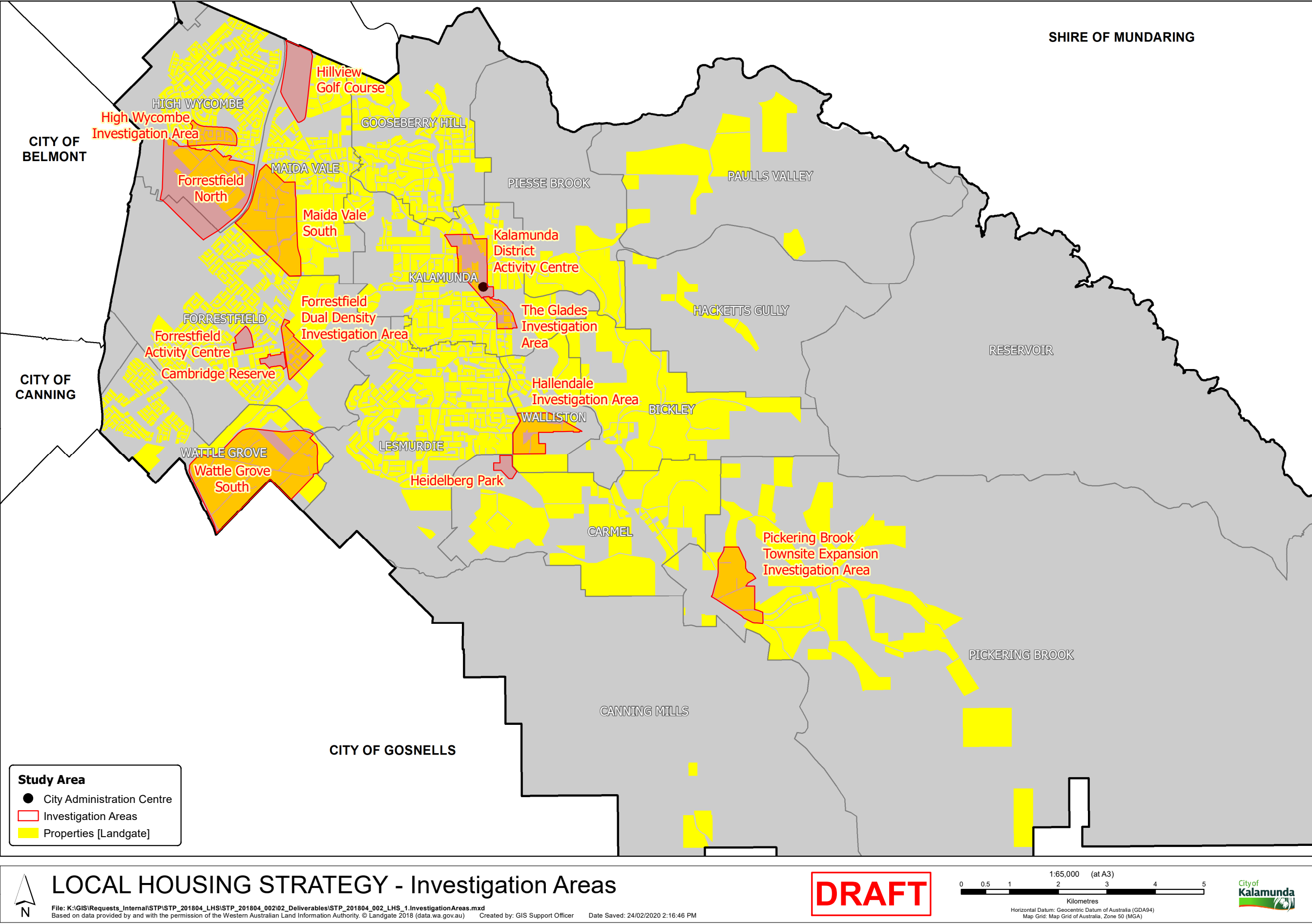
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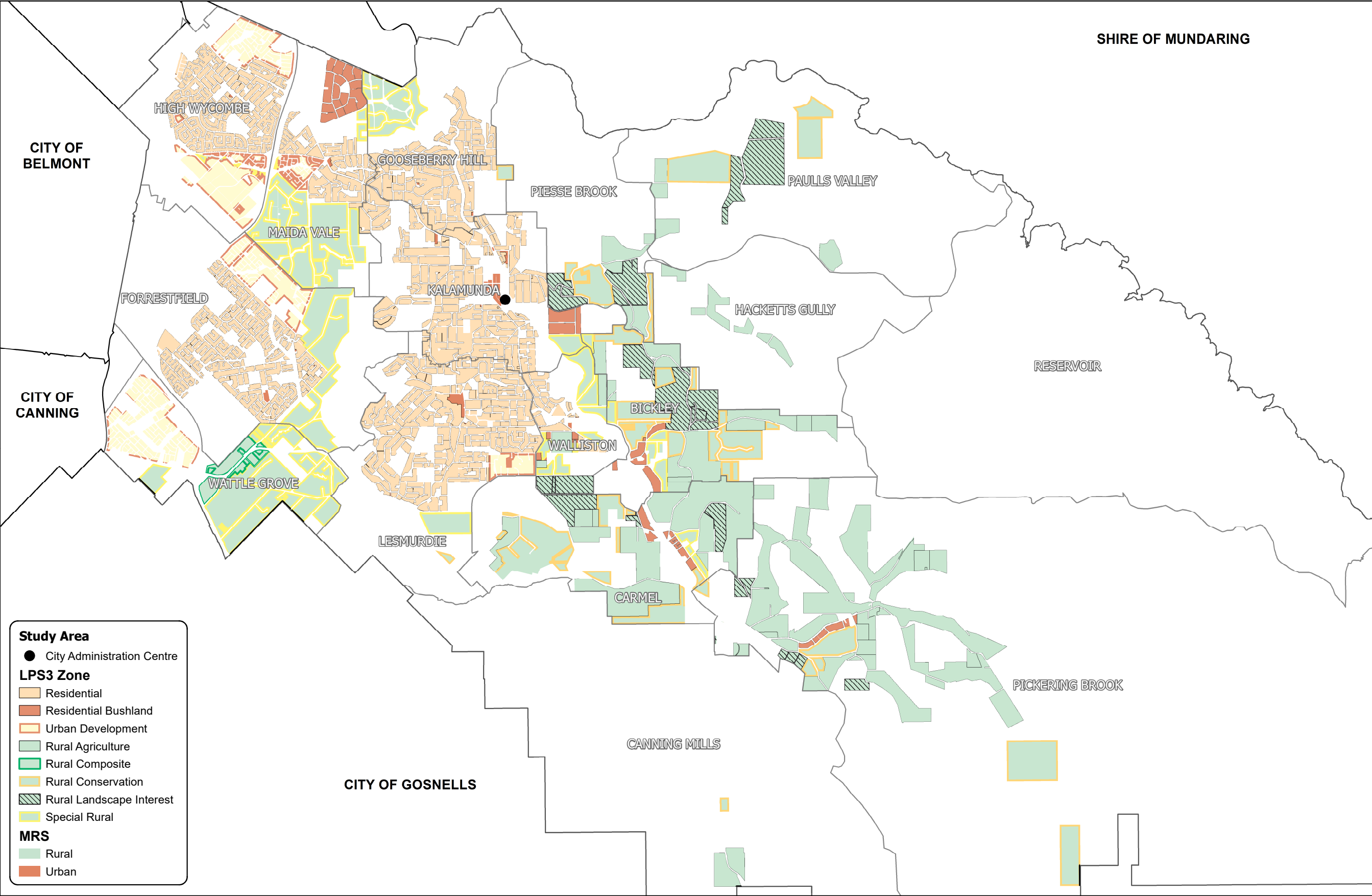
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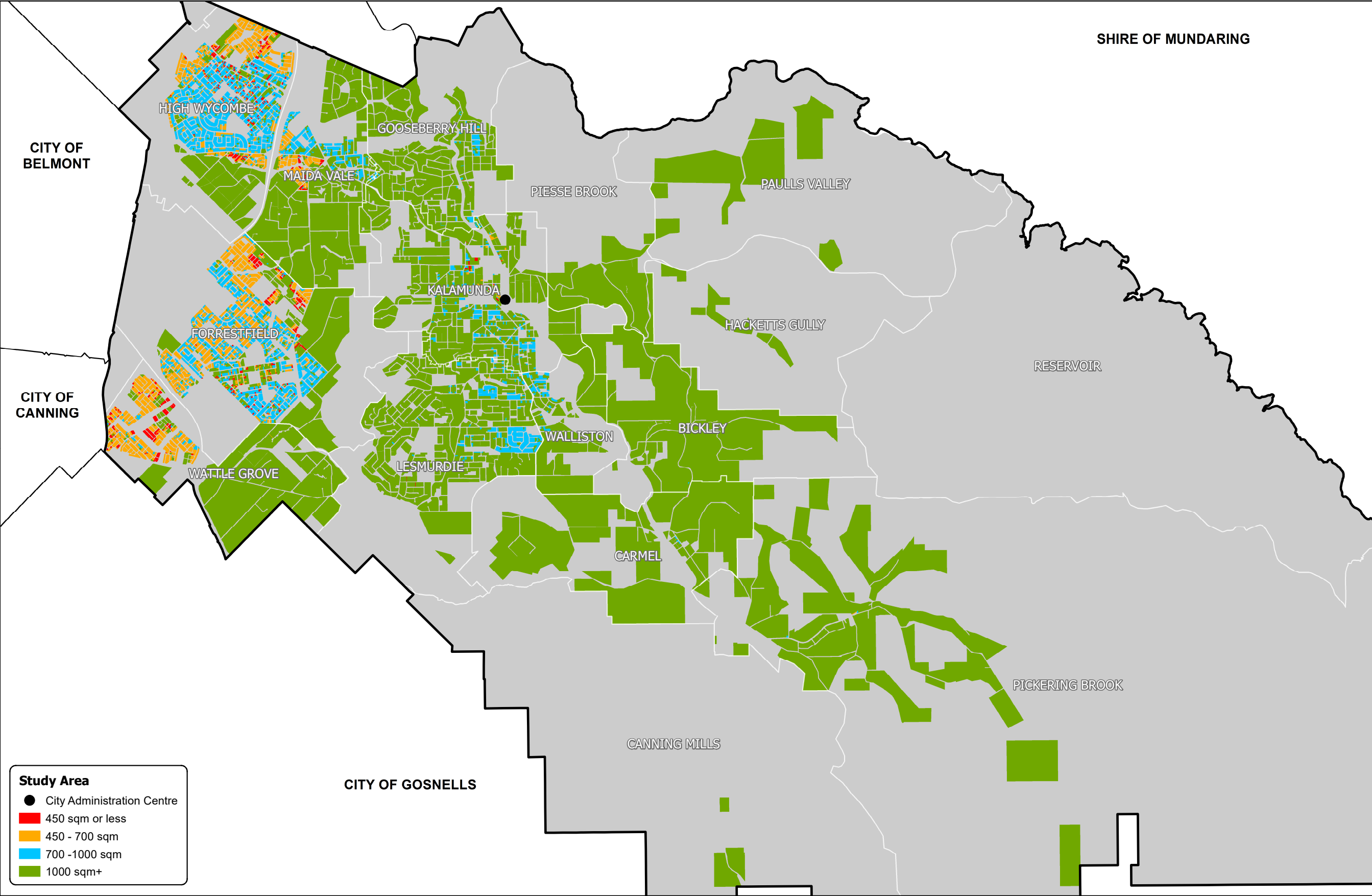
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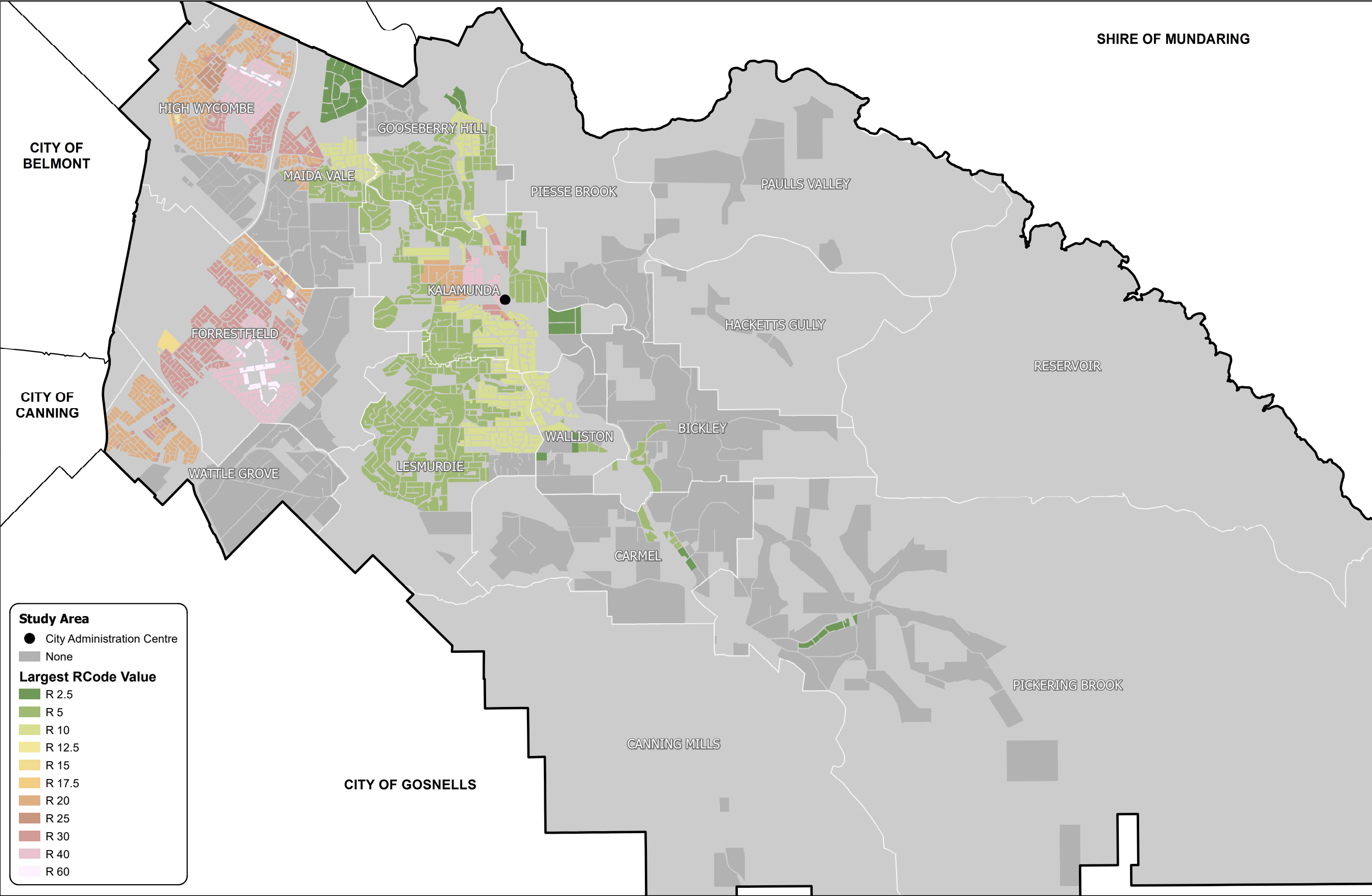
APPENDIX 5: MAPPING

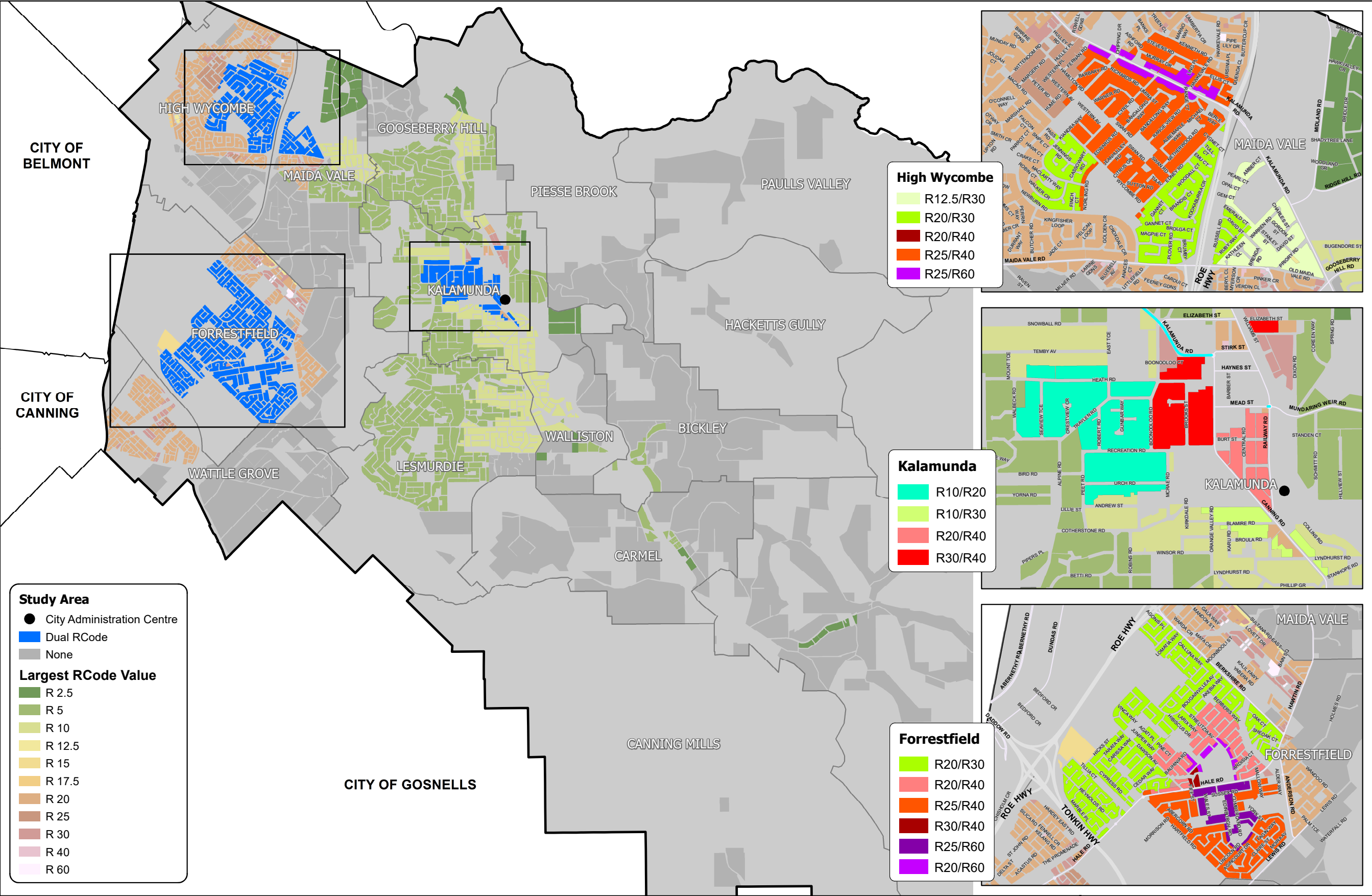












LOCAL HOUSING STRATEGY - Residential Zones: Dual Density Areas

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