

Mandurah Planning Strategy

Urban Form and Housing



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1. Introduction

The Urban Form and Housing Strategy will outline the approach to the future housing, density and scale of development across Mandurah with the aim to inform and maintain the City's Planning Scheme to ensure that it remains up to date and relevant to planning decision making within Mandurah. This Strategy seeks to form part of the overall Mandurah Planning Strategy and subsequent implementation of this strategy which primarily involves the zoning and development requirements of the Local Planning Scheme.

These inputs into the Strategy build upon the previous work undertaken by Council which has ensured that the City's town planning scheme reflects leading practice; specifically the:

- requirement for Outline Development Plans to be prepared prior to subdivisions in large Greenfield sites; and
- provision for and the preparation and adoption of Precinct Plans (Mandurah Terrace, Inner Mandurah, City Centre, Falcon and Halls Head Town Centre).

Specifically the Strategy responds to dwelling and housing targets established as part of the Western Australian Planning Commission's *Directions 2031 and Beyond*; and updated as part of the Directions 2031 Report Card 2012. Further, the Strategy seeks to set out an appropriate scale (height) and density across new development areas, existing developed areas and existing and potential residential infill areas in order to inform more detailed planning at a Precinct Plan or zoning level.

In 2011, Mandurah has approximately 32 000 dwellings and 6000 vacant lots (38 000 properties in total). Furthermore, approximately 7500 dwellings in Mandurah are currently not occupied.

In planning for the future, approximately 20 000 additional dwellings will be built in Mandurah. Whether this occurs in 2031 or slightly after this time does not significantly impact the City's planning for this form of development.

However, it is important to note the following key components of these 20 000 additional dwellings:

- 13 200 dwellings will be occupied by two or less people.
- 4200 dwellings are required to be 'affordable' dwellings, where occupiers spend less than 30 per cent of their income on renting or buying the dwelling;
- Approximately 8000 can be accommodated in Central Mandurah through infill development in and around centers and as part of Mandurah's Transit Orientated Development. The balance of 12 000 will be located in new suburban development located outside of the defined Mandurah Central Area.

The Strategy seeks to balance the targets expected for new development areas against the locations in which they will be developed and seeks to identify that a greater emphasis for new dwellings within the central Mandurah area which comparatively is well located with respect to transport, retail, social services and recreation opportunities, together with responding to the needs for the community moving forward with respect to dwelling diversity, size and affordability.

The *Urban Form and Housing Strategy (the 'Strategy')* will replace any previous Council position statements and Local Planning Policies in respect to the appropriate locations for density and height by providing a comprehensive plan based outcome rather than provisions based on existing zones.

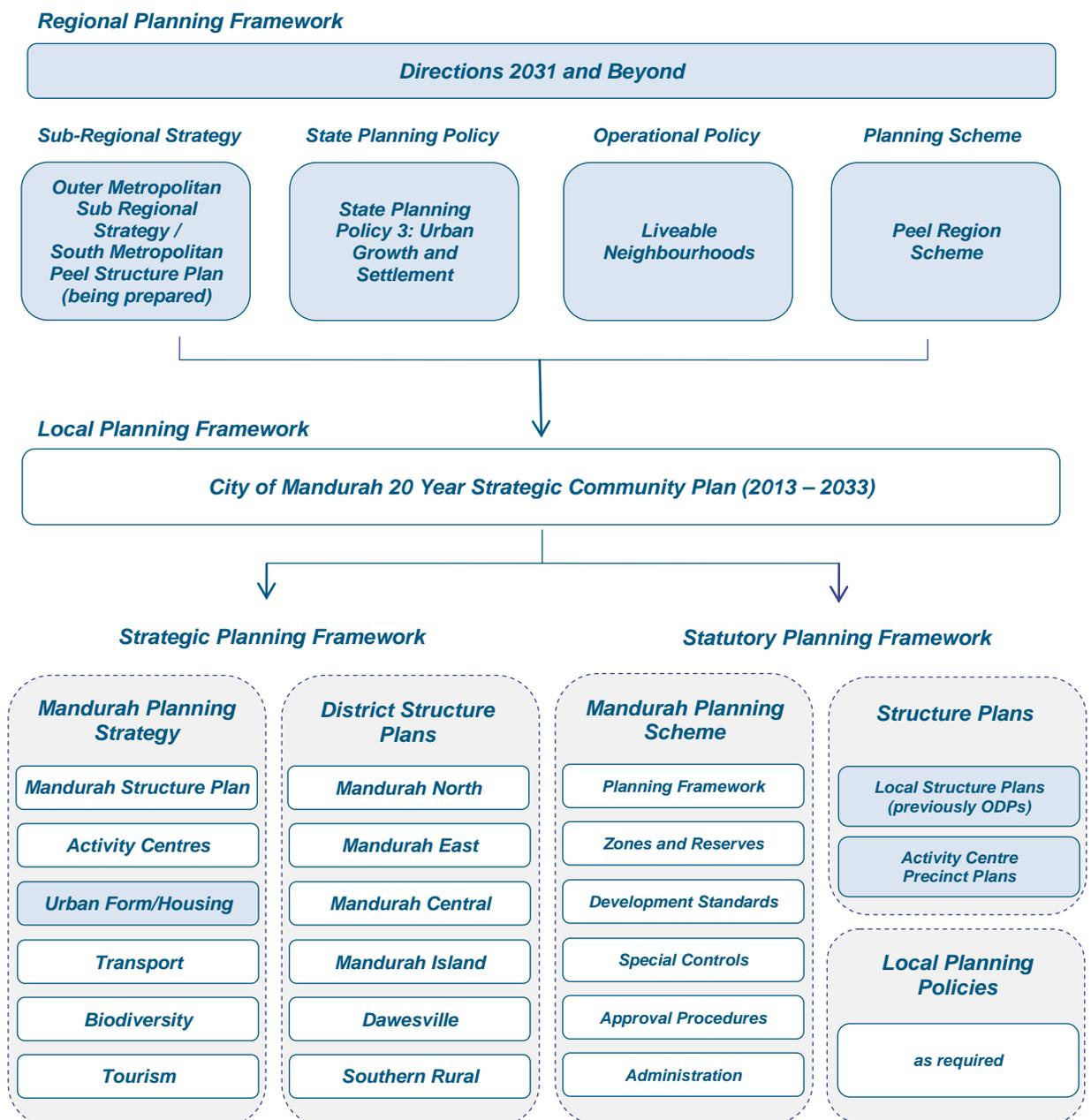
1.1 Application of the Strategy

This Strategy forms part of the City of Mandurah's Mandurah Planning Strategy, as shown on Figure 1 which sets out the role and function of the Planning Strategy. Each component of the Planning Strategy, which includes **Urban Form and Housing**, forms the basis of a Local Planning Strategy as required by the **Town Planning Regulations 1967**.

The purpose of the Planning Strategy is to establish a spatial planning framework for the City of Mandurah arising from the relevant Council strategic and corporate plans. The Planning Strategy Framework will be referenced updates to the local planning scheme and therefore future planning determinations under the Scheme are to be consistent with the Strategy.

This Strategy has been prepared based a response to dwelling targets set out in Directions 2031 and Beyond together with the remaining elements of the regional and local planning framework as outlined in Figure 1, including relevant State Planning Policies and Liveable Neighbourhoods.

Figure 1 Urban Form and Housing Planning Framework



1.2 Strategy Vision

The Strategy forms part of the Council's vision to be a place which is “..*vibrant, prosperous, connected and sustainable... Built upon opportunity, wellbeing, diversity of choice, sense of community, our history and magnificent waterways.*”

The key outcome arising from this plan is the re-enforcement of the Mandurah City Centre as the location within Mandurah as the central area of activity, and therefore the most 'dense' form of development. Further, there is acknowledgment of existing pattern of development, including areas where in the foreseeable future, little is likely to change with respect to zoning, densities and the resultant urban form.

1.3 Strategy Terminology

In the application of dwelling density targets, the following terminology is used to define dwellings per hectare in the Strategy:

(gross) urban zoned hectare density is a density measure at a broad scale by referencing the zoning at a regional scheme level and extracting the relevant zones and reservations that cannot be developed for residential purposes.

Directions 2031 and Beyond sets a target of 15 dwellings per urban zoned hectare; which represents a 50 per cent improvement on the current average (generally 10 dwellings per urban zoned hectare).

(net) residential site density the number of dwellings on land that is zoned residential (or equivalent) at a local planning schemes level, excluding all non-urban regional reservations and non-residential zones in the local planning schemes such as local road reserves, schools, commercial centres and offices.

Net Residential Site Density is the appropriate measure to be applied in the preparation of district and local structure plans.

To achieve the Directions 2031 and Beyond targets, a Net Residential Site Density of 26 dwellings per hectare is required (generally an increase from the current delivery of 17 dwellings per hectare).

1.4 Strategy Area

The Strategy focuses on the urban areas of the City of Mandurah and these areas have been broken down into geographic districts.

The districts have been identified and shown on Figure 2 for the ease of reference purposes in describing and implementing the Strategy, and have been located based on suitable catchments and physical (natural or road) barriers which break the area into smaller areas.

They have been also been identified based on previous planning and strategies undertaken.

The identified districts are:

- *Mandurah North*
Covers Madora Bay, Lakelands Meadow Springs, San Remo and Silver Sands (north)
- *Mandurah Central*
Covers Silver Sands (south), Greenfields (north-west) Mandurah (including the City Centre) and Dudley Park (north)
- *Mandurah East*
Covers Parklands Greenfields (east), Coodanup and Dudley Park (east)
- *Mandurah Island*
Covers Halls Head, Erskine, Falcon, Wannanup and Dawesville (north)
- *Dawesville*
Covers Dawesville (south of Caddanup Reserve) and Bouvard (north)
- *Parklands*
The rural residential area of Parklands currently zoned for rural living and an areas that may be subject to urbanisation in the future as currently referenced in Scheme 3; and to be resolved as part of ongoing sub-regional structure planning.

- Mandurah North
- Mandurah Central
- Mandurah East
- Mandurah Island
- Dawesville
- Parklands
- Sub-District Area

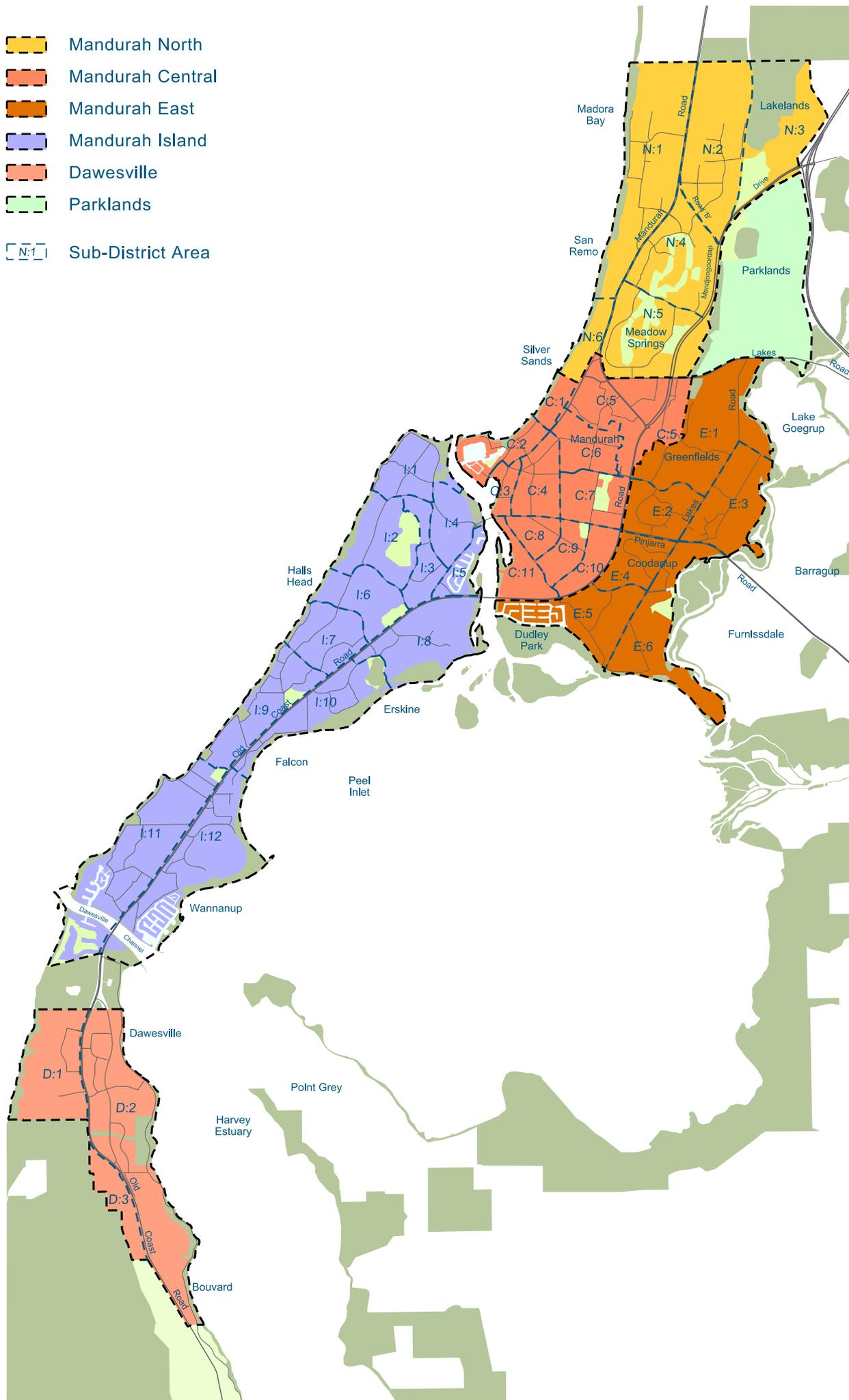


Figure 2 - Strategy Area



2. Existing Context and Development

2.1 Existing Urban Form

The Strategy Area covers a diverse area from inner city urban environments through to protected natural environments of bushland and waterways.

This section identifies the Strategy Area based on their existing form of development, which helps identify the places, their context in the development of Mandurah over time and what elements of these places are important to plan for. Figure 3 and Table 1 outline the existing development areas that covers an area of 5670 hectares.

Table 1 Existing Development Areas

Established Urban	758.8ha
<p><i>The Established Urban areas were part of the original settlements in Mandurah, when the coastal villages were established. They generally are based on a regular grid road network with 20m wide streets and generally do not have access to reticulated sewer. Housing types range from older fibro holiday shacks to replaced contemporary housing. Where reticulated sewer has been made available, small lot subdivision or development may have taken place. These areas are generally identified in Mandurah as those areas with 'character' due to the nature of the topography, access to the coast and organic nature of the area.</i></p>	
Redevelopment Areas	520.9ha
<p><i>The redevelopment areas were also part of the original settlements in Mandurah, but due to their location and urban structure have been identified as being suitable for redevelopment. These areas are those where the existing development potential applied through zoning, structure plans or policy is greater than currently exists or are in a transition towards redevelopment. As per the established urban areas, they are generally based on a regular grid network with wide 20m lots and regular shaped lots. These areas have connection to sewer, but other infrastructure such as road pavements, street trees, drainage, water and power requires upgrading as part of their transition into a new urban form is reflective of the location.</i></p>	
Suburban (Existing)	3492.7ha
<p><i>The suburban areas of Mandurah are those that attribute to the rapid growth that has taken place since the mid to late 1980s. They are characterised generally by a low density form of suburban development, with single use, low rise buildings with a high reliance on private transport. As the development front has continued, the areas have transitioned from subdivisions with minimal facilities and infrastructure to large, master planned estates.</i></p> <p><i>The road networks have transitioned from a curvilinear pattern with one major neighbourhood connector and a large number of culs-de-sac streets with pedestrian public access ways, to a modified grid as identified in Liveable Neighbourhoods. Open space in these suburban areas has generally undergone a transition from larger undeveloped parcels of land, to highly landscaped pocket parks.</i></p>	
Low Density Residential	319.6ha
<p><i>Numerous low density residential areas exist in Mandurah, where lot sizes range from 2000 square metres to 1 hectare and provide a location for a different urban lifestyle. The areas are generally characterised by dwellings on large lots with substantial tree cover, wide roads with very few footpaths and a range of infrastructure (power lines, sewer etc) being available dependant on location. Due to the large areas and low densities, providing services such as localised public transport, open space and community facilities that are expected in suburban areas is difficult, given these areas are generally located within urban areas. Most of these areas, however are well located with regard to transport and retail services. However, generally community expectations are akin to suburban areas and these areas have contributed to a larger footprint for development.</i></p>	
Rural Living	586.3ha
<p><i>Two main areas within Strategy Area are rural living, being Parklands and lots on the western side of Lake Goegrup. These areas are generally have lots of 2 hectares or more, are heavily vegetated and have restricted clearing areas for dwelling construction. Due to the large area occupied by very few lots, services and infrastructure is minimal, however the type of development could be considered an alternative form of sprawling development. Within the Strategy Area identified, it is generally contained.</i></p>	

- Established Suburban
- Redevelopment Areas
- Suburban (Existing)
- Low Density Residential
- Rural Living

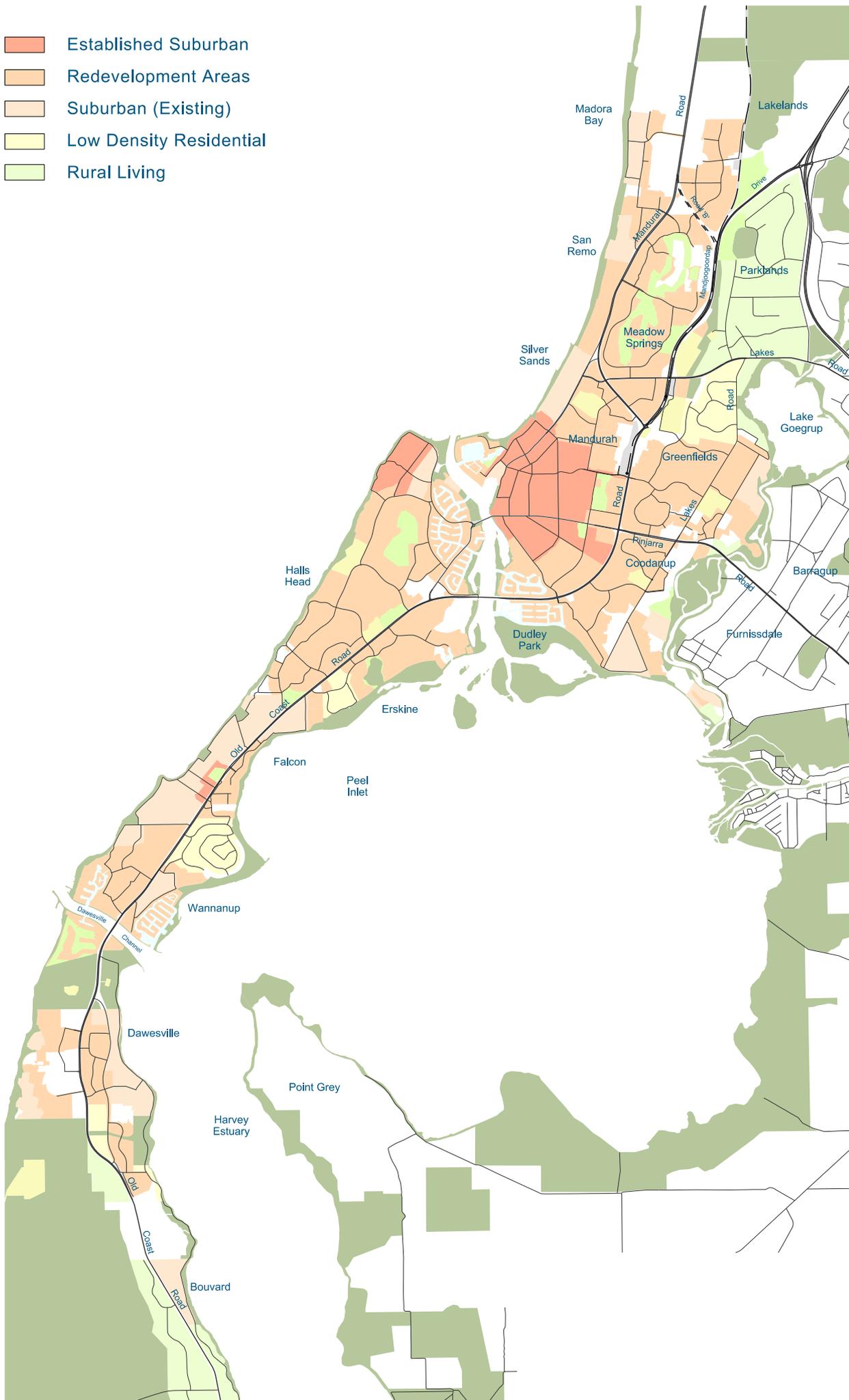


Figure 3 - Existing Development Areas



2.2 Dwelling Supply and Existing Residential Site (Net) Density

At the present time there is approximately 38 000 residential lots in Mandurah, with 32 000 existing dwellings and 6000 vacant lots.

Based on developed areas only, there is an average of 12.4 dwellings per residential site (net) hectare within existing developed areas (7.6 dwellings per urban zoned (gross) area).

The urban areas of Mandurah have been broken down into 38 smaller areas where existing and proposed dwelling calculations have been undertaken as shown in by District in Table 2 and Smaller Areas in Figure 4.

Of these 38 areas, three have a density greater than 20 dwellings per residential site hectare; three have a density of between 15 and 20 dwellings per residential site hectare. These six areas are located in and around the City Centre. Five areas have a density less than 10 dwellings per hectare (located around areas of low density). The balance of locations (27) have a density between 10 and 15 dwellings per hectare.

This compares to the Directions 2031 and Beyond target of 26 dwellings per hectare, which demonstrates newly developed areas need to be designed differently to what is currently in place. However, within the Strategy Area, the remaining undeveloped areas are located to the north of the City's boundaries and to the south in Dawesville, meaning that servicing these areas from a social infrastructure, retail and importantly, public transport is difficult. This is further confirmed by the prevailing low densities and the long narrow corridors that have already been developed.

Table 2 Existing Housing and Density by District (Overall Summary)

	Mandurah North	Mandurah Central	Mandurah East	Mandurah Island	Dawesville	Totals
Land Areas						
Total Area	1,732	1,156	1,840	2,464	881	8,073
Urban Zoned Area (UZA) (Existing)	788	886	1,010	1,858	458	5,000
Residential Site Area (Existing)	447	492	633	1,232	275	3,079
UZA to RSA Ratio	57%	56%	63%	66%	60%	62%
Existing Development						
Dwellings (2011)	4,366	6,921	6,328	11,816	2,256	31,687
Vacant Lots (2011)	1,004	343	728	2,750	982	5,807
Total	5,370	7,264	7,056	14,566	3,238	37,494
Densities						
Urban Zoned Hectare Density (Gross)	6.8	8.2	7.0	7.8	7.1	7.5
Residential Site Area Density (Net)	12.0	14.8	11.1	11.8	11.8	12.2

- less than 10 Dwellings / Net Hectare
- 10 - 15 Dwellings / Net Hectare
- 15 - 20 Dwellings / Net Hectare
- more than 20 Dwellings / Net Hectare



Figure 4 - Existing Residential Site Area Densities



2.3 Town Planning Scheme 3

2.3.1 Overview

The City's Town Planning Scheme (the Scheme) was gazetted in July 1999, however, the preparation of the Scheme began in the early 1990s with the Scheme being largely completed and approved by Council by March 1997.

While the preparation of the Scheme and its approval took a considerable amount of time, it did formalise the introduction of Outline Development Plans (ODPs). ODPs have served Mandurah very well for an extended period. As a result of the requirement for landowners to prepare ODPs, in the main, covering large areas of urban land which is in a single ownership the result has been in ODPs covering the following large urban cells:

- Port Bouvard – Northport, Southport and Eastport
- Florida
- Port Mandurah
- Lakelands
- Mariners Cove
- Meadow Springs
- Seascapes

Early versions of the Scheme had locations such as Lakelands (at the time still rural land) proposed to be zoned Residential R20.

This zoning could have resulted in subdivisions being lodged with the WAPC without Council having an understanding of what was to happen at future stages. ODPs provided this direction and provided a mechanism for community comment which otherwise would have been limited to the initial zoning stage.

ODPs were, in part, a desire for Council to have a greater involvement in the future development of Mandurah. Prior to the introduction of the Scheme, amendments to the Scheme were overwhelmingly driven by individual land owner requests to rezone land.

This practice changed after the introduction of Scheme 3, with the City having generated 45 amendments to the Scheme, with these amendments addressing the following matters:

- The rezoning of land within and surrounding District Centres (Falcon, Halls Head and Inner Mandurah) to a development zone;
- Zoning of land from residential to urban development in order to allow for an Outline Development Plan (Frasers and Central Park are examples) process to outline outcomes for development; and
- Administrative improvements and corrections.

With the introduction of the Scheme, Council has sought to have a greater influence over the development of Mandurah by introducing the requirement for Precinct Plans.

The precinct plans have been used in the following locations:

- Falcon & Halls Head Town centres;
- Mandurah Terrace;
- Inner Mandurah; and
- City Centre

It is anticipated that further precinct plans will be prepared to cover the wider Mandurah Centro site, Pinjarra Road and then extend the Inner Mandurah Precinct Plan area north to the industrial area, and south to cover Dudley Park.

The ODP provisions of the Scheme, the introduction of precinct plans, and the linking of the Residential Design Codes to the Scheme, have resulted in the Scheme in the main, remaining up to date on the key elements influencing the development of Mandurah.

Local Structure Plan Zones

- City Centre Development
- Precinct Development
- Urban Development
- Mandurah Ocean Marina
- Special Use / Special Development

Residential Zones

- Residential
- Canal
- Tourist

Business Zones

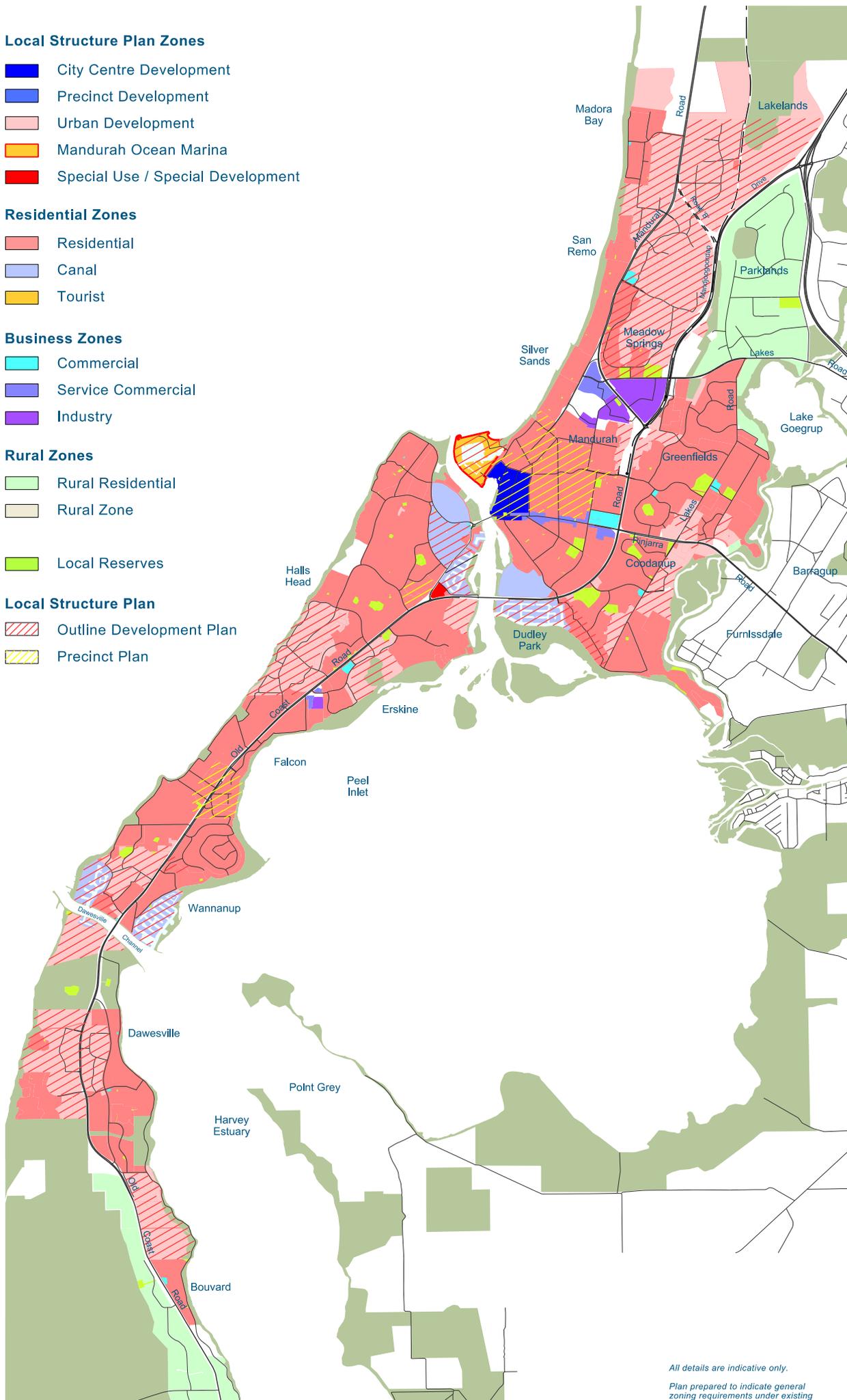
- Commercial
- Service Commercial
- Industry

Rural Zones

- Rural Residential
- Rural Zone
- Local Reserves

Local Structure Plan

- Outline Development Plan
- Precinct Plan



*All details are indicative only.
Plan prepared to indicate general zoning requirements under existing Town Planning Scheme 3.*

Figure 5 - Town Planning Scheme 3 Summary



Structure Plan Zones

Within Scheme 3 there are numerous 'structure plan' zones which include:

- *Urban Development*
- *City Centre Development*
- *Precinct Development*
- *Mandurah Ocean Marina Development; and*
- *Special Development.*

Each of these zones have been established for various reasons, however, a key requirement of these zones is the need for an additional layer of planning control through a 'local structure plan' be it an Outline Development Plan (generally prepared by the landowner) or a Precinct Plan (generally prepared by the City) to guide and control future development.

As the development front has continued, the content of these plans has extended to detailed design criteria, and density and scale controls, with the areas covered by these plans becoming smaller. Within these structure plan zones, via reference in the relevant plan, one of the following zones is likely to apply to these areas, with the exception of the City Centre and Mandurah Ocean Marina which have characteristics not contained below.

Residential Zones

The residential zones in Scheme 3 include land zoned Residential, Canal; and Tourist.

The residential zone covers areas that were generally developed, or had approvals to develop for residential purposes prior to the completion of Scheme 3. It also covers within one generic zone, areas within vastly different characteristics, meaning that land use control is consistent across the entire zone. Built form control is varied, however, through the application of residential density and design requirements of the Residential Design Codes.

The tourist and canal zones in Scheme 3 were established for the reasons identified in their titles; however they have and continue to reflect the residential zone in the nature of their development. The Canal Zone has additional development criteria regarding the built forms relationship with the artificial waterways.

Business Zones

The 'business' zones comprise the existing Scheme 3 zones of:

- *Commercial;*
- *Service Commercial; and*
- *Industrial*

Each of these three zones provides for a range of commercial and business related functions, ranging from shopping centres through to factory units. However, the generic nature of this zoning through the application of land use and development criteria generally does not reflect the place, context and scale in which it is located and development outcomes are generally standards rather than design based.

Rural Zones

Rural Residential

A variety of lot size requirements apply, and there are numerous development standards applicable throughout Scheme 3 for the Rural Residential zone. The generic zone approach for these areas also does not take into account the locations characteristics, context, constraints and development requirements. Generally, however, lot size requirements are a minimum of 2 hectares, or 1 hectare where scheme water is available. Clearing of vegetation is restricted to 2000 square metres and setbacks are substantial.

Rural Zones

In many occasions, the Rural Zone has been viewed as a holding pattern for future urban development, which may be applicable on this occasion given the reasons the areas are zoned Rural, however in others, such as land in Nairns and in the Southern Rural district that land has been zoned rural for specific reasons. In the Mandurah context however, the continued use of the rural zone may be questionable given that there are no areas that actually have rural land use capabilities, but rather the zone is used as a restriction to further development opportunities based on their location, context and importantly constraints.

2.3.2 Local Structure Plans

Due to the zoning that applies to various areas in Mandurah, there are subsequent local structure plans required to be prepared and approved as a prerequisite to future development or subdivision. Arising from these zoning provisions, much of Mandurah is covered by a local structure plan for new urban development, or for identified redevelopment areas and activity centres.

In reviewing the provisions of Scheme 3, the areas covered by these plans requires updating when identifying the need for these plans to continue, especially where areas have been development or where lots are of a size that this need can be removed by alternative Scheme provisions.

A breakdown of the existing local structure plans in Scheme 3 is as follows:

Outline Development Plans

An ODP is generally in the format of a single A3 plan outlining zones, open spaces, roads and notations regarding built form, additional planning required and explanations regarding the design of the plan.

An ODP is a statutory plan, prepared by a landowner or proponent and the area covered will be limited to land ownership. Upon approval, it forms the basis for the zoning and where relevant, reservation of land under the equivalent zone in Scheme 3. However, they also provide the opportunity to identify zones and other development control requirements not provided for in Scheme 3. They are also provided in different formats and are generally inconsistent in their presentation format.

In recent times, the scope and scale of the area covered by an ODP has reduced by virtue of the plan covering smaller areas due to land ownership and lot size which is primarily placing a subdivision or development scale assessment to a higher level in the planning process. In addition, the level of rigidity applied to the plan when an application for subdivision or development is being assessed has increased due to the level of detail being shown on an ODP.

At the present time, there are approximately 60 ODP's approved in Mandurah, which has resulted in an unwieldy planning framework. Amendment 88 to Scheme 3 sought to address some of these issues by translating zoning from ODPs in to standard Scheme 3 zones and therefore reducing the areas covered by the Urban Development zone, and subsequently the scope of ODPs.

However this Amendment was refused by the Minister for Planning in June 2009 due a number of reasons, namely that at the time, there were several significant planning documents relating to the City in preparation which will require major revisions of Town Planning Scheme No 3 (eg. Mandurah Central Revitalisation Strategy; Local Tourism Strategy). Additionally, it was advised Town Planning Scheme No 3 was due for review as it was gazetted in 1999, at which point all necessary changes may be incorporated, rather than only those associated with the selected ODPs presented as part of this Amendment.

Precinct Plans

The City introduced Precinct Plans into the planning framework to facilitate the coordinated development of numerous land uses into a single integrated precinct area; and guide subdivision, land use, development and infrastructure provision in accordance with an overall strategic vision.

Precinct Planning provides for a flexible, yet comprehensive approach to the preparation of plans and policies that guide the development/redevelopment of strategic activity centres and generally is a development control plan for the area covered by the plan.

At the present time, five precinct plans have been prepared, approved and in operation.

Development Guide Plans

Development Guide Plans (DGP) are prepared on individual development sites where required by Scheme 3 or by reference in a Precinct Plan.

In many cases, provisions were included into Scheme 3 for sites with particular development issues and using a guide plan approach rather than generic zoning approach was seen to be appropriate. In many cases, sites in the Special Use zone have subsequently been developed.

In addition to the above, some sites within Precinct Plan make reference to the need for a DGP in order to confirm the final layout, design and scale of a particular site. These sites are generally redevelopment sites, where providing specific detail within the City's prepared Precinct Plans lock in certain elements of design that could be achieved with a slightly different result.

2.3.3 Application of Residential Density and Development Height

Residential densities are applied through the Scheme Maps for residential zoned land, and through an Outline Development Plan or a Precinct Plan. Further, development height is generally determined as part of the application of the residential density or through an Outline Development Plan or a Precinct Plan.

Where land is not covered by such plans, Local Planning Policy 12 generally specifies for residential development to be determined in accordance with Residential Design Codes (12metres (3 storeys) for R40 and greater; 9metres (2 storeys) for less than R40). Commercial and non residential areas are generally low rise unless otherwise recognised.

This results in no overall approach to the type of urban form, particularly height and scale being envisaged, with the exception of the 'Point of Difference' Council position paper adopted in 2005 which identified potential locations that could consider 'additional height'. A revised draft local planning policy was prepared and advertised in 2010 in line this with this position paper; however the policy was not adopted in its format at the time.

As an outcome of the existing planning framework, two outcomes arise:

- for approvals, the application of height and density is in response to proposals by specifying requirements to be determined as part of ODPs (in a reactionary process to a landowners application)
- for redevelopment areas, Precinct Plans allow for a determination to be made on the local context and implications on immediate surrounds and providing criteria accordingly.

In terms of the current residential densities and application of height, Figure 6 and Table 3 outline the application of R-Code densities through a combination of Scheme maps, Outline Development Plans and Precinct Plans. This application is a zoning based outcome reflecting both existing and proposed development areas where ODP's have been approved.

80 per cent of Mandurah's development and approved areas are predominantly low rise, low density areas. 7 per cent of zoned areas in Mandurah are R60 and 3 per cent in R80 and above. The higher densities are a reflection of recent trends with a majority of R60 areas in the Inner Mandurah area; and the R80 and above from City of Mandurah Precinct Plans, the Ocean Marina, Mandurah Junction and Central Park.

Furthermore, a majority of the R80 and above areas are applied to existing (and proposed) shopping centres where residential development is unlikely due to the existing development.

Table 3 Existing R-Code Densities

		Height (*)	Area	%
Low Density	<i>(R1 to R10)</i>	<i>Single Storey</i>	357	9.4%
Unsewered Residential	<i>(R12.5)</i>	<i>2 Storeys</i>	482	12.7%
Standard Density	<i>(R15 – R25)</i>	<i>2 Storeys</i>	2133	56.6%
Medium Density	<i>(R30 – R60)</i>	<i>Up to 3 Storeys</i>	378	10.0%
High Density	<i>(R80+)</i>	<i>3 – 8 Storeys</i>	138	3.6%
			3787	

* unless otherwise determined as part of Precinct Plan

- Low Density (R1 to R10)
- Unsewered Areas (R12.5)
- Standard Density (R15 - R25)
- Medium Density (R30 - R60)
- High Density (R80+)



*All details are indicative only.
 Plan prepared to indicate general density requirements under existing Town Planning Scheme 3. Includes approved Outline Development Plans not yet developed.*

Figure 6 - Existing Residential Density Codes



3. Strategy Objectives

3.1 State Planning Framework Provisions

A key objective of the Strategy is to fulfil the requirements of a local planning strategy relevant to the provision of residential development as outlined in the relevant provisions of the State Planning Framework, which are outlined in Table 4.

Table 4 State Planning Framework Requirements

Directions 2031 and Beyond

Objectives and Targets:

- *Achieve residential densities to 15 dwellings per urban zoned hectare;*
- *47 per cent of new dwellings being ‘infill’ development;*
- *Promote good urban design;*
- *Design accessible, well-connected and sustainable urban communities (through planning framework);*
- *Plan for increased housing supply in response to changing population needs (though focused locations for growth and applying higher residential densities around activity);*
- *Promote and increase housing diversity, adaptability, affordability and choice;*
- *Promote higher densities in greenfield development;*
- *Plan and develop urban corridors to accommodate medium rise, higher density housing development;*
- *Plan and develop transit orientated developments to accommodate mixed use and higher density housing development;*

Initiatives:

- *Develop local housing strategies to compliment or be incorporated in local planning strategies.*

Directions 2031 and Beyond: Annual Report Card 2012

Housing Targets:

- *Consider the urban consolidation targets and diversity range when preparing local planning strategies and scheme;*
- *Provision of 19,580 additional dwellings in City of Mandurah to from 2011 to 2031;*
- *Achieve 15 dwellings per urban zoned hectare;*
- *Achieve 26 dwellings per residential site hectare in district and local structure plans;*
- *Target 10% 1 Bedroom Dwellings; 15-20% 2 Bedroom Dwellings; 30-40% 3 Bedroom Dwellings & 35-40% 4 Bedroom Dwellings.*

Liveable Neighbourhoods

- *Achieve 22 dwellings per residential site hectare in district and local structure plans;*

Urban Growth and Settlement Policy (SPP3)

- *apply regional strategies and the land release plans at the detailed local level;*
- *identify sufficient land to meet future population and housing needs for at least a 10 year period.*
- *consolidating residential development in existing areas and directing urban expansion into the designated growth areas which are, or will be, well serviced by employment and public*

transport;

- *giving priority to infill development in established urban areas, particularly through urban regeneration and intensification of development of under-utilised urban land, whilst respecting neighbourhood character ;*
- *locating higher residential densities in locations accessible to transport and services, such as regional and district centres, activity corridors and higher education campuses, and in selected areas of high amenity on the coast and river foreshores;*
- *developing an integrated land use and transport network which reduces car dependence and broadens travel options, makes it easier for people to use public transport or walk or cycle to their destinations, and establishes defined transport corridors as the major network for the movement of goods and people;*

Residential Design Codes (SPP3.1)

The issues that are relevant in the housing component of a local planning strategy, and the selection of the relevant R-Code for the various parts of the municipality, include:

- *Recognition of the regional demand for a range of densities/development intensity and dwelling types;*
- *Socioeconomic and demographic profiles, both existing and likely in the future;*
- *Existing lot sizes;*
- *Current and future infrastructure, including the road network, sewerage, water supply, power, significant employment centres, social and recreational facilities and public transport;*
- *The age and the condition of existing housing stock;*
- *The existence of sites suitable for new housing development, redevelopment or infill;*
- *Trends in market demand for various forms of housing;*
- *Heritage and streetscape values;*
- *The existing and desired character of particular precincts; and*
- *Land values and the effect of proposed density changes on them.*

3.2 Urban Form and Housing Objectives

Consistent with the relevant provisions of the State Planning Framework, key objectives for the future development of within Mandurah are outlined in Table 5.

Table 5 Urban Form and Housing Objectives

Celebrate Mandurah's Point of Difference

1. *Due to the natural assets, extensive coast line and waterways (natural and artificial), existing urban form and infrastructure, recognise the need to provide a variety of development outcomes and scale to avoid being a continuation of suburban sprawl.*

Consolidate Areas of Future Development

2. *The Mandurah Central area being a regionally significant **redevelopment** area for education, retail, employment, transport, infrastructure investment and social infrastructure and therefore being a key area for infill development;*
3. *Continued suburban development that achieves the best possible outcome for Mandurah, respecting the key issues of density targets, the provision of population growth for the region, ensuring that a continuation of suburban sprawl is avoided through urban design, working with the land's existing environmental assets and ensuring that the development integrates with its surrounds;*
4. *Restricting development outcomes adjacent to environmentally sensitive areas particularly the Serpentine River, Lake Goegrup and the Peel-Harvey Estuary, noting that Lake Clifton is outside the key focus area of this component of the Strategy.*

Areas for Increase Density and Scale

5. *Increase the density and diversity of housing in and around activity centres to improve land efficiency, housing variety and to support centre facilities.*
6. *Ensure sufficient development intensity and land use mix in provided in centres and corridors to support high-frequency public transport.*
7. *Identify nodes of activity (outside retail based centres) that support density and diversity in housing.*
8. *Support increased density and scale that result in other community benefits, such as bushland protection and/or community infrastructure.*

Diversity in Housing Forms

9. *Acknowledge that a variety of housing choices and built form outcomes are required to support a range of demographic profiles based on household size, age profiles and socio-economic circumstances.*
10. *Seek to provide a range of housing types that are affordable to a range of demographic profiles.*

Applying these objectives in a spatial form is presented in Figure 7.

This plan identifies an indicative overview of Mandurah focusing on the City Centre precinct which builds on its waterfront amenity; identifies the context for future urban development and residential infill development; key movement networks; environmental objectives and key community and social infrastructure.

Arising from this plan two key themes emanate:

1. *A focus on the Mandurah Strategic Centre as an area of significant redevelopment providing sub-regional functions of activity, employment, transport and amenities;*
2. *Limited areas for new development beyond existing development areas and locations with existing approvals.*



Figure 7 - Mandurah Spatial Overview



3.3 Planning for Community Needs

In order to prepare a Strategy for Urban Form and Housing, an understanding of existing proposed community needs is required. Whilst a detailed analysis has not been considered necessary for the purposes of the Strategy, a number of important considerations as outlined.

Dwelling Types (Existing)

Two key pieces of data reveal indicate that the form of housing in Mandurah does not necessarily correlate to the household structure and occupiers of dwellings.

Table 6 shows that over 80 per cent of Mandurah's dwellings are separate houses, approximately 6 per cent higher than averages across Australia but only slightly higher than state averages. Semi detached dwellings are slightly higher than state and national average, potentially due to the prevailing nature of infill development and retirement villages that have been developed over the last 20 years.

Table 6 Dwelling Types (2011)

	Mandurah		WA	Australia
<i>Separate House</i>	21 464	81.2%	80.4%	75.6%
<i>Semi-Detached (Townhouse)</i>	3 116	11.8%	10.6%	9.9%
<i>Unit / Apartment</i>	1 517	5.7%	7.9%	13.6%
<i>Other</i>	3 18	1.2%	0.9%	0.9%
Totals	26 674			

Source: Australian Bureau of Statistics, Census of Population and Housing 2011

Further, Table 7 shows that nearly half of all dwellings in Mandurah have four or more bedrooms, considerably higher than state and national averages. When combined, 83 per cent of all dwellings have three or more bedrooms, with an average of 3.3 bedrooms per dwelling with an occupation rate of 2.4 people per dwelling.

Table 7 Number of Bedrooms Per Dwelling (2011)

	Mandurah		WA	Australia
<i>1 bedroom</i>	773	2.9%	3.6%	4.7%
<i>2 bedroom</i>	3 174	12.0%	13.0%	19.1%
<i>3 bedroom</i>	9 397	35.5%	39.3%	43.6%
<i>4 bedrooms or more</i>	12 535	47.7%	42.0%	30.3%
<i>Other (none / not stated)</i>	578	2.1%	2.1%	1.8%
<i>Average Rooms / Dwelling</i>	3.3		3.3	3.1
<i>Average People / Dwelling</i>	2.4		2.6	2.6

Source: Australian Bureau of Statistics, Census of Population and Housing 2011

Household Structure (Existing and Future)

The existing dwelling types which favour separate large dwellings (on the basis of number of bedrooms) do not necessarily correlate to the household structure as demonstrated in Table 8, where 18 535 dwellings or 61 per cent have two or less people living in them.

Based on population and household forecasts undertaken, the number of households with two or less people living in them will increase to 65 per cent of all households to 2031. This equates to an additional 13 200 dwellings between 2011 and 2031 accommodating two or less people.

Further, in Mandurah, “25 per cent of households are made up of couples with children compared with 39 per cent in the National Growth Areas Alliance (NGAA)” (profile id, 2013). To 2031, this decreases to 23 per cent of households, or an additional 3 600 dwellings to accommodate families of couples with children.

Therefore, in order to accommodate the Mandurah community’s future needs, the dwelling type and product needs to change dramatically to take into account the needs of a community and the people that are and will be living in the area.

Table 8 Household Structure (Existing and Future)

	Current (2011)		Future (2031)		Dwellings Increase
	Dwellings	%	Dwellings	%	
Lone Persons	7 182	23.6	12 232	24.9	5 050
Couples without Children	11 387	37.5	19 671	40.1	8 284
One Parent Families	3041	10.0	4 306	8.8	1 265
Couples with Children	7 680	25.3	11 347	23.1	3 667
Other	1085	3.6	1 535	3.1	450
Totals	30 375		49 091		18 716

Source: Australian Bureau of Statistics, Census of Population and Housing 2011 and City of Mandurah Population and Household Forecasts, forecast id, 2012

Affordability

Research undertaken as part of a holistic affordable housing strategy for the City of Mandurah reveals the following with respect to supply and demand of affordable dwellings in Mandurah:

- 4200 households in 2011 are in ‘housing stress’, where greater than 30 per cent of income is spent on housing for either purchase or rent;
- 4200 additional ‘affordable’ dwellings will be required to 2026, where less than 30 per cent of income is spent on housing for either purchase or rent.

In order to address these needs, research has revealed that land size and land price is not the key concern, but the types of dwellings and the diversity of dwellings is the key factor in addressing

Demographic trends strongly support the development of such smaller dwellings around major centres and the development of more diverse stock within new urban release areas, particularly close to transport and services.

With regard to the planning framework, this research makes a wide range of recommendations with respect to addressing these demands, however at an elementary level the following key issues:

- The Residential Design Codes where subdivision requirements are key determining factor, the minimum site area per dwelling favours the construction of larger dwellings (for single and grouped dwellings) over the provision of smaller and diverse dwelling types.
- The minimum parking requirements can be quite onerous, particularly for grouped dwellings, as this reduces the amount of developable land, thereby increasing costs per dwelling; and
- Constraints for Ancillary Dwellings to only accommodate family member removes an important source of potential affordable rental accommodation

4. Strategy Provisions

4.1 Urban Form

An urban form plan has been derived from a recognition of the existing context and development patterns together with a need to recognise Mandurah as a place that has the ability to retain a relaxed, holiday atmosphere amid rapid growth as a major sea-change destination and a new urban centre as a southern anchor to the Perth Metropolitan area.

This plan identifies that development in Mandurah needs to recognise Mandurah's *Point of Difference* with a range of development outcomes. Without this, Mandurah runs the risk of being a continuation of *suburban sprawl* along the coast.

The plan provides an indicative scale of density, height and land use in an overview format through the urban form typologies identified. Localised planning will be required to ensure that the various typologies identified fit with their existing surrounds and context based on the principles of:

Context	Respecting the location's context in the regional context
Nodes	Ensuring that there are nodes of activity throughout the City
Form	Avoiding single use suburban sprawl
Public Domain	Respecting the street and public spaces through design
Community Benefit	What do existing and future communities gain from the outcome
Site	Respecting the sites environment and its neighbours through scale, site layout and design

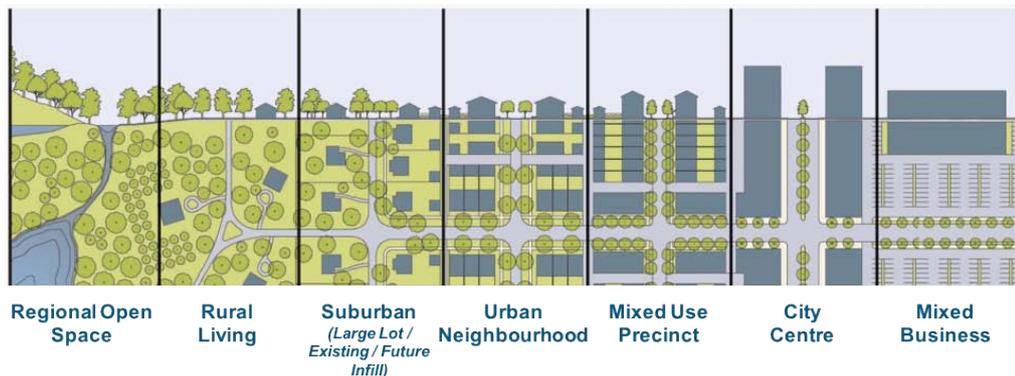
Urban Development Typology

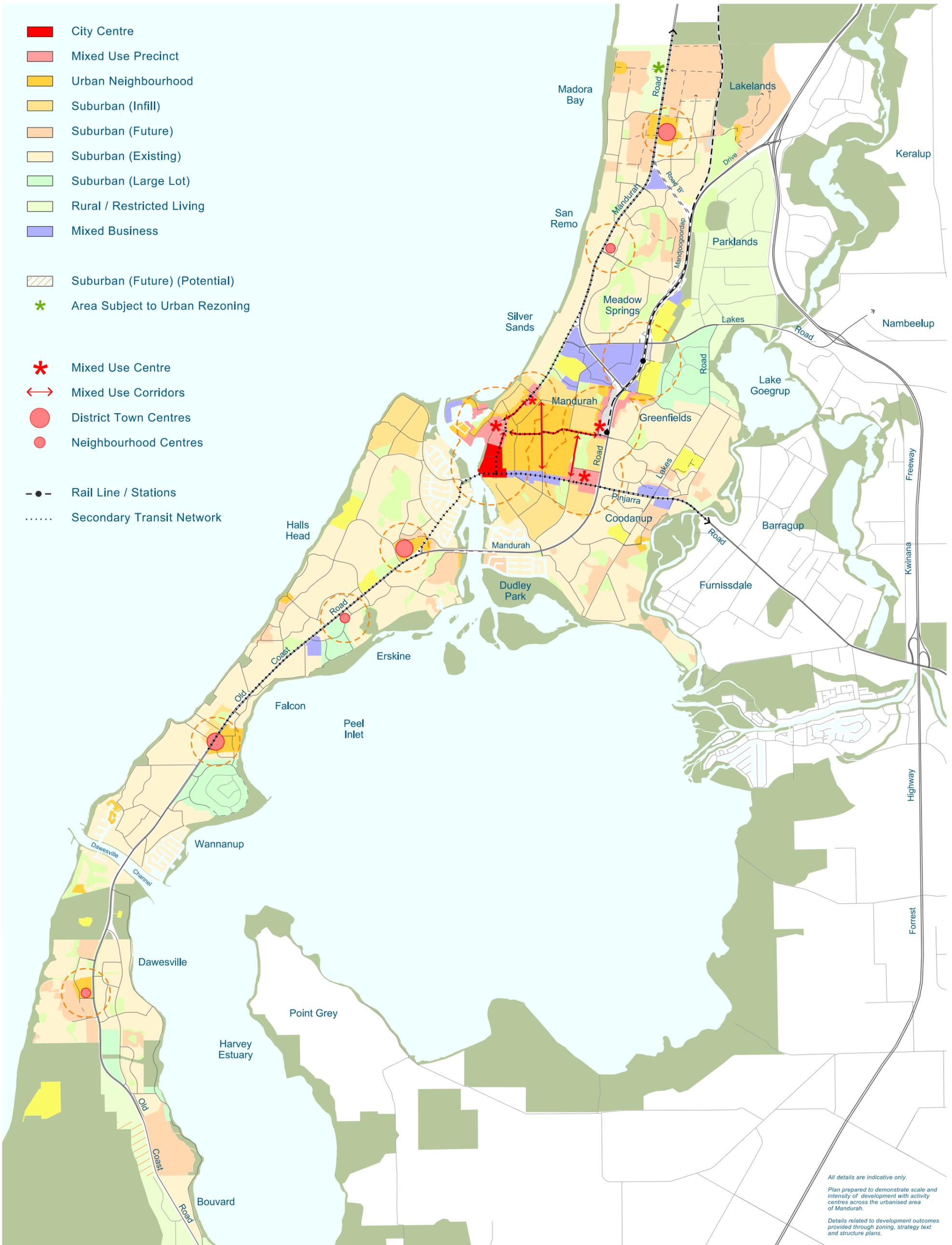
The urban form plan demonstrates an urban structure by development types. This urban development typology groups urban features to establish a logical structure for a desirable city. The limited number of types and coarse steps between them reflects the high-level nature of the proposed structure, allowing for more subtle and place-responsive outcomes from detailed local planning.

These types loosely define development forms with a range of activity and development intensities suitable for Mandurah. Common features associated with each type are outlined to define the main variables that affect how that type contributes to the proposed city structure.

Land use	Each typology has a range of land uses most suitable for their range of intensity.
Urban characteristics	The urban characteristic describes how the public domain of each typology should generally perform.
Building Scale	Many mixes of land uses and intensity are also closely associated with particular building types and some built-form outcomes that may be suitable for particular areas. These building types are intended to suggest possibilities for how an area may develop but are not intended as limitations.
Form of Access	Both the land use and the intensity of activity determines what characteristics of access are desirable. Intensely active places make good quality public transport or walking access highly desirable and viable.

The use of these typologies replaces the need for separate plans, policies and strategies for aspects of development such as residential density and development height in order to guide preparation of further components of the local planning framework.





All details are indicative only.
 Plan prepared to demonstrate scale and intensity of development with activity centres across the urbanised area of Mandurah.
 Details related to development outcomes provided through zoning, strategy text and structure plans.

Figure 8 - Urban Form and Housing Strategic Plan



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City Centre

Description and Characteristics	Location(s)	Mandurah City Centre
	Mix of Land Use	A wide range of mixed uses is required for the urban core, however, careful attention is required to ensure that residential uses do not dominate outcomes necessary to ensure employment, retail and entertainment uses prevail.
	Urban Characteristics	Active streetscapes through ground level treatments are necessary to ensure that the area is pedestrian orientated. Buildings up to street edges and parking and servicing areas located behind buildings are necessary.
	Building Scale	The City Centre should be the location for the tallest buildings in Mandurah to demarcate the central area of activity. Taller buildings up to 12 storeys should be located in the urban core, with all buildings retaining a human scale of three to four storeys at the street edge. Therefore, taller buildings will be restricted to larger parcels of land.
	Form of Access	Access should be via a variety of means, however, public transit, cycling and the pedestrian should be given highest priority. Vehicular access to private lots should be restricted to ensure mid block access.

Implications and Implementation	Mixed Uses (Non Residential)	Yes
	Housing Typologies	Medium and Low Rise Apartments; Mixed Use
	Gross Urban Density	45 dwellings per hectare
	Residential Site Density	100 dwellings per hectare
	Residential Density Codes	R-AC0 – R-AC1 (Activity Centres)
	Building Heights	8-12 Storeys (Max); 3-4 Storeys (Street Level); 2 Storey (Min)
	Lot Sizes	As Existing; Small Lot Subdivision Generally Not Appropriate
	Site Coverage	N/A
	Street Frontages	As Existing
	Street Setbacks	0-2m dependant on street cross section
	Local Structure Plan	Required (Activity Centre Precinct Plan)
	Proposed Zoning	Strategic Centre



Mixed Use Precincts

Description and Characteristics	Location(s)	Strategic Centre Mixed Use Precincts (Mandurah Ocean Marina, Mandurah Terrace, Inner Mandurah, Mandurah Centro, Mandurah Junction and Central Park)
	Mix of Land Use	Predominantly mixed use areas, with commercial and retail uses at ground level, with commercial or residential uses above, with residential uses encouraged to ensure single use zoned areas are avoided.
	Urban Characteristics	Developed focused on ensuring attractive streetscapes with buildings generally built to the street edge ensuring a high level of pedestrian amenity.
	Building Scale	With built form up to street edges, a urban street wall of 3 to 5 storeys should be provided for, with additional levels considered appropriate if the impact on streets and adjoining sites is acceptable. Limitation of heights should respect the urban core as being the central focal point for development height; therefore overall heights should be in the range of 5 to 8 stories .
	Form of Access	A high level of transit should be supported in the urban centres, with private vehicle access to properties limited, with shared driveways promoted to support the streetscape and built form outcomes.

Implications and Implementation	Mixed Uses (Non Residential)	Yes
	Housing Typologies	Medium and Low Rise Apartments; Mixed Use
	Gross Urban Density	30 dwellings per hectare
	Residential Site Density	60 dwellings per hectare
	Residential Density Codes	R-AC1 – R-AC2 (Activity Centres); R100 – R160
	Building Heights	5-8 Storeys (Max); 2 Storeys (Street Level); 2 Storey (Min)
	Lot Sizes	As Existing; Subdivision as per Precinct Plan
	Site Coverage	N/A
	Street Frontages	6m – 20m
	Street Setbacks	0m – 4m dependant on street cross section
	Local Structure Plan	Required (Activity Centre Precinct Plan)
	Proposed Zoning	Strategic Centre



Urban Neighbourhoods

Description and Characteristics	Location(s)	<ul style="list-style-type: none"> • Inner Mandurah Precinct Area • District Town Centres (Lakelands, Halls Head, Falcon) • Dawesville Neighbourhood Centre • Madora Bay North, Frasers Mandurah, Bridgewater North, Seascapes Village, Southport Resort
	Mix of Land Use	<p>Centres: Generally convenience retail and supporting commercial uses that support the residential catchment, however should expand into mixed use locations with medium density residential.</p> <p>Balance: Predominantly residential, with possible mixed use in appropriate locations to support the needs for small scale activity generally in a residential context.</p>
	Urban Characteristics	Medium density living with walk up apartments and townhouses with a strong emphasis on the street edge. Crossovers, garages and private spaces are to be located within sites.
	Building Scale	A range of building scales will be necessary across the urban neighbourhoods due to the broad areas covered; however a general range of 3 to 5 stories is considered an appropriate range. Higher building scales could be considered appropriate where the location's context is suitable and community benefit is derived from development with additional height in that location.
	Form of Access	<p>Centres: Active main streets as a central point of activity with high pedestrian amenity. Parking areas sleeved behind and separated to encourage pedestrian activity.</p> <p>Balance: Dependant on the location, access points, particularly for apartments and townhouse development should be limited to ensure that pedestrian amenity in streets is maintained.</p>

Implications and Implementation	Mixed Uses (Non Residential)	Yes
	Housing Typologies	Low Rise Apartments; Mixed Use; Town Houses; Small Lot
	Gross Urban Density	20 dwellings per hectare
	Residential Site Density	40 dwellings per hectare
	Residential Density Codes	R40 – R100
	Building Heights	5 Storeys (Max); 2 Storeys (Key Streets); 2 Storey (Min)
	Lot Sizes	As per Residential Density Code (allow for variety of outcomes)
	Site Coverage	60 per cent
	Street Frontages	6m – 20m
	Street Setbacks	0m – 4m dependant on street cross section
	Local Structure Plan	Required (Activity Centre Precinct Plan / Outline Development Plan)
	Proposed Zoning	Urban Development; District Centre; Strategic Centre



Suburban (Infill)

Description and Characteristics	Location(s)	<ul style="list-style-type: none"> • Balance of Inner Mandurah • Dudley Park North • 'Old' Halls Head • Areas surrounding Falcon Town Centres
	Mix of Land Use	Whilst being predominantly residential, there may be opportunities for small scale non-residential uses, particularly adjacent to higher use roads.
	Urban Characteristics	A transition from existing low density residential where the housing stock is nearing the end of its 'life' and replaced with medium density living with townhouses with a strong emphasis on design at the street edge. Crossovers, garages and private spaces are to be located within sites.
	Building Scale	Generally low rise, with allowances up to 3 storeys, however detailed planning is required to take into account the local amenity, topography and location characteristics.
	Form of Access	Access will be in accordance with the Residential Design Codes and Liveable Neighbourhoods, being predominantly by private vehicles, however the density and form of development will be determined based on the level of public transport available.

Implications and Implementation	Mixed Uses (Non Residential)	No
	Housing Typologies	Low Rise Apartments, Town Houses, Small Lot Houses
	Gross Urban Density	20 dwellings per hectare
	Residential Site Density	40 dwellings per hectare
	Residential Density Codes	R25 – R60 (subject to detailed planning)
	Building Heights	2 – 3 Storeys (subject to detailed planning)
	Lot Sizes	As per Residential Density Code (allow for variety of outcomes)
	Site Coverage	60 per cent
	Street Frontages	6m – 20m
	Street Setbacks	0m – 4m dependant on street cross section
	Local Structure Plan	To be Reviewed to determine if R-Code density increase will suffice, or detailed Precinct Plan is required
	Proposed Zoning	Residential; or Development Zone to support Precinct Plan.



Suburban (Future)

Description and Characteristics	Location(s)	<i>Remaining undeveloped areas of Madora Bay, Lakelands, Meadow Springs, Greenfields, Coodanup, Dudley Park, Halls Head, Erskine and Dawesville</i>
	Mix of Land Use	<i>Whilst being entirely residential, there may be opportunities for small scale non-residential uses, particularly adjacent to higher use roads.</i>
	Urban Characteristics	<i>Developments in these locations will be in accordance with Liveable Neighbourhoods and current planning policies, including Directions 2031 and Beyond regarding urban form and density.</i>
	Building Scale	<i>Building scale will be in accordance with the Residential Design Codes unless additional areas are identified within the development area through a local structure plan.</i>
	Form of Access	<i>Access will be in accordance with the Residential Design Codes and Liveable Neighbourhoods, being predominantly by private vehicles.</i>

Implications and Implementation	Mixed Uses (Non Residential)	<i>Potential</i>
	Housing Typologies	<i>Town Houses, Small Lot Houses, Detached Houses</i>
	Gross Urban Density	<i>15 dwellings per hectare</i>
	Residential Site Density	<i>26 dwellings per hectare</i>
	Residential Density Codes	<i>R25 – R60</i>
	Building Heights	<i>Above R40: Category C from Residential Design Codes Below R35: Category B from Residential Design Codes</i>
	Lot Sizes	<i>from 300 square metres; diversity required to ensure diversity in housing product</i>
	Site Coverage	<i>60 per cent</i>
	Street Frontages	<i>6m – 20m</i>
	Street Setbacks	<i>0m – 4m dependant on street cross section</i>
	Local Structure Plan	<i>Sites greater than 20 hectares: Yes (Outline Development Plan) Sites less than 20 hectares: To be Determined. Review required based on location</i>
	Proposed Zoning	<i>Urban Development; unless ODP is not required then Residential</i>



Suburban (Existing)

Description and Characteristics	Location(s)	Existing developed areas of Madora Bay, Lakelands, Meadow Springs, Central Mandurah, Greenfields, Coodanup, Dudley Park, Halls Head, Erskine and Dawesville
	Mix of Land Use	Whilst being entirely residential, there are opportunities for small scale non-residential uses, particularly adjacent to higher use roads.
	Urban Characteristics	Development in these locations will be in accordance with the existing pattern of development. Largely, except for the development of vacant sites taking place, limited change is identified.
	Building Scale	Building scale will be in accordance with the Residential Design Codes, consistent with existing policy, except where development has already taken place.
	Form of Access	Access will be in accordance with the Residential Design Codes and Liveable Neighbourhoods, being predominantly by private vehicles.

Implications and Implementation	Mixed Uses (Non Residential)	Small scale on key streets; Built form residential in nature
	Housing Typologies	Town Houses, Small Lot Houses, Detached Houses
	Gross Urban Density	10 dwellings per hectare
	Residential Site Density	20 dwellings per hectare
	Residential Density Codes	Not Connected to Sewer: R12.5 Connected to Sewer: R20 – R40
	Building Heights	Above R40: Category C from Residential Design Codes Below R35: Category B from Residential Design Codes
	Lot Sizes	350 square metres to 1000 square metres
	Site Coverage	50 per cent
	Street Frontages	12m – 20m
	Street Setbacks	4m – 8m
	Local Structure Plan	No
	Proposed Zoning	Residential; As per existing ODP; As per existing Development



Suburban (Large Lot Residential)

Description and Characteristics	Location(s)	Greenfields (Country Road); Erskine (Wattleglen/Silverton Cres); Falcon (Pleasant Grove); Dawesville (Touchstone Drive & Estuary Road)
	Mix of Land Use	These areas are entirely residential in nature.
	Urban Characteristics	Development in these locations will be in accordance with the existing pattern of development, with large lots, large setbacks and little interaction with their surrounds.
	Building Scale	Predominantly single and two storey.
	Form of Access	Access will be via private vehicles on wide, often un-kerbed roads.

Implications and Implementation	Mixed Uses (Non Residential)	No
	Housing Typologies	Detached Houses
	Gross Urban Density	
	Residential Site Density	
	Residential Density Codes	R5 – R10
	Building Heights	Residential Design Codes: Category B
	Lot Sizes	1000 – 4000 square metres
	Site Coverage	30 – 40 per cent
	Street Frontages	15m – 30m
	Street Setbacks	7.5m – 20m
	Local Structure Plan	No
	Proposed Zoning	Residential; Special Control Area (Tree Preservation)



Rural / Restricted Living

Description and Characteristics	Location(s)	Parklands Greenfields (adjacent to Serpentine River & Lake Goegrup), Coodanup (adjacent to Serpentine River) Dawesville (Tims Tickett Road/Ridgewood Drive)
	Mix of Land Use	These areas are primarily restricted to single residential dwellings, by virtue of the remote location or environmental restrictions.
	Urban Characteristics	Development in these locations will be in accordance with the existing pattern of development, with large lots, large setbacks and little interaction with their surrounds.
	Building Scale	Predominantly single and two storey.
	Form of Access	Access will be via private vehicles on wide, often un-kerbed roads.

Implications and Implementation	Mixed Uses (Non Residential)	No
	Housing Typologies	Detached Houses
	Gross Urban Density	N/A
	Residential Site Density	N/A
	Residential Density Codes	N/A
	Building Heights	Single and Two Storeys
	Lot Sizes	2 hectares
	Site Coverage	N/A
	Street Frontages	N/A
	Street Setbacks	50m – 100m
	Local Structure Plan	No
	Proposed Zoning	Rural Residential



Mixed Business

Description and Characteristics	Location(s)	Lakelands South (Meadow Springs North); Gordon Road West; Gordon Road East; Pinjarra Road Mandurah East; Galbaith Loop
	Mix of Land Use	Service areas are suitable for large format wholesale and showroom retail, light industrial and storage uses that support the residential development of Mandurah, dependent on the location.
	Urban Characteristics	These areas provide for a working environment with convenient vehicle access, characterised by larger buildings setback behind car parking and landscaping areas.
	Building Scale	A single level scale is likely to be predominant; however with a mix of upper floor supporting offices, a scale of up to two storeys would be appropriate for redevelopment areas.
	Form of Access	Access for private vehicles will be the most important access, with careful consideration required for service and delivery vehicles. Access to regional road infrastructure is a greater priority than high frequency public transport.

Implications and Implementation	Mixed Uses (Non Residential)	Yes
	Housing Typologies	N/A
	Gross Urban Density	N/A
	Residential Site Density	N/A
	Residential Density Codes	N/A
	Building Heights	Up to Two Storeys (Final details determined in Precinct Plan)
	Lot Sizes	Various; Small Lot Subdivision Not Supported
	Site Coverage	70 per cent
	Street Frontages	Various
	Street Setbacks	Various dependant on street frontage and street cross section. Aim to reduce and bring built form to street edges where appropriate
	Local Structure Plan	Required (Activity Centre Precinct Plan)
	Proposed Zoning	Strategic Centre / Mixed Business



4.2 Future Development

In order to plan for future infrastructure, there needs to be an understanding relating to the timing and nature of future development. Two distinct categories, with the timing of the design and planning of **urban development areas** being proponent or land owner driven due to large landownership areas. **Redevelopment areas** will be planned by the City and development outcomes by a mix of small to medium size development sites within an existing developed area.

Table 9 Future Development Areas

Urban Development Areas	
Approved Development	253.4ha
<p><i>The areas where subdivision approvals are in place and where development is most likely in the shorter term. Many of the areas identified are the final stages of areas that have been subject to development for some time.</i></p>	
Existing Approved ODP	413.5ha
<p><i>These areas have progressed design to a stage that local structure plan approvals are in place and subdivision can proceed, with a majority of cases, these areas being medium term development depending on the rate of growth.</i></p> <p><i>Dwelling and lot yields have been derived from the plans and approvals issued to date and there is some level of certainty regarding the form of development in these areas.</i></p>	
Zoned Urban; No ODP	317.8ha
<p><i>Future development areas are those zoned for future development but without a local structure plan in place and area likely to be the medium to long term areas of development.</i></p> <p><i>District Structure Plans required to provide guidance where an ODP is not in place, particularly as these areas are reducing in size.</i></p>	
Zoned Rural; Potential Urban	152.3ha
<p><i>There are very few areas, with the exception of Madora Bay North and Lakelands North identified in the Strategy for new urban development that is not yet zoned for this purpose.</i></p> <p><i>There is scope that subject to the urban structure, infrastructure provision and environmental considerations being taken into account that are area in Dawesville South could be subject to future urban development.</i></p>	
Redevelopment Areas	
Infill Redevelopment (Existing)	520.9ha
<p><i>As a direct correlation with redevelopment areas that already form part of Scheme 3 and Precinct Plans, these areas will continue to be Mandurah's contribution to achieve the WAPC's overall targets for infill development across the Perth and Peel areas.</i></p> <p><i>Largely they are areas currently or proposed to be zoned for 'Residential R25' and above in existing or established areas. The rate of growth is considerably slower in these areas which makes determining dwelling capacity and population yields difficult.</i></p>	
Infill Redevelopment (Investigation)	200.0ha
<p><i>A number of areas have been identified for medium density investigation. These areas include existing infill development areas as described above, and some additional areas, not generally covered by a higher density at this stage. They are located close to high amenity areas or significant infrastructure.</i></p> <p><i>However prior to progressing any further increase in density, a review of the local areas capacity to support increased density is required, including the lot configurations, dwelling stock and timing for redevelopment, environmental constraints and servicing infrastructure capacity.</i></p>	

Urban Development Areas

-  Approved Subdivision
-  Existing Approved ODP
-  Zoned Urban; No ODP
-  Zoned Rural; Potential Urban

Redevelopment Areas

-  Infill / Redevelopment (Existing)
-  Infill / Redevelopment (Investigation)



Figure 9 - Future Development Areas



Dwelling and Lot Yields

Arising from the identification of future development areas, the following figures demonstrate likely development yields and an indication of the level of development growth. 65 per cent of Mandurah is developed, with 35 per cent undeveloped, or identified for infill residential development.

The figures presented form key component of dwelling *supply* presented by district. A further break down of the districts and level of development potential are identified in the calculation plans for each district in Appendix 1.

Table 10 Dwelling Yields

	Mandurah North	Mandurah Central	Mandurah East (inc Parklands)	Mandurah Island	Dawesville	Totals
Land Areas						
Total Area	1,732	1,156	1,840	2,464	881	8,073
Urban Zoned Area	1,373	928	1,178	1,952	641	6,072
Existing Development						
Existing Dwellings	4,366	6,921	6,328	11,816	2,256	31,687
Vacant Lots	1004	343	728	2750	982	5,807
Sub-Total	5,370	7,264	7,056	14,566	3,238	38,187
Future Development						
Dwellings	5,560	8,455	2,290	1,714	2,300	20,319
TOTAL	10,930	15,719	9,346	16,280	5,538	57,813
Additional Dwellings	51%	54%	25%	11%	42%	35%
Gross Urban Zoned Hectare Density	8.0	16.9	7.9	8.3	8.6	9.5

Note:

It should be noted that these figures are based on estimated yields arising from various land use categories recommended as part of the strategy, and exclude potential dwellings arising from areas shown as Infill Redevelopment Investigation which may result in additional dwelling yields and capacity being increased. As part of any analysis and planning undertaken will need to update these figures accordingly.

Calculating Residential Site Area Density cannot be established until detailed subdivision design completed for all development areas.

5. Administration and Implementation

5.1 Adoption of the Strategy

This Strategy forms part of the City of Mandurah's Strategic Planning Framework, as shown on *Figure 1* which sets out how the role and function of this Framework. Each component of the Strategic Planning Framework, which includes the *Urban Form and Housing Planning Strategy* will form the basis of a Local Planning Strategy as required by the *Town Planning Regulations 1967*.

The *Town Planning Regulations 1967* set out the procedure for preparation, consultation, approval and endorsement of a Local Planning Strategy. Whilst this Strategy will ultimately form part of the Local Planning Strategy, the following procedures are required to adopt this Strategy:

- (a) Adoption of the draft Strategy by Council;
- (b) Public advertising of the draft Strategy for public, stakeholder and Department of Planning comment;
- (c) Consideration of Submissions, Modification (if necessary) and Adoption by Council;
- (d) Submission of modified strategy to WAPC for final endorsement;

The Strategy therefore comes into operation once endorsed by the Western Australian Planning Commission.

5.2 Monitoring, Review and Modifications to the Strategy

The Strategy will need to respond to future changes in state and regional policy as well as any changes to local circumstances and priorities. This may be done through occasional updates as well as periodic comprehensive review.

A comprehensive review of the strategy should be undertaken at least every five years in conjunction with a scheme review. It is recommended that background information be updated on a more frequent basis in response to the availability of information or changes which may not have been foreseen at the time of formulating the original strategy.

Modifications to the strategy should be undertaken in response to significant changes in circumstances in the period between comprehensive review, for example, in the event of major economic development or major infrastructure projects which were not addressed in the endorsed Strategy.

The procedure for review or amendment of the strategy is generally the same as that for the Preparation of the Strategy except that, in the case of an amendment, it is only the changes that are subject to advertisement, assessment and endorsement by the Commission.

The focus of monitoring and review should be on the extent to which the strategy has been successful in:

- articulating and achieving the planning objectives of state and local government; and
- effectively guiding land use and development decisions to achieve the outcomes of the strategy.

5.3 Modifications to the Planning Framework (Strategy Action Plan)

5.3.1 Local Planning Scheme

The primary implementation mechanism for the Strategy is through the Local Planning Scheme and subsequent decision making in regard to applications for planning approval, activity centre plans and local structure plans.

On the basis of the contents of the Strategy and recommendations regarding the implications for the Local Planning Scheme, a revised Scheme will be prepared with various processes to be followed in accordance with the *Town Planning Regulations 1967*.

Table 11 outlines the key recommendations arising from the Strategy that should be reflected in the Local Planning Scheme, with Figure 10 outlining a potential local planning scheme zoning recommendations arising from the Strategy.

Table 11 Local Planning Scheme Action Plan

Strategic Planning Framework

1. *Modify Scheme 3 to provide a reference to the elements of the Strategic Planning Framework including this Strategy to ensure that determinations of the Council under the Scheme including decisions regarding development applications, Outline Development Plans and Activity Centre Precinct Plan are to be consistent with the Strategic Planning Framework*

Zoning Framework

2. *State Planning Policy 3.1: Residential Design Codes provides that areas shall have a residential density code applied ranging from suburban densities to activity centre provisions. The application of the density shall reflect the existing and intended nature of the area.*
3. *A tiered zoning framework should be introduced into Scheme 3 for the residential zone to reflect that primarily providing for residential uses and development in accordance with the residential density code, there will be a number of non-residential land uses applicable that will need to be applied based on the urban form categories recommended in the Strategy. Some criteria will be required as to the suitability of these uses when applying this zone.*
4. *Rezoning of land currently zoned Urban Development that has been developed for residential purposes;*
5. *Application of 'Additional Uses' where identified 'Mixed Use Sites' within existing Outline Development Plans are located outside of the Mandurah Central area.*
6. *Replacement of Canal Zone with Residential zone where identified on existing Outline Development Plan.*
7. *Replacement of existing Tourist Zone where developed for residential outside the Mandurah Strategic Centre possibly through a Special Use or application of other use restrictions and additions to allow for and protect the Tourist development.*

Regional Reserved Land

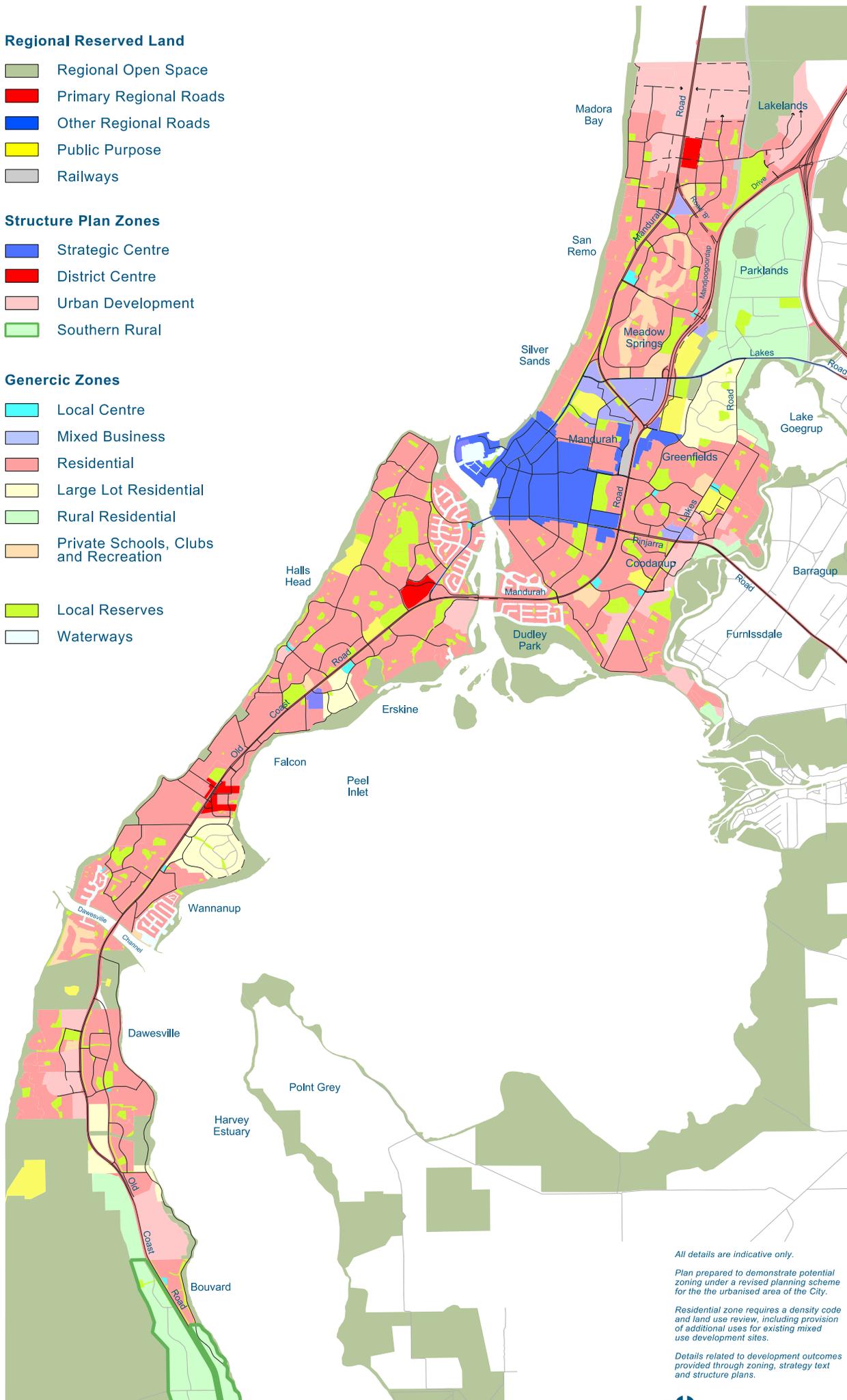
- Regional Open Space
- Primary Regional Roads
- Other Regional Roads
- Public Purpose
- Railways

Structure Plan Zones

- Strategic Centre
- District Centre
- Urban Development
- Southern Rural

Generic Zones

- Local Centre
- Mixed Business
- Residential
- Large Lot Residential
- Rural Residential
- Private Schools, Clubs and Recreation
- Local Reserves
- Waterways



All details are indicative only.

Plan prepared to demonstrate potential zoning under a revised planning scheme for the the urbanised area of the City.

Residential zone requires a density code and land use review, including provision of additional uses for existing mixed use development sites.

Details related to development outcomes provided through zoning, strategy text and structure plans.



Figure 10 - Local Planning Scheme Zoning Recommendations

5.3.2 Local Structure Plans

A local structure plan is a statutory land use plan that provides a framework for future subdivision and development of an area. Within Scheme 3, a local structure plan is a combination of Outline Development Plans and Precinct Plans.

The design and appearance of local structure plans should be consistent with the WAPC's requirements, with the approval process covered by the Mandurah Planning Scheme until such time as a replacement for general scheme provisions is provided through the Town Planning Regulations.

The WAPC has released Structure Plan Preparation Guidelines which will provide guidance as to various types and level of detail required of a structure plan, with a key outcome of these guidelines being consistency in the hierarchy, naming and status of various plans.

Table 12 outlines the key recommendations arising from the Strategy relating to Local Structure Plan.

Table 12 Local Structure Plans Action Plan

Existing Outline Development Plans

The areas to be covered by Outline Development Plans will be significantly reduced by a new Local Planning Scheme. Existing ODPs that are not supported by the relevant zoning under the Mandurah Planning Scheme will no longer have effect and therefore no longer be applicable.

For those plans remaining, they will now be known as Local Structure Plans, and will require update and review in the context of their presentation, format and area covered to ensure consistency with the Strategy and Mandurah Planning Scheme provisions.

Modifications to Existing Outline Development Plan Requirements

Local Structure Plans will replace the existing ODP requirements. Given the Commission's guidelines, the primary difference to current practice will be:

- *Providing less specific detail in regard to land use zones such as adopting a range with regard to residential development (such as low density, medium density, high density areas) and details related to lot size, shape and design be undertaken at the subdivision stage;*
- *Roads being in the format of a single line to more clearly demarcate the road network hierarchy rather than being detailed;*
- *Notes and annotations being specific to additional requirements or plans being required at subsequent development or subdivision assessment stage, additional details relating to development not covered in the Scheme or the rationale for various parts of the plan.*
- *Retaining the current format of producing a single A3 plan except where there is a demonstrated need or required for text related development requirements and the need to provide land use, built form or other development controls that cannot be undertaken using the Planning Scheme provisions, however these should be limited in scope in order to avoid over complicating the planning framework.*

Given the comments above regarding scale and scope of local structure plans there is a need for the City to prepare a number of local structure plans where there are multiple landowners and negate the need for these plans to be prepared on the basis of landownership.

Provisions should be included in the Mandurah Planning Scheme that provide an exemption from the need for a local structure plan for land zoned Development where a proposed subdivision is consistent with the following:

- *The development proposes a dwelling yield of 26 dwellings per hectare or less;*
- *The road network for District Distributor and Neighbourhood Connector Roads is accordance the provisions of the Mandurah Planning Strategy or relevant District Structure Plan;*
- *The development proposes a development height consistent with the Strategy's recommendations;*
- *A climate change vulnerability assessment is not required for areas adjacent to the coast (which includes the ocean and estuary) due to the need to confirm the foreshore width and appropriate form of development adjacent to the coast.*

Appendix 1 District & Sub-District Calculation Summaries

Table 13 Housing and Density Calculations (Mandurah North District)

	Area 1 Madora Bay / San Remo	Area 2 Lakelands West	Area 3 Lakelands East	Area 4 Meadow Springs North	Area 5 Meadow Springs South	Area 6 Silver Sands North	Totals
Land Areas							
Total Area	455	348	313	264	280	72	1732
Urban Zoned Area (Existing)	190	154	0	160	225	59	788
Residential Site Area (Existing)	127	109	0	72	103	36	447
UZA to RSA Ratio	67%	71%	N/A	45%	46%	61%	57%
Existing Development							
Existing Dwellings (2011)	992	858	0	783	1233	500	4366
Vacant Lots (2011)	269	373	0	258	54	50	1004
Sub Total	1261	1231	0	1041	1287	550	5370
Existing Densities							
Gross Urban Zoned Density	6.6	8.0	N/A	6.5	5.7	9.3	6.8
Net Residential Site Area Density	9.9	11.3	N/A	14.5	12.5	15.3	12.0
Future Development							
Urban Zoned Area (Future)	194	166	156	69	0	0	585
Potential Dwellings (Suburban)	2000	1630	1180	750	0	0	5560
Potential Dwellings (Infill)	0	0	0	0	0	0	0
Total Dwellings	3261	2861	1180	1791	1287	550	10930
% Additional Dwellings	61%	57%	100%	42%	0%	0%	51%
Urban Zoned Area (Total)	384	320	156	229	225	59	1373
Gross Urban Zoned Density ^(a)	8.5	8.9	7.6	7.8	5.7	9.3	8.0

^(a) Calculating Residential Site Area Density cannot be established until detailed subdivision design completed for all development areas.

Table 14 Housing and Density Calculations (Mandurah Central District)

	Area 1 Silver Sands	Area 2 Ocean Marina / MH Tce West ^(a)	Area 3 City Centre ^(a)	Area 4 Inner Mandurah W ^(a)	Area 5 Mandurah Junction/Central Park	Area 6 Inner Mandurah NW ^(a)	Area 7 Inner Mandurah SW ^{(a) (b)}	Area 8 Dudley Park NW ^(b)	Area 9 Dudley Park Central ^(b)	Area 10 Dudley Park East ^(b)	Area 11 Soldiers Cove/Waterside	Totals
Land Areas												
Total Area	45	109	40	118	288	118	129	60	72	81	96	1156
Urban Zoned Area (Existing)	41	102	39	118	80	115	121	60	72	68	70	886
Residential Site Area (Existing)	27	44	21	77	21	83	59	39	39	34	48	492
UZA to RSA Ratio	66%	43%	54%	65%	26%	72%	49%	65%	54%	50%	69%	56%
Existing Development												
Existing Dwelling (2011)	500	1411	248	1115	5	934	621	615	480	420	572	6921
Vacant Lots (2011)	50	92	1	60	0	42	32	15	18	14	19	343
Sub Total	550	1503	249	1175	5	976	653	630	498	434	591	7264
Existing Densities												
Gross Urban Zoned Density	13.4	14.7	6.4	10.0	0.1	8.5	5.4	10.5	6.9	6.4	8.4	8.2
Net Residential Site Area Density	20.4	34.2	11.9	15.3	0.2	11.8	11.1	16.2	12.8	12.8	12.3	14.8
Future Development												
Urban Zoned Area (Future)	0	0	0	0	42	0	0	0	0	0	0	42
Potential Dwellings (Suburban)	0	0	0	0	2050	0	0	0	0	0	0	2050
Potential Dwellings (Infill)	0	900	1000	1725	0	1120	1400	100	50	50	60	6405
Total Dwellings	550	2403	1249	2900	2055	2096	2053	730	548	484	651	15719
% Additional Dwellings	0%	37%	80%	59%	100%	53%	68%	14%	9%	10%	9%	54%
Urban Zoned Area (Total)												
Urban Zoned Area (Total)	41	102	39	118	122	115	121	60	72	68	70	928
Gross Urban Zoned Density	13.4	23.6	32.0	24.6	16.8	18.2	17.0	12.2	7.6	7.1	9.3	16.9

(a) Figures based on potential capacity based on residential density and yields at a 60 per cent development rate. These figures will represent a supply or capacity figure and explain the discrepancy to the demand for housing through the population figures.

(b) Figures based on potential capacity based on existing zoning and residential density applicable at the time of the Strategy being prepared for areas shown as 'infill development investigation' areas. As part of any Plan which will result in a significant increase in these calculations, figures to be updated accordingly in line with note (a).

Table 15 Housing and Density Calculations (Mandurah East & Parklands Districts)

	Area 1 Parklands (a)	Area 2 Greenfields North	Area 3 Greenfields SW	Area 4 Greenfields East	Area 5 Coodanup North	Area 6 Dudley Park South/Mariners Cove	Area 7 Coodanup East/Frasers/Placid Waters	Totals
Land Areas								
Total Area	577	348	132	211	107	209	256	1840
Urban Zoned Area (Existing)	0	299	128	183	95	164	141	1010
Residential Site Area (Existing)	0	204	83	102	61	90	93	633
UZA to RSA Ratio	0%	68%	65%	56%	64%	55%	66%	63%
Existing Development								
Existing Dwellings (2011)	184	1569	965	1152	691	1045	722	6328
Vacant Lots (2011)	27	46	41	69	17	299	229	728
Sub Total	211	1615	1006	1221	708	1344	951	7056
Existing Densities								
Gross Urban Zoned Density	N/A	5.4	7.9	6.7	7.5	8.2	6.7	7.0
Net Residential Site Area Density	N/A	7.9	12.1	12.0	11.6	14.9	10.2	11.1
Future Development								
Urban Zoned Area (Future)	0	9.5	12	16.9	2.4	42.1	85.2	168.1
Potential Dwellings (Suburban)	0	20	200	100	20	450	1500	2290
Potential Dwellings (Infill)	0	0	0	0	0	0	0	0
Total Dwellings	211	1635	1206	1321	728	1794	2451	9346
% Additional Dwellings	0%	1%	17%	8%	3%	25%	61%	25%
Urban Zoned Area (Total)	0	308.5	140	199.9	97.4	206.1	226.2	1178.1
Gross Urban Zoned Density ^(b)	N/A	5.3	8.6	6.6	7.5	8.7	10.8	7.9

^(a) Parklands included for the purposes of calculating total dwellings for Mandurah.

^(b) Calculating Residential Site Area Density cannot be established until detailed subdivision design completed for all development areas.

Table 16 Housing and Density Calculations (Mandurah Island District)

	Area 1 ‘Old’ Halls Head	Area 2 Halls Head Central North	Area 3 Halls Head Central East	Area 4 Port Mandurah St 1-4	Area 5 Port Mandurah Stgs 5-6	Area 6 Halls Head Central South	Area 7 Seascapes North	Area 8 Erskine North / Bridgewater	Area 9 Seascapes South/ Falcon North	Area 10 Erskine South	Area 11 Falcon South-West/Wannanup West	Area 12 Falcon South-East/Wannanup East	Totals
Land Areas													
Total Area	146	197	90	114	63	144	148	266	202	222	456	416	2464
Urban Zoned Area (Existing)	121	156	72	71	44	129	139	158	167	144	380	277	1858
Residential Site Area (Existing)	80	78	44	45	17	84	97	100	108	96	252	231	1232
UZA to RSA Ratio	66%	50%	61%	63%	39%	65%	70%	63%	65%	67%	66%	83%	66%
Existing Development													
Existing Dwellings (2011)	904	1026	563	594	304	960	1231	1233	1071	696	2296	938	11816
Vacant Lots (2011)	71	45	12	74	95	40	152	157	253	137	1016	698	2750
Sub Total	975	1071	575	668	399	1000	1383	1390	1324	833	3312	1636	14566
Existing Densities													
Gross Urban Zoned Density	8.1	6.9	8.0	9.4	9.1	7.8	9.9	8.8	7.9	5.8	8.7	5.9	7.8
Net Residential Site Area Density	12.2	13.7	13.1	14.8	23.5	11.9	14.3	13.9	12.3	8.7	13.1	7.1	11.8
Future Development													
Urban Zoned Area (Future)	0.0	0.7	15.5	0.0	5.2	0.0	3.0	40.4	7.2	0.0	3.9	18.1	94
Potential Dwellings (Suburban)	0	0	319	0	0	0	50	825	250	0	120	150	1714
Potential Dwellings (Infill)	(a)	0	0	0	0	0	0	0	0	0	0	0	0
Total Dwellings	975	1071	894	668	399	1000	1433	2215	1574	833	3432	1786	16280
% Additional Dwellings	0%	0%	36%	0%	0%	0%	3%	37%	16%	0%	3%	8%	11%
Urban Zoned Area (Total)													
Urban Zoned Area (Total)	121	157	88	71	49	129	142	165	167	144	384	295	1952
Gross Urban Zoned Density ^(b)	8.1	6.8	10.2	9.4	8.1	7.8	10.1	13.4	9.4	5.8	8.9	6.1	8.3

(a) Figures based on potential capacity based on existing zoning and residential density applicable at the time of the Strategy being prepared for areas shown as ‘infill development investigation’ areas. As part of any Plan which will result in a significant increase in these calculations, figures to be updated accordingly .

(b) Calculating Residential Site Area Density cannot be established until detailed subdivision design completed for all development areas.

Table 17 Housing and Density Calculations (Dawesville District)

	Area 1 Florida / Melros Dawesville West	Area 2 'Old Dawesville' Dawesville East Dawesville South	Area 3 Tims Thickett	Totals
<i>Land Areas</i>				
Total Area	256	540	85	881
Urban Zoned Area (Existing)	137	321	0	458
Residential Site Area (Existing)	80	195	0	275
UZA to RSA Ratio	58%	61%	N/A	60%
<i>Existing Development</i>				
Existing Dwellings (2011)	608	1624	24	2256
Vacant Lots (2011)	275	702	5	982
Sub Total	883	2326	29	3238
<i>Existing Densities</i>				
Gross Urban Zoned Density	6.4	7.2	N/A	7.1
Net Residential Site Area Density	11.0	11.9	N/A	11.8
<i>Future Development</i>				
Urban Zoned Area (Future)	82.2	101.1	0.0	183.3
Potential Dwellings (Suburban)	800	1500	0	2300
Potential Dwellings (Infill)	0	0	0	0
Total Dwellings	1683	3826	29	5538
% Additional Dwellings	48%	39%	0%	42%
Urban Zoned Area (Total)	219.2	422.1	0	641.3
Gross Urban Zoned Density ^(a)	7.7	9.1	N/A	8.6