

# Urban Housing Strategy



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one city diverse places



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## Executive Summary

The City of Swan has prepared an Urban Housing Strategy to address future housing needs resulting from rapid population growth and to ensure the long term sustainable future of residential development within the City.

The Strategy has been developed in response to the State Government's *Directions 2031 and Beyond*<sup>1</sup> (*Directions 2031*) report which outlines a potential doubling of the City's population by 2031 and anticipates an additional 35,510 dwellings. This forecast can be accommodated in the City's expanding urban growth areas. However, increasing the opportunities for infill development within the City's established areas will provide much-needed housing options for residents who prefer to live in the established areas.

The Strategy comprises an Infill Strategy and a Greenfields Strategy.

The Infill Strategy identifies approximately 15,500 sites in sixteen established residential localities across the City for higher residential densities, taking advantage of access to existing infrastructure services, facilities and resources.

Features of the Infill Strategy include:

- Increased residential densities surrounding activity centres and locations with good access to public transport, schools, shops and centres of employment.
- Incentives to provide single bedroom homes or Aged/Dependant Persons housing or special needs housing.
- Consideration of the community's desire to "age in place" through the provision of increased housing opportunities for older people who wish to remain in their communities.
- Encouragement of site assembly to achieve maximum development potential and *better* built form outcomes.
- *The introduction of Dual Residential Codes (DRCs) in areas that have potential* for higher residential densities.
- Introduction of design criteria to achieve the bonus development opportunity as stipulated by the DRCs.
- Design criteria that promote *Liveable Neighbourhoods*, Transit Oriented Development and designing out crime principles.
- Methodology for conversion of Pedestrian Access Ways to trafficable roads, cul-de-sacs or public open spaces.

A comprehensive community consultation program was carried out from October 2010 to January 2011. Where appropriate, issues raised by the community and relevant stakeholders were addressed and incorporated into the Infill Strategy.

The Greenfields Strategy applies to greenfield areas subject to current and future structure planning. It is consistent with *Directions 2031's Outer Metropolitan Sub-Regional Strategy* which looks beyond 2031 to ensure Perth is able to accommodate a city of 3.5 million, whenever that might occur.

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<sup>1</sup> *Directions 2031 and Beyond* is available online at at <http://www.planning.wa.gov.au/plans+and+policies/publications/1924.aspx>



The Midland and Ellenbrook City Centres will be subject to a separate set of planning controls through a Midland Activity Centre Structure Plan and an Ellenbrook Activity Centre Structure Plan. Similarly, growth in the Midland Redevelopment Area will be controlled through the Metropolitan Redevelopment Act.

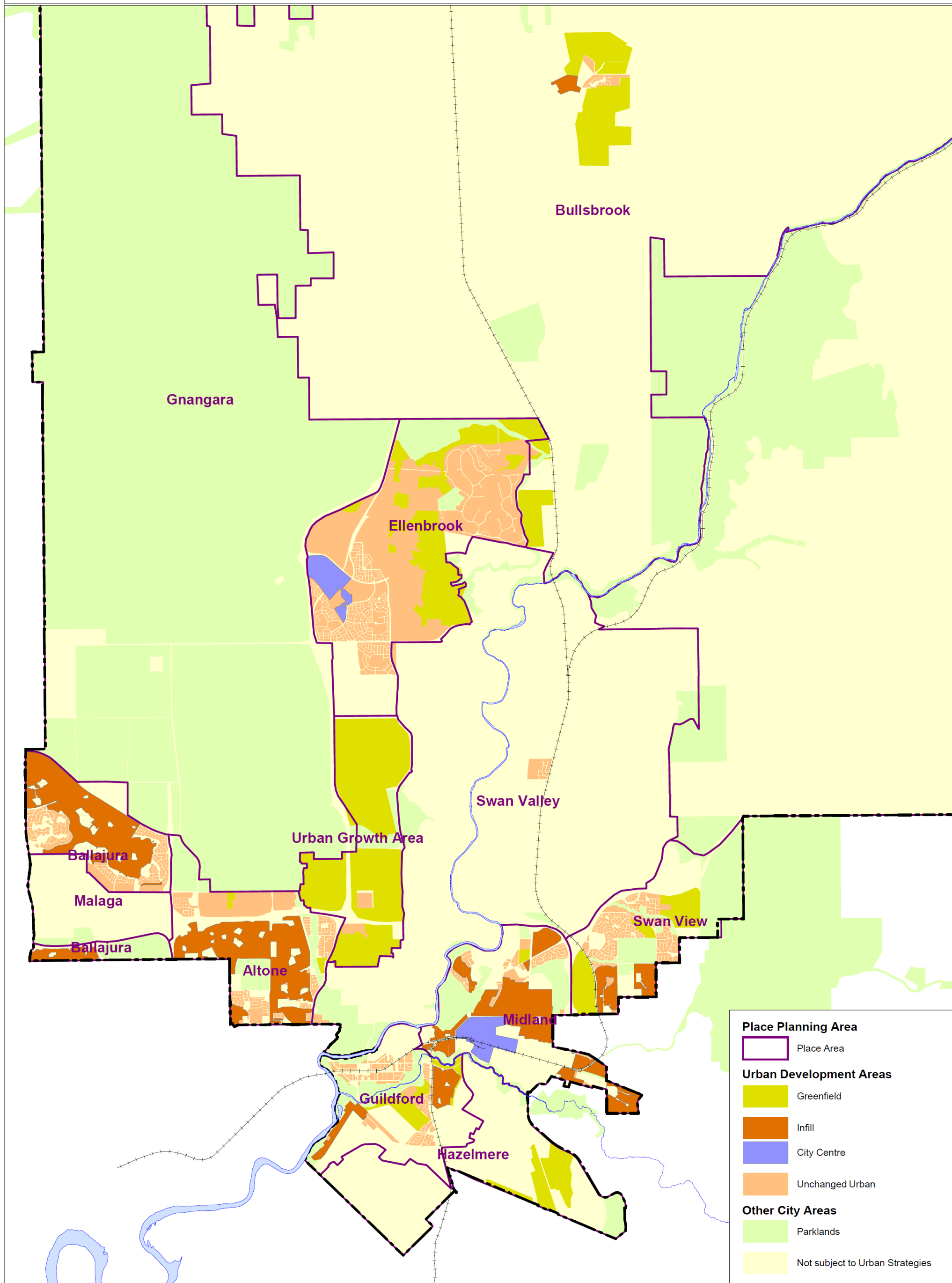
The City's rural areas are not proposed to cater for significant residential growth and in accordance with the State Government's planning framework; a proposed review of the current Local Rural Strategies (as amended) will continue to provide a suitable planning framework for rural living.

The City of Swan's Urban Housing Strategy has the capacity to generate significant positive changes supporting an accessible, well connected and sustainable community where people of all ages and abilities can access housing that meets their varied needs.

The implementation of the Urban Housing Strategy will be through subsequent amendments to the City's Local Planning Scheme and subsequent local planning policies which are the statutory documents used by Council and the State Government to determine land subdivision and development.



# Urban Housing Strategy map







## **Part One**

### **Background and General Information**

#### **1 Introduction**

The City of Swan's Urban Housing Strategy sets out a strategy for meeting the future housing needs of its community and managing the character and amenity of existing residential areas.

While the City's population growth will occur in five main areas – greenfield areas, existing residential areas, the Midland City Centre, the area controlled by the Metropolitan Redevelopment Authority and rural areas, the Urban Housing Strategy is concerned mainly with an Infill Strategy and a Greenfields Strategy.

In developing this Urban Housing Strategy, the City carried out a comprehensive review of its current housing stock and urban densities by conducting a thorough analysis of locations that may be suitable for higher residential densities through infill development in the future. The review also revealed changing patterns of housing need, affordability issues and a lack of housing diversity across the City.

This approach proved invaluable when analysing current and forecast demographics in concert with the City's Place Planning studies already completed in localised areas.

The Urban Housing Strategy will provide a firm rationale for determining the future housing needs of the community and is intended to provide the strategic basis for future density recordings and amendments to the Local Planning Scheme.

#### **2 Study Area**

The study area for this housing strategy includes the entire municipal area of the City of Swan.

The City of Swan is the main gateway between the Perth metropolitan region and the hinterland regions to the north and east. Most of the region's major highways and primary rural routes intersect within the City of Swan as does the main interstate rail link and flight routes to and from the Perth Domestic Airport. There is a natural focus and convergence of these transport networks through the City of Swan, and Midland in particular.

Geographically the City is situated on the north eastern edge of the Perth metropolitan area. While almost 60% of the City's land is rural, the majority of the current population is concentrated in the southern and south western parts of the City, which forms the traditional "edge" of the urban area.

The focus of the infill component of this strategy is primarily in the southern and south-western portions of the City as this is where the majority of housing currently exists.



### 3 Objectives of the Urban Housing Strategy

The principal objectives of the Urban Housing Strategy are to:

- Encourage the provision of a range of housing options throughout urban areas of the City to meet the changing needs of residents. This includes the provision of housing for Aged/Dependant persons and people with special needs.
- Facilitate the creation of walkable communities adjacent to activity centres and transport nodes that will reduce the demand for car based travel, encourage the use of alternative transport modes and provide opportunities for increased social interaction.
- Provide a strategic planning framework for increasing residential densities within existing established areas in selected locations. These locations are to be identified in accordance with the principles of *Liveable Neighbourhoods*, Transit Oriented Development and heritage protection.
- Identify suitable mechanisms for controlling the built form outcomes in identified infill areas to protect existing residential amenity.



## 4 Policy Context

The policy objectives of the various State and Western Australian Planning Commission (WAPC) strategic policies and statutory mechanisms for the planning of residential zonings and density codings have influenced the preparation of the Urban Housing Strategy.

The following have been identified as being the most relevant to the City of Swan:

- State Planning Strategy
- State Affordable Housing Strategy
- *Directions 2031 and beyond*
- SPP 2.2 Gnangara Groundwater Protection
- SPP 2.5 Agricultural and Rural Land Use Planning
- SPP 2.10 Swan-Canning River System
- SPP 3 Urban Growth and Settlement
- SPP 3.1 *Residential Design Codes of Western Australia*
- SPP 3.4 Natural Hazards and Disasters
- SPP 3.5 Historic Heritage Conservation
- SPP 4.1 State Industrial Buffer Policy
- SPP 4.2 Activity Centres for Perth and Peel
- SPP 5.1 Land Use Planning in the Vicinity of Perth Airport
- SPP 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning
- *Liveable Neighbourhoods*
- Development Control Policy 1.6 Planning to Support Transit Use and Transit Oriented Development
- DC 2.3 Public Open Space in Residential Areas
- Swan Urban Growth Corridor Sub-Regional Structure Plan 2009
- City of Swan Local Planning Scheme No. 17 (LPS 17) and Heritage List
- City of Swan Strategic Plan 2008-2012
- City of Swan Place Plans
- City of Swan Strategic Community Plan (draft)
- Rural Strategies used by the City of Swan

Appendix 1 provides a detailed description of these policies as they relate to the City of Swan.

## 5 Population and Housing Demand

Planning for a community’s future housing is informed by historic trends and forecast changes in population and households. This section examines the key population trends across the City, the main attributes of the current household structure and the implications for housing supply as a result of future population growth and changes in the demographic make-up of the population.

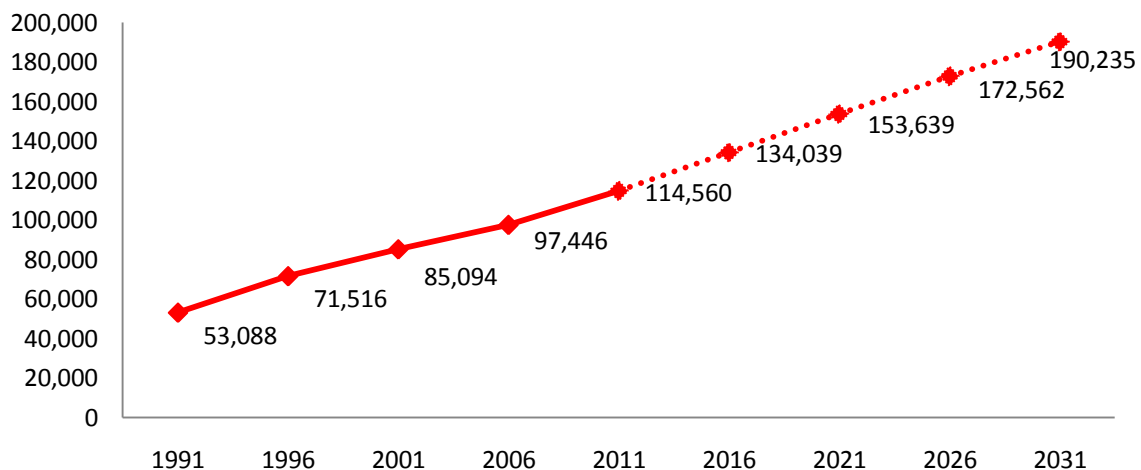
### 5.1 Population

#### 5.1.1 Population growth

In 2006, the population of the City of Swan was 97,446 and represented 6.4% of the Perth Metropolitan Region’s population. The population increased from 71,516 in 1996 to 97,446 over a period of 10 years.

*Directions 2031* forecasts a population of approximately 210,300 persons in the City of Swan or 9.6% of Perth's population by 2031. The City of Swan utilises the services of Informed Decisions (id) for its population forecasting which has projected a population of 190,235 persons or 8.65% of Perth's population by 2031. The population projections are based on different assumptions and over a 20 year period, a margin of 10% or 20,000 persons is not considered to be a significant variation.

**Figure 2: Population 1991-2031**



Source: Informed Decisions [www.id.com.au/profile/swan](http://www.id.com.au/profile/swan) and [www.http://forecast2.id.com.au/Default.aspx?id=223&pg=5000](http://forecast2.id.com.au/Default.aspx?id=223&pg=5000)

The City of Swan’s rapid population growth can be attributed to several factors:

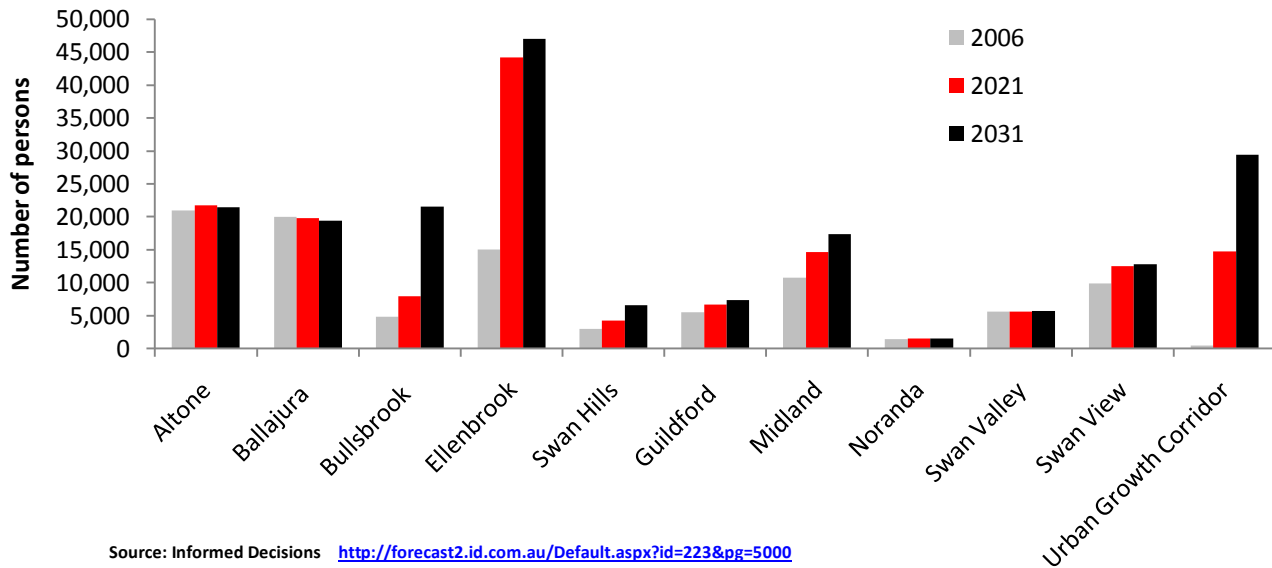
- The City is in close proximity to the Perth metropolitan core. This proximity to employment, commercial and recreational activities provides high amenity living.
- The City contains its own employment base, recreation and tourism activities, environmental features and good road networks.
- The City offers a range of quality education and training opportunities.
- There is a supply of relatively affordable land for housing.
- Midland is a growing employment and business centre, and a strategic hub for the North-East Metropolitan Region.

The additional population resulting from the projected growth is expected to reside predominantly within the greenfield estates in the Urban Growth Corridor, Ellenbrook and later, Bullsbrook. Very little growth is expected within the established urban areas with the exception of Midland which has a large selection of development sites, their maximum potential yet to be realised. Without infill



development, some of the areas such as Altona and Ballajura will slowly decline or stagnate in population (Fig 3).

**Figure 3: Population forecasts by Place Planning Area 2006-2031**



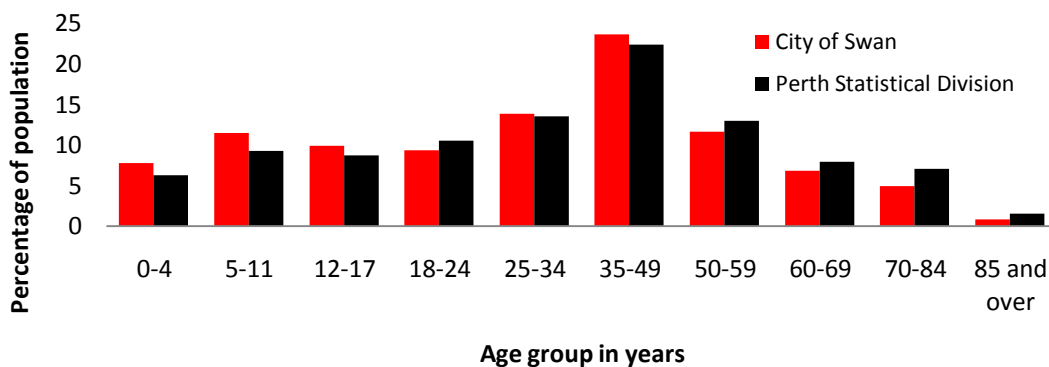
Source: Informed Decisions <http://forecast2.id.com.au/Default.aspx?id=223&pg=5000>

### 5.1.2 Demographic composition

The age structure of a population is an indicator of an area’s residential role and function and how it is likely to change in the future.

In 2006, the City of Swan had a larger proportion of people in the younger age groups (0 to 17) but a smaller proportion of people in the older age groups (60+) than across the Perth metropolitan region. Overall, 29.2% of the population was aged between 0 and 17, and 12.5% were aged 60 years and over, compared with 24.1% and 16.4% respectively for the Perth metropolitan region reflecting the dominance of growing families in the City compared with the Perth average.

**Figure 4: Demographic profile 2006**

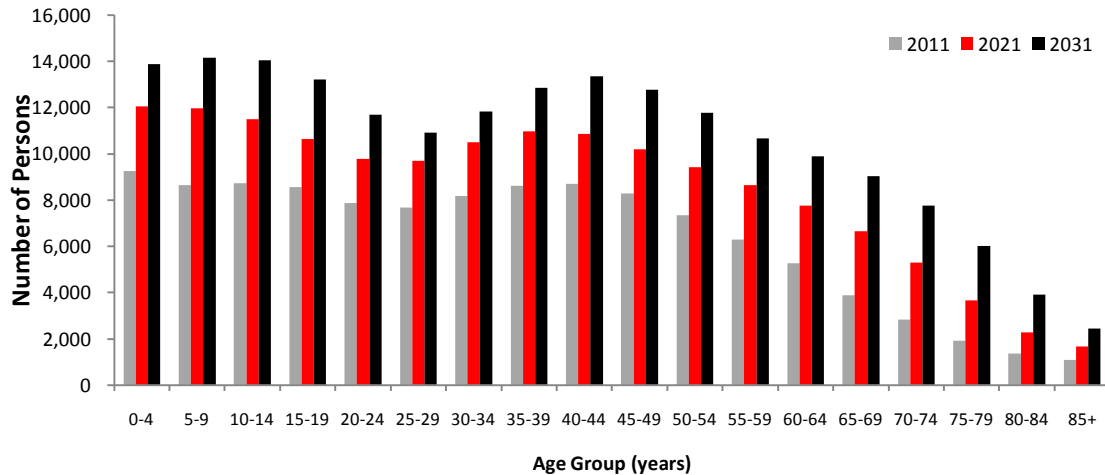


Source: Informed Decisions [www.id.com.au/profile/swan](http://www.id.com.au/profile/swan)

### 5.1.3 Forecast demographic changes 2011 - 2031

Based on the 2006 *Census of Population and Housing*, population projections for age groups in the City of Swan show increases in population across all age groups. This is not surprising given the extent to which the City of Swan is identified as an outer growth area with significant amounts of future residential land to accommodate that growth.

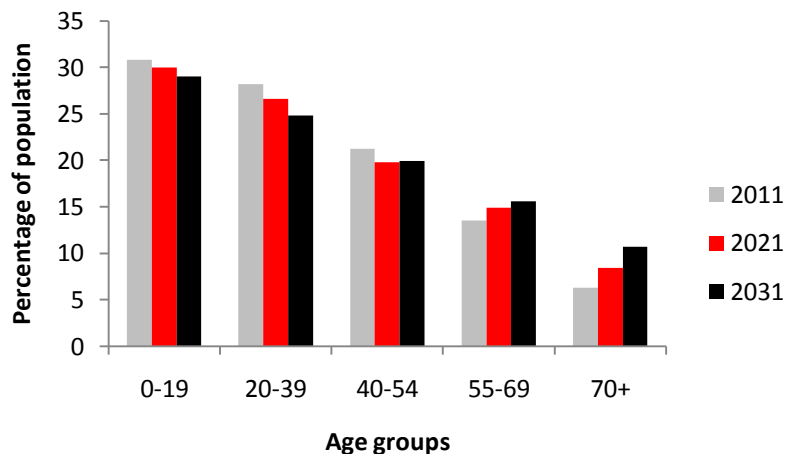
**Figure 5: Forecast age structure 2011-2031**



Source: Informed Decisions <http://forecast2.id.com.au/Default.aspx?id=223&pg=5000>

Although the population in each age-group is predicted to increase, the proportion of people in the age groups 0-54 years relative to the population size actually decreases from 80.2% to 73.7%, whereas the over 55's have proportional increases with the greatest rate of increase predicted for the age-groups over 70 years (6.3% to 10.7%), which typifies the trend of an ageing population.

**Figure 6: Forecast age structure – percent of population 2011-2031**



Source: Informed Decisions <http://forecast2.id.com.au/Default.aspx?id=223&pg=5000>

Given the diversity and spread of urban development across the City, the projected demographic changes for each of the Place Planning Areas were analysed. The analysis shows that while the demographics within the City are changing, these changes are not evenly distributed. For example, the established areas of Ballajura and Beechboro are declining in population as children leave home

and older people remain in their homes longer. Correspondingly, the percentage of aged persons is increasing and above the average percentage for the City for that demographic.

By contrast, Ellenbrook has a large younger population which is representative of a typical first home owner area, while Midland has a growing population that is more middle aged with low household sizes as is expected in a City centre location.

**Key points:**

- The City will experience significant population growth over the next 20 years.
- Growth will be dynamic and across all age-groups.
- The longer term trend is towards an ageing community within the City of Swan. This will be countered with many new homeowners in the growth areas but the mixture of these demographic cohorts will remain quite distinct for many years to come.
- A number of established residential areas will experience losses in population or a stagnating population as well as an increasing share of older people.
- The changing demographics will be a key driver in influencing policy decisions relating to the future provision of housing suited to the needs of the population.



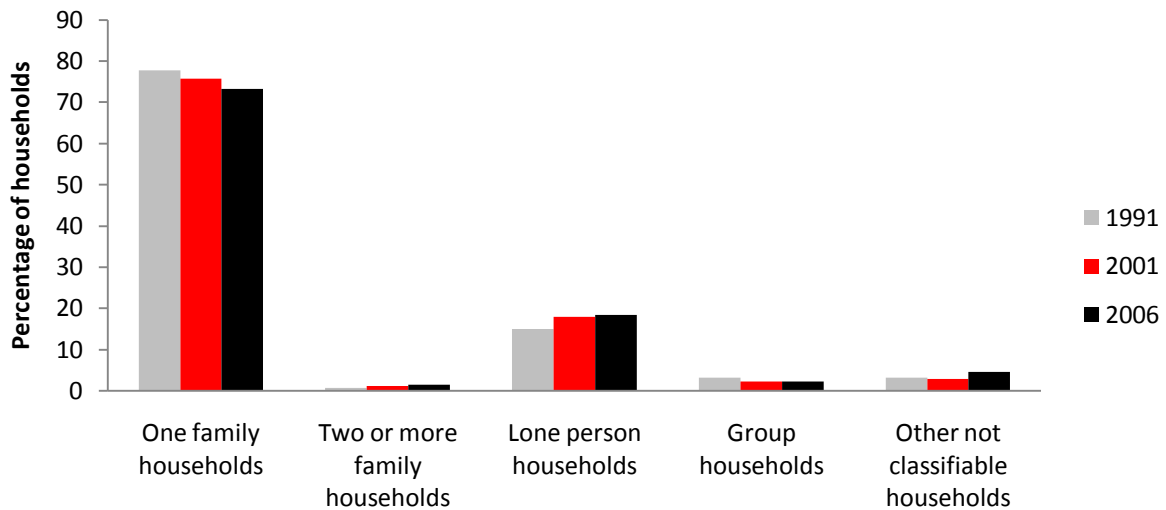


## 5.2 Households

### 5.2.1 Changes in household types 1991-2006

In 1991, one family households represented 77.83% of all households in the City but this declined to 73.3% in 2006. In the same period, two or more family households increased from 0.74% to 1.41% of households and most significantly, the percentage of lone person households increased from 15.03% to 18.44%.

**Figure 7: Household types 1991-2006**

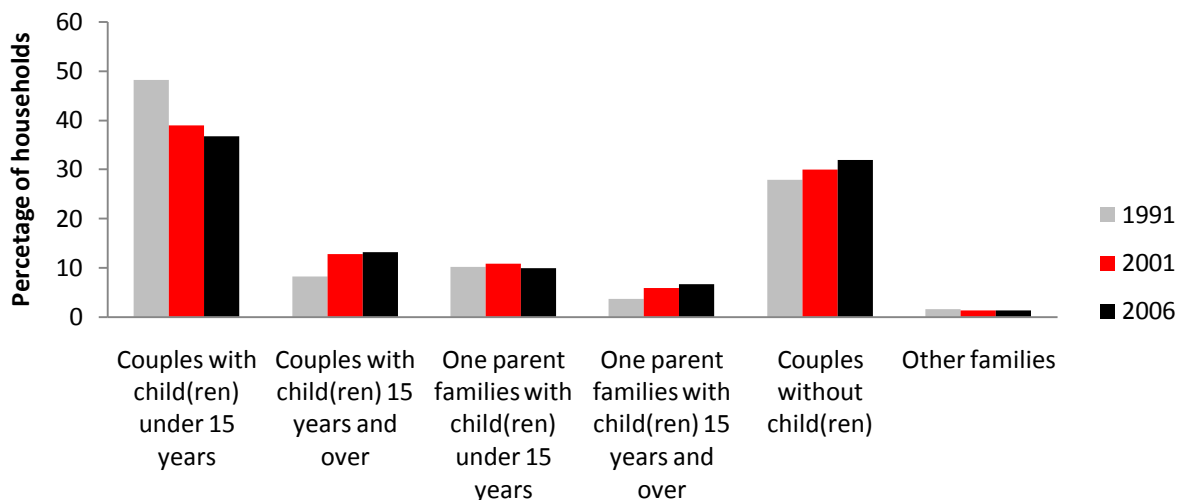


Source: Informed Decisions [www.id.com.au/profile/swan](http://www.id.com.au/profile/swan)

### 5.2.2 Changes in family households 1991 – 2006

The change in the structure of family households can be seen in Figure 8. Since 1991, the percentage of couples with children under the age of 15 has decreased; however, the couples with children over the age of 15 has increased. One parent households with children over 15 years has increased as has the couples without children household.

**Figure 8: Change in structure of family households 1991-2006**



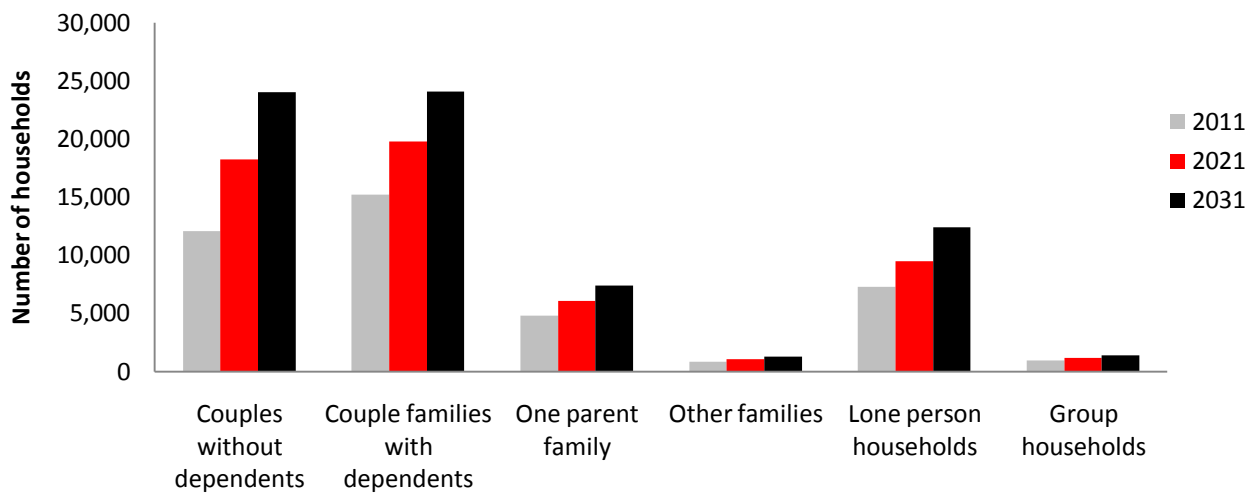
Source: Informed Decisions [www.id.com.au/profile/swan](http://www.id.com.au/profile/swan)

### 5.2.3 Forecast changes in household types

The Australia Bureau of Statistics’ (ABS 2006) recent forecast of household increases indicates that the number of lone person households is projected to increase the fastest of all household types in Western Australia, increasing by between 84% and 123%, between 2006 and 2031. Couple families **without** children are projected to experience the fastest growth of all family types in Western Australia, overtaking couple families **with** children between 2012 and 2026.

In the City of Swan, there is expected to be an increase across all household types as a result of rapid population growth. Couples without dependents will grow at the fastest rate and lone person households will also increase at a significant rate.

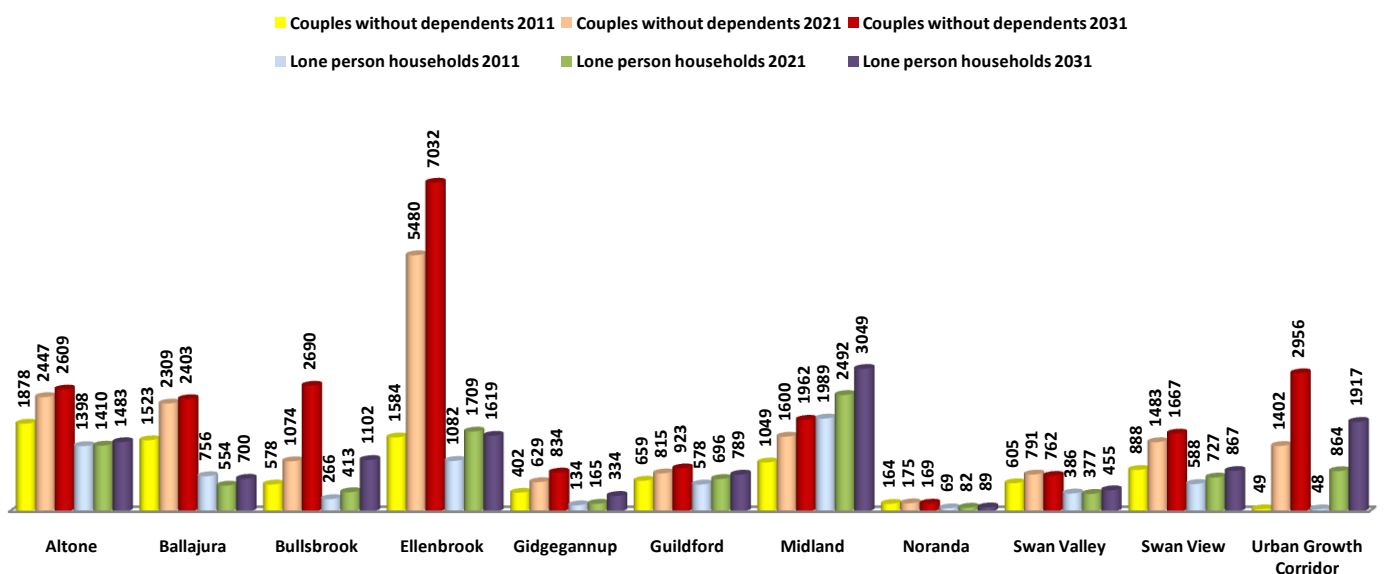
**Figure 9: Forecast family households 2011-2031**



Source: Informed Decisions [www.http://forecast2.id.com.au/Default.aspx?id=223&pg=5000](http://forecast2.id.com.au/Default.aspx?id=223&pg=5000)

Each Place Planning Area will experience different rates of increases. Ellenbrook for example, after decades of growth in families, will typify the ‘empty nesters’ characteristic. Midland, with its proximity to services and apartment-style living, will attract more lone person households.

**Figure 10: Couples without dependents and lone person households 2001-2031 by Place Planning Area**



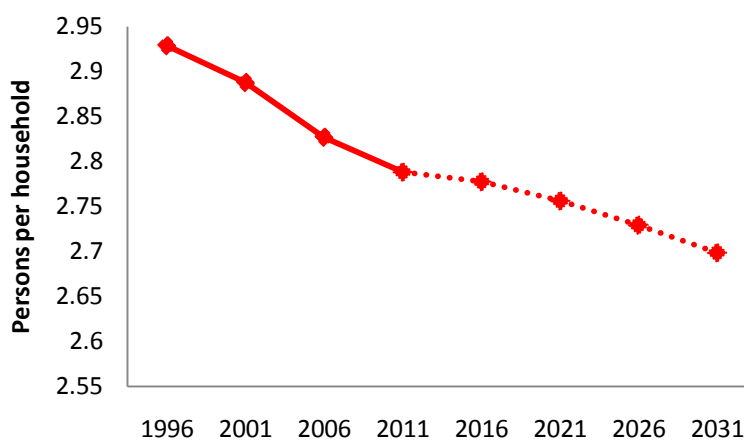
Source: Informed Decisions [www.http://forecast2.id.com.au/Default.aspx?id=223&pg=5000](http://forecast2.id.com.au/Default.aspx?id=223&pg=5000)

## 5.2.4 Household size

There has been a consistent trend in decreasing household sizes throughout Australia. At a national level, the average household size in 2006 was 2.6 and is predicted to decline to 2.3 by 2026. Much of this decline can be attributed to reductions in family size and the increase in one and two person households.

In the City of Swan, the trend is similar but at a lesser rate. In 2006, the average household size was 2.83 compared with the Western Australian average of 2.6 persons, with the City's household size predicted to decline to 2.7 in 2031. It is worth noting that the household size remains higher than the national average due mainly to the City's rapid population expansion and its substantial supply of greenfields land suitable for the development of housing for families.

**Figure 11: City of Swan average household size 1996-2031**



Source: Australian Bureau of Statistics and Informed Decisions [www.http://forecast2.id.com.au/Default.aspx?id=223&pg=5000](http://forecast2.id.com.au/Default.aspx?id=223&pg=5000)

An analysis of the forecast household size for each Place Planning Area reinforces the trend of declining household sizes except for the Urban Growth Corridor which increases from 2.62 to 2.86 persons. The areas of Noranda and Gidgegannup are predicted to remain fairly stable in terms of household size.

### Key points:

- The City will experience significant growth in the number of households over the next 20 years.
- Although the family household is forecast to remain the dominant household type in the next 20 years, couples without dependents will grow at the fastest rate, followed by lone person households.
- The rates of change in household types will vary across the Place Planning Areas.
- The average household size is forecast to decline but will remain higher than the Australian average.



### 5.3 Assessment of the Current Housing Supply

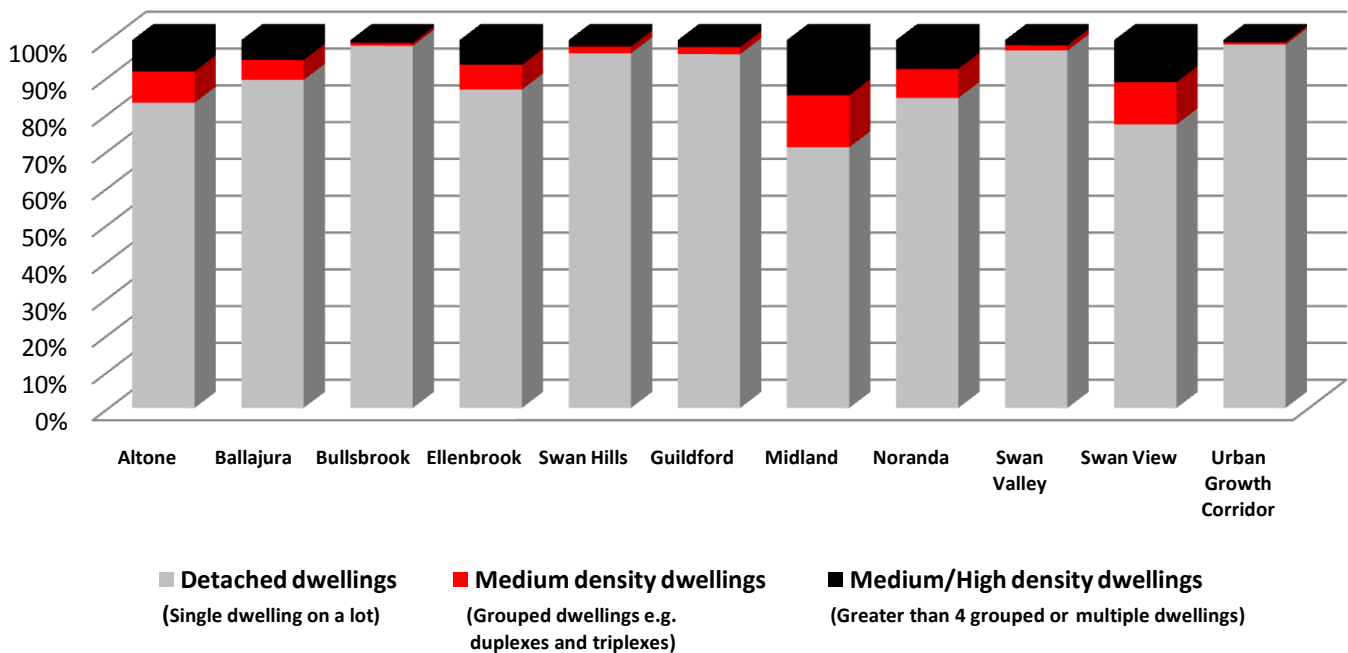
The City of Swan has a diverse range of homes dating from the first settlement of the Swan River Colony in 1829 to modern City Centre apartments. Guildford’s predominantly old heritage dwellings are protected under the City’s Heritage List and Heritage Areas declared under Part 7 of LPS 17. Residential development in the Midland area began at the turn of the 20<sup>th</sup> century with several of these original buildings remaining.

The 1970’s and 1980’s suburbs of Swan View, Ballajura, Beechboro and Lockridge added significantly to the growth to the City and these localities are characterised by their larger lots. In the 1990’s Ellenbrook, Kiara, Stratton, South Ballajura and Jane Brook were developed. These areas have smaller lots that were developed under the *Liveable Neighbourhoods* guidelines and in most cases have reasonable sized houses in good repair.

#### 5.3.1 Diversity of housing

In terms of diversity of dwelling types, the City of Swan has the same dominance of single house on a block (Figure 12) as seen in all outer suburban local government areas across Australia. At the 2006 Census, more than 84% of all housing within the City was a single house on its own lot (separate dwellings). This can be compared with similar council areas such as the City of Wanneroo (83.1%) and the City of Armadale (83.7%). The range of housing types varies slightly across the Place Planning Areas with Midland and Swan View having a lower percentage of separate dwellings, closer to the Perth average of 71.8%.

Figure 12: Dwelling Mix by Place Planning Area 2006

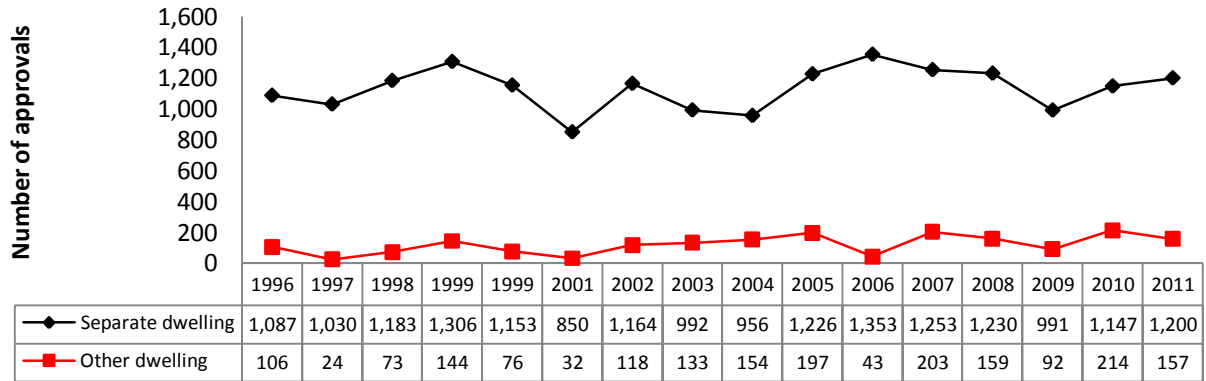


Source: Informed Decisions [www.id.com.au/profile/swan](http://www.id.com.au/profile/swan)

### 5.3.2 Building activity trends

Over the past 15 years, the trend in building approvals has largely reflected the rate of greenfield subdivisions highlighting the role the City plays as a major contributor to housing growth in the outer metropolitan area. During this time 20,046 building approvals were issued and separate dwellings accounted for 90% of this number, highlighting the dominance of single houses and a lack of diversity of dwelling types within the municipality.

**Figure 13: Building approvals year ended June 30**

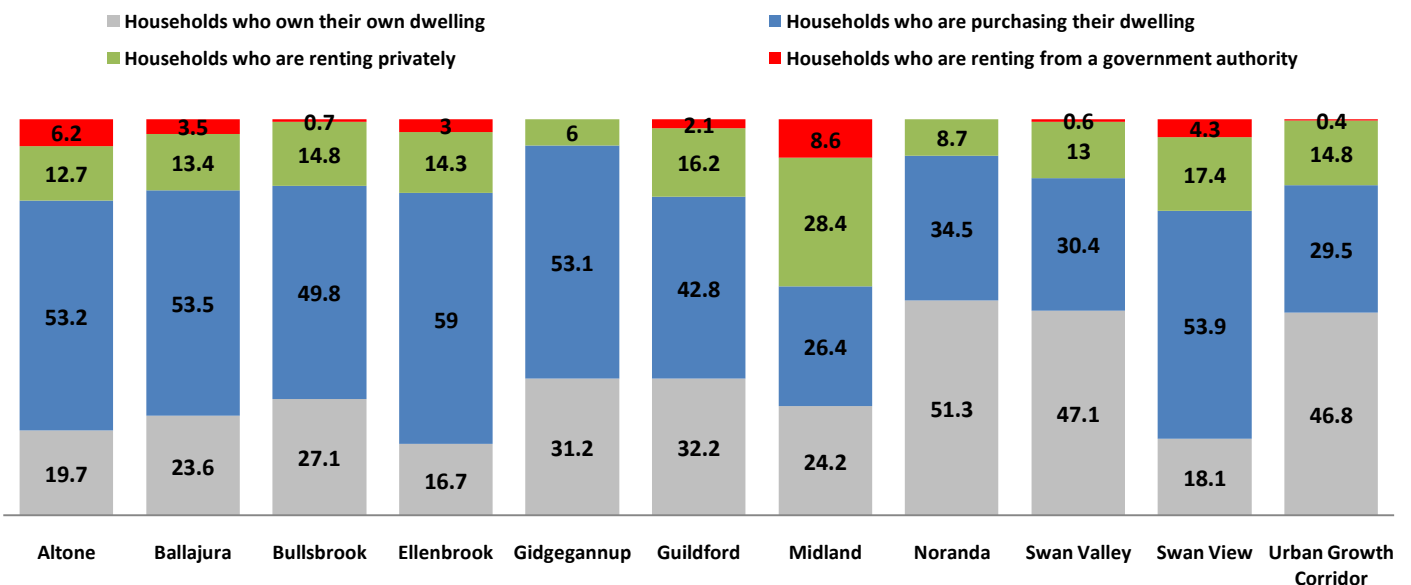


Source: Informed Decisions <http://profile.id.com.au/Default.aspx?id=223&pg=220&gid=10&type=enum>

### 5.3.3 Household tenure

Household ownership is different by Place and closely represents the differences between the older established parts of the City and the newer greenfield locations. As seen in Midland, the rate of rental accommodation increases as the availability of diverse housing options increases. Figure 14 is 2006 census data and since then large changes to these distributions are expected. While the clear majority of households are purchased or are being purchased, the ability to rent in a desired location is an aspect of housing diversity and choice.

**Figure 14: Percentage household ownership by Place Planning Area 2006**



Source: Informed Decisions [www.id.com.au/profile/swan](http://www.id.com.au/profile/swan)

### 5.3.4 Current infill opportunities

The development potential of a block of land is a function of its size and the residential density coding applied to it.

The predominant residential density code in the City of Swan is R20 and has been applied to about 49.6% of residential land. The next most widely applied coding is R17.5 at 10.4%. Given the prevailing lot sizes, the majority of blocks cannot be further developed at that density.

This has limited the amount of infill that has occurred across the City to opportunity sites, undeveloped vacant land and suburban single lot subdivisions or strata developments. Rare opportunities to redevelop redundant sites or large vacant lots in the established areas have been taken up across the City and consistent with *Liveable Neighbourhoods* principles, these developments have produced densities ranging from R25 to R40.

Table 1 highlights the infill potential of residential areas with the current R-Codes applied to them.

**Table 1: Number of lots available for infill at current densities**

Locality (Suburb)	Number of lots zoned residential	Without Infill Strategy Number of lots with infill potential
Ballajura	6,654	303
Beechboro	3,492	551
Bellevue	428	108
Bullsbrook	523	30
Guildford	825	2
Hazelmere	271	0
Kiara	718	160
Koongamia	451	28
Lockridge	1,510	265
Middle Swan	986	271
Midland-Midvale	3,018	2,248
Noranda	569	124
South Guildford	1,210	259
Swan View	1,118	206
Viveash	282	77
Woodbridge	492	310
	<b>22,547</b>	<b>4,942</b>

Source: City of Swan.

*The data is a guide only and based on an estimated development potential of those lots deemed capable of being further subdivided or developed.*

## Key points:

- The majority of the housing stock in the established areas of the City of Swan is coded R20 and below. Currently, there is little redevelopment potential particularly in established areas such as Ballajura, Beechboro, Swan View and Lockridge.
- The single house on a single block is the most common housing type in the City of Swan. The suburban nature of development patterns in the established areas with ample open space, public infrastructure and community amenities, has served the community well.
- The Place Planning Areas of Midland and Swan View have a more diverse range of housing with the Midland centre attracting more villa's and apartment-style living.
- More varied and affordable housing options should be available for younger householders seeking to enter the housing market. As the population ages, empty-nesters should also have the opportunity to downsize from dwelling types that are too large and as they grow old or frail, into more suitable accommodation. There is currently little diversity of housing types in the older suburban areas to provide these housing opportunities.



## 6 Constraints and Opportunities

### 6.1 Constraints to future housing provision

There are a number of policy constraints which operate within the City of Swan that restrict the amount of residential development allowed to occur in the municipality.

- The Swan Valley Planning Act gives priority to the protection of agricultural and viticultural interests.
- State Government policies that are related to airport noise, road freight noise, and declared water protection areas which do not always prohibit residential development and sensitive land use but contain conditions that may restrict density and built form.
- Other constraints exist for areas of gas pipelines, power line easements, heritage - notably the Guildford townsite, and environmental and industrial buffers.
- The development potential of portions of the residential areas of Hazelmere and Middle Swan is constrained by the “Residential Redevelopment” zone in the City of Swan Local Planning Scheme (LPS 17) which prohibits grouped dwellings, multiple dwellings and single bedroom dwellings.
- The most significant impediment to the provision of more housing in the established areas is the predominant low density codings of R20 and below. Although there are a number of pockets of R30 and R40 in areas such as Lockridge and Ballajura, these have been fully developed. There are few redevelopment opportunities for the vast majority of landowners in the established parts of the City.

### 6.2 Opportunities for development

- In greenfield areas such as the Urban Growth Corridor, around 1,753ha of land is available for future housing. These areas are expected to be developed around the principles of *Liveable Neighbourhoods* which will result in more varied housing products than were produced in suburbs developed in the 1970’s - 1990’s. Suburbs such as Ellenbrook, with its varied lots sizes, typify the contemporary approach taken in developing large new communities in urban areas.
- The established areas to a large extent are characterised by large blocks in the range 700-900 m<sup>2</sup>. Residents in most of these areas have ready access to good community facilities, shopping and activity centres, regional and local public open space and public transport. However as identified earlier, these areas are coded for low-density residential development namely, single house on a block. The low existing density urban landscape offers a significant opportunity for residential redevelopment, provided that development potential is created via legislative and policy changes aimed at increasing density.
- Large sites no longer needed for their original purpose may become suitable for residential development. As these sites are quite rare, it will be important to maximise their redevelopment potential and at the same time, have regard for the existing amenity of the surrounding residents.
- *Directions 2031* provides the policy base for local governments to prepare Local Housing Strategies to support infill development. It sets the target of 47% of residential growth to be accommodated within the established areas.



### 6.3 Rapid growth and infrastructure capacity

- The City is facing a significant growth in dwellings and population over the next 20 years and this rapid growth will require the City and other service providers to provide adequate levels of infrastructure and social services.
- The City of Swan is well placed to absorb this additional housing and associated increasing demand for planning approvals and infrastructure services. However in some areas of the City, this capacity may not yet be in place. It is the landowners/proponents' duty to liaise with service providers as part of the development process to ensure that adequate infrastructure capacity is available for their development. For instance, in areas where drainage contribution schemes are in place (Midland, Hazelmere and South Guildford), any development (including single dwellings) at a code higher than the lower code pursuant to the Dual Residential Codes proposed in this strategy, will require development approval under the Local Planning Scheme and will be required to contribute towards those drainage costs.
- Infrastructure providers are limited by budgets, scheduling and investment costs in providing connections to new services. The long term strategic significance of the Urban Housing Strategy will provide service providers with early notification and justification for capital expenditure, which will assist with planning for longer term upgrade of their services. Without a housing strategy, the infrastructure service providers may be unwilling to invest in new infrastructure in anticipation of new development proposals being received.
- Infill development sites may also be constrained by old infrastructure networks, designed for set capacities which would then have additional loads placed upon them. Indications are that there is currently available capacity for increased development but in the longer term these networks may require upgrades. While most infrastructure networks are able to be upgraded, at the time of subdivision or development, a landowner/proponent should make further enquiries directly with the appropriate service provider agencies to address local availabilities and constraints.
- The addition of new housing in existing areas will have a lesser cumulative impact on existing service infrastructure as new dwellings are required to be more solar passive, energy efficient and water wise than the dwellings that they replace. These advancements in efficiency are reflected in the criteria of the Building Codes of Australia and subsequent editions of the R-Codes of Western Australia.
- Soft infrastructure services such as public transport, waste collection, libraries, recreation and sporting facilities are impacted by both declining and increasing populations depending upon the location. For instance, the sporting facilities built for a predominantly young community may need to be modified or replaced by suitable facilities to support an older community when the demographic changes. It is further recognised that an older community requires an increase in social support and home care services. The City monitors usage and reviews plans for such changes through the City's local community facility plans.

## 7 Summary and Implications for the City of Swan

- This analysis has highlighted the City of Swan's continuing role in the Perth Metropolitan Area as a growth council. The City is forecast to absorb around 80,000 more people over the next 20 years, which is approximately 16% of the growth of the Perth Metropolitan Area in that same time period. This growth will occur at a more rapid rate than ever previously experienced in the municipality.
- The increase in population will place pressures on housing and infrastructure supply. *Directions 2031* forecasts an additional 35,510 dwellings that should be produced in the City of Swan over the next 20 years. These additional dwellings can be accommodated in the Urban Growth Corridor without the need to rezone additional rural land for development.
- Whilst the expected population growth can be accommodated in the new Urban Growth Corridor, it is clear that providing a greater range of housing products in existing areas will go some way towards slowing down the consumption of land in the new growth areas and also provide much-needed housing diversity in older, established areas within the catchment of existing services.
- The two key drivers of an ageing population and falling household size will influence of the size, direction and composition of the housing market in the City of Swan.
- There exists an underlying demand for suitable homes to cater for smaller households. The need for smaller dwellings is likely to increase in volume and proportion as the City continues to grow and change. The current housing products in the City of Swan are unlikely to match the emerging demographic and household trends predicted.
- The Urban Growth Corridor is subject to future structure planning for greenfield sites and will accommodate a more diverse range of housing than what was provided for in the older established areas. The challenge is to ensure that residents in the older established areas will have ample opportunities in the future to access suitable housing within their locality to meet their changing housing needs.
- The predominance of low density residential codings (R20 and below) across the City severely restricts the amount of infill development that can take place. This needs to change if the redevelopment of established areas to accommodate diverse housing types and the renewal of old housing stock is to occur. However not all low density residential areas are suitable for increased residential density. Select portions of localities should remain at low density to assist in housing diversity.
- With respect to developing a housing strategy to meet the future needs of the City's population, accessibility factors such as proximity to public transport, activity centres and public open space will be important when considering which areas to select for residential density increases.



## Part Two

### The Infill Strategy

#### 8 Overview

- The City of Swan's population is expected to nearly double by 2031, adding an additional 35,500 dwellings to the City's housing supply as forecast by *Directions 2031*. The forecast increases in population and dwellings can be accommodated in the Urban Growth Corridor however, the Infill Strategy has been developed in order to address the housing needs of existing and future residents in the established areas within the City of Swan.
- In its *Directions 2031* report, the Department of Planning has set an overall target of 47% of required future dwellings as infill development. For the City of Swan, this means that the target number of infill housing is about 16,700 dwellings.
- The Infill Strategy identifies approximately 15,500 sites for higher density infill development. These sites have been selected based upon proximity to activity centres, transport nodes and consideration of the age of existing housing stock. The strategy also identifies appropriate residential densities for these sites.
- Infill development will occur at a pace that will primarily be driven by market forces. Using a moderate growth rate of 3% per annum, consistent with the historic take-up in other areas of Perth where infill strategies have been implemented over the past 20 years, an additional 15,129 dwellings are projected to be developed over the next 20 years city wide. This will generally meet the infill target set by the *Directions 2031* target of 16,700 dwellings over that same time frame.
- The Infill Strategy introduces the use of Dual Residential Codes in the City of Swan to achieve more sustainable and aesthetically pleasing development outcomes for higher density infill residential development. Criteria have been developed to implement the Dual Residential Codes.
- Particular attention has been paid to the needs of specific housing sectors such as Aged/Dependant Person's dwellings and Special Needs housing. Continuing support for the heritage values of Guildford also is addressed by not proposing to change the current housing density.
- Widely conducted community consultation was undertaken between October 2010 and January 2011. Potential issues and additional opportunities were identified within the city's communities selected for infill development and this consultation assisted with the formulation of several key aspects of the Infill Strategy.
- The Infill Strategy forms the basis for future amendments to Local Planning Scheme 17 to guide housing development in identified infill areas.

## 9 Methodology

### 9.1 Identification of areas suitable for higher density

An analysis of 16 localities within the City has found approximately 15,500 suitable sites where increased residential development would meet the planning objectives of a range of State planning policies and this Urban Housing Strategy. An increased number of dwellings on smaller lots within the City's existing urban areas would encourage a more compact style of housing in those areas close to public transport and activity centres, provide much needed housing choice for existing and future residents and in some localities, arrest population decline.

The criteria used to identify these sites were based on, although not exclusively, 800m walkable catchments to activity centres, 400m walkable catchments to frequent public transport routes and an assessment of the age and condition of housing stock.

Of the selected areas that were considered, density restrictions imposed by the Swan River Trust, density restrictions in areas within the Perth Airport noise contours and areas of existing higher residential densities further influenced the selection of suitable sites and the proposed density codes. The community consultation process also resulted in additional sites being identified for inclusion into the strategy and requests for higher densities.

The areas selected for higher density are shown on the Infill Strategy Map (Figure 16) and shown in more detail on the locality maps in Appendix 2.

### 9.2 Selection of new residential density codes

Dual Residential Codes (DRCs) and a Dual Residential Code Policy are proposed to be introduced to the City of Swan through this strategy. A DRC allocates two density limits to a selected site, a lower density code which represents the base code and a higher density code representative of higher development potential. An example is R20/R40. The application of DRCs is explained more fully in Section 13.

In choosing the residential R-Code for the sites selected for increased residential density, a consistent approach of uniformity and predictability was applied on a City wide basis. In all cases, the highest residential density is situated in closest proximity to activity centres and the lowest density housing types are located furthest away from centres ensuring that the dwellings on a larger lot are still part of the housing mix within a locality.

Three predominant density codes namely **R50**, **R40** and **R35** are proposed at the higher end of the Dual Residential Code spectrum. The location of the codes in each identified locality were determined using the City's Geographical Information System (GIS) to analyse the existing lot sizes, current R-Code requirements and the proposed DRC development criteria.

**R Codes of R60 and higher** are identified for a number of sites in proximity to Midland due to its classification by the state of being a Strategic Metropolitan Centre (Directions 2031). The densities chosen for the selected areas are shown on the Infill Strategy map (Figure 16) and shown in more detail on the locality maps in Appendix 2.

**A density code of R50** offers a significant incentive to develop a diverse range of additional dwellings in close proximity to core activity centre locations. The requirements of the Dual Residential Code policy would restrict developments to two dwellings per site unless the design criteria were satisfied. With a cap of two dwellings per site, as a result of the Dual Residential Code (see Section 13.2.3), this code offers a strong incentive for land to be assembled prior to development which will result in a

higher quantity of strata complexes with a more efficient use of land. The smaller average lot size offered by R50 also creates a greater flexibility in the outcomes of subdivision, assisting with the possible retention of an existing dwelling and a small lot to the rear. Areas of R50 coding, on assembled sites, are more likely to trigger design criteria B of the proposed Dual Residential Codes policy requiring the provision of Single Bedroom, Aged Persons/Dependant Persons or Special Needs housing. R50 is allocated in key locations where housing diversity will assist development of vibrant activity centres and support public transport use.

**A density code of R40** was chosen as an incremental step between R50 and R35. The areas that are selected for R40 are generally adjacent to Pedestrian Access Ways (PAW's) or opposite parklands. In locations opposite parkland, R40 will encourage potential sites to be assembled prior to development.

**A density code of R35** was chosen as the predominant code in the range because of its potential to not only permit development of two dwellings per lot (based on the average lot size of the location) but to offer additional development potential when combined with a neighbouring property. Most R35 lots when amalgamated prior to development will achieve 5 dwellings.

**A density code of R60 and higher.** Greater Midland currently has a mix of medium and high density codes allocated and these are proposed to be increased further in a manner that will create uniformity in their distribution, based on distance from the Midland City Centre. There are many cases where an increment in density coding may not result in additional development potential due to a lack of minimum street frontage (criteria A). Despite this and due to Midland being a Strategic Metropolitan Centre, Midland is a suitable location for high density residential development within the City of Swan. This is where assembly of lots will have the greatest value for developers to take advantage of the higher residential density. It is expected that these higher coded sites will be the most sought after for land assembly.

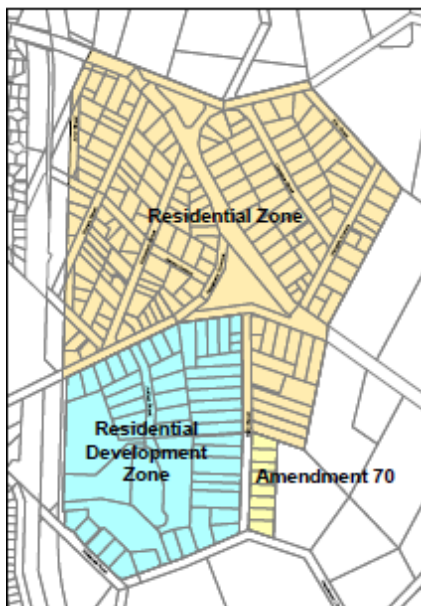


### 9.3 “Residential Redevelopment” zones

Development potential in Hazelmere and Middle Swan is constrained by the provisions of the “Residential Redevelopment” zone in the LPS17 zoning table. Currently, grouped, multiple and single bedroom dwellings are an “X” use (not permitted) within the scheme for this zone. This “X” use adversely affects a structure plan’s ability to address housing diversity aspects of *Liveable Neighbourhoods* and this Urban Housing Strategy. A more suitable replacement zone is the “Residential Development” zone which has similar objectives and requirements for structure planning but without the dwelling diversity restrictions.

#### 9.3.1 Hazelmere residential village area

Figure 15: Hazelmere proposal



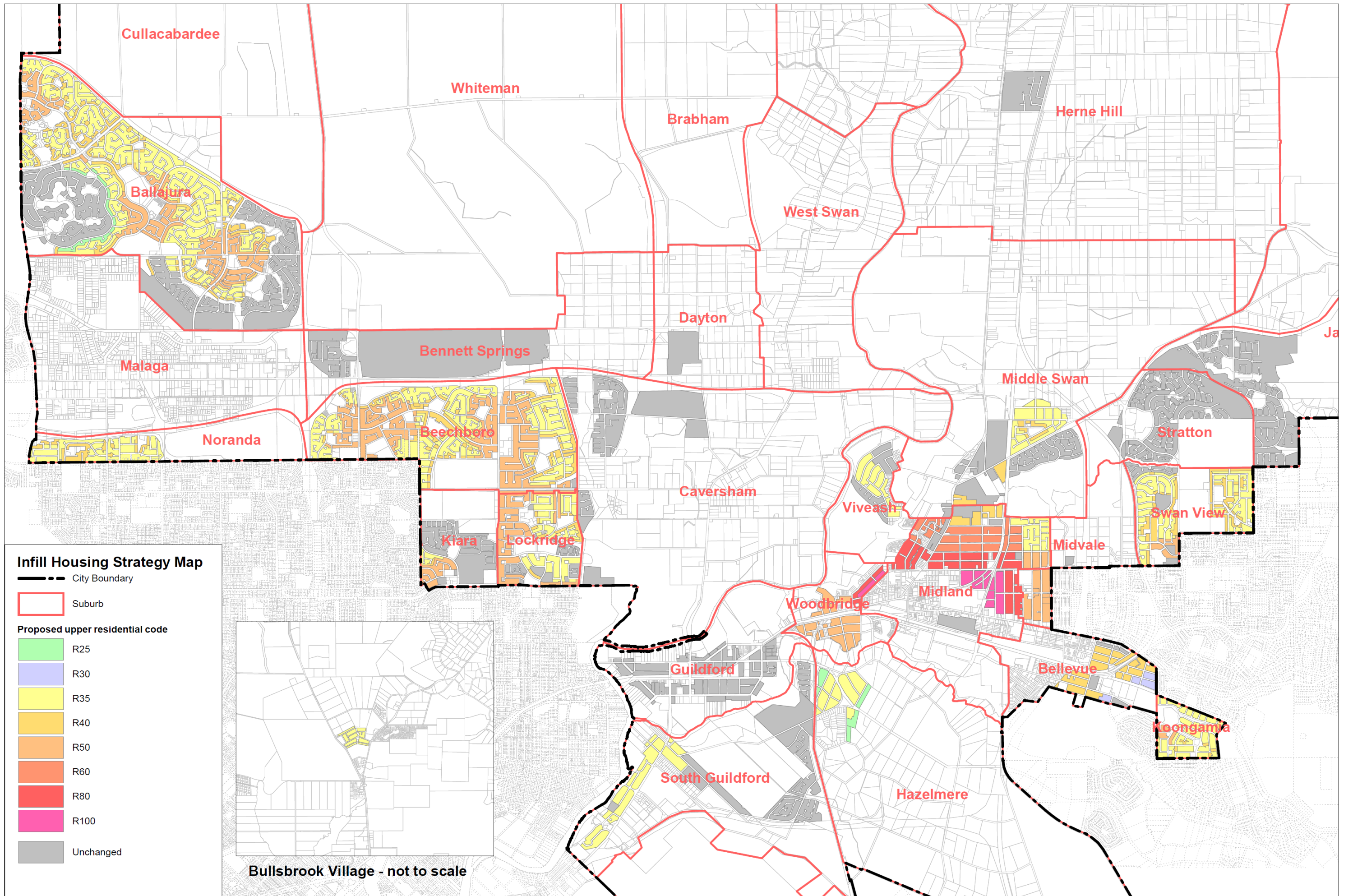
While not initially considered as part of the residential infill strategy, initial community consultation and further City investigations have found that the current structure plan requirements, in terms of the “Residential Redevelopment” zone, do not meet the intentions of *Directions 2031*, especially in relation to housing diversity. The difficulty in implementing a structure plan is compounded by the highly fragmented current ownership. However within the Proposed Residential Development zone, there still remains an overwhelming need to coordinate a road and drainage network, and to provide for additional public open space.

Therefore, the section of Hazelmere Village north of West Parade and east of Mary Street (refer to the Residential Zone in Figure 15) is proposed to be included in the Residential Infill Strategy as part of the Residential Zone under LPS 17 and be allocated a Dual Residential Code (refer to figure 16).

The section proposed as a “Residential Development” zone (refer to Figure 15) requires a coordinated approach to drainage and provision of public open space. This area has long narrow lots on its eastern side where a midblock road will be required to achieve a coordinated development. Therefore, a structure plan would be the most appropriate framework to coordinate development of this area.

Scheme Amendment 70 proposes to apply an R Coding of R25 to eight lots east of Mary Street that are currently uncoded. This amendment is currently progressing independently.

**Figure 16: Infill Strategy Map**









## 9.4 Special needs housing provision

For the purposes of this strategy the City deems that 'special needs' Housing is housing that is provided by the 'not for profit' social housing sector or relevant State Government agencies.

There are many types of housing in this category ranging from, but not limited to, dependant persons housing and affordable housing through to specially designed housing for people with specific needs. Affordable housing is a broad descriptive term and generally includes not-for-profit housing, social housing and key worker housing<sup>2</sup>. These houses have historically often been clustered to offer support within the group. However in recent times, they have increasingly been located within communities as stand-alone housing. Many of the types of housing in this category are not provided for in Section 6.11 of the R Codes - "Special Purpose Dwellings". The City recognises that many other categories of 'special needs' housing exist and wishes to facilitate provisions that support these dwellings. Easy access to shopping and public transport is a key consideration in the choice of suitable locations for these housing categories.

Whilst the Federal and State Governments play a significant role in the provision of 'special needs' housing, the City as a local government, through the Infill Strategy intends to facilitate a process that both encourages and supports the provision of this essential community infrastructure.

The Infill Strategy makes provision for 'special needs' housing through the proposed Dual Residential Codes Policy. Criterion B (Section 13.2.3) requires the provision of at least one dwelling in a development of more than four homes to be a Single Bedroom, Aged/Dependant person or Special Needs dwelling. While a minimum of one dwelling is required to satisfy Criteria B, more than one dwelling in this category are encouraged to be provided within developments.

The City also supports these types of developments by potentially offering a concession to statutory planning fees as expressed in City of Swan policy Pol-C-045 "Waiving or Reducing Statutory Planning Fees".

## 9.5 Aged Persons (over 55's)/Dependant Persons housing

As part of this Housing Strategy, the City intends to increase its stock of housing suitable for older and dependant persons, to reflect the increased forecast demand for this housing sector (see figure 10). The City is not a housing provider, rather a facilitator of housing opportunity. Furthermore, the City chooses not to zone private land specifically for aged or dependant persons housing under the Western Australian statutory planning provisions. The proposed density codes on the maps in appendix 2 will however facilitate the construction of these dwellings in suitable locations close to shops, medical facilities and public transport due to market demands.

The R Codes contain provisions that encourage housing for Aged/Dependant persons such as ancillary accommodation (or 'granny flat') in Section 6.11.1 of the R-Codes. Aged/Dependent persons housing such as retirement villages or cluster homes for over 55's are addressed in Section 6.11.2 of the R Codes.

The Infill Strategy strives to ensure that in the City of Swan, people over the age of 55 have even more opportunities to access housing suitable for their needs in areas close to services.

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<sup>2</sup> Key worker housing is defined in the State Affordable Housing Strategy as housing allocated solely for workers who provide basic and essential services.

It achieves this in three ways by:

- a) proposing increases in residential densities suitable for accommodating development trends in housing for the aged in the selected infill areas;
- b) requiring the provision of at least one dwelling in a development that may be suitable for an Aged/Dependant person as part of Criteria B (13.2.3);
- c) waiving the R Code requirement that Aged/Dependant persons dwellings to be in groups of 5 or more.

NOTE: The R Codes require Aged/Dependant persons housing to be in groups of 5 or more but permits Local Governments to modify this provision through a local planning policy where they want to facilitate additional Aged/Dependant persons dwellings. For the purposes of this housing strategy, the City will permit a single (or more) Aged/Dependant persons dwellings on a lot where a Dual Residential Code applies.

Further, the City supports the *Liveable Homes* initiative that seeks to produce homes for life - also known as universal access.

*"The Liveable Homes initiative was developed to increase the number of private and public homes in Western Australia that are built with universal access. Liveable Homes are easy to move around in and easy to use. They are open-plan and designed to maximise space in key areas of the home. Liveable Homes ensure people of all ages and abilities can live in or visit with comfort".* ([www.liveablehomes.net.au](http://www.liveablehomes.net.au))

## 9.6 Ancillary Accommodation

This is generally seen as the provision of an additional dwelling for family members, commonly known as a 'granny flat'. Pursuant to Section 6.11.1 of the R Codes, these dwellings can be placed on existing lots greater than 450m<sup>2</sup> and are required to be for family members only. There is a maximum dwelling size of 60m<sup>2</sup> stipulated under Section 6.11.1 A1 of the R-Codes of WA.

The State Government is currently reviewing the criteria for ancillary accommodations with a view to removing the family binding requirement and increasing the maximum dwelling size. The City is supportive of these measures and looks forward to this review being completed.

## 9.7 Affordable Housing

There are many components to successfully achieving affordable housing. The City is contributing to this process with the Urban Housing Strategy by creating a greater number of locations that will permit increased development to encourage housing diversity and social inclusion. The sites identified in the Infill Strategy offer best locations close to activity centres and frequent public transport services.

It is recognised that the City's strategies will not achieve these goals alone, but intends to support and facilitate development that contributes towards affordable housing. The City supports the objectives of the Department of Housing's 'Opening Doors' strategy which seeks to maximise affordable housing opportunities. [www.openingdoors.housing.wa.gov.au](http://www.openingdoors.housing.wa.gov.au)



## 9.8 Pedestrian Access Ways (PAWs)

The City has identified PAWs as sites of opportunity, where development adjacent to a PAW can assist in reducing anti-social behaviour issues and add to the City's movement network.

This can be achieved in three ways:

- *Widening of PAW's to create safer thoroughfares*
- *Facing development towards the PAW to provide passive surveillance*
- *Creation of new streetscapes and reduced solid fencing.*

In return for increased development potential, a widened PAW offers the developer the opportunity to produce green title subdivisions and street frontage homes. In most cases under the Infill Strategy, the lots adjacent to PAWs are allocated generous codes to encourage development. To comply with Criteria A (13.2.3) the frontage to a PAW may be counted towards the minimum street frontage requirement reducing the need to amalgamate lots prior to development.

To successfully implement this provision into the strategy, a policy measure in the proposed Dual Residential Code policy has been introduced to require a widening adjacent to the PAW to achieve these outcomes. However the required width of the widening will need to be determined by the City through the investigation of factors such as traffic management, neighbourhood impact and servicing of lots. Until such a study has been conducted, rezoning of identified lots adjacent to PAWs will not be initiated.



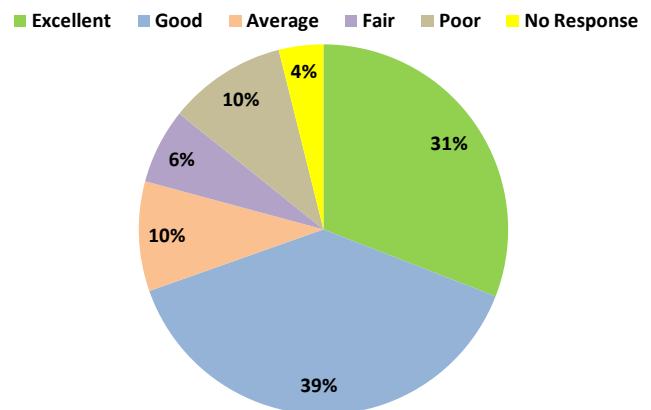
## 10 Community consultation

A comprehensive consultation program was carried out between October 2010 and January 2011. 17,000 letters were sent out to property owners and residents of the selected sites and to those neighbours immediately adjacent. Six open house events were conducted in key locations throughout the City and the consultation program was widely advertised through a series of media releases.

A Local Housing Strategy website attracted more than 1,900 unique web views and the City received about 1,500 specific phone calls. 446 valid survey responses were received of which 46% were lodged on-line. Submissions from community members, service providers, key stakeholders, community organisations and petitions from groups of residential property owners were also received.

Overall, the responses received were supportive of the City’s initiative. Key issues raised related to the objectives of the Strategy, development opportunities and the proposed residential densities. Other issues raised related to infrastructure, the proposed Dual Residential Codes and the R Codes. As a result of the community consultation process, the infill areas were adjusted to accommodate a number of suggestions from the community.

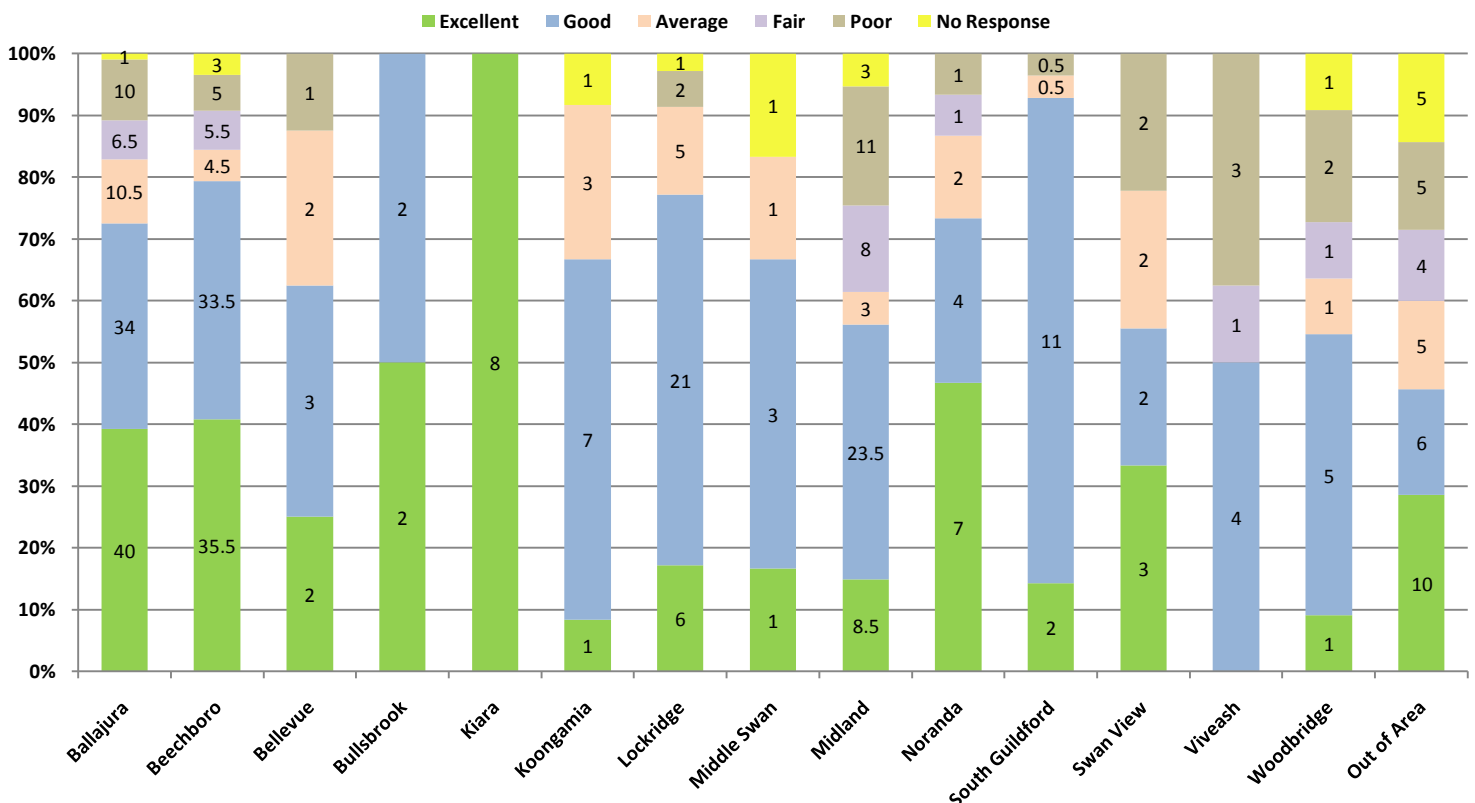
Figure 17: City-wide response



In general terms, the response to the question: **“Overall, how do you rate the City of Swan’s Housing Strategy”** is reflected in Figures 17 and 18.

A full report on the community consultation process is included in Appendix 3.

Figure 18: Response by Place Area



## 11 Growth opportunities provided by the Infill Strategy

### 11.1 Facilitating increased infill potential

The Infill Strategy has identified about 15,500 lots for higher residential densities. Under ideal circumstances, if 100% of the sites were to be developed, this could generate approximately 40,000 additional dwellings. However, urban infill development does not usually occur rapidly and is primarily driven by market forces which cannot easily be factored into projections.

Based on current City growth and historical metropolitan averages, a realistic scenario to use is based on a moderate take-up rate of 3% per annum in which case, an additional 15,129 dwellings is projected to be developed over the next 20 years city-wide. This equates to approximately 756 additional dwellings per year city-wide.

Table 2 lists the localities where the potential for infill development can be increased and the extent to which it can be increased.

**Table 2: Impact of Infill Strategy on development potential**

Locality (Suburb)	Number of residential lots	Number of lots with infill potential	Number of lots with infill potential	Projected Net additional dwellings by 2031 on the identified lots in the Infill Strategy at a moderate take-up rate of 3% per annum.*
		Without Infill Strategy	With Infill Strategy	
Ballajura	6,654	303	4,331	3,858
Beechboro	3,492	551	3,218	3,439
Bellevue	428	108	349	414
Bullsbrook	523	30	193	173
Guildford	825	2	2	4
Hazelmere	271	0	271	377
Kiara	718	160	214	188
Koongamia	451	28	428	407
Lockridge	1,510	265	936	1,031
Middle Swan	986	271	380	402
Midland-Midvale	3,018	2,248	2,419	2,292
Noranda	569	124	566	443
South Guildford	1,210	259	321	374
Swan View	1,118	206	1,004	880
Viveash	282	77	170	176
Woodbridge	492	310	459	671
	<b>22,547</b>	<b>4,942</b>	<b>15,261</b>	<b>15,129</b>

\*Projections may exceed these figures if the take-up rate increases and vice-versa.

Source: City of Swan.

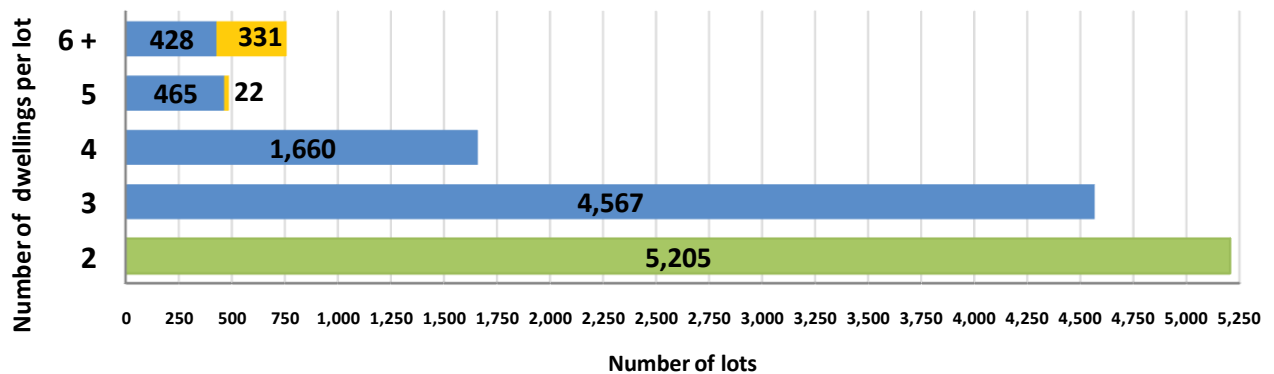
*The data is a guide only and based on an estimated development potential of those lots deemed capable of being further subdivided or developed.*

In most cases, individual sites will have the potential for only two dwellings unless they can satisfy the Dual Residential Code requirements addressed in Section 13. Mathematically, most identified sites will have the ability to accommodate between 2 and 3 dwellings (figure 19) which will in practical terms, result in subdivision or strata subdivision into 2 lots. Development would however be capped at 2 dwellings per site unless the Dual Residential Code design requirements are met. For example, two 2.5 dwelling potential sites when amalgamated to meet the DRC design requirements, will result in a development of 5 dwellings.

Although the City does not require sites to be assembled as a condition of development, it can thus offer a development bonus if they are.

Figure 19 shows the estimated number of sites that can be developed with or without the need to be assembled to achieve the development outcomes envisaged in the Infill Strategy. Previously developed sites (strata developments) have been excluded from this estimation.

**Figure 19: Estimated number of lots that can be developed with or without site assembly**



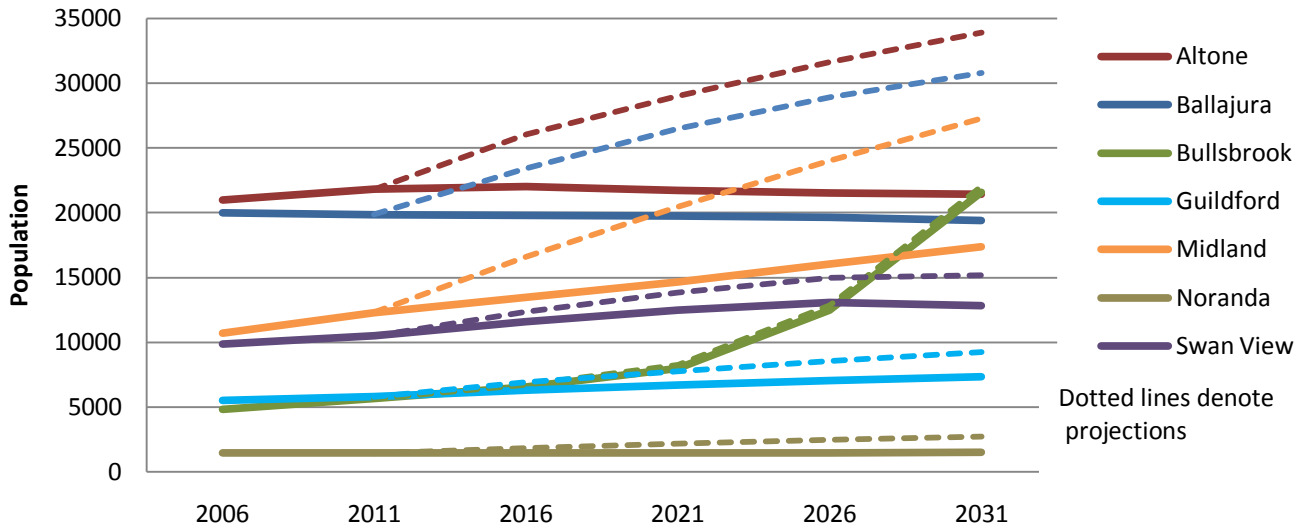
Source: City of Swan

- No. of lots that don't require site assembly to achieve maximum development potential.
- No. of lots that require site assembly to achieve maximum development potential
- No. of lots that are exempt from the 25 metre street frontage design criterion because they are greater than 1300 m2 in size.

## 11.2 Facilitating increases in population

Figure 20 demonstrates how the projected rate of growth differs in seven key Place Planning areas. The rate of growth is different in each location and the populations in Swan View, Altone and Ballajura will decline if current residential densities remain unchanged. The dotted lines represent expected population increases, based on a City-wide growth of 3% per annum, after approval of the infill component of the Urban Housing Strategy. For Noranda, Bullsbrook and Guildford, the effect of infill development is negligible. In Altone, Ballajura and Swan View, infill development will arrest declining populations.

**Figure 20: Forecast population in key Place Planning Areas with and without Infill Strategy**



Source: City of Swan

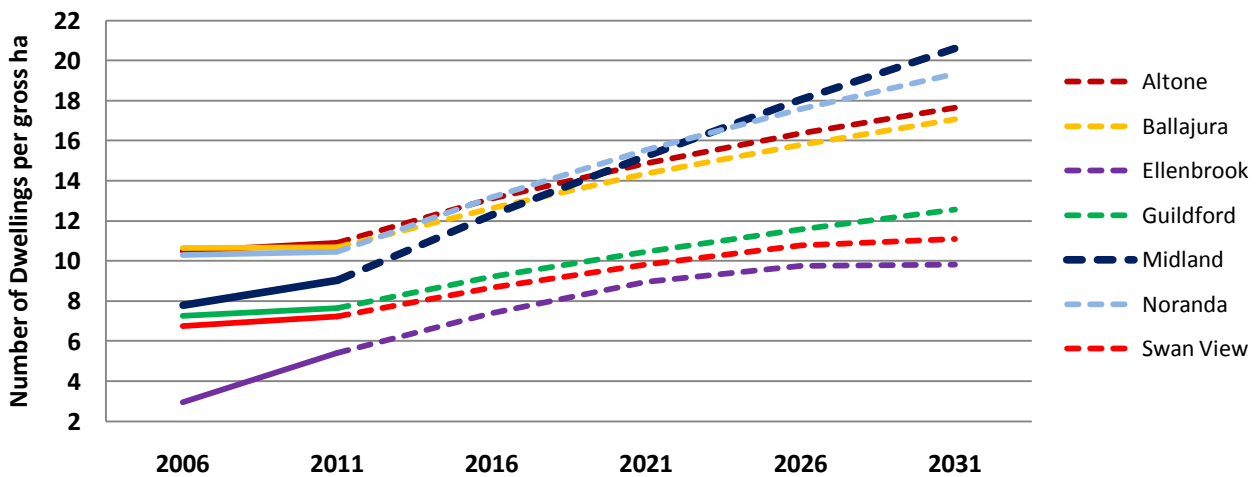
### 11.3 Facilitating increased urban density

As a result of the Infill Strategy and anticipated greenfields developments, it is expected that the City of Swan will achieve the urban density targets set in *Directions 2031* of 15 dwellings per gross hectare. This forecast includes the assumption that the City will experience a moderate growth rate of around 3% per annum or an additional 15,129 new dwellings in the areas selected for infill development.

Figure 21 shows projected housing densities on a “gross” hectare basis for seven key Place Planning areas. This “gross” measure reflects the inclusion of roads and community infrastructure when assessing an area.

The Midland Place Planning area will see the greatest increase in overall dwelling density while simultaneously having the fastest decline in household sizes. Ellenbrook will see a slower rate of increase in the quantity of dwellings coupled with a significant drop in household sizes past 2021.

**Figure 21: Projected dwelling densities per gross hectare in key Place Planning Areas**

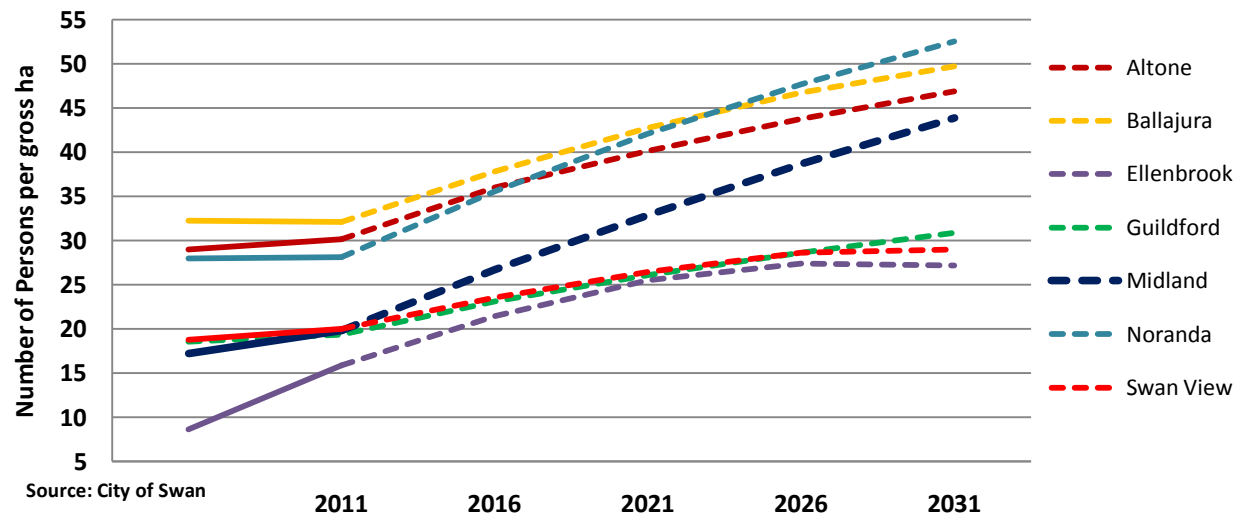


Source: City of Swan



While the number of dwellings will increase in each of the selected Place Planning areas, the differing average rates of household sizes result in different population densities in each area as shown in Figure 22. This is particularly evident in the Midland area where smaller household sizes will result in a lower population density than that of suburban areas such as Ballajura.

**Figure 22: Projected population densities per gross hectare in key Place Planning Areas**



## 12 Recommendations of the Infill Strategy

### Recommendation 1

Prepare an amendment to Local Planning Scheme No. 17 (LPS17) to provide the Scheme with the power to apply Dual Residential Codes. Include a provision to state that development approval is required for development/subdivision proposed under the Dual Residential Code criteria (Section 13.2.3).

### Recommendation 2

Prepare amendments to LPS17 to change the residential density codes on the properties identified by the Infill Strategy and depicted on the Locality Maps in Appendix 2 provided that the proposed recodings adjacent to Pedestrian Access Ways be delayed pending a detailed study into the proposed future standard of each of these access ways. This study is to stipulate the design standard (including reserve width and purpose) and consider the implications with respect to the ceding of land as a condition of subdivision, design standards of adjacent dwellings, maintenance costs upon the City and the impact of traffic flow on streets in the vicinity of the PAW.

### Recommendation 3

Prepare an amendment to LPS17 to rezone areas in Middle Swan currently zoned "Residential Redevelopment" to "Residential Development".

### Recommendation 4

Prepare an amendment to LPS17 to rezone the areas in Hazelmere to reflect zonings as shown in Figure 15 including modifications to the residential codes on the properties in the section of Hazelmere Village north of West Parade and east of Mary Street as depicted on the Infill Strategy Map and relevant Locality Maps in Appendix 2.

### Recommendation 5

Prepare an amendment to LPS17 to include;

- a) a modification to the Exempted Development table (Schedule 5 of the LPS17) applicable to "Fences" and "Single Dwelling" respectively to require development approval for a proposal that does not meet the "fencing" and/or "overlooking public space" criteria contained in local planning policies; and
- b) a modification to the Exempted Development Table (Schedule 5 of the LPS17) applicable to "Single Dwelling" to exclude single dwelling proposals from the exemption table where these proposals fall within the areas subject to Drainage Schemes.

### Recommendation 6

Prepare/review a Local Planning Policy/policies through which the City-wide design criteria contained in Section 13.2.4 of the Strategy (referred in Recommendation 5) is to be applied to a development proposal.

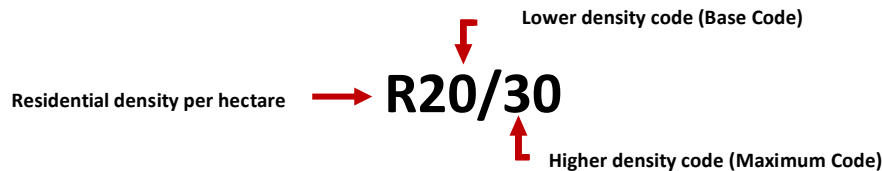
### Recommendation 7

Prepare a Dual Residential Codes Policy for future adoption as a policy under LPS17, to guide residential development in the dual-coded areas selected for infill development using the guidelines outlined in Section 13.2.

## 13 Dual Residential Codes (DRCs)

### 13.1 Defining Dual Residential Codes (DRCs)

The Urban Housing Strategy introduces a Dual Residential Code (DRC) to be applied in the areas identified in the Infill Strategy map (Figure 16) as suitable for infill development at higher densities. A DRC includes a lower density code representative of the current development potential of the land and a higher residential density code representative of higher development potential if required performance standards are met. An example of a dual code is R20/R30 and is explained as follows:



### 13.2 Guidelines for the development of a DRC policy

The following guidelines are proposed as the basis for a Dual Residential Code Policy to be adopted under the Local Planning Scheme once the Urban Housing Strategy has been endorsed by the Western Australian Planning Commission. It is proposed that all future applications made under the DRC Policy will require planning approval

#### 13.2.1 Objectives

- Promote the application of the higher density codes where specific design criteria are met. These design criteria namely DRC Criteria, were chosen specifically to ensure more sustainable, aesthetically pleasing and safer built form outcomes for higher density developments.
- Promote orderly and proper planned infill development in areas identified by the Urban Housing Strategy.
- Set clear guidelines for infill development control through a statutory planning framework.
- Promote more diverse, affordable housing options to cater for demographic needs, particularly in encouraging the provision of Single Bedroom, Special Needs and Aged/Dependant Persons dwellings.
- Encourage the assembly of sites so that development can occur in a coordinated manner.
- *Encourage passive surveillance, safety and designing out crime.*
- Protect streetscapes and encourage the planting of street trees.
- Encourage passive surveillance, safety and designing out crime

### 13.2.2 Proposed DRC Policy Measures

1. Where a site has Dual Residential Coding, the lower code shall prevail unless:
  - a) The area of the lot is greater than the minimum lot size applicable to the lower code (for a grouped or single dwelling) as per table 1 of the R-Codes;
  - b) For a development which proposes to create **only two lots (or dwellings)**, the proposal satisfies the City-wide criteria in Section 13.2.4;
  - c) For a development which proposes to create **more than two lots (or dwellings)**, the proposal satisfies Criteria A & B in Section 13.2.3 and the City-wide criteria in Section 13.2.4;
  - d) For a development proposed on a site adjacent to a PAW, excluding 0.1m spite strips, a widening of the PAW and appropriate truncation may be required to eventually form a new public road or public space. Development/subdivision in compliance with this provision will not be permitted until the PAW widening and truncation requirements have been determined through an appropriate study for the PAW as referred to in Section 9.8; and
  - e) Access to service infrastructure capable of supporting the development can be provided.
2. Clause 6.11.2A2 ii of the R Codes which requires Aged/Dependant persons dwellings to be in groups of 5 or more, shall not apply.
3. Notwithstanding the DRC Criteria, development (or subdivision) on properties with Dual Residential Coding shall still comply with the requirements of the Residential Design Codes of Western Australian (R Codes); provided that where inconsistencies exist between the provisions of the R Codes and the requirements of the proposed DRC criteria, the provisions of the future Policy shall prevail.
4. Nothing in the future Policy shall remove the Council's right to exercise its discretion under Part 2.3.2 of Local Planning Scheme 17 or any provision in the R Codes to determine an application on its own merit.

### 13.2.3 Proposed Dual Residential Codes Criteria

#### Criterion A: Minimum Street Frontage or Existing Lot Size Requirements

To enable a subdivision (or development) where more than 2 lots (or dwellings) are created, a development site is required to have a contiguous street frontage of at least 25m or a total site area greater than 1300m<sup>2</sup>.

Application of this criterion will include the following considerations:

- a) Street frontage is defined as the length of the street boundary as shown on the Land Survey documents.
- b) A site's frontage to a park can be included in the calculation of street frontage.
- c) A site's frontage to a Pedestrian Access Way (PAW), excluding frontage to 0.1m spite strips, can be counted towards street frontage on condition that a City study is conducted in relation to that PAW as referred to in Section 9.8

Note:

1. Although a Right of Way (ROW) permits the movement of vehicles, where it is not dedicated as a road, it will not be permitted to be included within the calculation of street frontage.

#### Criterion B: Provision of Single Bedroom, Aged /Dependant persons or Special Needs Dwellings

Where a development/subdivision is proposed to include more than four dwellings/lots, at least one of those dwellings/lots shall be a Single Bedroom, Aged Persons/Dependant persons or Special Needs dwelling/lot.

Notwithstanding the R Codes and Building Codes of Australia provisions, the following provisions shall apply:

- a) The first Single Bedroom, Aged/Dependant Persons dwelling shall be provided on the ground floor unless suitable ramps or lifts are provided for universal access (refer to section 9.5)
- b) Where a multiple dwelling development consisting of more than 12 dwellings is created, the requirements of Section 7.4.3 A3.1 of the R-Codes of WA shall apply.
- c) A National Rental Affordability Scheme (NRAS) approved development shall be deemed to comply with this criterion.
- d) Where a Special Needs dwelling is proposed as per Section 9.4, it shall be reserved for ownership by a 'not for profit' social housing provider or relevant government agency to satisfy this criterion.
- e) The provision of ancillary accommodation shall not be deemed to satisfy this criterion.

Note:

- Special Needs housing is described in Section 9.4 of the Urban Housing Strategy and is deemed to be those dwellings/lots provided by or for the 'not for profit' social housing sector or relevant state government agencies.
- There are no maximum quantities for Single Bedroom, Aged/Dependant persons or Special Needs dwellings/lots within a development.



More than one of the abovementioned categories are encouraged to be provided concurrently within a single development site.

### 13.2.4 Proposed City-wide design criteria

As a result of community consultation and internal City workshops, the following three criteria were found to be of benefit city-wide and therefore should not only apply to dual coded areas.

The following design criteria are recommended to be included in a relevant local planning policy:

#### Single Crossover

Access to development on sites shall be restricted to a single crossover to each access road.

Single crossovers will be encouraged for all residential development via local planning policy.

Application of this criterion will include the following considerations:

- a) Where a grouped dwelling is proposed as a result of the amalgamation of two lots where existing dwellings are to be retained, the City will encourage (or mandate as a condition of approval for the grouped dwelling) an outcome whereby the crossovers are consolidated. This will allow sufficient flexibility for the City to consider the impact upon the streetscape as a result of additional or combined crossovers.
- b) Where a traffic impact assessment provides justification for more than one crossover to an access road in support of traffic safety, such a proposal will be considered on its merits.
- c) Crossovers shall be paired in a way so as to minimise their appearance and quantity if justified in 2 b) above.
- d) Compliance with 6.5.4 A4.1 of the R-Codes (access solely from the common property).

The following two City-wide design criteria relating to passive surveillance and permeable fencing respectively, will be implemented via a modification to the exempted development table in LPS 17 (Schedule 5) for fencing and single dwellings respectively so that where a development does not meet the stipulated fencing/passive surveillance standards, a development application will be required and the onus will be upon the applicant to demonstrate why they should not meet the standard.

This will ensure that all dwellings proposed, regardless of dual coding, will meet the desired standard of fencing and passive surveillance of open space areas. The assessment of this requirement will be dictated via local planning policy.

## Overlooking Public Space

Notwithstanding the provisions of the R Codes, buildings shall be designed to address/overlook each public space (including roads, ROWs, parks and PAWs).

Notwithstanding the provisions of the R-Codes, buildings should be designed to provide passive surveillance of, and address:

- Public Spaces (e.g. roads, parks, PAW's and ROW's.)
- The approach to dwellings (e.g. driveways, pathways and yard areas) that provide
- Pedestrian and vehicular access between the dwelling and public space.

*Note:* The R Codes requirement for overlooking public space is for development to overlook a street or driveway through the provision of a major opening. Guidelines contained in this strategy are based on "*Designing out Crime Planning Guidelines*" (WAPC 2006)

## Fencing Requirements

Notwithstanding the provisions of the R Codes, visually permeable fencing shall be provided on the boundaries adjacent to public spaces (including roads, ROWs, parks and PAWs).

The term "visually permeable" is defined in Appendix 1 of the R Codes as follows:

*"In reference to a wall, gate, door or fence that the vertical surface has:*

- *Continuous vertical or horizontal gaps of at least 50mm width occupying not less than one third of its face in aggregate of the entire surface or where narrower than 50mm, occupying at least one half of the face in aggregate, as viewed directly from the street; or*
- *A surface offering equal or lesser obstruction to view."*

Note:

The R Codes requirement for visually permeable fencing only applies to development abutting a public street or open space.



## Part Three

# The Greenfields Strategy

The preparation of the Greenfields Strategy has been influenced by the State Government's strategic documents *Directions 2031* and the draft *Outer Metropolitan Perth and Peel Sub-Regional Strategy*. The design of these new housing estates is stated in Liveable Neighbourhoods.

## 14 Background

### 14.1 Planning for a city of 3.5million

The State Government's *Directions 2031*, provides the highest level of strategic metropolitan planning to guide the more detailed planning and delivery of housing, infrastructure, services and employment to achieve a connected city pattern of growth for the Perth and Peel Region. The population of the Perth and Peel Region is forecast to increase by half a million people to more than 2.2 million by 2031.

While *Directions 2031* provides a medium term planning horizon for Perth and Peel, the Department of Planning considered it was essential to look beyond 2031 to longer term growth pressures to ensure Perth is able to respond in a sustainable way to those pressures and prepare for a city of 3.5 million - whenever that may occur.

Strategic planning for the entire metropolitan area is a complex matter and it was considered by the Department of Planning, that addressing population growth pressures to achieve a population of 3.5 million, was better done at a sub-regional level through the policy mechanism of sub-regional strategies.

### 14.2 Draft Outer Metropolitan Perth and Peel Sub-Regional Strategy

The draft *Outer Metropolitan Perth and Peel Sub-Regional Strategy* was developed to address strategic planning issues in the outer sub-regions of north-west, north-east, south-east and south-west Perth. The City of Swan is in the north-east sub-region.

This sub-regional strategy will link State and Local Government strategic planning to guide the preparation and review of structure plans and local planning strategies and assist the State and Local Governments in responding to longer-term population growth pressures.

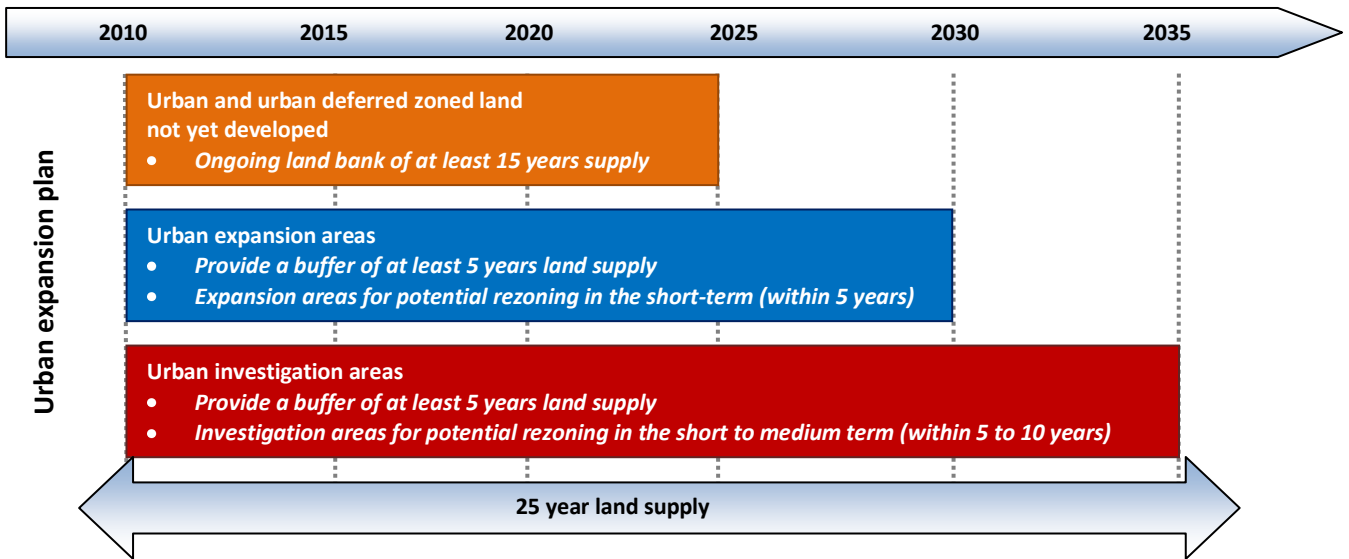
### 14.3 Draft Urban Expansion Plan

The draft *Outer Metropolitan Perth and Peel Sub-Regional Strategy* contains a draft Urban Expansion Plan for the north-east sub-region. The work undertaken to support the development of the draft Urban Expansion Plan included, amongst other studies, scenario planning for a metropolitan-wide population of 3.5 million, an opportunities and constraints analysis and an analysis of the feasibility of infrastructure expansion. Its purpose is to ensure that there is a sufficient supply of land to accommodate growth pressures.

The draft Urban Expansion Plan is based on the following definition of sufficient land supply and graphically illustrated in Figure 23:

***“Ensure a 25 year supply of undeveloped land comprised of an ongoing land bank of at least 15 years supply of urban and urban deferred zoned land; and, at least a 10 year buffer of rural land identified for future expansion or investigation.”***

**Figure 23: Urban expansion plan - 25 year land supply**

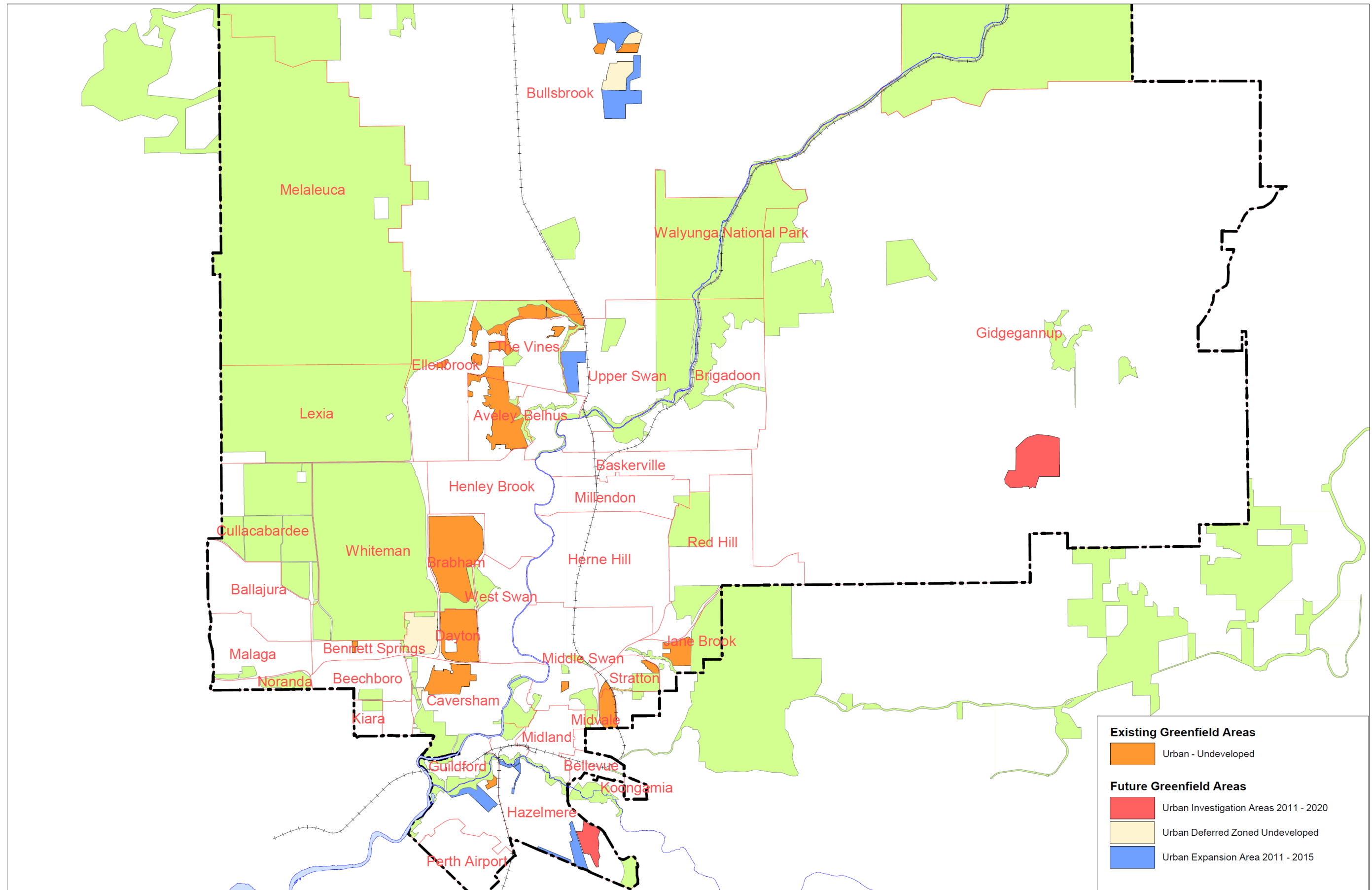


Source: draft Outer Metropolitan Perth and Peel Sub-Regional Strategy

The draft Urban Expansion Plan for the north-east sub-region identifies areas zoned urban and urban deferred under the Metropolitan Region Scheme that are currently undeveloped, urban expansion areas and urban investigation areas currently not zoned urban. The areas depicted within the City of Swan boundaries, estimated to be approximately 3,000 ha in land area, are the subject of this Greenfields Strategy and are referred to as existing and future Greenfield Areas. (Figure 24)

The urban expansion areas and urban investigation areas have the potential to be recommended to undergo statutory rezoning processes in the short to medium term. However, it should not be assumed that the urban expansion areas and investigation areas indicated on the draft urban expansion plan will be rezoned for urban or industrial purposes at anytime.

**Figure 24: Greenfields Strategy Map**





## 15 Overview of the Greenfields Strategy

- The Greenfields Strategy applies to land identified as Greenfield Areas on the map at figure 24 and consists of a framework of strategic and statutory planning. The recommendations of the Infill Strategy do not apply to the Greenfield Areas.
- Strategic planning focuses on the big picture or long-term planning and generally involves the preparation of state, regional and sub-regional strategic plans. The WAPC and the Department of Planning play a major role in coordinating this work with the participation of local governments, landowners, lead government agencies and service providers.
- The statutory planning process ensures that land use, land supply and urban development are effectively managed. This includes such measures as the adoption of district structure plans, local structure plans, detailed area plans and approval of subdivisions consistent with the overarching strategic plans.
- The future release of urban land in the City of Swan is dependent upon the availability of identified greenfield areas and the extent to which the appropriate strategic and statutory planning processes have been completed.
- Dual-codes are not being considered for the Greenfield Areas because these areas are subject to current and future structure planning which will determine residential densities and dwelling yields in accordance with the principles of *Liveable Neighbourhoods*.
- The City of Swan will play an important role in ensuring that future urban development in the Greenfield Areas occurs in a well-coordinated way so that future residents will live in neighbourhoods that have sufficient parks and recreational facilities, good road connections, essential infrastructure and are easily connected to places of employment, activity centres, schools and services.

## 16 Existing Greenfield Areas

For the purposes of this strategy, existing Greenfield Areas are defined as land zoned "Urban" under the Metropolitan Region Scheme which are undeveloped. They are the Swan Urban Growth Corridor, Ellenbrook and a number of smaller areas including but not limited to Middle Swan, West Stratton, Bullsbrook and Guildford south (refer Figure 24).

In these areas, strategic planning has generally been completed and land is in the process of being developed in accordance with statutory structure plans. The planning framework applicable to these areas is reflected in Table 3.

**Table 3: Planning framework for existing Greenfield Areas.**

Area	District Structure Plan(DPS)	Local Structure Plan(LSP)	Status	
<p><b>Swan Urban Growth Corridor</b></p> <p>The Swan Urban Growth Corridor Sub-Regional Structure Plan was endorsed by the WAPC in 2009.</p> <p>With a land area of 1,100 ha, the Swan Urban Growth Corridor is expected to eventually house approximately 33,000 residents in 12,500 dwellings.</p> <p>Three developer contribution plans, contained in proposed Scheme Amendments 57, 58 and 59 have been prepared for the localities of Brabham, Dayton and Caversham.</p>	<b>Albion DSP (Brabham)</b>		Endorsed by WAPC 2011	
		<b>LSP1A</b>	Being assessed by City	
		<b>LSP1B</b>	Yet to be lodged	
		<b>LSP2</b>	Yet to be lodged	
		<b>LSP3A</b>	Being assessed by City	
		<b>LSP3</b>	Yet to be lodged	
		<b>West Swan East DSP (Dayton)</b>		Being considered by WAPC
		<b>LSP1</b>	Awaiting execution of deed before forwarding to WAPC	
		<b>LSP2A</b>	Yet to be lodged	
		<b>LSP2B</b>	Being assessed by City	
		<b>LSP3</b>	Yet to be lodged	
	<b>LSP4</b>	Yet to be lodged		
	<b>Caversham North</b>		Endorsed by WAPC 2011	
	<b>Caversham</b>		Endorsed by WAPC 2011	
<p><b>Ellenbrook</b></p> <p>The last remaining village - village 7 - subject to final approval of the Local Structure Plan which will complete local structure planning for the Ellenbrook area.</p>	<b>Ellenbrook DSP</b>		Endorsed by WAPC 1993	
		<b>LSPs for Villages 1-6</b>	Endorsed by WAPC	
		<b>LSP for Village 7</b>	Being considered by WAPC	
<p><b>Aveley</b></p> <p>Outline Development Plan for the last remaining parcel in Aveley, east of Egerton Drive and south of Millhouse Road yet to be lodged. Once approved, will complete the local structure planning for Aveley.</p>	<b>Aveley ODP 50</b>		Endorsed by WAPC 2007	
		<b>OPDs 73 and 155</b>	Endorsed by WAPC	
		<b>Final ODP</b>	Yet to be lodged	
<p><b>Other existing Greenfield Areas</b></p> <p>Existing greenfields land in areas such Middle Swan, West Stratton, Bullsbrook and Guildford south are progressing through the land development process. Development in areas subject to local structure planning may be constrained by environmental and infrastructure issues that will influence the final statutory plans.</p>				

### 16.1 Recommendations for existing Greenfield Areas

1. Ensure that future local structure plans and detailed area plans are consistent with the relevant sub-regional strategic plans and district structure plans.
2. Require future local structure plans and detailed area plans to be consistent with the principles of *Liveable Neighbourhoods* and relevant WAPC development control policies to ensure that:
  - a variety of residential densities and housing types can be provided;
  - higher residential densities apply to lots near activity centres and along major public transport routes;
  - community facilities are provided;
  - infrastructure provision is coordinated and equitably provided;
  - sufficient active and passive public open space is provided and
  - environmentally sensitive areas are protected.

## 17 Future Greenfield Areas

Future Greenfield Areas are defined as areas not yet zoned "Urban" in the Metropolitan Region Scheme but identified as "urban deferred undeveloped", "urban expansion areas" or "urban investigation areas" in the draft Urban Expansion Plan (refer Figure 24). They are in the localities of Bullsbrook, Upper Swan, West Swan West, Gidgegannup, South Guildford and Hazelmere (Bushmead).

Strategic planning for these areas have either not commenced or has not been finalised and hence the estimated number of dwellings that could be accommodated (9,700) is indicative only. These numbers will change over time as the WAPC subsequently approves developments.

**Table 4: Planning framework for future Greenfield Areas.**

Area	MRS Zoning	Draft Urban Expansion Plan (estimated no. of dwellings)	Strategic Planning
<b>Bullsbrook</b>	Urban Deferred  Rural	Urban deferred zone undeveloped (1,500+)  Urban expansion areas (total 2,600+)	North-East Sub-Regional Structure Plan currently being prepared by the Department of Planning and the WAPC.  Draft Bullsbrook Town Site and Rural Strategy, prepared by the City of Swan, currently being considered by the Department of Planning.  Bullsbrook Land Use Master Plan currently being prepared by the City of Swan.
<b>Upper Swan</b>	Rural	Urban expansion area (1,100+)	Strategic planning for this area has not commenced, however, an application for a relevant MRS amendment has been submitted by the proponent to the Department of Planning.
<b>West Swan West</b>	Urban Deferred	Urban Deferred zone undeveloped (1,800+)	Lifting of Urban Deferred dependent on closure of incompatible land use (poultry farm) and integration of infrastructure provision.  An application to lift the MRS Urban Deferred zoning over the southern portion has been submitted by the proponent, concurrent with amendment LPS17-24 to rezone the southern portion of the area from 'Rural' to 'Special Use'.
<b>South Guildford</b>	Rural	Urban expansion area (600+)	Strategic planning for this area has not commenced.
<b>Hazelmere (Bushmead)</b>	Public Purposes	Urban investigation area (600+)  Urban expansion area (to be determined)	Strategic planning for the portion of the former rifle range (SU18 in the Hazelmere Enterprise Area Structure Plan) has not commenced.  The area between Roe Highway and Midland Road (SU16 in the Hazelmere Enterprise Area Structure Plan) has been identified as potential industrial/commercial and/or residential. Uses to be determined through a future local structure planning process.
<b>Gidgegannup townsite expansion</b>	Rural	Urban investigation area (1,500+)	Strategic planning for this area has not commenced.

## 17.1 Recommendations for future Greenfield Areas

1. Partner with the Department of Planning, the WAPC and relevant State Government agencies to assist with strategic planning for the future Greenfield Areas to:
  - prepare the relevant strategic sub-regional plans;
  - identify land suitable for future urbanisation ahead of the Metropolitan Region Scheme and/or Local Planning Scheme rezoning processes;
  - stage the rezoning of that land in response to future growth trends;
  - ensure there is sufficient land available for development at all times without the need for large-scale rezonings; and
  - identify land to be rezoned at the appropriate time in the most suitable locations.
2. Once strategic planning for the Greenfield Areas has been finalised and land appropriately zoned urban under the Metropolitan Region Scheme, district and local structure planning can proceed in order to facilitate future urban development. The strategies contained in 16.1 will then apply.
3. Structure plans should address the coordinated and equitable provision of infrastructure.

## 18 Measurement of goals

Additional infill housing resulting from the Infill Strategy may impact on the rate at which greenfield development occurs and vice versa. The impact is however expected to be minimal over the 20 year period as development will also be influenced by many other factors such as the global/national economy, competition between developers, planning reform initiatives and political decisions impacting on provision of infrastructure.

The following monitoring regimes will assist the City with its long-term planning.

- Monitor the impact of the Urban Housing Strategy every five years against new census data as it becomes available with censuses to be undertaken in 2016, 2021, 2026 and 2031. This will assist in verifying population and dwelling projections.
- The appropriateness of the assumed 3% per annum growth rate can be determined by monitoring the subdivision and building approval processes on an annual basis.
- In partnership with the Department of Planning, monitor the rate of development in the existing greenfield areas to plan ahead for the urbanisation of the future Greenfield areas.

## 19 Location reference

For ease of reference, Table 5 provides a quick guide identifying the relevant strategy applicable to suburbs/locations within the Swan area.

**Table 5: Strategy application by location**

URBAN HOUSING STRATEGY Infill Strategy Part 2 Section 9 and Appendix 2	URBAN HOUSING STRATEGY Greenfields Strategy Part 3	HERITAGE AREA Not suitable for higher densities	Rural areas addressed by relevant Rural Strategies.
Ballajura Beechboro Bellevue Bullsbrook Hazelmere (Residential) Kiara Koongamia Lockridge Middle Swan Midland (excl. City Centre) Midvale Noranda South Guildford Swan View Viveash Woodbridge	Aveley Bennett Springs Brabham Bullsbrook Caversham Dayton Ellenbrook Gidgegannup Hazelmere (Bushmead) Jane Brook Stratton South Guildford The Vines Upper Swan West Swan West	Guildford	Baskerville Belhus Brigadoon Bullsbrook Caversham Gidgegannup Henley Brook Herne Hill Millendon Red Hill Upper Swan



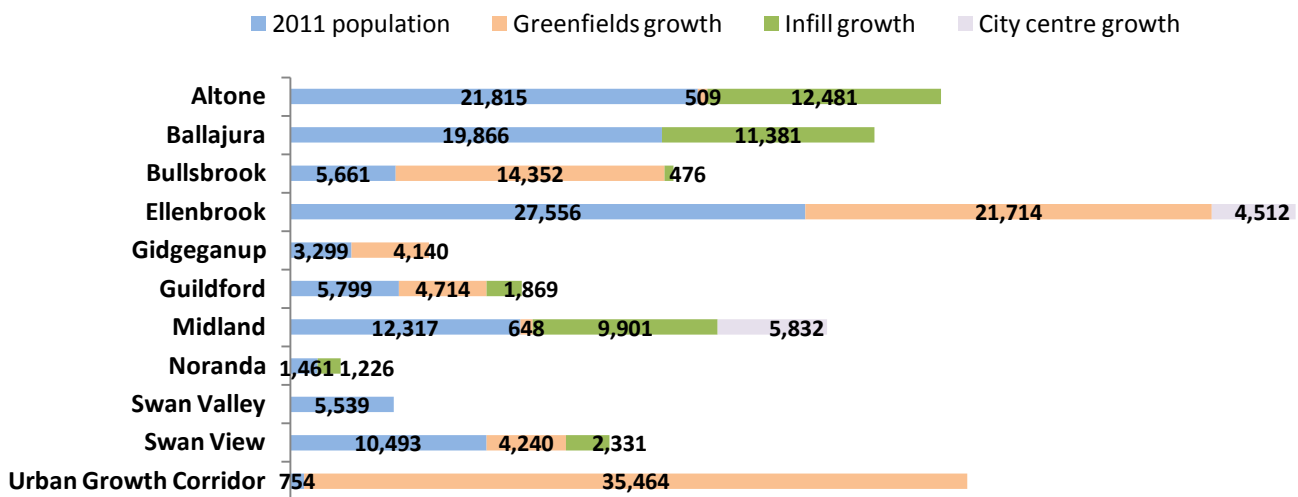
## Conclusion

The population of the City of Swan is forecast to grow from 114,560 in 2011 to 210,300 by 2031. Through the implementation of the Urban Housing Strategy, the additional population can be accommodated in the established areas and in new greenfield areas on the basis of *Directions 2031* forecasts and the Infill Strategy's estimated take-up of infill opportunities.

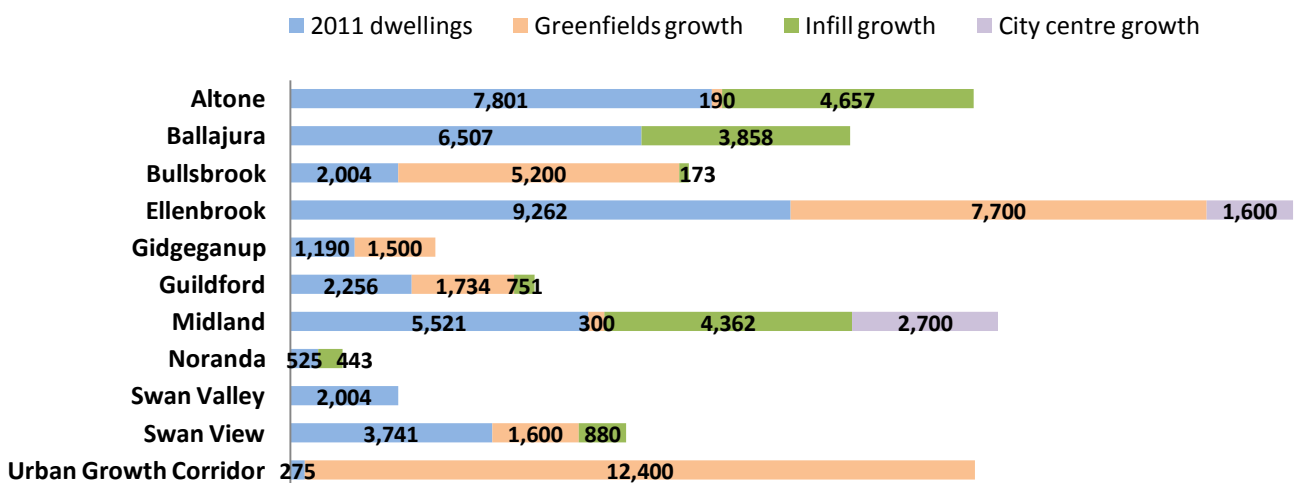
There is expected to be an increase in the number of dwellings from 41,086 in 2011 to 91,140 by 2031 - an increase of 50,054 dwellings. This is made up of an estimated 15,130 additional dwellings in the proposed infill areas, around 4,300 new dwellings in the Midland and Ellenbrook City Centres mostly suited to high density and apartment-style living and as Figure 26 shows, the majority of new growth (30,624 dwellings) in the greenfield areas.

The combination of family-oriented development in greenfield areas, medium density housing near services and public transport and inner-city living will see the City of Swan well-positioned to become a leading provider of diverse and dynamic lifestyle opportunities in the Perth metropolitan area.

**Figure 25: Estimated population growth by 2031**



**Figure 26: Estimated dwelling growth by 2031**



Sources: Informed Decisions [www.id.com.au/profile/swan](http://www.id.com.au/profile/swan) and City of Swan Urban Housing Strategy