

Local Planning Strategy

ISSUES PAPER





A Introduction

The City of Rockingham is engaging our communities to seek input on the City's Draft Local Planning Strategy.

This paper provides a range of information about the Local Planning Strategy and the key elements that need to be considered in developing responsive, contextual and forward-looking strategy.

The Local Planning Strategy is an important high-level strategic document that forms the basis of the Town Planning Scheme. It provides the interface between local and regional planning policies, strategies and strategic development initiatives and guides future strategic urban planning initiatives.

We encourage all residents and community members to take the opportunity to find out more about the Local Planning Strategy and to provide feedback.

Details on how to be involved can be found at <https://rockingham.wa.gov.au/planning-and-building/local-planning/local-planning-strategy>

Why does the City need a Local Planning Strategy?

A Local Planning Strategy is an essential component of the development and delivery of a Town Planning Scheme. It details the background and rationale for proposed zones, density and land use controls introduced in the proposed Scheme.

It is also a State planning requirement that each local government in Western Australia has a Town Planning Scheme and a Local Planning Strategy.

Local Governments are required to review their Town Planning Schemes every five years. The City's current Town Planning Scheme No.2 was released in 2004 and has been amended and updated numerous times. Proposed Town Planning Scheme No.3 will represent a comprehensive review of the current Scheme, and bring it into line with contemporary planning regulations.

How will the Local Planning Strategy affect my property?

A Local Planning Strategy does not specify changes to individual properties. The Strategy will set out the City's objectives for future planning and development and includes a broad framework by which to pursue those objectives. The strategy will need to address the social, environmental, resource management and economic factors that affect, and are in turn affected by, land use and development.

The recommendations of the Strategy inform the development of a revised Town Planning Scheme, which will provide more detailed planning and development guidance at an individual property level.

How has community input influenced the preparation of the draft Local Planning Strategy to date?

The City completed the first round of community and stakeholder consultation in 2013 with positive and fruitful outcomes. Key stakeholder groups targeted were community members from each council ward, internal officers, elected members and youth.

The City has also considered other input from the community on planning matters since this time.

The outcomes of this engagement helped to inform the preparation of the Local Planning Strategy Issue Paper.

How can I contribute?

How can the community influence the preparation of the draft Local Planning Strategy?

As previous community and stakeholder consultation has uncovered the values and perception of various planning issues, this round of consultation will focus on re-testing those ideas, identifying any gaps or new emerging ideas and inviting feedback from the community and stakeholders.

The City is running an extensive community engagement program including community workshops, social media campaigns, mail outs, pop-ups and a feedback period. The outcomes of the community engagement will be presented to Council for endorsement prior to the finalisation of the draft Local Planning Strategy.



How can I participate?

You may participate in a number of ways:

Attend a workshop

Workshops will provide the community an opportunity to explore the major issues affecting the sustainable development of the City. Come along and listen to a presentation by individuals with in depth knowledge of some of the most topical issues facing our community. Ask a question, provide your suggestions or just keep informed. To register go to:



<https://rockingham.wa.gov.au/planning-and-building/local-planning/local-planning-strategy>

Talk to Us

City staff and Councillors want to hear your thoughts and suggestions. Send us an email, write to us, make an appointment and come in for a chat. Our contact details can be found at the bottom right hand corner of the page.

To make contact with us please email or call:



customer@rockingham.wa.gov.au



08 9528 0333

Suggest some Options (or comment on ours!)

The Local Planning Strategy Issues paper is being released for consideration by the broader community, so if you can't make it to a workshop – this is an ideal way to have your say.

How do I provide feedback and input?

You can provide feedback and input in a few different ways:



1 Complete a survey by going to <https://rockingham.wa.gov.au/planning-and-building/local-planning/local-planning-strategy>



2 Write a submission, and:
Email it to customer@rockingham.wa.gov.au; or
Mail to Planning Services -
PO Box 2142 Rockingham DC 6967



3 Visit the City's Administration Office at Civic Boulevard, Rockingham WA 6168 to view the information displayed in the ground floor foyer or to speak to a member of our planning team.

All feedback will be reviewed, and will inform the draft Strategy before it gets submitted to the Council and the Western Australian Planning Commission.

The City values and respects your privacy so your personal details will not be shared with others or published.



Introduction

1.1 Planning for a Diverse and Growing Population

By 2036, the City’s population is expected to increase by more than 100,000 people to over 190,000. This growing population will influence demands on the economy, housing, transport, open space, health and community facilities.

The City therefore is in the process of preparing a Local Planning Strategy (LPS), setting a framework for land use planning that enables preparation for this future growth. The LPS will set out the long-term strategic direction for land use (to 2050) and consider a wide range of local planning, economic, social and environmental issues. It also provides the basis for zonings and the City’s new Town Planning Scheme.

In addition, existing State, regional and local plans and strategies and census data will provide focus and direction for the development of the LPS.

1.2 Community Input

Community input is a vital component in the development of the LPS. At the inception of the LPS the City sought community values and attitudes to key planning issues including:

 **Housing**

 **Community health and wellbeing**

 **Employment and economic development**

 **Transport**

 **Environment**

 **Heritage**

Each element has been interrogated in depth in the supporting studies, whereas this Issues Paper provides overview of the key ideas and utilises the analysis to provide objectives, strategies and actions that will inform the preparation of the LPS.

Based upon this engagement, the City identified four key elements critical to the LPS and prepared detailed studies exploring them:



Environment
How we will plan for the protection of the environment and for the conservation and preservation of places of historic and/or cultural interest and landscape value?



Employment
How we will plan for employment growth that will deliver an increased level of employment self-sufficiency resulting in acceptable levels of liveability and transport efficiency?



Transport
How we will plan for the integration of land uses and the transport network to create well-connected communities having access to employment, education, shopping, and community facilities with a range of transport choices and modes?



Housing
How we will facilitate sustainable urban development by planning for diverse housing opportunities suited to different income levels, lifestyle choices and household types?

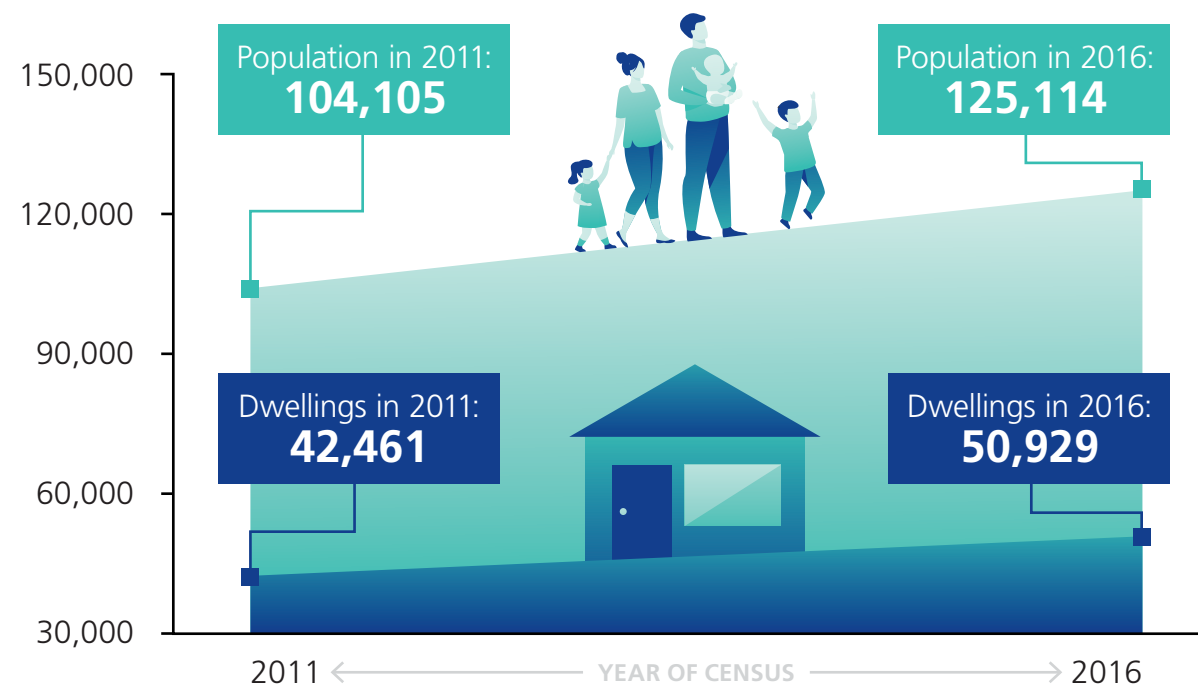


Figure 1:
LPS Key Elements

Our growing community

2.1 Forecast Change in Demographics

The 2016 Census shows the City of Rockingham having a population of 125,114 people residing in 50,929 dwellings. This represents a population increase of 21,009 and an additional 8,468 dwellings since the 2011 Census. The average household size reduced marginally between the two Census periods from 2.64 in 2011 to 2.63 in 2016.



Population projections prepared for the City show that, in conjunction with substantial population growth over the next 20 years, the City's age structure is expected to change, with the 60+ age segment growing from 16.8% to in excess of 20% (refer to Table 1 below).

Table 1: Forecast Change in Demographics

Demographic Data		2016 Census	Forecast by id Consulting		Perth & Peel @3.5million
			2026	2036	2050
Population		125,114	171,763	192,805	235,935
Dwellings		48,147	67,667	77,370	94,001
Household		42,478	62,499	71,861	Source: forecast.id
Average Household Size		2.63	2.73	2.66	
Age Structure	0-19	28.9%	29.7%	28.6%	
	20-59	54.5%	52.5%	50.9%	
	60+	16.8%	17.8%	20.6%	

The increase in the 60+ age group, combined with the high percentage of one and two person households is likely to exacerbate the existing disconnect between housing needs and housing provision unless greater diversity in new housing is encouraged.

2.2 Housing and Households

An assessment of 2016 Census data has provided the following information with respect to the City's existing housing supply:

- The vast majority of dwellings in the City were single houses (88.7%).
- The proportion of dwellings within the City with two bedrooms or less (8.5%) is significantly below the Perth metropolitan average (15.2%).
- In contrast, a significant proportion of households (53.5%) were home to just one or two people.
- 10.2% of the City's households were experiencing housing stress compared to 9.0% in Greater Perth.

The vast majority of existing dwellings within the City are larger houses, with 84.4% of dwellings having three or more bedrooms (56.4% are 4 bedrooms or more).

In addition to demographic changes, social trends are also expected to influence housing needs in the future. Key trends identified by demographers are:

- Younger people seeking housing closer to social amenities and public transit, and avoiding car ownership;
- Empty nesters seeking smaller, lower maintenance properties, and downsizing to fund retirement;
- Lifestyle taking on a greater emphasis in buying decisions; and
- Growing desire for "lock and leave" properties.

2.3 Employment

Rockingham has a relatively low employment self-sufficiency ratio (the ratio of local jobs to resident workforce) of 58%. By comparison, the Cities of Cockburn and Kwinana have high employment self-sufficiency ratios of 93% and 83% respectively.

In community engagement undertaken by the City, the importance of working in Rockingham was evident, however, based on current population estimates and projections, employment growth would not keep pace with residential growth and it is most likely that employment self-sufficiency ratios will further decline to between 45% and 49%. These scenarios are broadly consistent with the State's Planning Framework which anticipates employment in the Rockingham City Centre to increase from 6,792 in 2011 to 12,292 in 2050.

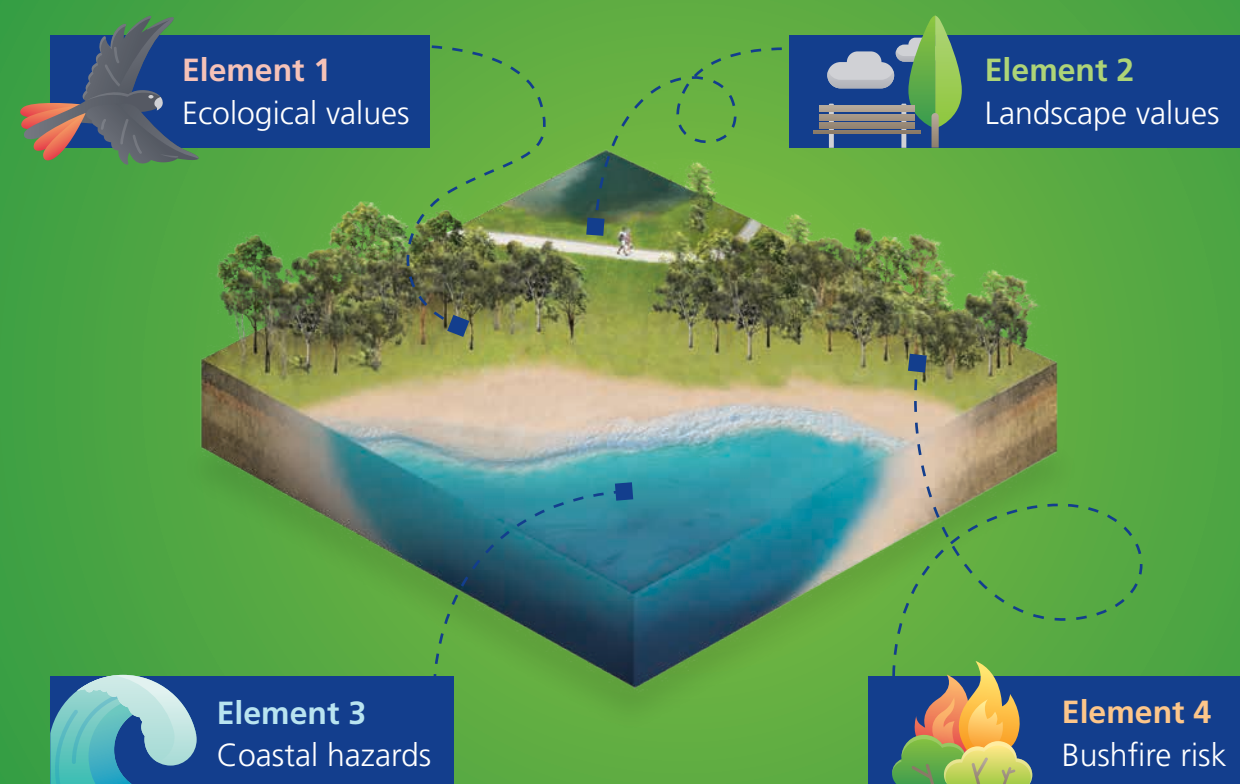
The City therefore needs to plan for higher employment self-sufficiency to give its residents the opportunity to work locally. This will result in many benefits, including:

- Shorter overall commuting distances, with consequent reduced car travel and road use and reduced travel costs overall;
- Increased viability of alternative travel modes such as walking and cycling;
- Reduced travel time (giving residents increased time for other pursuits); and
- Increased involvement by residents with a local community and thus improved community outcomes.

Research and analysis summary

3.1 Environmental Analysis

This section provides a detailed analysis of the four key environmental elements requiring consideration through the LPS, these being:



3.1.1 Element 1 - Ecological Values

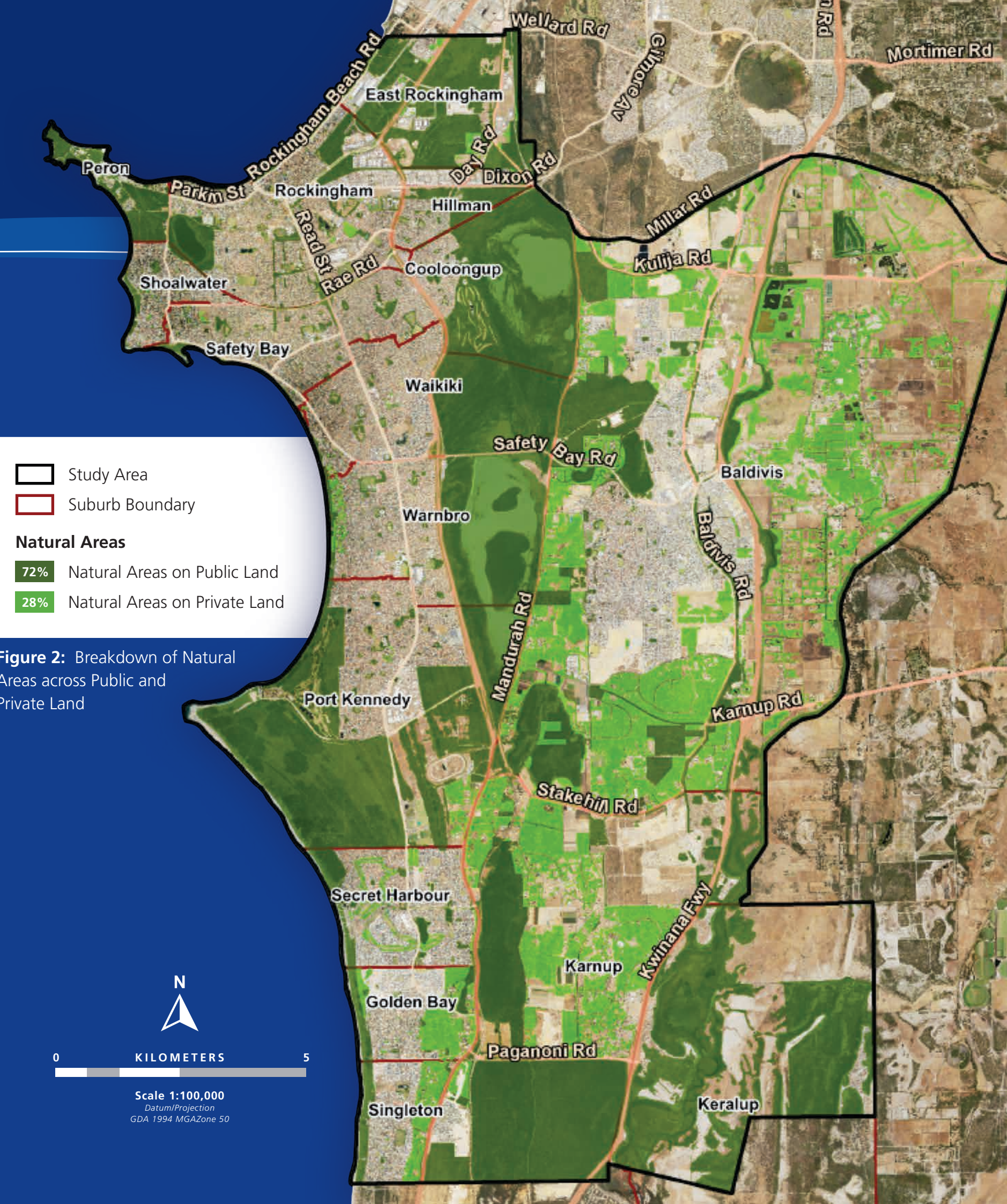
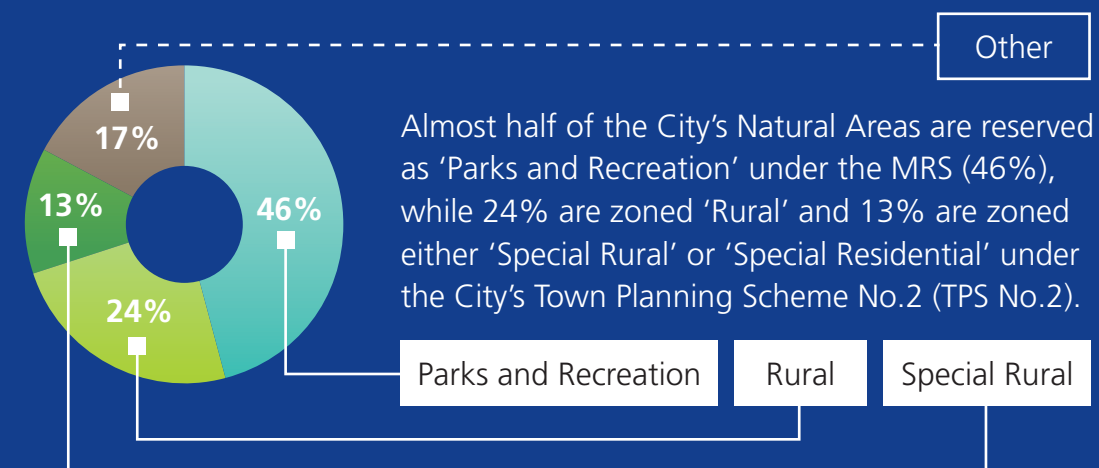
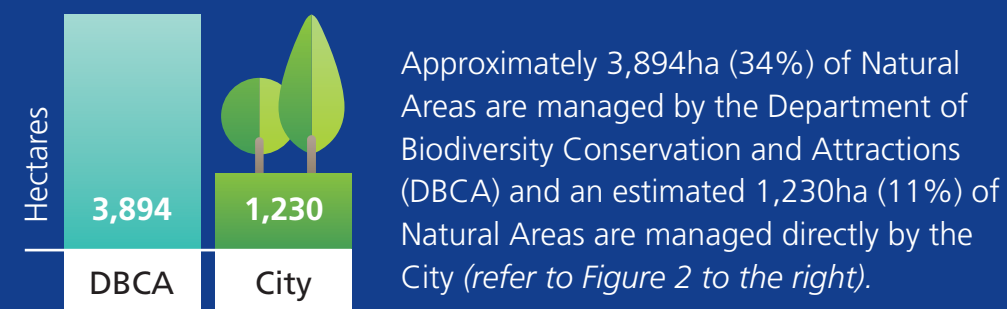
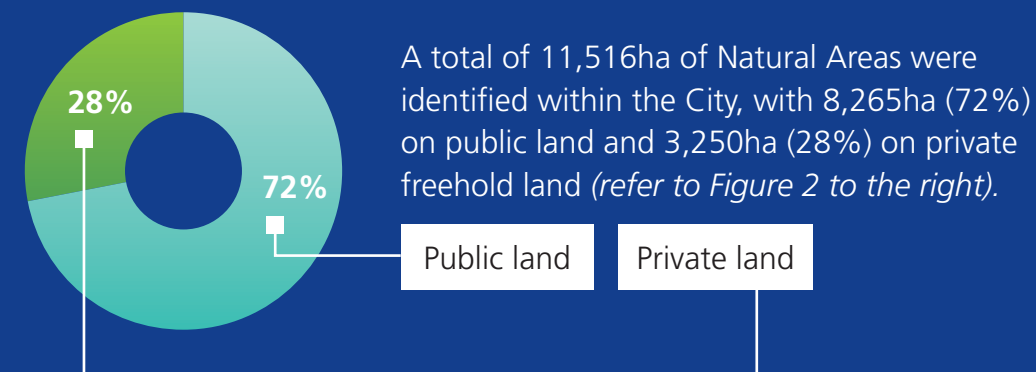
A technical assessment was undertaken of the ecological values contained within all Natural Areas across different zonings, land tenure and management arrangements. The following ecological values were considered in the assessment:

- Threatened and Priority flora, fauna and ecological communities;
- Black Cockatoo feeding, breeding and roosting habitat;
- Resource Enhancement Wetlands (REWs), Conservation Category Wetlands (CCWs) and watercourses and their buffers;
- Bush Forever sites;
- Low represented vegetation complexes in the Swan Coastal Plain region and the City;
- Patch sizes of remnant vegetation; and
- The presence of ecological linkages to other areas of remnant vegetation.

Note:

For the purpose of the assessment, Natural Areas are defined as all remnant vegetation, wetlands and watercourses, irrespective of ownership or management responsibility. Where these Natural Areas are located on private land, they are referred to as Local Natural Areas (LNAs).

A summary of the findings from the assessment is provided below:

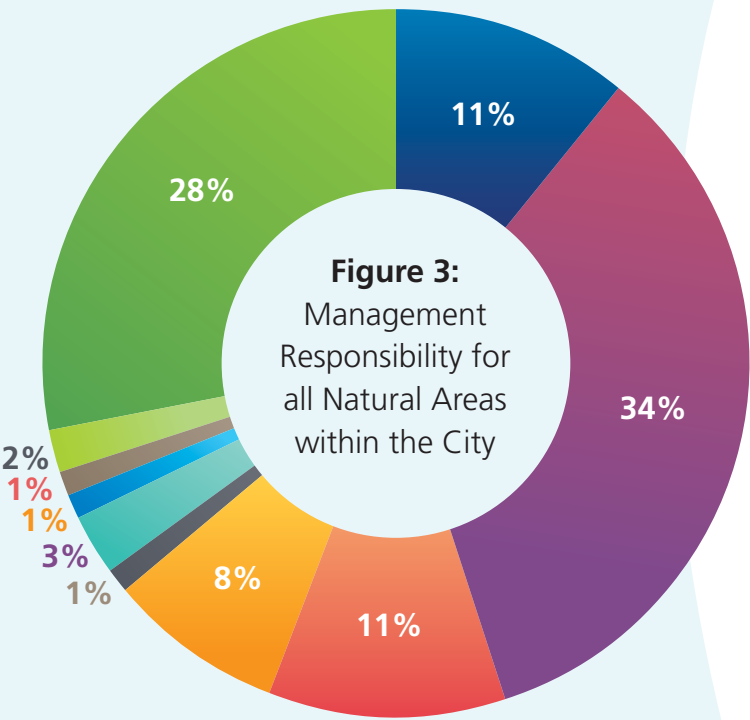


3.1 Environmental Analysis

- The majority of all LNAs occur on land zoned as ‘Special Rural’, ‘Special Residential’ and ‘Rural’.
- A total of nine vegetation complexes exist within the City, five of which are priority for conservation as they have less than 30% of their pre-European extent remaining on the Swan Coastal Plain, as shown in Table 2 below. Of particular note are the Dardanup Complex and Guildford Complex which have less than 10% of their pre-European extent remaining (*shaded red in the Table*).
- The Guildford Complex is also at threat locally with only 14% of its pre-European extent remaining across the City (*shaded yellow in the Table*). Most importantly, the majority of the Dardanup Complex and Guildford Complex within the City occur on private freehold land (*shaded blue in the Table*) and therefore require careful consideration as part of the LPS to manage potential impacts such as land clearing.

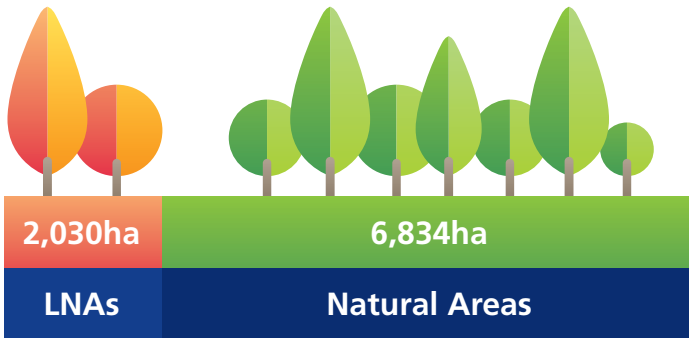
Table 2: Priority Vegetation Complexes

Vegetation Complex	Percentage of pre-European Extent Remaining			
	Swan Coastal Plain (2015)	City of Rockingham (2016)		
		Overall	Private land	Public land
Dardanup Complex	7	42	91	10
Guildford Complex	5	14	86	14
Karrakatta Complex	14	47	57	43
Serpentine River Complex	10	33	53	47
Bassendean Complex	26	49	4	96



- City of Rockingham
- Department of Biodiversity, Conservation and Attractions
- Department of Communities
- State of Western Australia
- Main Roads Western Australia
- Western Australian Planning Commission
- Water Corporation
- Department of Mines, Industry Regulation and Safety
- Other Public Management
- Private Freehold

- Urban expansion on the Swan Coastal Plain and associated clearing of native vegetation has led to significant fragmentation and habitat loss for native flora and fauna. Maintaining continuity in the form of habitat corridors or ecological linkages is particularly important so that species and genetic diversity are maintained over a wider area in the event that smaller areas are degraded or destroyed. Collectively, these Natural Areas form stepping stones of habitat which enables the movement and dispersal of native flora and fauna across the urban environment.
- Several ecological linkages have been identified across the City, with the Rockingham Lakes Regional Park acting as the primary corridor. The ecological linkages considered in the assessment are 500m wide and cover a total of 2,030ha of LNAs and 6,834ha of Natural Areas on public land.



- The condition and value of LNAs within the City is threatened by direct impacts such as clearing for development and bushfire control, and indirect impacts from invasive flora and fauna, pathogens (i.e. dieback), uncontrolled access and changes to hydrological and fire regimes. Many of these impacts are already being realised across the Swan Coastal Plain and need to be managed relative to population growth and development in the future.

- Due to the varying and numerous ecological values which exist across the City, it was necessary to capture these in a way which was meaningful and allowed them to be appropriately considered as part of the LPS. As such, LNAs have been prioritised for protection based on the presence of the multiple overlapping ecological values.
- The priorities were determined by assigning each ecological value a unique score relative to its conservation significance. Each LNA was then given a total score according to the different values it contained and a subsequent priority of Low, Medium or High.
- A breakdown of the LNA priority categories is shown in Figure 4 and Table 3 below. High Priority LNAs predominantly exist within Karnup and Baldivis and are typically associated with large patches of vegetation (>4ha) that contain poorly represented vegetation complexes, are potential Carnaby's Black Cockatoo habitat and exist in close proximity to DBCA managed lands. Low priority LNAs mainly occur on 'Rural', 'Special Rural' and 'Special Residential' land as fragmented patches with lesser conservation value.

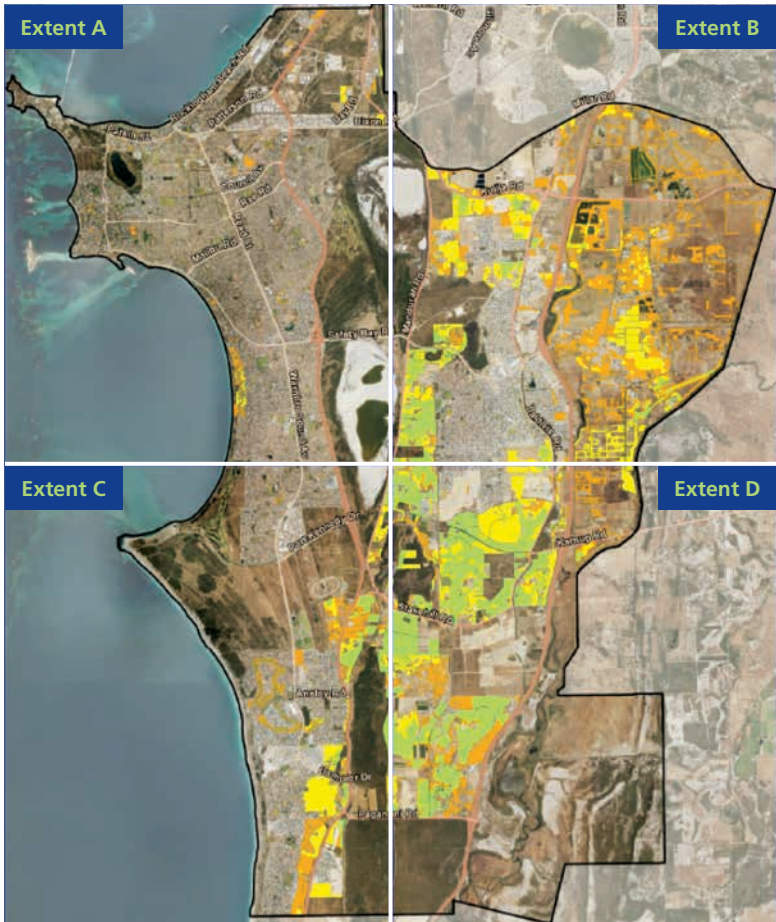


Figure 4: Local Natural Area Priority Categories across the City

Table 3: Local Natural Area Priority Categories

LNA Priority Category	Total Number of LNAs	Area (ha)	% of Natural Areas
Low	1394	1260	39
Medium	947	979	30
High	321	1015	31
Total	2,662	3,254	100

3.1 Environmental Analysis

3.1.2 Element 2 - Landscape Values

There are a number of significant landscapes within the City that require protection from development. In terms of private land, examples of key landscapes include the ridge line and wetlands that run generally north-south along the eastern side of Mandurah Road, the natural dune system located on the western side of Mandurah Road in Golden Bay and Singleton and the elevated Bush Forever site along Doghill Road.

Many significant landscapes within the City are reserved for Parks and Recreation or Public Open Space. Examples include the Rockingham Lakes Regional Park, Port Kennedy Scientific Park, the City's coastal foreshore and numerous wetlands and Bush Forever sites. The protection of these landscapes is secured as they are reserved in the MRS/TPS, under the vesting/management of public authorities and/or the subject of endorsed management plans.

In 2011 the City undertook a Visual Landscape Evaluation (VLE) of the natural dune system in Golden Bay and Singleton, to assess the area's natural landscape features and visual amenity. The VLE established that the landscape of the area has considerable visual character and contains important natural elements, valued by the local community, which were desirable to maintain. This particularly included the vista obtained from Mandurah Road that provides a positive natural/rural outlook across much of the VLE study area and the natural dune system that is a highly valued and significant natural asset that is worthy of ongoing preservation.



As part of the recent review of its Local Planning Policy 3.1.1 - Rural Land Strategy (RLS), landscape character assessments were undertaken of the remaining rural areas to identify the key landscapes and evaluate the extent to which these areas could absorb development without a detrimental impact upon the landscape and a loss of visual character and amenity.

The majority of the land is elevated and well vegetated, providing little opportunity to accommodate a more intensive form of development without a detrimental impact upon the areas of environmental and landscape significance.

In providing a framework for future land use planning, the LPS will aim to protect landscape values identified in RLS, particularly where these values occur within Medium to High priority LNAs.

3.1.3 Element 3 - Coastal Hazards

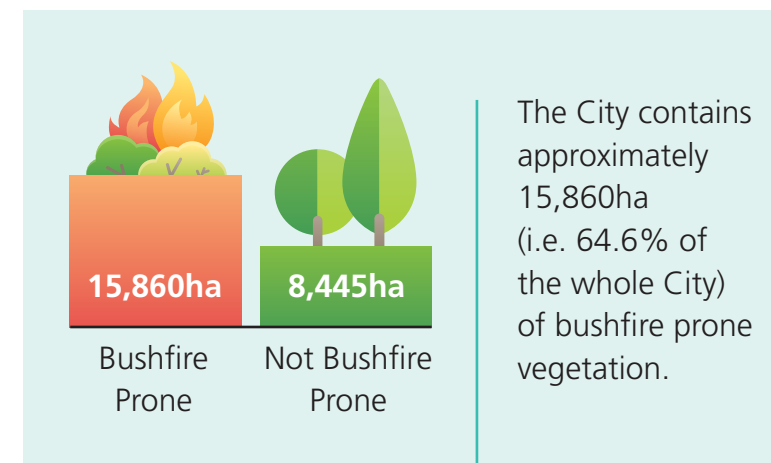
A range of studies undertaken through the City's coastal partnerships, including those prepared by the Peron Naturaliste Partnership and Cockburn Sound Coastal Alliance, have identified much of the City's coastline and adjacent developed areas as being vulnerable to the impacts of coastal hazards such as erosion and inundation over the next 100 years.

Consequently, Council has endorsed a Coastal Hazard Risk Management and Adaptation Plan (CHRMAP) which has identified that much of the City's coastline and the adjacent developed areas are vulnerable to the impacts of coastal hazards such as erosion and inundation over the next 100 years.

The CHRMAP includes a detailed coastal hazard risk assessment, including coastal hazard modelling, a risk analysis and evaluation of potential adaptation options. It will inform the consideration of planning adaptation options in light of the projected coastal hazard risks, and are likely to require the introduction of specific planning controls in the Scheme, along with associated Planning Policy.

3.1.4 Element 4 - Bushfire Risk

Bushfire prone vegetation consists of remnant native vegetation, unmanaged grasslands, native and non-native regrowth and revegetated areas. It is captured by the Department of Fire and Emergency Services (DFES) in the state wide Map of Bushfire Prone Areas.







Under directive of the State Hazard Plan Westplan – Fire (May 2016) the Council endorsed a Bushfire Risk Management Plan (BRMP) for the entire municipality. The BRMP assesses all assets at risk from bushfire within the City and prioritises and schedules the treatment of the risks. The City coordinates the treatment of bushfire risks, with the participation of the relevant stakeholders.

Many bushfire prone areas are likely to contain important ecological values and the implementation of risk reduction treatment strategies may result in adverse environmental impacts. Suitable treatments are determined on a site-specific basis to achieve the best possible outcome relative to both bushfire safety and conservation objectives.

3.1.5 Environmental - Strategies and Actions

Based on the key issues identified in the environmental analysis, it is recommended that the following overarching environmental objectives inform the preparation of the LPS:

-  1 That the potential impacts of urban development on significant ecological values be mitigated by ensuring priority LNAs are protected, integrated or enhanced through future land use planning.
-  2 That areas of significant landform and visual amenity be retained, particularly where these overlap with medium to high priority LNAs.
-  3 That development and land use in areas vulnerable to coastal hazards is suitably located and regulated to maximise adaptive capacity and long term viability.
-  4 That the extent of vegetation clearing to satisfy bushfire safety requirements be minimized through strategic siting of future development in designated bushfire prone areas.

The LNAs prioritised according to their ecological values will be overlayed with the other three elements (bushfire risk, coastal hazards and landscape values) to form a holistic view of local areas requiring protection or integration into future planning as part of the LPS.

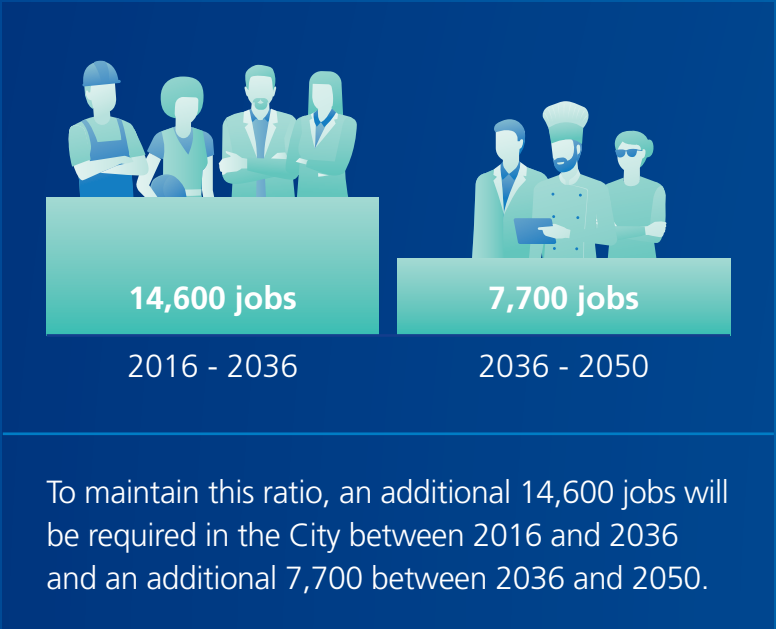


3.2 Employment and Transport Analysis

The employment and transport analysis provides a framework for planning and managing the integration of land uses and the transport network to create well-connected communities having access to employment, education, shopping, and community facilities with a range of transport choices and modes. It also assesses the current and projected employment needs of the City and recommends strategies to facilitate the long term employment growth of the City.

3.2.1 Employment Issues

Rockingham has a relatively low employment self-sufficiency ratio of 58%.



To put this into context, the total capacity for additional employment in the City's existing industrial areas (East Rockingham and Port Kennedy) is only 7,600 jobs.



Based on current population estimates and projections, employment growth would not keep pace with residential growth and it is most likely that employment self-sufficiency ratios will further decline to between 45% and 49%.



The City needs to plan for higher employment self-sufficiency to give its residents the opportunity to work locally.



Even with higher density development, there is no reason for anything other than local jobs* to be generated. It also means that for most scenarios, an increasing number of Rockingham residents will be leaving the City for employment.

Note:

Population growth generates local employment (for example, retail, local education, local health care and other services), however, this type of employment on its own will not bring enough employment to maintain employment self-sufficiency ratios. Hence, additional jobs from externally-oriented or strategic sectors (for example, tertiary health and education, research and product development, media and technology applications, Royal Australian Navy support and tourism) will be required to achieve satisfactory levels of employment self-sufficiency.

- Employment densities for large employers in industrial areas are declining and while these industrial uses will provide good economic growth, in terms of value adding activity, this will be at lower rates of employment growth than in the past. As such, the City cannot rely on new projects and industrial estates in the Western Trade Coast to meet all the future employment needs for its resident workforce.
- The current sectors of employment in the City do not match sectors projected to be in high demand in the future. Employment growth will be in those activities that build on the skill base and technological infrastructure supported by the mining industry and new and expanded industries that build on particular competitive advantages in the state.
- Increased employment ratios will only occur by building on the economic advantages of the region. A high proportion of the opportunity will respond to the amenity and proximity advantages of the Rockingham City Centre and this is a key consideration for the employment future of Rockingham. In this regard, the City's vision is to support the creation of specialised innovation clusters focusing on research and development in high technology fields; with the Technopole being the first significant milestone.
- Rockingham is the Strategic Metropolitan Centre for the rapidly growing South-West Metropolitan Peel subregion and as such, should be the location of key regional services including education (at all levels, but particularly tertiary); health services; public administration (including support to the Royal Australian Navy); management, administration, research and product development for regional activities and high-level arts and entertainment. The greater the concentration of these services in the Rockingham City Centre, the greater the agglomeration economies and the more attractive the Centre becomes for more growth.
- Even with a substantially expanded employment role for the Rockingham City Centre, prospective employment self-sufficiency ratios would be between 49% and 59% which is still far too low.
- To demonstrate the prospective employment self-sufficiency ratios, Table 4 below illustrates a series of population and employment scenarios based on the current framework and zones. All scenarios provide for population-driven employment in primarily residential development areas, with varying assumptions for growth in Rockingham City Centre employment and in industrial estates.

Scenario	1	2	3	4	5	6
Population growth	Low	Low	Medium	Medium	High	High
Employment growth	Low	Medium	Low	Medium	Medium	High
Population	213,874	213,874	247,933	247,933	298,021	298,021
Workforce	94,105	94,105	109,091	109,091	131,129	131,129
Jobs:						
• General development (population driven)	23,684	23,684	27,389	27,389	31,943	31,943
• Industrial & Navy	7,037	9,537	7,037	11,537	7,037	11,537
• Rockingham Centre	11,193	13,693	13,898	19,307	25,262	34,422
Total jobs	41,914	46,914	48,324	58,233	64,241	77,901
Employment self-sufficiency	0.45	0.50	0.44	0.53	0.49	0.59

Note:

The North East Baldivis industrial precinct identified in the Economic and Employment Lands Strategy is not shown on the Framework spatial plan. Instead, the Framework shows land in the same general proximity as a 'Planning Investigation' area.

The Framework states that limited areas of land have been classified for further planning investigation as part of the strategic reconsideration of land use in the sub-region. These investigations will determine whether any possible change from the land's current zoning is possible and/or appropriate. These investigations are required to be undertaken prior to any related MRS amendment processes.

Table 4: Population and Employment Scenarios



- An aspirational target of 70% - 75% employment self-sufficiency is preferable and potentially achievable with changes to the planning framework. In this regard, additional employment land is required and this should be located to the east of the City; as in any scenario, this area will accommodate approximately half the City's population.
- North East Baldvis has been identified in the WAPC Economic and Employment Lands Strategy: Non-heavy Industrial (2012) as the preferred site for future (medium term) industrial development in the south-west sub-region, most likely for larger lot general industrial uses with an emphasis on producer services such as warehousing and distribution; with potential for strategic export/knowledge-based industry. It has an employment capacity of approximately 8,300 jobs. See Figure 5 below.

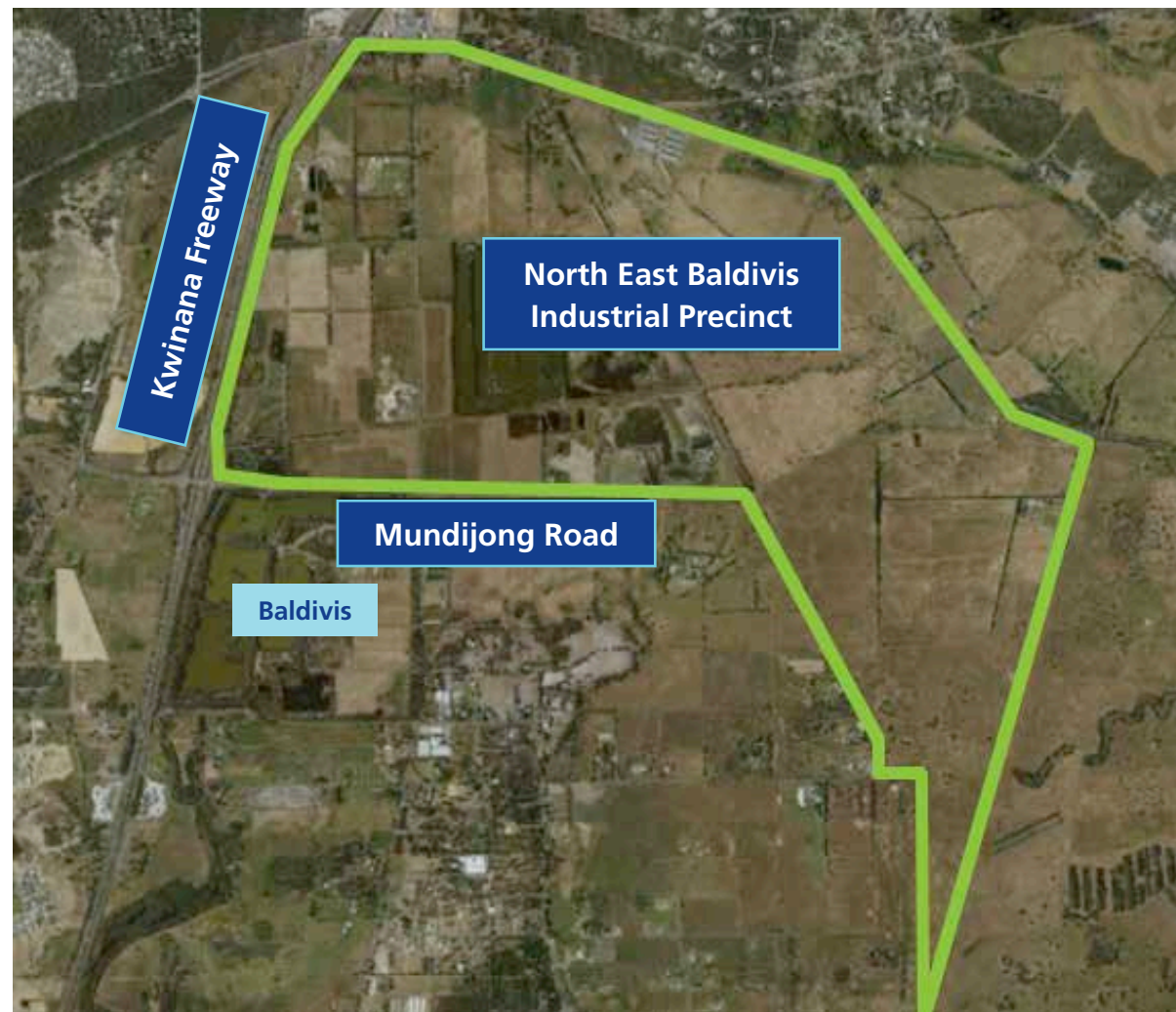


Figure 5: North East Baldvis Industrial Precinct

- There is a longer term necessity for additional employment land in the region and Karnup is very well located for this purpose. It has direct access to the freeway system and is an ideal location to meet a long-term shortage of employment land in the lower metropolitan south-west and Peel.
- At densities similar to those currently in the Port Kennedy Business Park, Karnup has a substantial long-term employment capacity of between 12,500 to 25,000 jobs, depending upon the extent of land allocated for employment.
- The base employment self-sufficiency for the City at 2050 is likely to be between 45% and 59%. If North East Baldvis is included and developed by 2050, this would increase to between 53% and 66%. If land in Karnup was developed to create approximately 12,500 jobs in the long-term, the employment self-sufficiency would increase to between 67% and 75%, and if 25,000 jobs were achieved in the long-term, it would increase to between 80% and 85%. These are the levels of employment self-sufficiency the City must aspire to if it is to achieve good levels of liveability and transport efficiency.

3.2.2. Transport Issues

- Issues related to transport in Rockingham have been outlined in the Integrated Transport and Land Use System Review undertaken for the City by Consultants, Jacobs and Syme Marmion (JSM) in 2015. The major concern outlined in the report was that Rockingham is very dependent on the car for travel, with over 80% of all transport trips being by car (59% as car driver). This is a major area of concern since cities with high car dependence have been shown to perform poorly in terms of overall accessibility, congestion, road safety, affordability and cost of the transport system, and health and fitness.
- Modelling undertaken by Jacobs estimates traffic generated within the City of Rockingham would double from 225,000 to 454,000 per day by 2050 under the business as usual scenario proposed in Perth and Peel @ 3.5 Million. The same modelling showed that when growth in Mandurah and Peel was accounted for, traffic through Rockingham would grow by 133%.
- Realistically it will not be possible to accommodate this large projected increase in traffic within and through Rockingham without extensive road expansion. It is reasonable, however, to assume that any practical expansion of the road network would not be able to accommodate the projected traffic, which would exceed the road network capacity and result in extensive congestion and delay within the sub-region.

- While the public transport system has improved following the construction of the Perth to Mandurah railway and feeder bus services, the level of accessibility between origins and destinations within the City remains low. Without improvement to the public transport system and cycling networks and a re-structuring of land uses to a more mixed-use development, the mode share of car driver is only expected to decrease marginally over the next 35 years (refer to Table 5 below).

Table 5: Car Growth in Rockingham to 2050 (based on business as usual)

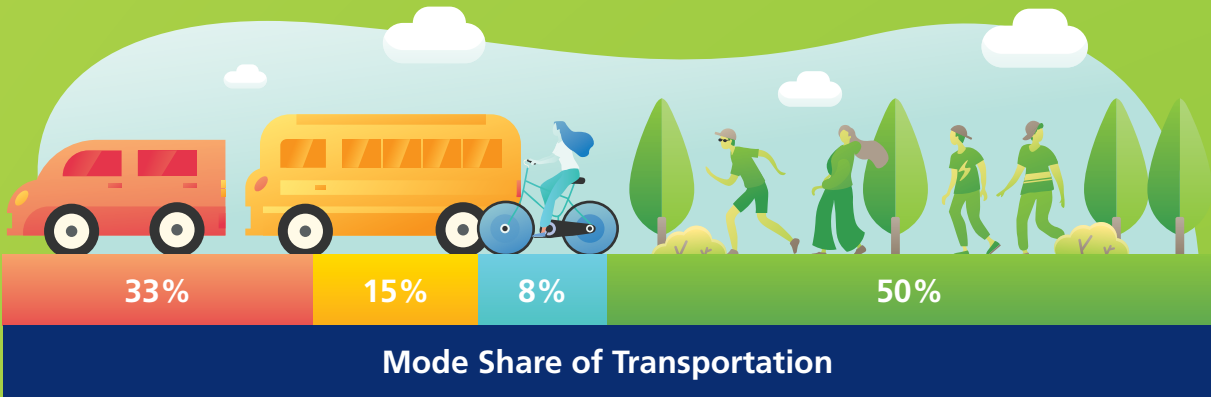
Year	Population	Car Driver Mode Share	Car Trips Generated in Rockingham	% Increase in Car Travel from 2011
2011	109,000	59%	225,000	n/a
2031	183,600	57%	366,000	+63%
2050	236,000	55%	454,000	+102%

- In terms of future population growth in Rockingham, the Framework only provides for 23% to be generated by urban infill. This will be insufficient to change how people travel in any significant way. In particular, it will not result in the level of walking, cycling and public transport use that will be necessary to reduce the negative impacts of car dependency.
- In the Integrated Transport and Land Use System Review, JSM promoted an 'Alternative Growth Strategy' with the potential for mixed-use urban infill development for up to 75,000 people by 2050, compared to the 30,000 proposed by the WAPC.
- The 'Alternative Growth Strategy' recommended a significant increase in urban infill in the City Centre and within a proposed activity corridor along Read Street/ Warnbro Sound Avenue between the City Centre and the proposed Karnup train station. Both areas could be developed as medium to high density residential mixed-use areas, that would enable a substantial number of people to live, work and attend activities by walking, cycling or by using public transport.





- Modelling by Jacobs has shown that a comprehensive transport plan with extensive network improvements to public transport and cycling and a significant increase in mixed-use urban infill and employment close to public transport will be effective in reducing the mode share of car driving by up to 33%. Public transport could be expected to double to 15%, cycling to quadruple to 8% and walking to increase by 50%.



- The projected mode share of transport in Rockingham by 2050, with the proposed network improvements, land use and employment changes and demand management policy is shown in Table 6 below.

Table 6: Estimated Future Mode Share Outcomes

Mode	Business As Usual Planning	Transit Orientated Structuring	Transit Plus Quality Walk, Cycling at Demand Management
Car Driver	55%	45%	40%
Car Passenger	23%	20%	17%
Public Transport	7%	15%	15%
Walking	11%	14%	17%
Cycling	2%	3%	8%
Other	2%	3%	3%
Reduced Car Driving Compared to Existing	8%	25%	33%
Driving Compared to Existing			

3.2.3 Employment and Transport Strategies and Actions

Based on the key issues identified in the transport and employment analysis there is an urgent need to plan for employment growth that will deliver an increased level of employment self-sufficiency which will result in acceptable levels of liveability and transport efficiency.

Furthermore, given that car dependence has been identified as a major area of concern, integrated land use and transport planning aimed at reducing the mode share of car driving, needs to be considered. This may include planning for network improvements to public transport and cycling and a significant increase in mixed-use urban infill and employment close to public transport.

To help address these issues, it is recommended that the following strategic employment and transport objectives inform the preparation of the LPS:

- 1
Promote a substantially expanded employment role for the Rockingham City Centre.
- 2
Provide for new employment land in in the medium term and longer term.
- 3
Provide for mixed-use urban infill within the proximity of Activity Centres and Public Transport Corridors.
- 4
Protect existing employment land and allow for more intensive uses.
- 5
Encourage mode shift to reduce car dependence by promoting walking, cycling and public transport; and by providing improved connections to the Rockingham City Centre.



3.3 Housing Options Analysis

“Western Australia’s demographics and household structures are changing rapidly, yet the diversity of the available housing stock remains relatively static.”

(State Planning Strategy 2050)

There is a growing concern with the lack of housing diversity in Rockingham, particularly in new urban areas where the majority of housing consists of 3 – 4 bedroom single storey dwellings on small, narrow, front-loaded lots. This form of low density suburban development is not sustainable as it does not provide the diversity of housing opportunities required to accommodate different income levels, lifestyle choices and household types.

Without changes to the current planning framework, the predominance of low density suburban development and low infill targets will conspire to prevent any significant increase in housing diversity.

As such, it is imperative that the LPS investigate options to promote a more consolidated urban form that fosters a sustainable pattern of urban development.

3.3.1 Why is Housing Diversity Important?

- Planning for a sustainable pattern of urban development requires urban growth options that provide the community with diverse housing opportunities. The resultant housing diversity will have the following benefits:
- Provide for a variety of housing styles, types and sizes ensuring greater lifestyle choice;
- Provide for people to remain in the local area as their housing needs change (‘ageing in place’);
- Reduce travel times and costs by providing options to live near employment, education and amenities (‘affordable living’); and
- Accommodate a more diverse range of people, thus avoiding potential negative social issues from clustering certain groups into one area.
- The shift towards a more sustainable form of urban development needs to apply to the planning of new urban areas, as well as to infill redevelopment within established urban areas.

3.3.2 Current Planning for Housing Diversity

Research undertaken has identified that the State planning framework includes aspirations and objectives aimed at increasing the diversity and liveability of housing in new and existing communities.

3.3.3 What are the housing needs of the community?

It has been identified through community engagement and through subsequent demographic analysis that a decreasing average household size and a general ageing of the population has resulted in a demand for greater diversity of housing stock.

Current Housing Supply

An assessment of 2016 Census data has shown that the majority of existing dwellings within the City are larger houses, with 84.4% of dwellings having 3 or more bedrooms (56.4% are 4 bedrooms or more).

Furthermore, only 8.5% of dwellings within the City have two bedrooms or less, whereas 53.5% of households (53.5%) were home to just one or two people.

Changing Demographics

The City’s age structure is expected to change over the next 20 years, with the 60+ age segment growing to in excess of 20%.

The increase in the 60+ age group, combined with the high percentage of one and two person households is likely to exacerbate the existing disconnect between housing needs and housing provision unless greater diversity in new housing is encouraged.

Social Trends

In addition to demographic changes, social trends are also expected to influence housing needs in the future.

3.3.4 Current Housing Diversity in the City of Rockingham

Greenfield Areas

In response to the State Government’s residential density targets, lots within new residential areas (greenfield locations) have generally reduced and narrowed, however, housing product has typically not adjusted to reflect the changing circumstances. Even the provision of a variety of density codes, and lot products (i.e. mix of narrow lots and wider “squat” lots) does not affect the outcome.

Despite State policy aspirations to provide for diverse housing opportunities, the market response to the residential density targets has resulted in predominantly small, narrow, front-loaded lots within greenfield locations.

Rather than providing for housing diversity, the majority of these small, narrow lots are developed with single storey, high site coverage single dwellings with minimal private open space (loss of backyard) and poor streetscape outcomes.

Established Areas

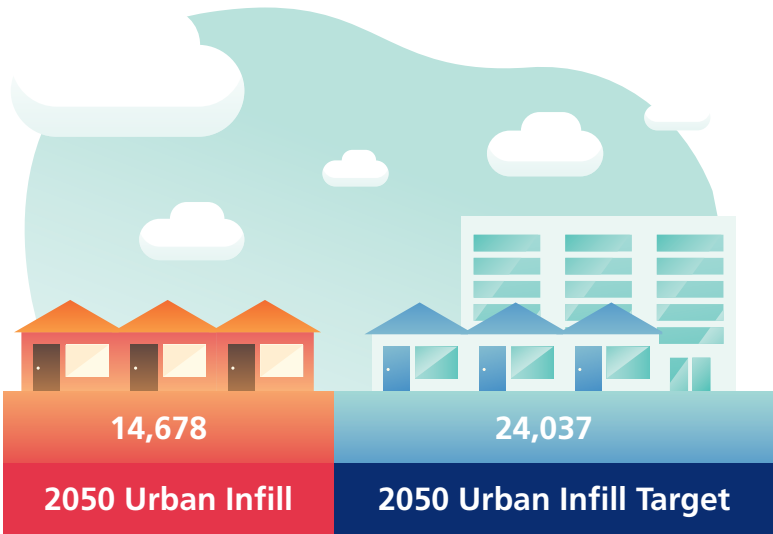
While the predominant form of housing in the City is 3 - 4 bedroom single houses, the City’s Strategic Metropolitan Centre Planning Framework seeks to promote a transit orientated land use pattern with medium to high density mixed-use urban infill redevelopment focussed initially on the City Centre, the Waterfront Village and along the route of the City Centre Transit System.

To date, a variety of medium to high density residential dwelling types have been developed in the Waterfront Village. These include traditional street front townhouses, contemporary row houses and mixed-use medium to high-rise apartments providing both permanent and short-stay accommodation.

Elsewhere, the City’s Town Planning Scheme No.2 provides for medium density infill redevelopment in North Rockingham and Palm Beach; and within the walkable catchment of several neighbourhood centres in Safety Bay and Shoalwater. While there has been some resultant infill development, significant opportunities remain.

The Framework provides an urban infill target for Rockingham of 14,678 dwellings (32,300 population) by 2050. This infill target equates to 28.7% of new dwellings which is well below the Directions 2031 target of 47%.

Greenfield done badly



The document does not articulate how the infill targets were derived, and where the infill development is likely to occur. It is considered that the target for infill development is very low when compared with the total projected increase in population.

The LPS process provides an opportunity to investigate options for mixed-use urban infill redevelopment within selected activity centres and along public transport corridors in the established western areas of the City.

As mentioned in section 6.2.3, there is potential for a significant increase in urban infill within the City Centre and along the Read Street/Warnbro Sound Avenue activity corridor between the City Centre and the proposed Karnup train station and within the walkable catchment of the station itself. This option alone has the potential for mixed-use urban infill development for up to 75,000 people by 2050, compared to the 30,000 proposed by the WAPC. The timing and feasibility of future infill redevelopment is assessed in section 6.3.6.

3.3.5 Options for the Delivery of Housing Diversity

Planning must respond to changing demographics by anticipating evolving needs and making provision for different types of housing in terms of size, type and location of homes.

The current market response to the provision of housing diversity does not reflect the State's policy aspirations and has resulted in outcomes which are not acceptable.

As such, the onus is on the City (through the LPS) to pursue credible delivery of housing diversity as intended by the planning framework; and to ensure that built-form outcomes, streetscape quality and residential amenity are major considerations.

Options for Housing Diversity in Greenfield Areas

Given that the market's response to delivering housing diversity does not reflect the State's policy aspirations, it is recommended that the City gives consideration to the formulation of a local planning policy to articulate the standards and performance criteria considered necessary to deliver credible housing diversity. The policy provisions would guide the assessment of residential structure plans.

An approach similar to *Liveable Neighbourhoods 2009* (LN 2009) is favoured. LN 2009 seeks to achieve residential densities and diversity of dwelling types by providing a wide range of lot sizes and building forms that provide for greater housing and lifestyle choice.

The draft *Liveable Neighbourhoods 2015* (LN 2015) includes a more robust approach to housing choice and residential densities, the objective of which is to "facilitate housing diversity, responsive built form, local employment and amenity within a legible and efficient urban structure of compact walkable neighbourhoods". This objective is consistent with the intent of the recently released *State Planning Policy 7.0 Design of the Built Environment* (SPP 7.0).

The following criteria from draft LN 2015 give context to the allocation of density and in turn, provide for the delivery of housing diversity through structure planning:

- To support activity centres and public transport use the urban structure will require higher residential densities in areas close to activity centres, high frequency public transport routes and stations and POS through a mix of housing types and lot sizes to support self-contained mixed-use centres and facilitate an increase in the use of public transport, walking and cycling.
- Mixed use buildings, generally with residential at upper levels, are expected within activity centres. Lower residential densities may be appropriate in areas on the edge of neighbourhoods or in physically constrained areas, and in regional centres (see Figure 6 below).

Figure 6: Transect of a Typical Urban Density Transition





Figure 7: Housing Diversity Plan

Housing diversity is achieved by providing a variety of lot sizes and resultant housing types distributed throughout neighbourhoods and preferably within the same street (refer to Figure 7 above). This facilitates housing diversity and choice, and assists affordability ranging from lots for single dwellings to lots suitable for grouped and multiple dwellings.

- Density targets facilitate housing diversity and vary depending on location. Higher densities are expected in areas within 400m of a local or neighbourhood centre and within 800m of a higher order activity centre or transit stations.
- A local structure plan should define the broad residential density ranges that apply to specific residential and mixed use areas. This should be in accordance with housing demand and density targets identified in the local government local planning or housing strategy, sub-regional and district structure plans and in *State Planning Policy No.4.2 – Activity Centres for Perth and Peel* where an activity centre is proposed.
- A range of medium and high density housing should be located in and surrounding all mixed-use activity centres.
- Housing in upper floors of mixed-use buildings is strongly encouraged. This provides centrally located housing and creates a sense of urban scale and intensity along streets.
- Housing in centres is important for providing adequate walkable custom, and improves safety and public transport patronage.

The State Government is currently drafting a Precinct Design policy and a Neighbourhood Design policy, intended to replace the current LN 2009. It is likely that these new policies would inform any future local planning policy prepared by the City to articulate the standards and performance criteria considered necessary to deliver credible housing diversity and liveability.

Options for Housing Diversity in Established Areas

The State planning framework promotes the following locations for investigation for urban infill redevelopment:

- around train stations.
- around regional and district centres.
- around neighbourhood and local centres.
- along transit corridors and activity corridors.

The existing residential areas outside the walkable catchment of an activity centre and transport corridor will generally not be considered for infill redevelopment, with the intention to retain the low density, suburban character of these areas. There may, however, be some limited areas where redevelopment may warrant consideration in order to address existing urban design issues or to improve surveillance to public spaces from surrounding dwellings.

3.3.6 Infill Redevelopment Analysis

Based on the above locational criteria and assessment against factors affecting the likelihood of redevelopment (see below), the following precincts were subject to a preliminary infill redevelopment analysis:

- Read Street/Warnbro Sound Avenue Activity Corridor;
- Penguin Road/Safety Bay Road Local Centre precinct;
- Malibu Road (East) Local Centre Precinct
- Malibu Road (West) Coastal Node Precinct
- Rockingham Train Station Precinct
- Cooloongup (south of Rae Road)
- Waikiki Village Activity Centre Precinct
- Warnbro Fair Activity Centre Precinct
- Hokin Street Local Centre Precinct

These precincts are referred to as Hotspots. See how they are distributed in Figure 8 below.





Figure 8: Hotspot Map

Likelihood of Redevelopment

For each of the Hotspot precincts, analysis was undertaken through on-site observation and aerial photography and mapping to gauge the likelihood of redevelopment within the precinct, then each precinct was mapped to show the general distribution and pattern of redevelopment opportunities. The likelihood of redevelopment was assessed on the basis of the following factors.

Factors that increase the likelihood of redevelopment:

- Ageing and/or poor quality housing stock.
- Larger than average lot sizes.
- Access to a rear lane.
- Access to more than one street frontage.
- Proximity to the coast and/or ocean views.
- Proximity to areas with high amenity, such as parks.
- An existing commercial use.
- Good exposure to passing trade for conversion to commercial use.

Factors that decrease the likelihood of redevelopment:

- New or recent development.
- Strata-titled development of more than 2 dwellings.
- Small lot sizes.
- Significant trees on a lot.
- A public or institutional use (e.g. school, church etc.).
- Housing in State Government ownership.

Short-term Redevelopment Options

The infill redevelopment analysis identified the following areas as meeting the criteria for short-term redevelopment, subject to a more detailed assessment of redevelopment capacity and development feasibility:

- Penguin Road/Safety Bay Road Local Centre precinct
- Malibu Road/Safety Bay Road Coastal Node precinct
- Hokin Street Local Centre precinct (south-west of Safety Bay Road)
- Hillman precinct (within the 800m walkable catchment of the railway station); and
- Coolongup (north-east) precinct (within the 800m walkable catchment of the railway station).

Note:

The following key factors contributed to certain precincts not being considered for infill redevelopment in the short to medium term:

- The redevelopment potential of the Read Street/Warnbro Sound Avenue and Rae Road (Garden Island Highway) activity corridor/s is reliant upon the introduction of Bus Rapid Transit (BRT) or Light Rail Transit (LRT) which is unlikely in the short to medium term.
- Once the timing of BRT or LRT is known, a fine-grained approach can be undertaken in respect of planning for redevelopment along the activity corridors.
- The redevelopment potential of the Malibu Road eastern precinct is reliant upon the Read Street activity corridor and as such, it is unlikely to be promoted for redevelopment in the short to medium term.
- The redevelopment potential of the Waikiki Village and Warnbro Fair activity centres are reliant upon the Read Street/Warnbro Sound Avenue activity corridor and as such, are unlikely to be promoted for redevelopment in the short to medium term.
- The Woodbridge precinct (within the 800m walkable catchment of the railway station) has no potential for redevelopment in the short to medium term, due to the housing stock being relatively new.

3.3.7 Urban Structure and Form

Having identified the preferred short-term redevelopment precincts, it was necessary to assess the redevelopment capacity of each precinct and identify where within each precinct different housing forms could be encouraged to create a more cohesive and functional urban structure.

A suite of broad suburban and urban housing forms were proposed which range from more conventional suburban residential buildings (such as townhouses and apartments up to 3 storeys) through to more intensive mixed-use urban buildings ranging from 3 to 8 storeys (see Table 7).

Furthermore, a portfolio of housing typologies suited to the recommended housing forms was compiled. The housing types range in size and scale from the emerging micro-housing typology and the adaptation of existing houses, through to large-scale integrated mixed-use developments.

The bulk of the housing typologies fall within the range of medium density, as this is the most likely scale of development that could be anticipated in the redevelopment process for the majority of the precincts.

3.3.8 Development Feasibility

Directions 2031 states that local governments need to be responsible for developing realistic, market-orientated plans and strategies for encouraging innovative infill and greenfield development.

In this regard, having identified the preferred short-term redevelopment precincts, feasibility studies were commissioned for the infill density options and housing typologies being considered.

The study undertook a hypothetical development feasibility approach that establishes the gross realisations (sale proceeds) based on analysis of probable sale prices for each proposed development ("as if completed") and deducting all associated costs.

Typology Code	Housing Forms
U1	Urban Intense Mixed use (5 – 8 storey mix of commercial and apartments)
U2	Urban General Mixed-use (3 – 5 storey mix of commercial and apartments)
U3	Urban Residential (3 – 5 storey residential apartments)
S1	Suburban Residential – Attached (up to 3 storey apartments or townhouses)
S2	Suburban Residential – Detached (2 – 3 storey apartments or townhouses)
S3	Suburban General Residential
SP1	PAW Enhancement Creation (up to 3 storey grouped or multiple dwellings)
SP2	Corner Lots (up to 2 storey single or grouped dwellings)

Table 7: Suburban and Urban Housing Forms

The following key assumptions were utilised in the methodology:

- Current median residential prices
- Construction costs based on quantity surveyors' publications such as Rider Levett Bucknall (Riders Digest 2018) and Rawlinsons; and
- Industry "profit and risks" allowances ranging from 12.5% - 27.5% were adopted.

The investigations relied on secondary/published industry sources for development costs and other industry inputs for the respective developments.

The development viability was determined of three selected housing typologies recommended for the precincts in Hillman, Shoalwater/Safety Bay and Waikiki/Warnbro.

Location	Housing Typology/Hypothetical Development		Results
Penguin Road/ Safety Bay Road Precinct	U1	5 Storey Mixed-use development	Negative residual value. Not Feasible
	U3	3 Storey Apartments	Positive residual value. Feasible
	S2	2 Storey Townhouses	Positive residual value. Feasible
Hokin Street Precinct	U1	8 Storey Mixed-use development	Negative residual value. Not Feasible
	U2	4 Storey Mixed-use development	Negative residual value. Not Feasible
	S1/S2	2 Storey Townhouses	Negative residual value. Not Feasible
Hillman Precinct	S1	Single Storey Cluster Dwellings	Negative residual value. Not Feasible
	S2	2 Storey Townhouses	Negative residual value. Not Feasible
	SP2	Single Storey Triplex	Negative residual value. Not Feasible
	U2/U3	3 Storey Apartments	Negative residual value. Not Feasible
	SP1/SP2	Single Storey Grouped Dwellings	Negative residual value. Not Feasible

Table 8: Feasibility Study Outcomes

Note:

The Malibu Road/Safety Bay Road Precinct was not the subject of an investigation on the basis that the current residential land prices would be similar to Shoalwater and as such, the hypothetical development feasibilities would be similar to the Penguin Road/Safety Bay Road Precinct.

Similarly the Cooloongup (North-East) sub-precinct was not included due to its likeness to Hillman.

3.5.9 Summary

Of the three precincts subject to analysis, the prospects for greater housing diversity and density in the short-term is more realistic in the Penguin Road/Safety Bay Road precinct than in the Hokin Street and Hillman precincts.

In relation to the Hokin Street precinct, it is difficult to envisage the types of typologies proposed for the precinct, especially multi-storey mixed use developments. The developments will not be feasible because of the costs of development and the existing median house price range which is insufficient to trigger the “substitution effect”. That is, justifying the purchase or ownership of a residential apartment instead of a traditional single house.

The same applies to the Hillman precinct due mainly to the price differential between multi-residential units and houses not being sufficiently large enough to trigger the redevelopment of sites. The current residential development cost is also a significant factor.

In the short to medium term, any prospective redevelopments in Hillman will face competition from developments in the suburb of Rockingham. Currently, house prices in Hillman (on 700 m2 lots) are almost equal in value to two-bedroom apartments currently on the market.

In comparison, the prospects for the Penguin Road/Safety Bay Road precinct (and the Malibu Road Coastal Activity Node) are better, with hypothetical 3 storey apartment and 2 storey townhouse developments showing positive residual values.

Note:

The City is required to undertake a comprehensive review of the LPS at least every five years in conjunction with the Scheme Review. This review process provides for the City to review the economic feasibility of its infill redevelopment aspirations and for the LPS to respond to any changes in circumstances.

4.3.10 Strategies and Actions

Based on the key issues identified in the housing options analysis there is an urgent need for the City to plan for the credible delivery of housing diversity and liveability as intended by the planning framework; and to ensure that built-form outcomes, streetscape quality and residential amenity are major considerations.

Due to the current economic conditions, it is clear that in the short-term, infill redevelopment is only likely to be feasible in limited situations. Therefore, to ensure that the benefits of density can be delivered to a precinct and that marginal projects are not implemented at the expense of 'good design', infill redevelopment areas should not be implemented in the absence of a Precinct Plan prepared by the City to address the intent of SPP 7.0.

Based on consultation with the community to date and the housing options analysis, it is recommended that the following housing-related objectives inform the preparation of the LPS:



Promote a more consolidated urban form that fosters a sustainable pattern of urban development.



Provide for a diversity of housing styles, types and sizes ensuring greater lifestyle choice.



Provide options for people to remain in the local area as their housing needs change.



Provide options for people to live near employment, education and amenities.



Provide for redevelopment and infill within the proximity of Activity Centres and Public Transport Corridors.



Encourage high quality streetscapes and public spaces.



Protect the suburban character of established suburbs by confining redevelopment to activity centres and activity corridors.

In the short-term, it is recommended that the LPS facilitate the following actions:



Preparation of a local 'Housing Diversity Planning Policy' to guide the assessment of residential structure plans



Preparation of a Precinct Policy Plan/s to guide the preparation and assessment of future planning proposals for identified infill redevelopment areas.



Where to from here

1



Draft LPS prepared following completion of community engagement on this Issues Paper and consideration of input.

2



Draft LPS presented to Council for approval to seek WAPC consent to advertise.

3



Commence preparation of new TPS while draft LPS is being considered by WAPC.

4



Following WAPC approval, advertise draft LPS for agency and community comment.

5



Final draft LPS prepared following completion of community engagement and consideration of input.

6



Final draft LPS to Council for adoption and to seek WAPC endorsement.

7



Following endorsement of LPS, proceed to finalise preparation of new TPS.

