

Local Planning Strategy 2010



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Executive Summary

The Shire of Kalamunda's Local Planning Strategy has been prepared in accordance with the Shire's statutory obligations under the Planning and Development Act 2005 and also in accordance with the 'guidelines' for the preparation of a Local Planning Strategy required by the Department of Planning.

The Purpose of the Local Planning Strategy is to enable Council to determine the vision and strategic planning direction for the Shire of Kalamunda for the next twenty (20) years, to coincide with Directions 2031. Once Council has endorsed the Local Planning Strategy it will be submitted to the Western Australian Planning Commission (WAPC) for endorsement.

Preparation of the Local Planning Strategy has included assessment of all relevant State and Regional planning documents. These include the State Planning Strategy, State Planning Framework, Statements of Planning Policy and many more. Key Planning Issues and Implications have been identified.

Preparation of the Local Planning Strategy has also taken the Local Planning Context into consideration. All relevant Local Planning Documents have been examined such as: the Shire's Strategic Plan 2009 – 2014, Aged Accommodation Strategy, Economic Development Strategy, Tourism Strategy and draft Community Facilities Plan. Key Planning Issues and Implications have again been identified.

Community consultation was undertaken at the beginning of the planning process by means of a number of Planning Vision Workshops held in each ward after extensive advertising. Each ward in the Shire was consulted on their Values, Concerns and Visions for the Shire of Kalamunda in the future and their community's responses have been considered throughout the process. Once the WAPC has endorsed the Local Planning Strategy additional consultations will be held with the community.

Western Australia is currently growing and developing very rapidly and changes in the immediate environs of Kalamunda will ensure that land use planning pressures will be a major challenge for the next 20 years and beyond. It is therefore imperative to update our thinking and planning for the future on an ongoing basis.

The Local Planning Strategy has been arranged in three main sections:

1. An introduction that provides the reason for preparing the Local Planning Strategy.
2. The Strategies and Actions that will deliver the desired outcomes for the Key Action areas.
3. Detailed Background Information and Analysis that includes State and Regional Planning Context, Local Planning Context, Local Profile, Key Issues and Opportunities and Constraints, which underpins the strategies and actions.

The main thrust of the Local Planning Strategy is described as follows:

1. The promotion and enhancement of the Kalamunda Town Centre and Forrestfield Forum as the main centres in the Hills and Foothills respectively.
2. The protection of the natural environment and biodiversity.
3. The provision of a range of housing types to suit the demographic profile.
4. The promotion of local employment growth based on airport development, industrial expansion in the freight sector and home based businesses.
5. The encouragement of well-designed commercial activity centres in the community.
6. The encouragement and promotion of tourism activities where appropriate.
7. The provision of excellent recreational and community facilities throughout the Shire.
8. The expansion of new industrial areas to take advantage of the State industrial and transport policies and opportunities at Perth Airport.

9. The expansion of new urban areas in a sustainable manner, providing increased housing and lifestyle opportunities; local employment opportunities and protection of biodiversity and the natural environment.
10. The maintenance of quality and economic viability of the rural areas without adverse impacts on the environment.
11. The promotion of excellent public transportation and the efficient development of physical infrastructure.

The following are the Key Strategic Issues that have emerged from the planning analysis:

Aged Accommodation:

- The ageing of the population and in particular the 'Baby Boomers' will impact on the available housing in the Shire. Approximately 94 per cent of the housing in the Shire is single residential housing on large lots that was constructed for families during times when the demographic profile was different to the present. By 2031, 1 in 3 people will be over 55 years of age and more than half of them will be over 70 years of age. There is an urgent need to diversify the housing stock in all localities of the Shire to cater for more compact housing for older people so as to avoid making older members of the community leave the Shire to find suitable accommodation.

Future of the Special Rural Areas:

- The Shire contains large areas of Special Rural Zoning that are coming under pressure for urban growth given their locational attributes such as their close proximity to the Perth CBD and local freight industrial uses and employment opportunities such as the Forrestfield Industrial Area and Perth Airport. This pressure is evident with commercial uses such as truck parking, machine storage and builders yards encroaching on the Special Rural areas. The quality of rural residential uses is declining.

Future Land Uses in the Orchard Areas:

- The Shire is under continual pressure to reduce the size of lots in the orchard areas with the social fabric of the hills orchard areas changing with family members within the industry moving into other occupations and the aging of the workers, many family members no longer have time to devote to working the orchards. In addition, claims of declining markets from overseas competitors have placed added economic pressures on the industry. Staff at the Department of Agriculture has strongly opposed such changes in the past as they claim that the orchards are a strategic fruit growing area for the Perth Metropolitan Region. This is an aspect that will require further investigation.

Industrial Growth and Employment:

- The rapid growth and development of the mining industry and associated employment is having a direct impact on the Shire. The Forrestfield industrial area has developed rapidly over the past few years. The Shire of Kalamunda is currently progressing the development of the Forrestfield/High Wycombe Industrial Area north of Berkshire Road and west of Roe Highway.

Perth Airport growth and Expansion:

- Perth Airport is the fastest growing airport in Australia. In addition aviation expansion the Westralia Airport Commission (WAC) is rapidly expanding the non aviation sector. The WAC has projected an additional 14,000 jobs by 2031. Anecdotal evidence suggests the growth of Perth Airport is currently having a significant impact on the demand for housing in the residential areas of High Wycombe, Forrestfield and Wattle Grove. This is expected to increase as the commercial expansion of Perth Airport continues.

Housing Development:

- With the current growth in the rate of employment in industry, freight and airport staff the rate of housing development in the Shire has been rapid. In comparison with higher value land in coastal locations, developable land in the Foothills is relatively more affordable. With the predicted population growth, the demand for housing is expected to continue. During the recent worldwide economic recession over 550 new houses were constructed in the Shire.

Sustainable Development Based on the Shire's Biodiversity Strategy:

- The Shire has a relatively high percentage of remnant vegetation and natural areas compared with most Local Governments in Western Australia and it is intended to develop sustainably within the guidelines established in the Shire's Local Biodiversity Strategy to ensure all local natural areas and environmentally sensitive areas are afforded the appropriate protection in the planning process.

Public Transport to Perth:

- The Shire of Kalamunda is relatively poorly served by public transport to Perth. There is an opportunity to link the Shire to Perth via a proposed rail line from Perth to the integrated Perth International – Domestic Terminal. An extension of the rail line into the eastern suburbs of the Shire could potentially open the line to 80,000 people in the future which would add to the economic efficiency of the rail connection.

Facilitation of Tourism Development Opportunities:

- The Shire has a number of tourism development opportunities that should be enhanced so as to improve the tourist visitations to the Shire. These include access to the start of the renowned Bibblumen Walk Track, Mundaring Weir lookout, the Hills wine and orchard areas and State Forrest and National Parks for passive and active recreation pursuits.

Provision of Community Infrastructure and Facilities in Established and Newly Developed Areas:

- The Shire maintains and enhances community infrastructure and facilities in established and newly developed areas. The future growth of the Shire will place greater demand on existing and new facilities. Council has adopted a Community Facilities Plan to guide the provision of a wide range of community facilities in the Shire of Kalamunda over the next 20 years.

Urban Design and Streetscape:

- There is an urgent need to improve the urban design and streetscape in the Shire, particularly the Kalamunda and Forrestfield activity centres. To this end, the Shire has embarked on an ambitious urban design project to improve the design and quality of the commercial activity centres in the Shire through the preparation of Townscape Improvement Plans. To date, the following improvement plans have been prepared and adopted :
 - Kalamunda Town Centre
 - Lesmurdie Shopping Centre
 - Edinburgh Road Shopping Centre, Forrestfield
 - Berle Way Shopping Centre, High Wycombe

Copies of the above plans are included as attachments to the report. Improvement plans are currently being prepared for:

- Forrestfield District Shopping Centre
- Kenneth Road Shopping Centre High Wycombe
- The section of Kalamunda Road between Abernethy Road and Roe Highway.

In support of the Townscape Improvement Plans, Planning Design Guidelines have been prepared for the Kalamunda Town Centre and Wattle Grove Village Centre.

To further guide development of the Shire's existing and planned commercial centres a Structure Plan is currently being prepared for the Forrestfield District Shopping Centre in accordance SPP 4.2 Activity Centres and a Development Concept Plan for the Wattle Grove Village Centre.

Key Elements Plan

The Local Planning Strategy includes a Key Elements Plan which is a broad strategy plan that provides guidance on the various areas within the Shire where rezoning or changes in density codings could occur over the next 20 years. This is however subject to further investigations being conducted in terms of, amongst other matters, the impact on environmentally sensitive areas, the availability of adequate services and bushfire management.

The Key Elements Plan identifies Investigation Areas that present development and growth opportunities however require further investigations.

The key matters that will need to be investigated for each Investigation Area are, but not limited to:

- Bushfire risk.
- Transport/movement networks.
- Infrastructure/servicing.
- Environmental and landscape impacts.
- Urban water management.

It should not be assumed that Investigation Areas will be rezoned for further subdivision, urban or industrial development at any time.

Population Projections and Future Growth:

- Existing population projections for the Shire prepared by the Department of Planning, although out of date, indicate approximately 20,000 additional people in the Shire by 2031. It is considered however, that the Shire of Kalamunda could accommodate population growth in excess of 80,000 by 2031. The Department is currently updating the projections but these have not been finalised to date. The current planning analysis has examined four broad population scenarios and assessed how these will impact on the Shire at various take up rates and densities.
- Recent Commonwealth / State Government Announcements indicate that the Australian population could reach 35.5 million by 2056 and that Perth will reach a population of 3.5 million by 2056 has caused widespread discussion relating to sustainability and reasonable levels of growth. The Western Australian State Government through its key strategic plan Directions 2031 and beyond has identified a population of 2.2 million for Perth, however has undertaken scenario planning in order to plan for the land supply and housing needed to accommodate a city of 3.5 million. What does this mean for the Shire of Kalamunda and the Local Planning Strategy?

What proportion of the future growth will Kalamunda be expected to accommodate or prepared to accommodate by 2031?

As part of the planning assessment it was decided to prepare 4 Population Scenarios: i.e. growth by 10,000, 20,000, 25,000 and 30,000 additional people over the next 21 years. The analysis also looked at what planning principles should underpin the scenarios and what the impact would be on the Shire of the different scenarios. Some of the key planning principles cover the following aspects:

- Targeted urban consolidation, transport corridors, availability of services, infrastructure networks, commercial centres, employment availability, retention of buffers and reserves.

Accommodation of the projected population growth will be achieved through the following combination of strategies:

- Consolidation of existing urban areas, utilizing the capacity in existing urban structure plan cells, proposed new urban expansion areas, proposed urban investigation areas and potential future low density residential development in semi-rural areas of the Foothills.

Population Scenario 1:

Growth by 10,000 people accommodated in existing Development Areas (Wattle Grove U9, Forrestfield U7, High Wycombe U2, Maida Vale U6 and U4 and Canning Location 311, Lesmurdie). Proposed Urban Area (Stirling Crescent) and Proposed Urban Infill Areas (Kalamunda, High Wycombe and Forrestfield). At current development rates Scenario 1 will be achieved in approximately 7 years (2017) without any major changes. **See Scenario 1 Plan, Figure 19 on page 78.**

Population Scenario 2:

Growth by 20,000 people accommodated as in scenario 1 (with some higher take up rates) plus Proposed Urban Investigation Area from Special Rural to Urban (R20/30) (north of Sultana Road East and Pickering Brook). At current development rates this would be achieved in 15 years (2025). **See Scenario 2 Plan, Figure 20 on page 80.**

Population Scenario 3:

Growth by 25,000 people accommodated as in scenarios 1 and 2 plus Residential Bushland development R5 (R2.5) of Special Rural land to the east of Hawtin Road/Lewis Road (R5) and Wattle Grove south of Welshpool Road to a range of densities (R2.5, R5, R20 and R30 in centre) and including a Neighbourhood Centre in Wattle Grove. At current development rates the final part of this scenario (Special Rural land to Urban) would be required by 2025. **See Scenario 3 Plan, Figure 21 on page 83.**

Population Scenario 4:

Growth by 30,000 people accommodated as in scenarios 1 and 2 plus Residential development (R20) of Special Rural land to the east of Hawtin Road/Lewis Road and Wattle Grove (south of Welshpool Road) to densities of R20/R30) including a Neighbourhood Centre in Wattle Grove. This scenario would retain a special rural buffer along the edge of the Scarp. See plan of Scenario 4 below. At current development rates the final part of this scenario (Special Rural land to Urban) would be required by 2025. **See Scenario 4 Plan, Figure 22 on page 85.**

Scenario 3 is the recommended scenario for the Local Planning Strategy. The rationale for this recommendation is as follows:

- It best meets the expressed needs and wants of the community as discovered during the Land Use Planning Workshops held in each ward of the Shire.
- It provides for growth consistent with the State Government's key strategic planning documents Directions 2031 and beyond.
- The introduction of new urban areas in Maida Vale South and Wattle Grove recognises the locational attributes of these areas for urban growth. These new urban areas are balanced through the introduction of a low density Residential Bushland zoning in the foothills areas of Maida Vale and Forrestfield with an emphasis on tree and vegetation retention and protection. The proposed urban areas will provide an appropriate mix of housing and lifestyle opportunities in areas only 15 -20 minutes from the Perth CBD.
- It represents a sustainable approach and achieves an appropriate balance between population growth, protection of the environment, jobs growth and economic development in the Shire.

Importantly, the introduction of new urban areas will require comprehensive planning and analysis of the issues relating to each of the proposed new areas to be undertaken prior to the Metropolitan Region Scheme amendment, Local Planning Scheme amendment, structure plan and subdivision process. The planning analysis will be required to examine a range of issues, including:

- Site analysis, comprising topography and soils, wetlands and hydrology, vegetation – flora and fauna
- Servicing information – Wastewater, water, power supply.
- District and Local Water Management Strategy - Hydrological investigations.
- Geotechnical and drainage investigations.

In addition to the above analysis a Bush Fire Strategy will have to be prepared with particular emphasis on the proposed Residential Bushland zoning.

Once the Local Planning Strategy is endorsed by the Western Australian Planning Commission it will provide the strategic context to update and review Local Planning Scheme No.3.

The Local Planning Strategy will represent an evolving strategy for the ongoing management of planning matters in the Shire in the future and will be subject to regular review.

1.0 Introduction

The Shire of Kalamunda's current Local Planning Scheme No.3 was gazetted in March 2007. The Scheme review commenced in 1993 and took many years to prepare. Once the Scheme was put into daily use it was realised that many aspects of the Scheme that were introduced in the 1990s were based on 1980s planning concepts and many aspects were already out of date. As the current Scheme was commenced before 1999 it included the preparation of a Scheme Review Report and not a Local Planning Strategy. The 2007 Scheme therefore contained only a minimum of strategic planning consideration.

In August 2007 Council endorsed the preparation of a Local Planning Strategy that would be used to update the Scheme by means of one or more Amendments to introduce the changes that were considered necessary. On the basis of Council's approval Planning Vision Workshops were held later in 2007 and during the first half of 2008.

Once Shire planning staff had the feedback from the Visions Workshops they commenced the preparation of the Local Planning Strategy. The current Draft Report is therefore the combined work of a large number of Shire planning staff.

During the process of preparation a number of changes took place in the Shire and at a State planning level. Network City was the original Metropolitan scale strategy that was used as a basis for planning. With the change in government in 2008 Network City was superseded at the Metropolitan scale which resulted in additional reworking of the Local Planning Strategy.

1.1 Purpose of a Local Planning Strategy

In 1999, Town Planning Amendment Regulation 12 A (3) was introduced that requires a Local Planning Strategy be prepared with the purpose of:

1. Setting out the long term planning directions for the Local Government,
2. Applying State and Regional Planning Policies, and
3. Providing the rationale for the zones and other provisions of the Scheme.

1.2 Community Consultation

A series of Land Planning Vision Workshops were held between November 2007 and May 2008. Workshops were held in the Kalamunda Town Centre and each of the five wards. Each of the workshops examined community values, concerns and visions as these would become the building blocks for the preparation of the Local Planning Strategy. An analysis was made of the community feedback on the basis of social, economic and environmental considerations and also the frequency of particular issues occurring. The results of the workshops are recorded in Appendix 1. It should be noted that many of the community suggestions may be seen as contradictory and for that reason staff has relied more on the higher ranked suggestions than the lesser ranked suggestions.

In addition to the workshops, questionnaire surveys were undertaken through the medium of a local community newspaper. The results of the questionnaire surveys are recorded in Appendix 2.

A total of 317 people attended the workshops. The workshop attendees have been consulted as a reference group for the Local Planning Strategy.

1.3 Methodology

1.3.1 Consultation with the Department of Planning

For the purpose of preparing the current Local Planning Strategy the Department of Planning was consulted. The Department stressed the need for a concise document, based on their guidelines. They also stressed that they did not require excessive data and analysis, but wanted a well reasoned rationale that focussed on planning implications of the Strategy.

1.3.2 Project Management Arrangements

In August 2007, Council resolved to support the preparation of the Local Planning Strategy. The methodology adopted is in accordance with the statutory requirements of the Planning and Development Act (2005) and the Policies of the Western Australian Planning Commission.

2.0 Strategy

2.1 Vision and Planning Principles

Vision

The Vision for the Local Planning Strategy is based on the vision statement in the 'Shire of Kalamunda Strategic Plan 2009 – 2010'. This vision is as follows:

"The Shire will have a diversity of lifestyles and people. It will take pride in caring for the natural, social, cultural and built environments and provide opportunities for people of all ages."

Planning Principles

The Planning Principles on which the present Local Planning Strategy is based are similar to those set out in the State Planning Strategy that applies at the local scale. These are as follows:

- The primary aim of planning is to provide for the sustainable use and development of land.
- Environment: to protect and enhance the key natural and cultural assets of the Shire and deliver to all residents a high quality of life which is based on environmentally sustainable principles.
- Community: to respond to social changes and facilitate the creation of vibrant, safe and self reliant communities.
- Economy: to actively assist in the creation of regional wealth, supports the development of new industries and encourages economic activity in accordance with sustainable development principles.
- Infrastructure: to facilitate strategic development by making provision for efficient and equitable transport and public utilities.

2.2 Objectives

The objectives for the Local Planning Strategy are therefore as follows:

- To be a guiding document that provides strategic planning direction to the year 2031.
- To set out the direction for economic, social, and environmentally sustainable development based on a comprehensive analysis of State, regional and local planning issues and objectives.
- To give direction to the Shire of Kalamunda Council, the Department of Planning, the Western Australian Planning Commission (WAPC) and the Minister for Planning, in the assessment of Scheme amendments, subdivision and development applications and to provide strategic support for this decision-making.
- To provide the basis for coordinated decision making on future servicing of the Shire by local, State government and servicing agencies.
- To provide a rationale for the strategic direction for growth and development to all stakeholders.
- To provide the context for coordinated planning and programming of physical and social infrastructure for the Shire.
- To identify further studies or investigations required within the Shire to meet objectives for creating good quality environments.

2.3 Strategic Plan

2.3.1 Local Planning Strategy

Based on the assessment of the State, Regional and Local Planning framework and an analysis of the planning components of the Shire of Kalamunda it is considered that population Scenario 3 should form the basis of the Shire's Local Planning Strategy to the year 2031.

Population Scenario 3 includes growth by 25,000 people accommodated as in Scenarios 1 and 2 plus low density Residential Bushland development (R5, 2,000sqm lots) of Special Rural land to the east of Hawtin Road and Lewis Road and Wattle Grove, south of Welshpool Road to a range of densities (R30 at the centre, R20, R5 and R2.5) radiating from a Neighbourhood Centre in Wattle Grove.

Scenario 3 is the recommended scenario for the Local Planning Strategy. The rationale for this recommendation is as follows:

- It best meets the expressed needs and wants of the community as discovered during the Land Use Planning Workshops held in each ward of the Shire.
- It provides for growth consistent with the State Governments key strategic planning documents Directions 2031 and beyond.
- The introduction of new urban areas in Maida Vale South and Wattle Grove recognises the locational attributes of these areas for urban growth. These new urban areas are balanced by the introduction of a low density Residential Bushland zoning in the foothills areas of Maida Vale, Forrestfield and Wattle Grove. The proposed urban areas will provide an appropriate mix of housing and lifestyle opportunities in areas only 15 -20 minutes from the Perth CBD.
- It represents a sustainable approach and achieves an appropriate balance between population growth, protection of the environment, jobs growth and economic development in the Shire.

2.3.2 Key Elements Plan

The Local Planning Strategy includes a Key Elements Plan (Appendix 9) which is a broad strategy plan that provides guidance on the various areas within the Shire where rezoning or changes in density codings could occur over the next 20 years. This is however subject to further investigations being conducted in terms of, amongst other matters, the impact on environmentally sensitive areas, the availability of adequate services and bushfire management.

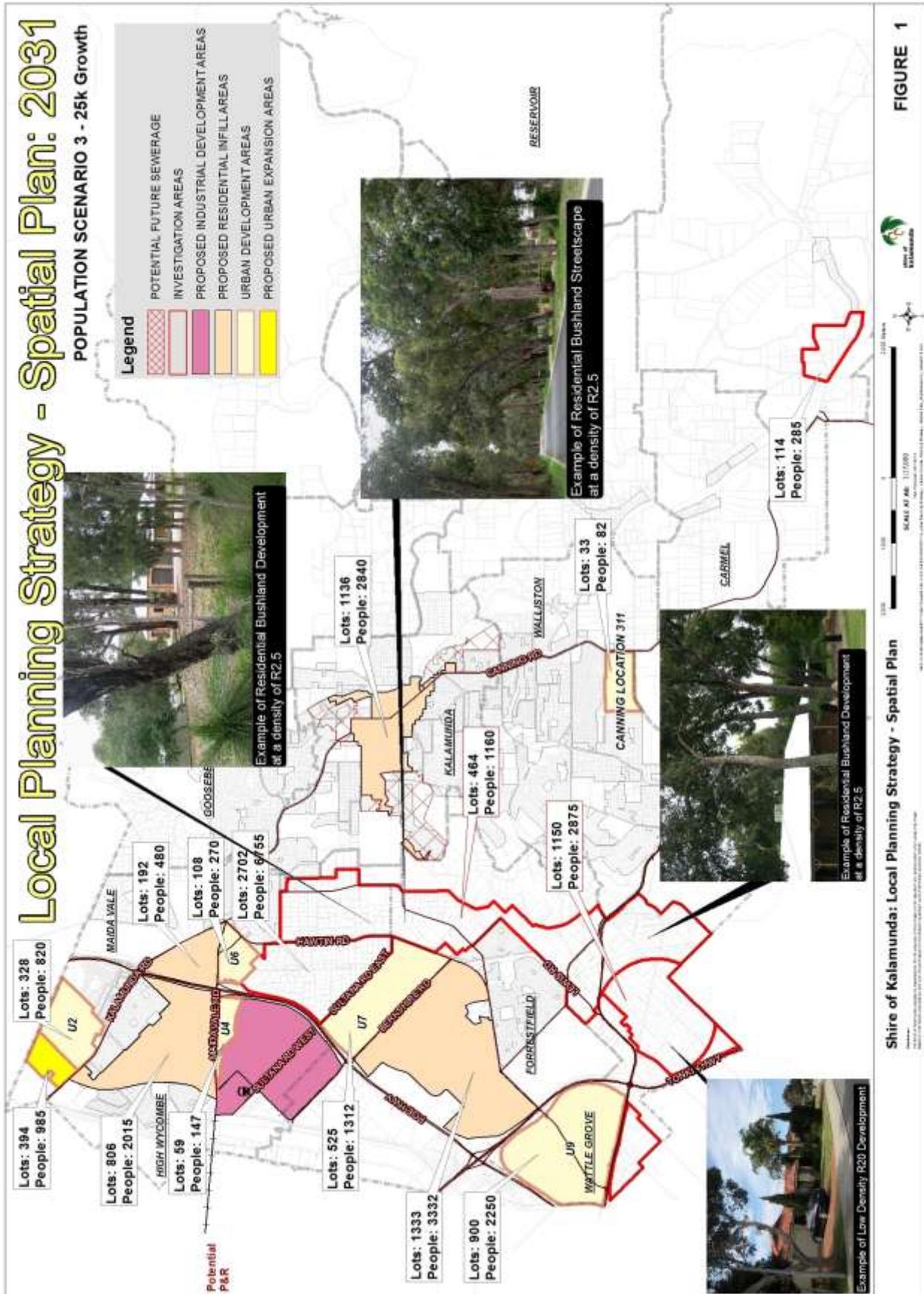
The Key Elements Plan identifies Investigation Areas that present development and growth opportunities however require further investigations.

The key matters that will need to be investigated for each Investigation Area are, but not limited to:

- Bushfire risk.
- Transport/movement networks.
- Infrastructure/servicing.
- Environmental and landscape impacts.
- Urban water management.

It should not be assumed that Investigation Areas will be rezoned for further subdivision, urban or industrial development at any time.

Figure 1: Local Planning Strategy; Scenario 3; Spatial Plan with Population Increase by 25,000.



2.4 Strategies and Actions

2.4.1 Kalamunda Town Centre

Vision Statement 1

Kalamunda Town Centre is the primary activity centre for the Shire.

Strategies:

- Create Kalamunda Town Centre as the “heart” of the Shire.
- Ensure business needs are recognized through land use planning, parking provision, appropriate development of the public domain and events.
- Engage with the commercial sector.
- Encourage a range of activities, including residential, to ensure vibrancy.
- Provide appropriate density housing to support the Town Centre.
- Plan for expanded tourism opportunities.
- Address long term utility requirements to support Town Centre.

Proposed Scheme Amendments and Policy Initiatives:

- Review Town Centre Zone recognising its characteristics and purpose through appropriate objectives, scheme provisions and policies.
- Implement Townscape Improvement Plans and Planning and Urban Design Guidelines.
- Review parking requirements through the preparation of a Traffic and Parking Study.

Vision Statement 2

Maintain ‘village’ look and feel in Kalamunda Town Centre.

Strategies:

- Enhance the ‘village’ streetscape through appropriate urban design criteria by implementing the Townscape Improvement Plans.
- Provide for future commercial development, including tourist accommodation, of an appropriate type and scale to compliment ‘village’ theme.
- Encourage town centre housing to compliment the ‘village’ theme.

Proposed Scheme Amendments and Policy Initiatives

- Review town centre policies to place emphasis on streetscape and pedestrian amenity.
- Enable shop top housing through appropriate scheme provisions and design parameters.
- Implement Townscape Improvement Plans and Planning and Urban Design Guidelines.

2.4.2 Environment

Vision Statement

The biodiversity and natural environment values are protected and preserved for existing and future generations.

Strategies:

- Minimise the impacts of the built environment on the natural environment.
 - Protect and enhance the existing natural environment in accordance with the objectives, targets and recommendations of the Local Biodiversity Strategy 2008 or any subsequent review, taking into account the need to balance these objectives with the wider strategic land use planning objectives.

Proposed Scheme Amendments and Policy Initiatives

- Create Special Control Area to guide future land use and development in drinking water catchments.
- Implement water sensitive urban design and 'water wise' policy initiatives.
- Environmentally Sensitive Development Scheme provisions and complementary policies.
- Provide streetscape guidelines for infill housing areas.
- Protect significant Local Natural Areas identified in the Local Biodiversity Strategy through:
 - Requirements for comprehensive structure planning at the earliest stages of the planning process based on environmental studies of vegetation, flora and fauna in accordance with EPA guidance statements with the objective of protecting and enhancing existing significant natural areas.
 - The development of a Local Planning Policy for Biodiversity Conservation to provide guidance on this issue.
 - Investigate the inclusion of zones and reservations and provisions in the Local Planning Scheme to facilitate protection of areas of high conservation value.
 - Investigate the potential for the development of a private landholder incentives strategy.

2.4.3. Housing

Vision Statements

Ensure housing provision is appropriate for future population.

Strategies

- Provide housing for the ageing population.
- Developed sustainable housing.
- Provide a range of housing options.
- Support activity centres with appropriate housing.
- Encourage compact housing within walking distance of Town Centre and commercial hubs.
- Provision of new urban areas providing for a mix of low to medium density residential housing.
- Encourage regeneration and redevelopment of older suburbs.

Proposed Scheme Amendments and Policy Initiatives

- Increase residential zone densities around Kalamunda Town Centre and Forrestfield Forum Shopping Centre.
- Prepare Scheme provisions and incentives to rationalise land at Forrestfield Forum and provide a mix of uses including housing.
- Identify medium density infill development opportunities around activity centres, public transport and public open spaces, subject to urban design and streetscape guidelines.
- Prepare development contribution schemes for infrastructure.
- Requirement for comprehensive planning and analysis of the issues relating to each of the proposed new urban areas to be undertaken to support the Metropolitan Region Scheme amendment, Local Planning Scheme amendment and structure plan process. This analysis is required prior to the rezoning and subdivision process proceeding.
- Introduction of the Residential Bushland zone into the foothills areas of Maida Vale, Forrestfield and Wattle Grove. Comprehensive planning and analysis of issues relating to bush fire risk, future servicing, biodiversity protection and other relevant planning considerations will be required prior to rezoning, subdivision and development of the land proceeding.
- Introduce Scheme provisions to the Residential Bushland zone requiring the preparation of structure plans to guide and coordinate the future subdivision of the land.
- Prepare a Bush Fire Strategy with particular emphasis on the proposed Residential Bushland zoning.
- Rezone land for well located aged care facilities in Scheme.
- Prepare a Local Housing Strategy for the Shire.

2.4.4. Employment

Vision Statements

Increase the local employment base where possible.

Encourage home based businesses as a source of employment.

Take advantage of the growing employment base at the Perth Airport.

Strategies

- Encourage development in the District Centres which will provide employment opportunities for the local community.
- Implement the recommendations of the Kewdale-Hazelmere integrated master plan (KHIMP), with the development of the Forrestfield/High Wycombe Industrial area.
- Consolidate industrial uses west of Roe Highway to provide additional employment opportunities.

Proposed Scheme Amendments and Policy Initiatives

- Review home business provisions.
- Develop policy guidelines for the design and operation of home businesses.
- Rezone in accordance with recommendations of the KHIMP.

2.4.5. Retail and Commerce (outside Kalamunda Town Centre)

Vision Statements

Activity centres will be attractive, economically successful places, accessible and well connected to residents.

Develop centres in accordance with the hierarchy of centres.

Ensure centres are capable of meeting a range of local community needs and are appropriately integrated with local community facilities.

Have regard to the interface between centres and adjoining communities in regard to design, traffic, parking, noise and lighting.

Strategies

- Develop the concept of activity centres by considering mixed use and co-location of community facilities.
- Provide increased residential densities near centres to support economic viability of commercial centres.
- Improve streetscapes, vehicle accessibility, public transport, and pedestrian/cyclist access around centres.

Proposed Scheme Amendments and Policy Initiatives

- Review commercial development requirements to encourage a main street approach, where appropriate, and good urban design.
- Implement town centre improvement plans for Kalamunda Town Centre, Sanderson Road shopping centre, Forrestfield Forum, Edinburgh Road shopping centre and commercial centres in High Wycombe.
- Prepare Activity Centre Plans to ensure comprehensive development of centres.
- Link Scheme to activity centre plan.
- Review residential densities together with urban design requirements.
- Prepare Planning Design Guidelines for commercial centres.

2.4.6. Tourism

Vision Statements

Attract tourists to the Shire, facilities, natural environment and village atmosphere and be a recognised tourist destination.

Develop the Shire's unique tourist opportunities having regard to potential impacts on the natural environment and infrastructure.

Strategies

- Promote the unique characteristics, attractions and events in the Shire.
- Provide for the diversification of rural land use to support tourism in rural areas subject to environmental sustainability.
- Provide appropriate Scheme zones and provisions at recognised tourist destinations to meet tourist requirements.

Proposed Scheme Amendments and Policy Initiatives

- Enable development of tourist facilities in, or near, major attractions (such as a cafe in Stirk Park) through appropriate Scheme provisions.
- Review the Scheme's provisions to ensure that they adequately protect sites and buildings of historic significance.
- Review the Shire's Municipal Heritage Inventory.
- Develop a policy allowing for appropriate itinerant traders at tourist destinations where there is demand.
- Amend Scheme provisions to enable development of complementary tourist facilities in eastern rural zone areas such as, cafes, restaurants and chalets subject to environmental sustainability.
- Prepare a Master Plan for Stirk Park.

2.4.7 Open Space and Recreation

Vision Statements

Provide a range of active and passive recreation facilities that have regard to the changing needs of the community and ensuring maximum value and usage, subject to environmental sustainability.

Strategies

- Provide adequate open recreation facilities based on the demographics of the local population, particularly in new residential areas.
- Ensure that open space is well located and encourages community participation.

Proposed Scheme Amendments and Policy Initiatives

- Seek contribution to open space and infrastructure improvements through the introduction of scheme provisions linked to developer contributions as provided for under SPP 3.6 Developer Contributions for Infrastructure.
- Identify specific space provisions for youth.
- Review existing recreational open spaces.
- Identify potential open space and recreation areas in infill development areas.

2.4.8. Community Facilities

Vision Statements

Provide good quality well located community facilities that meet the needs of the community.

Strategies

- Ensure community facilities are designed for flexibility of use and developed using sustainability principles.
- Ensure equity in distribution of community facilities recognizing demographic differences and needs.
- Integrate community facilities with activity centres where feasible to maximise access and opportunities for community cohesion and interaction.

Proposed Scheme Amendments and Policy Initiatives

- Rationalise existing stand-alone community purpose sites.
- Seek community purpose sites adjacent to, or within, activity centres.
- Seek opportunities to incorporate community purposes within private development in activity centres and amend zones and centre plans to accommodate this.
- Ensure preparation of structure plans to include community facilities is consistent with the Shires Community Facilities Plan.

2.4.9. Industry

Vision Statements

Expand industrial development and uses within the Shire taking advantage of the broader state industrial and transport policies, and the development related to Perth Airport.

Develop industrial areas to maximise economic and employment opportunities without compromising the amenity of the adjacent land uses or the natural environment.

Strategies

- Implementation of KHIMP recommendations in accordance with the KHIMP report.
- Implementation of recommendations contained in the Economic and Employment Lands Strategy.
- Consolidate existing and planned industrial uses west of Roe Highway and east of Perth Airport to form single industrial freight hub.
- Review road and transport hierarchy around existing and planned industrial area to support freight movements and seek government financial assistance to address vehicle blackspots.
- Work with the City of Gosnells in respect to the planning implications of the Maddington Kenwick Strategic Employment Area for land owners in the Shire of Kalamunda.

Proposed Scheme Amendments and Policy Initiatives

- Incorporate relevant zoning changes as proposed in the Economic and Employment Lands Strategy – Non Heavy Industry (2012).
- Prepare Environmentally Sensitive Design guidelines for industrial development and other controls to manage potential impact on the amenity of adjacent areas.
- Work with State Government and Landcorp to secure partnership to develop the Forrestfield/High Wycombe Industrial Area.
- Undertake comprehensive planning and analysis of the Forrestfield/High Wycombe Industrial area.
- Identify land located to the south of Welshpool Road East abutting the City of Gosnells as future Industrial Development.

2.4.10. Rural

Vision Statements

Maintain the rural areas of the Shire to ensure their economic viability, sense of open space and quality of lifestyle.

Have regard for the values of the community in maintaining the rural qualities, reducing the impact on the natural environment and the landscape.

Strategies

- Stem the trend of 'urban' uses such as trucks intruding into rural areas.
- Preserve the 'bona fide' productive orchard industry from urban uses.
- Promote the use of Residential Bushland zone (minimum 2,000sqm and 4,000sqm lots) as a means of preserving trees and endemic vegetation.
- Promote the use of Rural Composite zone for 'space extensive' uses in rural areas.
- Review the Pickering Brook town site with the intention of consolidating the uses and giving it a focus.
- Promote the implementation of rural industries to allow for tourism related activities subject to environmental sustainability.

Proposed Scheme Amendments and Policy Initiatives

- Review the Hills Orchard Study, with consideration to the potential for further subdivision and development. This has to be considered against the broader social, economic and environmental implications of such a move.
- Undertake comprehensive planning analysis of Pickering Brook town site and surrounds to investigate potential for the creation of new lots.
- Amend Scheme provisions to support tourism related activities in rural areas subject to environmental sustainability.
- Introduce Scheme objectives and Scheme provisions for proposed Residential Bushland zone which will promote and enhance identified Local Natural Areas by encouraging smaller lots in cleared areas and the protection of areas of environmental significance.
- Undertake investigation of rural zoned land to the east of the Kalamunda and Lesmurdie urban areas to identify land below the established minimum lot size to determine the suitability of the land for rezoning.

2.4.11. Urban Design and Heritage

Vision Statements

Have regard to the principles of good urban design when considering the impacts of new development.

Recognize the importance of heritage and ensure that heritage features and characteristics are protected and preserved.

Strategies

- Clarify the 'village' design concept and use it uniformly.
- Provide for public security and safety in urban design.
- Review the Shire's Municipal Heritage Inventory.
- Consider incorporation of a Heritage List into the Shire's Local Planning Scheme.
- Review the Shire's Heritage Precincts.
- Prepare a policy that would specify guidelines and incentives for development of places of heritage significance.

Proposed Scheme Amendments and policy Initiatives

- Review of Municipal Inventory and incorporation into the Local Planning Scheme.
- Re-examine the heritage precincts for incorporation into the Local Planning Scheme.
- Prepare Planning design guidelines for commercial centres in the Shire.

2.4.12. Traffic and Transport

Vision Statement

Ensure that the transport network (roads, rail, bike, and public transport) are adequate for the needs of the community and that any impact of them on the community is minimised.

Strategies

- Maintain the Shire's Primary Road Network and Regional Road Network in a good state of management.
- Review road and transport hierarchy around existing and planned industrial areas to support freight movements and seek government financial assistance to address vehicle blackspots.
- Examine measures to improve public transport links with the centre of Perth.
- Promote the potential rail connection to Perth central business district from High Wycombe via the international airport.
- Improve access to and from the airport for freight, aviation and employment so as to minimise impact on Kalamunda residents.
- Improve pedestrian and cycle access between urban centres.

Proposed Scheme Amendments and Policy Initiatives

- Identify a possible rail terminal in High Wycombe.
- Make provision for improved road access to and from the airport into Kalamunda.

- Ensure that sustainable land use and transport are mutually compatible in accordance with SPP5.4 - Road and Rail Transport Noise and Freight Considerations in Land Use Planning, to minimise the adverse impact of transport noise, without placing unreasonable restrictions on noise-sensitive residential development, or adding unduly to the cost of transport infrastructure.
- Require traffic impact assessments to be submitted at each stage of the planning process, which has been prepared in accordance with the Commission's Transport Assessment Guidelines for Development.

2.4.13. Utility Services

Vision Statements

Ensure that existing development within the Shire is adequately serviced and that there is a continuity and reliability of service.

Ensure that the utility services are capable of expansion to accommodate the planned growth.

Strategies

- Examine the extension of sewerage services to larger areas in the Hills.
- Consolidate urban development in central Kalamunda to make the existing sewerage scheme more economically viable.
- Ensure adequate electricity supply to Kalamunda.
- Examine infrastructure requirements to accommodate residential infill developments.
- Provide underground power to suitable parts of Kalamunda Town Centre.

Proposed Scheme Amendments and Policy Initiatives

- Recode residential areas in central Kalamunda to increase development and make the sewerage scheme more economically viable.
- Investigate provision of a pump station in Stirk Park to support additional commercial development in the Kalamunda Town Centre and medium density residential development north of Stirk Street.

2.5 Implementation, Monitoring and Review

Implementation

The Shire of Kalamunda Local Planning Strategy will be used as a planning tool to assist Council, the State Government and the community in their respective roles in land use decision making.

Many of the Local Planning Strategy's recommendations will be implemented through the adoption of particular strategies and policies and finally through Scheme Amendments to bring Local Planning Scheme No.3 up to date.

Once the Local Planning Strategy has been before Council there will be an opportunity for further community consultation. At the time of preparing the Shire of Kalamunda Local Planning Strategy the WAPC is in the process of finalising 'Directions 2031 and beyond' and State Planning Policy 4.2 -

'Activity Centres for Peel and Perth'. These may have implications for the Shire's finalisation of this Strategy and subsequent Scheme Amendments.

Monitoring and Review

The Local Planning Strategy has been prepared to provide the Shire with strategic direction for the next 20 years. It is, however, inevitable that over those years, considerable change will take place at an international, national, state-wide and locally. In addition, community views are likely to change as growth and development changes the 'culture' of Kalamunda. In order that Council is able to respond to future changes it will be necessary to undertake continual monitoring and review. A review of the document should be undertaken every five years, preceding reviews of the local Planning Scheme.

3.0 Background Information and Analysis

3.1 Introduction

The purpose of this part of the Local Planning Strategy document is to provide analysis of the information and the rationale for making strategic recommendations. The information in this section is subject to change over time but will not be part of the Local Planning Strategy to be endorsed by the WA Planning Commission. The information in this section is also supplemented by the inclusion of the findings of the Land Use Planning Vision Workshops that were held with the community in 2007 and 2008.

3.2 State and Regional Planning Context

3.2.1 State Planning Strategy

The Western Australian Planning Commission published the State Planning Strategy in 1996. This Strategy was the first state-wide plan to consider how and where the State would develop in the long term. It also provides a basis for coordination of the many decisions and actions that are taken on an ongoing basis. The State Planning Strategy divides the State into several regions and develops Visions, Regional Strategies and Regional Actions that need to be undertaken in the future.

The Shire of Kalamunda is part of the Perth Metropolitan Region and shares a common Vision, Strategies and Actions with the other Local Governments in Perth. The Vision for Perth is to develop as, "One of the cleanest, most productive and livable cities in the world".

The following are the main Regional Strategies;

- Promote Perth as an international city.
- Provide for future economic development.
- Plan for population growth.
- Limit travel demand in urban areas.
- Promote a strategic transport network.
- Protect key environmental resource areas and cultural heritage.
- Protect water resources.
- Protect prime agricultural land and intensive agriculture infrastructure from incompatible development, and
- Protect quality of air and water systems.

Planning Implications

1. The planning implications for the Shire of Kalamunda from the State Planning Strategy are very broad and general and are shared with all the other local governments in the Perth Metropolitan Region.

3.2.2 Regional Strategies

In addition, the following Regional Strategies are relevant to the planning in the Shire of Kalamunda:

- Metroplan
- Network city

Metroplan was superseded by Network city and Network city is in the process of being superseded by Directions 2031.

Directions 2031 and beyond (2010)

'Directions 2031 and beyond' supersedes Network city and replaces Metroplan and all other metropolitan strategies. Directions 2031 and beyond is a spatial framework to guide the growth of Perth and Peel. A number of assumptions are made in the document, namely:

- A more compact city is desirable.
- We must work with the city we have.
- We must make more efficient use of land and infrastructure.
We must prioritise land that is already zoned for development.

The stated vision is:

"By 2031, Perth and Peel people will have created a world class livable city; green, vibrant, more compact and accessible with a unique sense of place".

The key expectations are:

- Is clean, green, productive and distinctive;
- Has good public transport, cycling and pedestrian systems;
- Is equitable, inclusive, safe and prosperous;
- Provides high standards of affordable and diverse housing forms, education and health care;
- Maintains high levels of employment;
- Is tolerant and embraces diversity;
- Is culturally and intellectually stimulating; and
- Gives people a sense of identity and belonging.

'Directions 2031 and beyond' promotes 'the connected city model' which assumes a more balanced distribution of housing, population, and employment across the metropolitan area. This model recognizes that the future growth will be shaped in part by the planning decisions that have already been made, however, it will require significant improvement over the next 20 years in targeted infill development and an increase in greenfield residential densities.

The key features of 'Directions 2031 and beyond' for the Shire of Kalamunda are as follows:

- Kalamunda town centre and Forrestfield (shopping centre) are identified as District centres.
- A target of 75% employment self sufficiency has been set for the north-east sub region, an additional 42,000 jobs over the whole sub-region.
- An estimated increase in population of 69,000 across the whole sub-region.
- The importance of the vast areas of forest for conservation within the Shire is acknowledged.
- Perth Hills is identified as a 'metropolitan attractor' that entices tourists and is highly valued by local and regional residents.

- Several areas around the Shire have potential for increased residential development to accommodate airport, freight, container and light industrial development in the area.
- Forrestfield, High Wycombe, Maida Vale and Wattle Grove have potential for increased residential development.

Middle Helena Catchment Area Land Use and Water Management Strategy

The Draft Middle Helena Catchment Area Land Use and Water Management Strategy was prepared by the Western Australian Planning Commission in 2003. The strategy identifies the Middle Helena water catchment as a major future source of drinking water. The draft strategy was opposed by some of the local stakeholder groups on the grounds that the strategy was too restrictive on existing uses and placed onerous controls on land use intensification.

The strategy was re-examined in 2009 with the intention of finalising the document. A revised Steering Committee was convened and a revised Reference Group comprising local stakeholders was formed. The WAPC commissioned a consultant to identify the aspects of the report that had caused the process to fail previously. Revised proposals were developed with inputs from State Departments and Service Authorities. Following a final round of stakeholder consultation the Shire Council approved the Strategy early in 2010. The Western Australian Planning Commission approved the Strategy in July 2010.

The strategy will provide better direction for the Shire in relation to ongoing planning and development decision making in the future. It will also provide the Shire with the opportunity to clarify the status of the Middle Helena Catchment and amend Local Planning Scheme No.3 accordingly.

The implications of the final strategy are as follows;

- The majority of the Middle Helena Catchment co-insides with the Piesse Brook catchment and is a declared drinking water priority P1 area.
- The strategy makes recommendations for planning controls over the catchment in the Metropolitan Region Scheme and the Shire of Kalamunda Local Planning Scheme.
- The strategy does not recommend changes to existing zoning but recommends the overlaying of a Special Control Area (SCA) into the Local Planning Scheme by amendment.
- Through this mechanism ultimate control of land use planning in the middle Helena Catchment will be under the jurisdiction of the WAPC.

Kewdale-Hazelmere Integrated Masterplan

The Western Australian Planning Commission (WAPC) prepared and published the final report of the 'KHIM' in 2006. The study area of this regional Masterplan included land in the cities of Canning, Gosnells, Swan, Belmont and the Shires of Kalamunda and Mundaring. The area was identified as having strategic importance to Perth and Western Australia particularly for the freight industry. The report acknowledged the fact that the freight industry is growing rapidly and the volume of freight and the number of freight movements in the Perth Metropolitan Region is expected to increase significantly over the next 30 years. A key action identified in the strategy was the preparation of an integrated transport and land use Masterplan for the study area. The document was prepared by the State Government together with local governments and private sector stakeholders.

Some of the planning implications for the Shire of Kalamunda are as follows;

- Identification of future industrial land for the freight industry.
- Guidelines for future structure planning and infrastructure provision.
- Ingress/egress from Abernethy Road.
- Grade separation of key intersections.
- Potential integration with Perth Airport especially the future combined International and Domestic Terminals.

- Recommendations to identify land suitable for industry between Berkshire Road west, Milner Road, Poison Gully Creek and Roe Highway.

3.2.3 Regional Planning Scheme

The Metropolitan Region Scheme (MRS)

The Metropolitan Region Scheme (MRS) is the relevant Regional Planning Scheme for the Perth Metropolitan Region and has precedence over the Shire of Kalamunda Local Planning Scheme No.3 in terms of broad land use planning. Where the Kalamunda Scheme is at variance with the MRS the MRS prevails. The MRS deals with generalised, broad scale land uses and all zoning changes need to be approved by the commission and signed off by the Minister before they can be gazetted.

3.2.4 State Planning Framework

The State Planning Framework is Statement of Planning Policy (SPP) No.1. It unites existing State and regional policies, strategies and guidelines within a central framework which provides a context for decision-making on land use and development in Western Australia. The State Planning Framework is an amalgamation of all planning policies, strategies and guidelines. Section A sets out general principles for land use planning and development. In section B it lists plans, policies, strategies and guidelines and each becomes a provision of the SPP. In addition, the SPP sets out measures to avoid conflict between documents, provides direction as to the resolution of conflicts and establishes that the provisions of the State Planning Strategy generally prevail.

In terms of SPP the following are relevant to the Shire of Kalamunda and the Local Planning Strategy:

- SPP2 - Environment and Natural Resources Policy
- SPP2.4 - Basic Raw Materials
- SPP2.5 - Agricultural and Rural Land Use Planning
- SPP2.7 - Public Drinking Water Source Policy
- SPP2.8 - Bushland Policy for the Perth Metropolitan Region
- SPP2.9 - Water Resources
- SPP3 - Urban Growth and Settlement
- SPP 3.1 - Residential Design Codes
- SPP 3.4 - Natural Hazards and Disasters
- SPP4.1 - State Industrial Buffer Strategy (Review Draft)
- SPP4.2 - Activity Centres for Perth and Peel'
- SPP4.3 - Poultry Farms Policy
- SPP5.1 - Land Use Planning in the Vicinity of Perth Airport
- SPP5.2 - Telecommunications Infrastructure
- SPP5.4 - Road and Rail Transport Noise and Freight Considerations in Land Use Planning

In addition, the following Regional Strategies are relevant to the planning in the Shire of Kalamunda:

- Metroplan.
- Network City.
- Directions 2031 and beyond (This document supersedes Metroplan and Network city).
- Middle Helena Catchment Area land Use and Water Management Strategy.
- Economic and Employment Lands Strategy – Non Heavy Industry (2012).

The following Regional and Sub-regional Structure Plans are relevant to the Planning in the Shire of Kalamunda:

- Foothills Structure Plan
- Darling Range Regional Park

Strategic Policies endorsed by the Commission and relevant to planning in the Shire of Kalamunda are as follows:

- Rural Small Holdings Policy
- Urban Expansion Policy: Metropolitan
- Regional Residential Density Guidelines for the Perth Metropolitan Region
- Service Stations Policy (Draft)
- Government Sewerage Policy: Perth Metropolitan Region
- Metropolitan Rural Policy
- Urban Bushland Strategy
- Bush Forever
- Liveable Neighbourhoods Edition 3 (Final)

The State Planning Framework Policy also lists all the Commission's Operational Policies. Most are relevant to the subdivisional and development process but are not directly relevant to the broad strategic scale presently being dealt with.

3.2.5 State Planning Policies

In terms of Statements of Planning Policy the following are relevant and have implications for the Shire of Kalamunda and the Local Planning Strategy;

SPP2 - Environment and Natural Resources Policy

This policy provides statutory provisions for the sustainable management of; water resources, air quality, soil and land quality, biodiversity, agricultural land and rangelands, minerals, petroleum and basic raw materials, marine resources and aquaculture, landscapes and greenhouse gas emissions and energy efficiency. The matters covered by the policy have recently been addressed in the preparation of the Shire's Local Biodiversity Strategy and are dealt with on a day to day basis by Shire environmental staff

SPP2.4 - Basic Raw Materials

The Basic Raw Materials Policy is intended to act as a framework for identifying and protecting resources in order to ensure that the building and development needs for basic raw materials will continue to be met. The Policy outlines key resource and extraction areas within the metropolitan region. A portion of a rock resource area is located within the Shire of Kalamunda, inclusive of the locality of Pickering Brook. The key principles of the policy are to ensure the protection of resource areas and extractive operations from the encroachment of incompatible land uses; ensure the extraction of such materials complies with acceptable environmental and amenity standards; and provides a consistent planning approval process for extractive industry proposals.

In the past hard rock quarrying was undertaken in the Shire in the vicinity of the Zig Zag but this is now within the Darling Range Regional Park. Some sand quarrying was also undertaken in the Foothills area but this is no longer operational.

SPP2.5 - Agricultural and Rural Land Use Planning

This Statement of Planning Policy should be read in conjunction with Policy DC 3.4 Subdivision of Rural Land (2002) and the Metropolitan Rural Policy (1995). The Statement of Planning Policy requires those local authorities experiencing pressure for change in rural land use to prepare and adopt for the approval of the Commission a Local Rural Strategy. Although the Shire of Kalamunda is listed as a Category A metropolitan local authority, requiring a rural strategy, it is not considered that there is sufficient rural activity to warrant a full Local Rural Strategy. The policy does, provide for a section in the Local Planning Strategy to form a rural strategy, if it adequately addresses rural planning issues.

The Agriculture and Rural Land Use Policy is intended to consolidate previous policies inclusive of the Rural Land Use Planning Policy. The Policy applies to all land zoned Rural under the Metropolitan Region Scheme and with Policy DC 3.4 is used as a basis for determining applications for the subdivision of rural land. The policy also includes special requirements for the development of land in areas suitable for agriculture, raw material, future urban, landscape/conservation, and rural-residential usage. The Policy is intended to guide local authorities in preparing rural strategies.

The key objectives of the Policy are as follows:

- Protect agricultural land resources wherever possible by discouraging land uses unrelated to agriculture; minimising 'ad hoc' fragmentation of rural land; and improving resource and investment security for agricultural and associated industries.
- Plan and provide for rural settlements where it can benefit and support existing communities; and have access to appropriate community services and infrastructure.
- Minimise the potential for land use conflict by providing adequate buffers; introducing measures to protect existing agricultural land uses; identification of new areas suitable for intensive agricultural activities; and avoid locating new rural settlements that are likely to create conflict with established agricultural areas.
- Carefully manage natural resources by discouraging development or subdivision that may result in land or environmental degradation; integrate land, and water catchment requirements with land use planning controls; assist in the wise use of resources; prevention of land and environmental degradation during the extraction of minerals and basic raw materials; and incorporating land management standards in the land use planning and development process.

Any rural or rural residential development within the Shire should occur generally in accordance with the above mentioned principles.

SPP2.7 - Public Drinking Water Source Policy

The objective of the Policy is to ensure that land use and development within Public Drinking Water Source Areas is compatible with the long-term management of water resources for public water supply.

The Department of Water is responsible for managing and protecting water resources. The Commission has identified three priority classification areas or source protection areas: P1, P2 and P3. P1 and P2 areas should be identified as a Water Catchment Reserve or covered by a special control area for water protection in the MRS and local Planning Scheme. Priority 3 areas are not generally subject to specific provisions as described above.

Local planning strategies should identify Public Drinking Water Source areas on advice from the Department of Water.

SPP3 - Urban Growth and Settlement

This policy sets out the principles and considerations that apply to planning for growth and settlements in Western Australia. Its objectives include managing the growth and development of urban areas in response to the social and economic needs of the community, recognising relevant climatic, environmental, heritage and community values and constraints and promoting the development of a sustainable and liveable neighbourhood form.

SPP3.1 - Residential Design Codes

The Residential Design Codes (R-Codes) provide controls for residential design and development and apply throughout the Shire of Kalamunda. Its provisions are included in the Shire's Local Planning Scheme No.3. The R-Codes have been in place in Western Australia since the 1980s with a number of revisions having occurred since then, the most recent being November 2010. The purpose of the R-Codes is to provide local governments, the community and the development industry with a comprehensive tool for the control of the built form and density of residential development throughout Western Australia. At a strategic level its principle use is to ensure that there is an appropriate choice and distribution of housing types and densities to meet the needs of the community as a whole.

SPP3.6 – Developer Contributions for Infrastructure

The purpose of this policy is to set out clear principles and considerations that apply to development contributions for the provision of standard and community infrastructure in new and established urban areas. Land developers in Western Australia have been responsible for many years for the provision of standard infrastructure such as water supply, sewerage, drainage, roads and some community infrastructure such as public open space, car parking and primary school sites. As local government has limited financial capacity to provide additional community facilities such as recreation centres, libraries, sporting facilities and child care centres there is growing expectation for the development industry to assist. The policy sets out considerations that the local government needs to attend to if it needs to require contributions from developers for community infrastructure. The local government is expected to prepare a 'development contributions plan' based on 'strategic planning' usually linked to a 'local planning strategy', 'structure plans' or included in its 'local planning scheme'.

The Shire will proceed in accordance with State Policy in respect to the planned industrial area in Forrestfield and High Wycombe and proposed new urban investigation areas of Maida Vale South and Wattle Grove. The Shire has experience with its Wattle Grove (Cell 9) Guided Development Scheme that has been in operation for several years and is working well.

SPP4.1 - State Industrial Buffer Strategy (Review Draft)

The purpose of the State Industrial Buffer Policy is to provide a consistent statewide approach for the protection and long term security of industrial zones, transport terminals, other utilities and special uses. This policy addresses the buffer requirements of the following industries; resource processing, general, hazardous, noxious, extractive, rural, light, service and technology parks. The policy also addresses the buffer requirements of major infrastructure including; major freight terminals, waste water treatment plants, water treatment plants, power generation facilities, solid waste disposal sites, airports and gas/petroleum pipelines. Buffers for the relevant sites in the Shire; such as Perth Airport noise contours and Poultry Farm Buffers will be shown on the Local Planning Strategy map.

SPP4.2 – 'Activity Centres for Perth and Peel'

Activity Centres for Perth and Peel is a ~~Draft~~ State Planning Policy, and replaces the Metropolitan Centres Strategy. The activity centres policy builds on the hierarchy of the activity centres established in Directions 2031 and beyond.

The key features and changes from the existing policy are:

- The existing caps on shopping floor space within centres have been removed.
- A mixed use threshold has been set as one of the criteria for future growth of centres – for the Kalamunda Town Centre and Forrestfield this threshold has been set at 0.5sqm of community or commercial floor space for every 1.0sqm nla of shop above 5,000sqm nla of shop, and 1.0sqm of community or commercial floor space for every 1.0sqm nla of shop above 15,000sqm nla of shop.

- Local Governments, not the landowners, are required to prepare Centre Plans for the District Town Centres.
- Housing targets are to be set for the Activity Centres through the provision of appropriate R-Codes. The targets for the district town centres are set at a minimum of 15 dwellings per gross hectare and a desirable 30 dwellings per gross hectare within a walkable catchment of the centre.
- The draft policy also provides a Model Centre Framework addressing spatial and urban design considerations for future growth in centres.

The current Commercial Strategy for the Shire was adopted in 1996 and will need to be updated. In relation to the urban form of the centres the Shire is addressing this through separate studies, which will have regard to the model framework. It is intended that any future expansion of commercial space will be in accordance with population growth in the trade area, i.e. 1sqm per head of population, approximately, based on Department of Planning Guidelines.

SPP4.3 - Poultry Farms Policy

This policy provides guidance on matters that must be considered by the Commission and local government when considering rezoning, subdivision and development applications for land in the vicinity of poultry farms and for the development of poultry farms. This policy has relevance for the Shire as there is one poultry farm in the Shire and another in an adjacent local government area that is the subject of complaints from Kalamunda Shire residents. The policy generally requires that poultry farms are at least 500m from residential uses. This buffer is not always effective in the dispersion of bad odours as wind can move the odours greater distances. The existing poultry farm has a buffer of 500m and is shown on the Shire's Local Planning Scheme map.

SPP5.1 – Land Use Planning in the Vicinity of Perth Airport

This Policy applies to land located in the vicinity of Perth Airport which is or may be affected by aircraft noise. The objectives of the of the Policy are to protect Perth Airport from unreasonable encroachment by incompatible development; and minimise the impact of aircraft noise operations on existing and future residential areas located in close proximity to Perth Airport.

The Policy identifies measures for areas below 20 ANEF, between 20 and 25 ANEF; and areas above 25 ANEF. Areas below 20 ANEF are not subject to building or zoning restrictions. Areas located in the 20 to 25 ANEF are restricted to a residential density of R20 except where it can be demonstrated there is a strategic need for more consolidated development. In areas above 25 ANEF there is a general presumption against zoning for residential use. The Policy recommends noise attenuation measures and associated development control provisions to be considered for areas located in the 20-25 ANEF noise contour and is compulsory for buildings deemed unacceptable in areas 25 (ANEF) and above.

Residential areas of High Wycombe and Wattle Grove are affected by 20 to 25 ANEF and therefore subject to the abovementioned policy measures. ANEF contours are shown on the Local Planning Scheme maps.

SPP5.2 – Telecommunications Infrastructure

This policy provides a framework for the preparation, assessment and determination of applications for planning approval of telecommunications facilities within the context of the State planning system and applies to all such applications in the Shire of Kalamunda. The Shire has a number of telecommunication towers located mainly in the rural and reserve areas to the south of Kalamunda town centre. These include towers for television broadcasting. The Shire also maintains a schedule of mobile telephone telecommunications installations and there are approximately 16 such installations in the Shire.

SPP5.4 – Road and Rail Transport Noise and Freight Considerations in Land Use Planning

This policy aims to promote a system in which sustainable land use and transport are mutually compatible. It seeks to minimise the adverse impact of transport noise, without placing unreasonable restrictions on noise-sensitive residential development, or adding unduly to the cost of transport infrastructure. It aims to provide a standardised and consistent triple bottom line framework for the consideration and management of the impacts of transport noise and freight operations when dealing with:

- new noise-sensitive development in the vicinity of existing or future major transport corridors or freight handling facilities;
- new major road or rail infrastructure projects, including major redevelopments, in the vicinity of existing or future noise-sensitive land uses; and
- the location of freight handling facilities.

The policy does this primarily by—

- identifying the situations in which it would be appropriate to assess proposals for transport noise impacts;
- establishing noise criteria to be used in the assessment of these proposals; and
- identifying measures that can be adopted to reduce road and rail transport noise in these instances.

Note that relevant stakeholders, including but not limited to the Shire and relevant State government agencies, will need to work together to ensure that road and rail transportation noise is appropriately considered at each stage of planning and as early as possible.

3.2.6 Regional and Sub-regional Structure Plans

The following Regional and Sub-regional Structure Plans are relevant to the Planning in the Shire of Kalamunda:

Foothills Structure Plan

The Draft Foothills Structure Plan was released for public comment in August 1991 to illustrate how the area could accommodate an additional 25,000 people by expanding existing settlements inclusive of High Wycombe, Maida Vale and Forrestfield. The Plan expanded on principles and policies contained in Metroplan and gave effect to the Urban Expansion Policy adopted by the State Government in November 1990. Following assessment of 375 submissions, the final Plan was released in September 1992.

The objectives of the plan include: the provision of additional land for urban development whilst having regard for environmental issues; the promotion of a variety of housing; provision of local employment opportunities; expansion of services and facilities to cater for future growth; development of an efficient transport system; protection of the Scarp and areas of scenic, recreational and environmental value; retention of rural wedges to accommodate compatible rural and rural-residential pursuits; cost effective provision of infrastructure; and ultimately a high quality built and natural environment.

The Plan envisaged a comprehensive approach to neighbourhood planning through promoting the concept of urban communities with a range of services and facilities, a permeable transport network, a combination of densities, innovative housing design and a distinctive character. The Plan outlined a number of planning units for future urban development within the Shire of Kalamunda which are to be addressed progressively through the Urban Development Program.

In addition to areas identified for residential expansion a number of industrial expansion areas were identified by the Plan. A 73 hectare site located between Dundas Road, Berkshire Road and existing public purpose reserves comprising a mixture of light and general industrial lots now operating as the Forrestfield Industrial Area was identified by the Plan. The Plan also identified a second small industrial area is proposed between Milner and Maida Vale Roads, however, a portion of this area has since been identified for future residential development although this is being questioned.

This plan has generally been superseded by Local Planning Scheme No.3, the Kewdale-Hazelmere Integrated Masterplan and other more up to date planning documents. This plan is seldom referred to by staff in planning reports to Council and is mainly of historical interest. It is, however, still on the WAPC matrix of Planning Policies and it is up to the Commission to update it or remove it.

It should be noted that the Foothills Structure Plan area included parts of the City of Gosnells (set aside as Rural but now being replanned for Industry) and parts of the City of Swan, along Midland Road (set aside for Residential but now being considered for Industry).

Darling Range Regional Park

The Darling Range Regional Park study was undertaken with the purpose of identifying and conserving the landscape values of the Darling Scarp from potential encroachment from development. It was considered that certain key areas of land should be set aside as a regional park to safeguard the sensitive aesthetics of the scarp for the people of Perth in general and the residents of the Hills and Foothills in particular. The recommendations of the study have been implemented, i.e. additional land has been included in the regional park and ongoing management has been established to deal with land management requirements.

Sub-Regional Structure Plan for the North-Eastern Metropolitan Area of Perth

A Sub-Regional Structure Plan is to be prepared for the North-Eastern Metropolitan Area of Perth, with substantial progress anticipated over the next 12 months.

3.2.7 Strategic Policies

Strategic Policies are essentially non-statutory development control policies, guidelines and Planning bulletins endorsed by the Commission to guide and elaborate on desired planning outcomes. The following Strategic Policies are relevant to planning in the Shire of Kalamunda;

Draft Outer Metro Perth and Peel Sub-Regional Strategy (August 2010)

The Department of Planning and WAPC released the Draft Outer Metropolitan Perth and Peel Sub-regional Strategy in August 2010 in conjunction with Directions 2031 and Beyond. While the 'Directions' document provides guidance at the metropolitan scale the Sub-regional Strategy provides detail at the local level. The Shire of Kalamunda is part of the North-east Sub-region Region, which also includes the City of Swan and the Shire of Mundaring. The strategy estimates that the population of the Sub-region will grow by 69,000 people and that an additional 40,000 dwellings will be required.

The expectations for the Shire of Kalamunda in the Sub-regional strategy are as follows;

- An additional 14,100 dwellings are anticipated through a combination of planned new urban areas in Maida Vale South and utilisation of capacity in existing urban areas. Of this 14,100 figure 9,700 are anticipated in infill/redevelopment areas (Forrestfield, High Wycombe and Kalamunda central).

The main outcomes for the Shire of Kalamunda are as follows;

- minimal development in the 'Hills' area owing to conservation of environmental values and lack of sewerage, industrial expansion in Forrestfield related to the expanding 'freight hub' and growth of Perth Airport and rapid residential development in the 'Foothills' owing to affordable residential land and rapidly growing employment opportunities. Identification of Maida Vale Road South and Wattle Grove as future urban centres.

Bush Forever

The Final Report of the State Government's Bush Forever was published in December 2000. The main purpose of the document is to have a strategic plan for the conservation of bushland on the Swan Coastal Plain in the Perth Metropolitan Region. The report sets out the vision, identifies the bushland, provides a rationale for the selection of sites and sets out a program of how the strategy will be implemented.

The eastern boundary of Bush Forever runs along the bottom of the Darling Range and includes 12 major sites in the 'Foothills' sector of the Shire. The following are the main Bush Forever sites:

- 45 – Poison Gully Bushland, High Wycombe
- 50 – Welshpool Road Bushland, Wattle Grove
- 122 – Hawkevale Bushland, High Wycombe
- 123 – Sultana Road West Bushland, High Wycombe
- 217 – Ridge Hill Road Bushland, Gooseberry Hill
- 282 – Tomah Road Bushland, Wattle Grove
- 316 – Maida Vale Reserve and adjacent Bushland, Maida Vale
- 319 – Dundas Road Bushland, Forrestfield
- 320 – Hartfield Park Bushland, Forrestfield
- 01 – Bougainvillea Avenue Bushland, Forrestfield
- 440 – Pioneer Park Bushland, Forrestfield
- 466 – Gooseberry Hill Bushland, Gooseberry Hill

Liveable Neighbourhoods; a WA Government Sustainable Cities Initiative

Liveable Neighbourhoods is a Western Australian Government sustainable cities initiative. It addresses both strategic and operational aspects of structure planning and subdivision development in a code framework. The purpose of the policy is to better structure new urban development on Greenfield and large urban infill sites. The policy aims to increase support for efficiency, walking, cycling and public transport, achieving density targets, urban water management, public open space planning, retention of environmental features, landscaping needs, street cross section standards and movement networks and speed controls. It also establishes standard minimum street widths and street trees, establishes activity centres and schools, and provides improved centre design and simplified context, site analysis and application requirements.

Perth Airport Master Plan 2009

The most recent update of the Perth Airport Master Plan was published in November 2009. The report highlights the very rapid growth in aircraft flights, passenger movements and development on the airport land. For example, the scale of domestic aviation almost doubled between 2003 and 2008 and

forecasts indicate that passenger movements will grow from 9.2 million in 2008 to 18.9 million by 2029. In addition, since 2005 there have been 71 major development projects at Perth Airport. Some of these relate to upgrading of existing aviation installations, commencement of upgrades for future combining of the international and domestic terminals and major industrial developments in the non-aviation precincts. The Master Plan predicts that the rate of change will again increase rapidly over the next five years.

The growth in the number of flights and passenger trips has put pressure on surface access to and from the airport. Road improvements are being planned with Main Roads WA and these include new access points and grade separation. The State's Public Transport Authority is examining the feasibility of connecting Perth Airport to the Perth suburban railway network. A by-product of this may be a rail terminal in the Shire of Kalamunda that will provide a service to Perth for the Kalamunda community. The Airport also contains environmentally sensitive precincts and areas of special significance for the Noongar people. These areas need to be managed on an ongoing basis.

The increase in aircraft movements also has an impact on existing residential communities in the vicinity of flight paths and ongoing consultation with affected communities is needed. Future noise contours (ANEF) have been predicted and these are shown on the Shire's Local Planning Scheme No.3 maps. These contours indicate which areas will be noise affected in the future and there are special building requirements to ensure noise reduction in residential buildings. The Shire has representatives at elected member and staff level on the Perth Airport Municipal Group (PAMG) that are involved with airport changes on an ongoing basis.

The growth and development of the aviation and non-aviation sectors is providing additional employment opportunities close to residential areas in Kalamunda. It is estimated that there were 18,700 jobs in the airport in 2008 and the employment is expected to grow to approximately 32,500 by 2029, i.e. an increase of 13,800 jobs. It is therefore anticipated that existing Development Zones in the Shire will be in high demand because of their close proximity and the fact that it is some of the more affordable land in the Perth Metropolitan Region.

Economic and Employment Lands Strategy – Non Heavy Industry (2012)

The Industrial Land Strategy for the Perth and Peel region was released for public comment by the WAPC in November 2009. The anticipated growth of the Western Australian economy has required that the State Government ensure that adequate industrial land is available for expansion over the next 20 years. The State recognises that there was a shortfall of industrial land during the mid 2000s. The Strategy was prepared collaboratively between the Department of Planning, LandCorp, the Department of State Development and the Department of Environment and Conservation.

The main purpose of the strategy is as follows:

- Identify light and general industrial land requirements over the next 20 years.
- Review the industrial land development program and examine extension opportunities.
- Identify and evaluate the suitability of locations for new light and general industrial estates.
- Facilitate the development of the land to restore the long term landbank.

The Shire of Kalamunda is generally supportive of the overall intent of the strategy, however, is has identified a few key aspects that it believes can be improved before the final report is published:

- No reference is made of the 'Kewdale-Hazelmere integrated masterplan', a WAPC report published in August 2006. The strategy identifies the Kewdale-Hazelmere area as a major strategic area for the freight industry of Perth and Western Australia.

- It is of concern to the Shire of Kalamunda that the land bounded by Berkshire Road, Roe Highway, Poison Gully Creek and Milner Road comprising part of the planned extension of the Forrestfield/High Wycombe Industrial area was not included in the strategy.
- The Shire of Kalamunda is also concerned about the proposals for the Orange Grove area predominantly in the City of Gosnells as this land may eventually be better suited to residential development rather than industrial. It also has the potential to conflict with the welfare of existing Shire residents.

Since the release of the document for public comment, and liaison between the Department and Shire it is anticipated that the final document will identify the Forrestfield/High Wycombe industrial area as a key strategic industrial site suitable for the development of transport and logistics related industries.

3.2.8 Operational Policies

The Commission has a manual of planning policies that are used for detailed planning and development control. They are relevant for planning in the Shire of Kalamunda but not particularly for strategic planning.

3.2.9 Planning for Bushfire Protection Guidelines

The WAPC has been concerned about planning in bushfire hazard areas for many years. The original Development Control Policy DC 3.7 Fire Planning was rescinded and replaced by Planning for Bushfire Protection Guidelines'. The Shire of Kalamunda together with the Fire and Emergency Services Authority has prepared an Emergency Manual that includes procedures for fire emergencies.

The primary focus of the Guidelines document is bush fire protection within new land development, new subdivisions and related development in rural residential developments. The document establishes a set of performance criteria that are required to be met by new subdivisions and related development within bush fire prone areas. Local governments are encouraged to adopt Planning for Bush Fire Protection Guidelines.

In addition, the Fire and Emergency Services has published a document, 'Prepare. Act. Survive'-Your Guide to Preparing for and Surviving the Bushfire Season'. This document is intended for residents of high fire risk areas to manage their properties, prepare them for fire attack and to minimise the personal risks involved.

There are many areas in the Shire of Kalamunda that have an Extreme fire risk rating and may not meet the design Bush Fire Protection Guidelines. The Shire of Kalamunda has prepared a detailed, 'Local Emergency Management Arrangements' that are intended for a broad range of emergency situations including bush fires. The document sets out emergency procedures to coordinate a broad range of State and local government people who are trained to manage emergency situations, including bush fires.

The people of Kalamunda are passionate about their trees and the preservation of the trees on their land and surrounding reserves and State forests. As has been experienced elsewhere in Australia and Western Australia a sensible balance needs to be achieved to protect resident's homes and lives from wildfires and firestorms.

For this reason the WAPC Guidelines have identified certain measures that should be followed in Extreme Fire Hazard areas;

- Reduction of hazard levels in Extreme hazard areas to Moderate or Low by selective clearing of vegetation such as firebreaks on adjacent reserves.
- Creating a Building Protection zone of 20 metres around buildings. In this zone fuel loads are to be reduced and maintained at 2 tonnes per hectare. Trees with crowns are to be a minimum of

10 metres apart and must be pruned to a height of no more than 2 metres and must not be located within 2 metres of a building.

- An 80 metre hazard separation zone should be maintained on the edge of forests, woodlands, closed shrub, open shrub, mallee/mulga and rainforest.

Planning for Bush Fire Protection Guidelines recognises the potential conflict between human safety and vegetation protection as described below:

“It should be noted that building protection zones can adversely affect the retention of native vegetation. Where this loss of vegetation is not acceptable or causes conflict with either landscape or environmental objectives, reducing lot yield may be necessary in order to minimise the removal and modification of remnant vegetation”

The Shire has commenced the preparation of a Bush Fire Management Plan in conjunction with FESA and the Department of Planning. The plan will include the completion of bushfire hazard assessments, the designation of areas as being bush fire prone and the introduction of special control area provisions in the local planning scheme to ensure building designs are consistent with AS3959.

Within designated special control areas, both land use and development will be subject to a detailed assessment in relation to the particular constraint or factor underlying the special control area, and where deemed appropriate planning approval may be granted subject to conditions designed to specifically address the particular environment factor, in certain cases development approval may be refused.

In addition to the application of conditions affecting the characteristics of development which may be undertaken within a special control area on Title advising the owner and any prospective purchaser, of the presence of the particular constraint or limitations affecting the land.

Any local or regional planning scheme amendments affecting properties within a special control area would need to be supported by a completed fire hazard assessment and that it is possible that recommendations from the assessment may mean that rezonings may not be able to proceed.

3.2.10 Development in the Region Surrounding Kalamunda

Key Issue: Perth Airport Development

The privatisation of Perth Airport by the Commonwealth Government and the management of Perth Airport by the Westralian Airports Commission have resulted in considerable development in aviation and non-aviation sectors of the airport. In recent years considerable development has occurred on airport land, i.e. 71 major projects, adjacent to the Shire of Kalamunda. It is estimated that an additional 13,800 new jobs will be created in the airport by 2029 and this has and will result in ongoing demand for residential land in the Shire over the next 20 years. Over the past 12 months while the world has been in a recession 550 new houses have been built mainly in the Foothills of Kalamunda which has some of the most affordable residential land in the Perth Metropolitan Region. It is evident therefore that the Shire will continue to attract home builders for the next 20 years.

Key Issue: Industrial Development in Hazelmere

The City of Swan is presently planning for expansion of Industrial uses along Midland Road in Hazelmere and north of Adelaide Street in High Wycombe. Considerable work has been undertaken on assessing a number of drainage issues in the area. High Wycombe residents in close proximity to that part of the Shire are concerned about the increase in truck movements on roads previously intended for residential uses. (The Foothills Structure Plan had previously identified the land for residential purposes).

Key Issue: Industrial Development in Maddington Kenwick

The City of Gosnells is presently planning for the extension of industrial zoning and development to the south of its common boundary with the Shire of Kalamunda. Environmental assessments related mainly to drainage and other environmental constraints are currently being undertaken. This area is relatively low lying and owing to the clayey soils drainage is a potential issue. Water monitoring has commenced in the area. The Metropolitan Region Scheme amendment for Precinct 1 of the Maddington Kenwick Strategy Employment Area is currently being advertised.

If planning changes to introduce industry are approved there will be impacts on existing Special Rural zoned areas in the Shire of Kalamunda to the south of Welshpool Road East. The potential impacts are increased truck movements along Coldwell Road and Brook Road and other potential industrial impacts such as noise.

Preliminary consultation has been undertaken with the Kalamunda residents in the affected areas and with the City of Gosnells to consider planning options for the site. Given that the City of Gosnells will be proceeding with the industrial development of Maddington, it is likely that the Shire will need to consider and investigate a similar zoning over the affected land.

Planning Implications

The following are the main planning implications for the Shire of Kalamunda as a result of the State and Regional Planning Plans and Policies:

1. Bush fire hazard assessment and strategy and needs to be undertaken for most of the urban areas of the Shire of Kalamunda, with the acknowledgement that human safety takes precedence over tree conservation.
2. The Middle Helena Catchment Strategy requires that a Special Control Area (SCA) be overlaid over the catchment to protect priority drinking water areas.
3. The Shire will need to protect prime agricultural land as a strategic food resource for the Metropolitan area.
4. The Shire will need to ensure that the Local Planning Strategy is consistent with the intent of the State Governments key strategic planning documents such as Directions 2031 and beyond and the Economic and Employment Lands Strategy.
5. The Shire needs to provide appropriate Rural Settlement for the changing demographics.
6. The Shire needs to protect local natural areas and landscapes where these do not endanger human lives.
7. The Shire will need to manage and minimise land use conflicts between industrial areas and environmentally sensitive land.
8. Promote the development of existing commercial centres into robust activity centres such as Forrestfield District Centre through the introduction of mixed land uses and a high standard of urban design and amenity.
9. The need to undertake comprehensive planning to ensure a coordinated and sustainable approach to the proposed urban investigation areas.

3.3 Local Planning Context

3.3.1 Shire of Kalamunda; Strategic Plan; 2009 – 2014

The Shire of Kalamunda, 'Strategic Plan; 2009 – 2014' sets the following Vision for the Shire over the next five years;

"The Shire will have a diversity of lifestyles and people. It will take pride in caring for the natural, social, cultural and built environments and provide opportunities for people of all ages."

The Strategic Plan identified the following Values:

- Customer Service
- Innovation
- Leadership
- Mutual Respect
- Trust

The Strategic Plan also identified the following Goals:

- Community Development; a strong sense of community.
- Built Environment; an integrated built environment.
- Natural Environment; the protection of natural resources from the impact of unsustainable development.
- Economic development; a prosperous economy.
- Governance and Organisation; a leading organisation.

3.3.2 Shire of Kalamunda; Aged Accommodation Strategy

The Shire of Kalamunda commissioned an independent consultant, 'Community Perspectives' to prepare an 'Aged Accommodation Strategy' in 2008. The research that was undertaken to prepare the strategy addressed current and future housing, home and community care and residential care needs of the older people in the Shire. Some of the more important findings of the study were as follows:

- By 2030 one in three people will be 55 years or older and half will be over 70 years;
- The ageing of the 'baby boomers' will present the Shire with challenges over the next 20 years;
- There is a general desire to 'age in place';
- Existing levels of home support fall short of demand;
- 94% of housing stock in the Shire comprises separate houses designed for families but 25% of the population are over 55 years and do not need such housing;
- There is a need for a greater diversity in housing stock to cater for the needs of the community;
- The Commonwealth Government is investing less in public housing and needs will have to be met by the private sector;
- There is a significant shortage of Residential Care Places for the ageing;
- Appropriate locations for residential care homes should be identified now; and
- Every locality in the Shire of Kalamunda needs aged care accommodation.

3.3.3 Shire of Kalamunda Community Facilities Plan

The intent is to prepare a Community Facilities Plan for the next 5 – 20 years that will contribute to the Shire's longer term strategic and financial planning in an integrated manner. The Community Facilities Plan will consider the key principles of long term viability, rationalisation, collocation and multi functionality.

Various components of the project include the following:

- Community needs assessment
- Adequacy of current facility provisions
- Demand and Gap Analysis
- Service Catchment Identification
- Scenario Planning Outcomes (in respect to varying actual population growth)
- Infrastructure Benchmarks and Standards
- Priorities and Timelines
- Financial Planning Implications (Capital Expenditure Plan)
- Funding models / sources

The findings and recommendations from the plan will provide a significant component of future Development Contribution Plans that are now required in accordance with State Planning Policy 3.6

The plan will be based on the following:

- Needs assessment and other relevant plans and previous studies.
- Requirements of various State Government agencies and relevant State Associations.
- Justification of new facilities versus upgrading of the existing facilities.
- Justification of relocating facilities/programmes versus retaining current sites.
- Best practice relating to long term viability and functioning of other similar facilities in Western Australia and Australia.
- The process and framework for applying developer contributions towards future community facilities

- A costed future Development Contribution Plan, that is inclusive of priorities for the provision of future community facilities that can be incorporated into the local planning scheme.

3.3.4 Shire of Kalamunda; Local Biodiversity Strategy (2009)

The Shire of Kalamunda completed a Local Biodiversity Strategy in 2009. The strategy was developed as a stand-alone document because at the time of commencement the Shire had recently finalised Local Planning Scheme No 3. The Shire of Kalamunda's vision statement with regard to biodiversity conservation is to ensure the Shire will protect, manage and promote the social, economic and environmental values of biodiversity to ensure a lasting legacy for future generations.

The strategy was undertaken in anticipation of future development encroaching into the remaining natural assets.

- Of the total area of the Shire, 30,244 ha (67%) is in Conservation Reserves and is comprised mainly of endemic vegetation. (This area includes; Bush Forever sites, Regional Parks and State Forest and are outside the control of the Shire).
- The Urban Areas of the Shire comprise 8,272 ha (26%) and these areas have a large number of Local Parks and Recreation reserves.
- Within the Shire 2,110ha remain in Local Natural Areas (7%). The Local Natural Areas are the main focus of the Local Bio-diversity Strategy. (These include public and private land and will need additional work in the future to refine their conservation standing and value.)

A major focus of the Kalamunda Local Bio-diversity Strategy is the Action Plan which recommends the following actions;

- Endorsement of the Local Biodiversity Strategy by the Shire and State Government agencies.
- Improve the protection and management of local reserves.
- Develop supporting planning policies.
- Provide roadside public signage to implement the Tree Preservation Policy.
- Protect existing natural areas in new urban areas.
- Develop a private land preservation policy.
- Develop the Shire's Environmental Services division with adequate staff resources.
- Augment Shire activities to reduce threats to biodiversity.
- Assess all natural areas using the Natural Area Initial Assessment templates.
- Expand Shire managed natural areas.
- Consider a revolving fund to determine future purchased natural areas.
- Implement Private Land Conservation Strategy.
- Amend the Local planning Scheme to include protection of the environment in Special Rural zones. Determine the success of verge planting trials.
- Update the weed control strategy.
- Review the Wildlife Corridor Strategy.
- Maintain a watching brief on carbon credit research and opportunities.
- Conduct a feasibility study into an environmental levy.
- Monitor and review the progress of the implementation of the strategy.

To date, a number of the Action Plan items have been implemented or commenced. These include endorsement from the Shire Council, expansion of Shire Staff in the Environmental Division and inclusion of Action Items in annual works programs.

The strategy is consistent with SPP 2.8 Bushland Policy for the Metropolitan Region in that it recognises the protection and management of significant bushland areas as a fundamental consideration in the planning process, moreover it seeks to integrate and balance wider environmental, social and economic considerations. Importantly like SPP 2.8 the strategy does not prevent development, rather it requires that the protection of biodiversity needs to be considered and implemented in the early stages of the planning process.

The Shire's Wildlife Corridor Strategy is a guideline document that has no formal status but was taken into consideration during the preparation of the Local Biodiversity Strategy. Most of the 'wildlife corridors' are included in reserves; however, they also encroach on private land holdings and for that reason are managed on a day to day basis in consultation with landowners.

Targets detailed in the Strategy will guide the increased protection of natural areas, including areas of endemic vegetation and other natural features. Representation targets have been developed to protect a percentage of each of the 14 vegetation complexes found in the Shire. The Strategy also contains an action plan. Implementation of the action plan will allow the Shire to:

- Protect its own natural areas,
- Incorporate biodiversity protection into planning and decision making, and
- Encourage private landowners to voluntarily protect their natural areas.

3.3.5 Draft District Conservation Strategy (2010)

The District Conservation Strategy has been one of the key drivers and a source of direction for the Shire of Kalamunda's environmental projects and actions over the past fifteen years. The document is currently being reviewed to evaluate the actions implemented through the District Conservation Strategy. This will provide the bases for establishing a new environmental strategy that builds upon the work of the District Conservation Strategy and aims to incorporate the key identified actions in order to provide direction for future years.

The *Draft District Conservation Strategy Review* revises external and internal policies and practices that have been implemented by the Shire of Kalamunda which stem from the District Conservation Strategy, and identifies any important outstanding actions, as well as providing future recommendations.

The *Draft District Conservation Strategy Review* is considered under the broad themes of:

1. Conserving Sources;
2. Conserving the Natural Environment; and
3. Sensitive Planning of the Built Environment.

Each theme includes:

- A brief introduction and background to the issues related to the theme;
- Discussion of the actions to date undertaken by the Shire of Kalamunda to address these issues; and
- A set of recommendations or actions to address these actions in future.

The review of the District Conservation Strategy and future recommendations will aid in the development of a future environment strategy for the Shire of Kalamunda. This strategy will be developed in consultation with the local community and broader strategic documents adopted by the Shire, which will ensure that their aspirations are reflected in the final document.

3.3.6 Local Planning Scheme No.3

Local Planning Scheme No.3 was gazetted in February 2007. The preparation of the Scheme had commenced in 1993 and took 14 years to prepare. As Scheme No.3, was commenced before 1999, it was based on the old system of a Scheme Review Report, not a Local Planning Strategy. Scheme No.3, therefore lacks a Strategic direction that a Local Planning Strategy would provide. In addition,

once the current Scheme was put into daily use it was realised that it was based on 1980s/1990s thinking and was soon considered to require updating.

In July 2007, Council resolved to prepare a Local Planning Strategy that would re-examine the new Scheme, identify strategic aspects that need to be updated and to prepare amendments to introduce the required changes. The ultimate purpose of the current Local Planning Strategy is therefore to update Local Planning Scheme No.3 and to provide for growth and development over the next 20 years.

To date there have been a total of 40 amendments to Local Planning Scheme No.3, these are listed as follows:

Ame nd No.	Address	Proposal	Gazetted Date
1	Lots 5 (32) and 3 (28) Elizabeth Street and Lots 4 (3) and 6 (7) Dixon Road, Kalamunda	Density Increase (R30)	11/04/2008
2	Lot 350 (84) Canning Road, Kalamunda	Density Increase (R20)	15/04/2008
3	Lot 796 (223) Walnut Road, Bickley	Additional Use (Chalets)	15/05/2009
4	Various lots, MRS Omnibus Amendment 7, Lot 51 (118) Lawnbrook Road West	Rezoning from Special Rural and Residential Bushland R2.5 to Residential R5.	Did Not Proceed
5	Lot 800 (10) Stirk Street, Kalamunda	Density Increase (R30)	Did Not Proceed
6	Lot 411 (9) Preece Court, Forrestfield	Density Increase (R25)	15/05/2009
7	N/A	Warehouse car parking provisions	Did Not Proceed
8	N/A	Sexual Services Business	Did Not Proceed
9	Lot 1 (31) Sanderson Road, Lesmurdie	Rezone to Special Use (Aged persons dwellings)	1/05/2009
10	Lot 800 (10-12) Stirk Street, Kalamunda	Density Increase (R40)	7/08/2009
11	Portions of Lots 112, 113 & 114 Dundas Road, High Wycombe	Rezone to Special Use (Business)	14/05/2010
12	N/A	MRS Minor Amendment (1139/57)	
13	Part Lot 22 Hawtin Road, Forrestfield (Waldrige Village School)	Rezone from Urban Development' to 'Private Clubs and Institutions'.	13/12/2009
14	Lots 1, 2, 293 & 295-300 Graham Road, Gooseberry Hill (Decision Deferred until LPS)	Residential R2.5 to Residential R5.	Deferred
15	Catherine Place, Lesmurdie, south of the Glen Road intersection (Catherine Place Road Reserve)	Rezoning to 'Private Clubs and Institutions'.	18/12/2009
16	30 Mundaring Weir Road, Kalamunda	Additional Use (Chalets)	25/06/2010
17	Lots 8, 9, 12, 13 and 100 Brentwood Road, Wattle Grove	Rezoning from 'Special Rural' to 'Rural Composite'	27/04/2010
18	32 Gavour Road	Aged Persons Home	Pending With

			Minister
19	Lot 124 Lawnbrook Road, Walliston	Rezone from 'Public Purposes - Church' to 'Residential R5'.	10/12/2010
20	N/A	Unkempt Land Provisions	
21	80 Dodd Road, Bickley	Additional Uses (Chalet, Tea Room & Private Recreation)	23/07/2010
22	Lots 23 (131) Milner Road and 551 (371) Milner/Dundas Road, High Wycombe (On Hold)	Rezoning from Mixed Use to Light Industry	Pending With Minister
23	Lots 4, 9, 11, 12 Ibis Cl, Lot 7 Raven St, Lot 5, 6, Sultana Rd Wst & Lot 1, 7 Milner Rd	Rezoning (Urban Development to Industrial Development)	Pending with Minister
24	N/A	Scheme text	
25	1 Newburn Road		Did Not Proceed
26	33 Berkshire Road	Rezoning (Urban Development to Private Clubs and Institutions)	8/03/2011
27	Lot 36 (15) Gooseberry Hill Road	Additional Use (Art Gallery)	Awaiting documents
28	Kalamunda Road/Stirling Crescent	Rezone area Bounded by Kalamunda Road, Stirling Crescent, Adelaide Street and located to the east of land reserved Public Purposes— Commonwealth Government within the MRS (Perth Airport) from Special Rural to Urban Development.	26/10/2010
29	Berkshire Rd/Sultana		Did Not Proceed
30	N/A	Amended Special Rural and Rural Composite provisions	
31	N/A	Amended street setback area provisions	
32	100 Wittenoom Road	Rezoning north west area (Special Use - Business to Residential R30)	Approved by Minister 9/6/2011
33	6 Dixon Road	Boundary Re-Alignment	Approved by Minister 9/6/2011
34	All land bound by Berkshire Rd Roe Highway, Sultana Rd West & Milner Road	Forrestfield Industrial Area - Stage 1	Pending with Minister
35	Halleendale Rd/Dan Close	Increased density (R2.5 to R5)	Awaiting documents
36	304 Holmes Road	Additional Uses (Veterinary Centre and Consulting Rooms)	Approved by Minister 4/5/2011
37	Middle Helena Catchment Area	Scheme text	Awaiting documents
38	Lots 724 (2) to 734 (38) Sultana Rd West, Lot 752 (1) Eureka Street, Lots 752 (100) to 756 (122) Milner Rd	Rezone from Special Use (Business) to Light Industry	Pending with Minister
39	484 Kalamunda Road, High Wycombe	Additional Use (Consulting Rooms)	Awaiting Documents
40	8 Stirk Street, Kalamunda	Additional Use (Office)	Being Advertised

3.3.7 Shire of Kalamunda, Structure Plans

The Shire of Kalamunda maintains a file of Structure Plans for active urban development areas. These Structure Plans are required by Local Planning Scheme No.3 to ensure the coordination of; subdivision, road alignment, provision of public open space, location of services and location of community facilities. Structure Plans are required to be approved by Council and endorsed by the Western Australian Planning Commission. They serve as a mechanism to ensure new urban areas are properly planned and designed to deliver sustainable residential communities.

Feedback received from the "Community Needs Survey" has been reflected in the introduction of the low density Residential Bushland zoning in the foothills areas of Maida Vale, Forrestfield and Wattle Grove. The proposed zoning with its emphasis on larger urban lots of 2,000sqm to 4,000sqm and tree and vegetation retention will offer choice of lots sizes and lifestyle opportunities close to all amenities. Importantly these areas will be carefully planned through the preparation of structure plans.

3.3.8 Shire of Kalamunda, Planning, Building and Environmental Policies

The Shire of Kalamunda has prepared a suite of Local Planning Policies over a number of years to address a broad range of planning matters. Overall, the content of these policies deals with detailed procedures and has little impact on strategic planning matters. A list of the Shire's Local Planning Policies is provided in Appendix No. 3. The content of the policies relates mainly to local scale planning and development control and has little effect on Strategic Planning.

Planning Implications

The major planning implications for the Shire as a result of assessing local planning issues are as follow:

1. The Shire's Strategic Plan has set a high level of goals that include; community development, integration of built environment, protection of natural environment, strong economic development and creating a leading organisation.
2. The Shire's Aged Accommodation Strategy has identified the need for diversification of housing stock to cater better for an ageing population, increase in the supply of Aged Care Accommodation in every locality and improved levels of home support.
3. The Shire's Local Biodiversity Strategy has been prepared to protect natural assets being encroached upon by ongoing development. The Strategy identifies targets for protection of Local Natural Areas, incorporating biodiversity protection into planning decision making and encouragement of private landowners to protect their natural areas.
4. The Shire's Planning, Building and Environmental policies need to be used on an ongoing basis for local planning and development control but have little impact on strategic planning.

3.4 Local Profile

The purpose of the local profile is to focus on the key characteristics of the local government and the major social, economic and environmental influences relevant to the planning for the future.

The Shires Local Biodiversity Strategy identifies and makes recommendations regarding the following key characteristics and social, economic and environmental influences. These recommendations are listed in Section 3.3.4 of the Strategy.

3.4.1 Environment and Landform

The Shire of Kalamunda has a substantial area of natural environment contained within its boundaries which comprise 74% of the total area of the Shire. The Shire has three distinctive landform types namely the Swan Coastal Plain, the Darling Scarp and the Darling Plateau. The Shire also contains National and Regional Parks, State Forest and a diverse range of reserves some of which contain local endemic species.

The Swan Coastal Plain extends westwards from the edge of the Darling Scarp. It is comprised generally of low relief terrain made up of alluvial sediments, aeolian deposits, including Guildford, Forrestfield and Southern River soil associations. In general, the soils become more fertile on the east of the coastal plain in the zone of transition between the Swan Coastal Plain and the Darling Scarp, locally referred to as the Foothills. Wetlands are found in low lying areas on the Swan Coastal Plain and their water levels are usually interlinked to the underlying groundwater levels.

The Darling Scarp and Plateau covers the majority of the Shire and is dominated by lateritic uplands and duritic gravels and sands which form an undulating surface. The topography ranges from 50m AHD on the westerly fringe of the deeply dissected Darling Scarp to 360m AHD on elevated ridges.

Vegetation

The endemic vegetation of the Shire may generally be described according to vegetative communities or complexes which are closely linked to soil type, landform and climatic conditions. Vegetation across the landscape varies across the three land formation types of the Swan Coastal Plain, the Darling Scarp and the Darling Plateau. In some cases these can be easily recognised such as the difference between the Banksia woodlands on the Swan Coastal Plain, or they can be very subtle differences that are difficult to distinguish. The variation across the landscape is the main reason for the high number of vegetation complexes that occur. Vegetation complexes are different vegetation groupings identified through the dominant plant species, often named after the soil classification units on which they grow. Vegetation complexes are used in the Perth Metropolitan Region to define the broad boundaries of ecological communities.

The endemic vegetation within the Shire can be categorised under the two broad landforms or geomorphic provinces, namely the Swan Coastal Plain and the Darling Plateau. The Swan Coastal Plain contains the following vegetation complexes; Forrestfield, Southern River, Guildford and Swan.

The Darling Plateau contains the following vegetation complexes: Dwellingup, Cooke, Yarragil (Minimum Development of Swamps), Yarragil (Maximum Development of Swamps), Swamp, Helena (Medium to high rainfall), Helena (Low to medium rainfall), Murray, Murray and Bindoon Complex (Low to Medium Rainfall) and Darling Scarp. The Shire's Biodiversity Strategy contains a full description of the above vegetation complexes.

Bush Forever

Bush Forever is the primary mechanism for implementing the State Government's commitment to conserve regionally significant bushland in Perth. There are 287 Bush Forever sites, which represent, where achievable, a target of conservation of at least 10% of each of the original 26 vegetation complexes of the Swan Coastal Plain (Local Government Biodiversity Planning Guidelines for the Perth Metropolitan Area, 2004).

As Bush Forever has a regional focus and does not consider areas that are locally significant, there is the opportunity for the Local Biodiversity Strategy to compliment Bush Forever by increasing the protection of locally significant ecological communities or vegetation complexes and providing linkages between Bush Forever sites.

Of the remaining vegetation complexes on the Swan Coastal Plain within the Shire of Kalamunda, there are 3 complexes protected in Bush Forever Sites; Southern River, Forrestfield and Guildford.

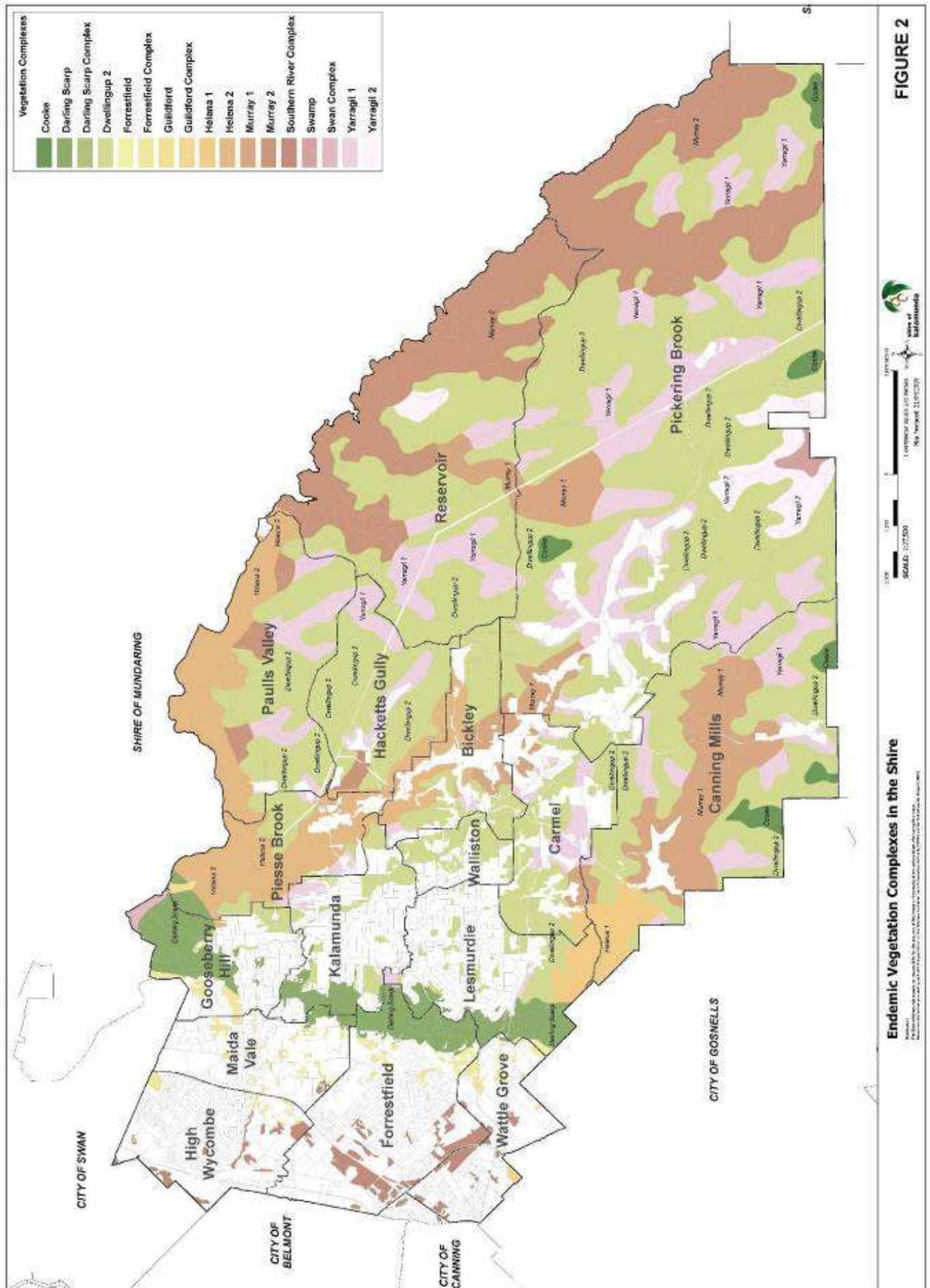
The protection of these complexes in Bush Forever Sites within the Shire of Kalamunda is summarised in **Table 1**.

Table 1: Summary of Bush Forever sites within the Shire of Kalamunda by Vegetation Complex (PBP, 2005 unpublished data sets)			
Vegetation Complex	Pre-European Extent	Extent protected in Bush Forever Sites	
	ha	ha	% of original
Forrestfield Complex	1925	64.738	3.36
Guildford Complex	91	9.034	8.43
Southern River Complex	2319	195.458	9.93

Bush Forever does not provide protection for these three vegetation complexes above 10%. Increased protection of the Southern River, Forrestfield and Guildford vegetation complexes is therefore essential to ensure that these communities do not become endangered. Past clearing already means that the national target of 30% is unlikely to be achieved for these vegetation complexes.

The 30% target is achievable for vegetation complexes in the Jarrah Forest and the Darling Scarp due to the level of retention of endemic vegetation, in good or better condition, and the higher levels of protection within Regional Parks and National Parks.

Figure 2: Endemic Vegetation



Remaining Endemic Vegetation

The total area of the Shire, and hence the pre-European extent of endemic vegetation, is 32,354 ha. A total of 24,081 ha of this currently remain, 74%. A summary of the remaining endemic vegetation extent by administrative planning category is shown in the following Table.

Administrative Planning Category	Area (ha)	% of total
Total Area of Shire	32,354	100
Total Urban Area	8,273	26
Total Conservation Area	24,081	74
• Bush Forever	291	0.9
• DEC Conservation	9,091	28.1
• DEC State Forest	11,011	34
• Regional Parks	1,467	4.5
• Local Natural Areas	2,110	6.5

The Shire is responsible for safeguarding Local Natural Areas, some of which are in Shire reserves and some of which are on private land. The Shire also has responsibility for managing public open space reserves in the urban areas.

Flora

Threatened Ecological Communities (TEC's)

Threatened Ecological Communities (TECs) are ecological communities that have been assessed by the Federal or State Government and assigned a threat status.

There are four Threatened Ecological Communities and one Priority Ecological Community listed in the Shire of Kalamunda, occurring on the Swan Coastal Plain portion of the Shire.

The conservation of TEC's is provided for under the State Government policy and regulations and critically endangered TEC's are protected under the Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth). Two TEC's occurring in the Shire is listed under Federal Legislation.

All known TECs in the Shire of Kalamunda occur on the Swan Coastal Plain where the pressures from development are highest. These species will be protected and managed in order to prevent extinctions and encourage recovery.

Threatened Plants and Declared Rare Flora (DRF)

Threatened plants are plant species likely to become extinct or which are recognised as being rare at a Federal or State level. These species will be protected and managed in order to prevent extinctions and encourage recovery.

At a national level, the Shire is known to, or likely to, contain a number plant species protected under the EPBC Act 1999. Those species known to occur in the Shire correspond to species declared under the State's Wildlife Conservation Act 1950. This is likely to be due to the fact that before a species can be declared under this act it must be adequately surveyed. DRF species were found and reported during assessment of the Shire reserves undertaken in the 2005 and 2006 spring seasons.

The presence of threatened plants or declared rare flora may however remain undetected if processes are not in place to undergo ecological assessment prior to development. It is not possible

to estimate how many additional rare flora species will be identified in the Shire in the future. It is possible that as more is known about particular species of DRF or as protection programs are initiated the status of DRF species may change.

A 50m buffer of continuous vegetation surrounding DRF is protected under the Environmental Protection (Clearing of Native Vegetation) Regulations 2004.

Threatened and Specially Protected Fauna (SPF)

Threatened fauna are endemic animal species which are likely to become extinct or which have been declared in need of special protection at a Federal or State level. These species should be protected in order to prevent extinction and to encourage species recovery.

At a national level, the Shire is known or likely to contain a number of threatened fauna species listed under the EPBC Act 1999. The Shire is likely to contain habitat for a number of threatened fauna species which should also be protected so that in the event of species recovery, populations can expand.

At a State level, all endemic fauna species in Western Australia are protected unless otherwise declared under the Wildlife Conservation Act 1950. Endemic animals therefore cannot usually be captured or killed without a licence. Some threatened endemic fauna species are further declared to be 'fauna that is in need of special protection' under the Act. The Wildlife Conservation (Specially Protected Fauna) Notice 2006 lists Specially Protected Fauna in the following four schedules:

- Schedule 1 – Fauna that is rare or likely to become extinct;
- Schedule 2 – Fauna that is presumed to be extinct;
- Schedule 3 – Birds protected under international agreement;
- Schedule 4 – Other Specially Protected Fauna;

There are 13 Threatened Fauna Species or their habitat listed under the EPBC Act 1999 or the Wildlife Conservation Act 1950 likely or known to occur in the Shire of Kalamunda which should be protected to ensure that in the event of species recovery, populations can expand.

Wetlands

Wetlands are important with regard to biodiversity as they often have high species richness and provide a dependable location for many bird species. Wetlands are directly linked with their surrounding landscape. This landscape forms the catchment of the wetland, and activities that occur in the catchment can ultimately impact on the health and functioning of the wetland. The Shire is within the same catchment as the Forrestdale and Thompson Lakes which together form a Ramsar wetland. The following wetland types are found in the Shire; Lakes, Floodplains, Seasonally inundated wetlands, Damplands and Springs.

The Environmental Protection Act, 1986, prohibits environmental harm to wetlands including removal or damage to native vegetation or indigenous aquatic or terrestrial animals. Wetland habitats are therefore protected under this legislation.

Under the Environmental Protection (Clearing Native Vegetation) Regulations 2004 Conservation Category Wetlands (CCWs) are defined as Environmentally Sensitive Areas (ESAs). Exemptions to the requirements of these regulations do not apply within ESAs and therefore the vegetation surrounding CCWs is more highly protected. There are 21 CCWs areas within the Shire.

Wetland protection needs to be considered in the context of total water management and biodiversity protection planning. Development proposals shall have due regard to the Shire's objectives for wetland conservation and relevant state policy requirements including:

- Retention and protection of all lakes listed under the Environmental Protection (Swan Coastal Plain Lakes) Policy 1992 and Conservation Category Wetlands (Shire of Kalamunda Local Biodiversity Strategy, 2008)
- Minimisation of impacts on Resource Enhancement Wetlands, their buffers and the associated upland vegetation (Shire of Kalamunda Local Biodiversity Strategy, 2008)
- Wetlands that are to be protected require a minimum 50 metre buffer distance. Alternatively a site specific buffer may be determined (EPA Guidance Statement No.33).

Figure 3: Wetlands

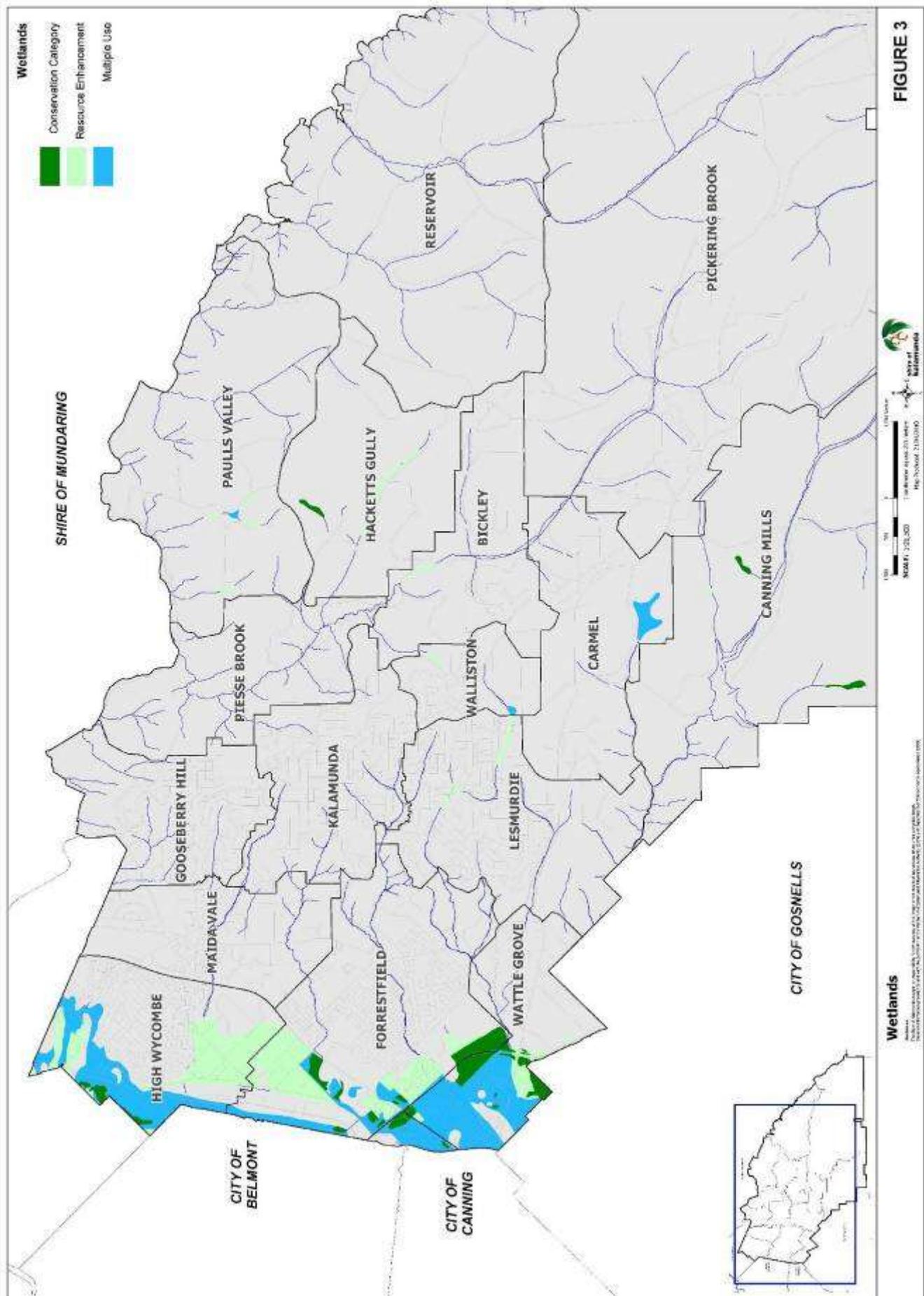


FIGURE 3

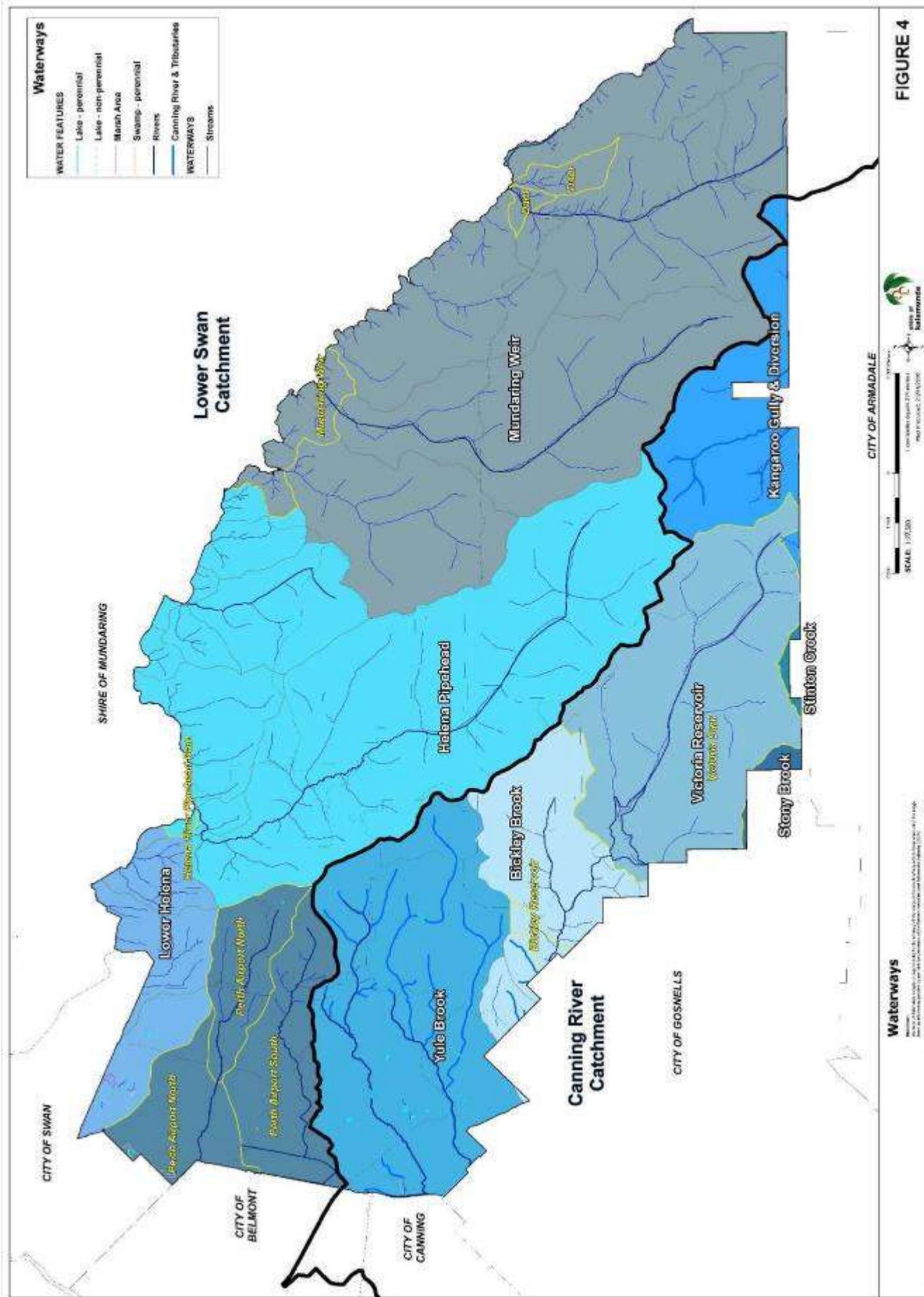
Waterways

Waterways are natural areas important for biodiversity conservation as they can provide important breeding and feeding sites for fauna and can be important in the maintenance of life cycles for specialised plant groups. A waterway can be a creek, brook, river, or stream, and include a lake, estuary or inlet at its base. A waterway in the Shire may be owned and managed by a number of different landowners or organisations. The importance of waterways within the Shire is currently recognised in a number of ways; water quality monitoring, management plan development and implementation, policy, support for Friends Group activities and restoration works.

The Local Biodiversity Strategy recommends the following target for the conservation of Waterways:

“Retain and protect riparian vegetation and upland vegetation in moderate or better condition associated with rivers, creek lines, other channel waterways and floodplain areas. Retain sufficient buffer distance to maintain the ecological function of the watercourse. Where practicable, enhance natural areas containing waterways to maintain and improve biodiversity values”.

Figure 4: Waterways



Water Catchments

Surface water catchments require management to ensure that the health of the catchment and its watercourse is maintained or enhanced. A catchment can be assessed in terms of its health through known indicators such as percentage remnant vegetation and phosphorus export rates. Water catchments within the Shire can be broadly grouped according to their geographic location and purpose, namely; Swan Coastal Plain, Darling Scarp and Darling Plateau.

There are six catchments which drain from the Scarp to the west through the Swan Coastal Plain and into the Swan or Canning Rivers. These are as follows; Helena Valley and Perth Airport, North and South drain to the Swan River. The Perth Airport catchments run through important wetland areas which act as biological treatment ponds for potentially contaminated stormwater run-off. The Perth Airport, South catchment is largely undeveloped at present but is likely to be under pressure for urban development in the near future. Perth Airport, South is also the subject of a waterway strategy. The Kalamunda, Yule Brook and Bickley Brook catchments contain prominent watercourses such as Whistlepipe Creek, Woodlupine Brook and Yule Brook.

The majority of the Darling Range areas within the Shire are gazetted public water supply catchments as shown on the Scheme Map. The Mundaring Weir and Lower Helena Pipehead Dam Catchment areas all drain to the north toward the Helena River and Canning River Catchment. The Mundaring Weir Catchment Area is largely undeveloped and covered with remnant native forest. The Lower Helena Pipehead Dam Catchment is also well wooded in its northern portion, however, some clearing and the establishment of orchards has occurred in the Bickley, Carmel and Pickering Brook areas. The Victoria Reservoir and Kangaroo Gully Dam Catchment Areas drain southward and have experienced some clearing for orchard purposes, although this is mainly restricted to the upper reaches of the respective catchments.

It is important that the land use within a water catchment or sub-catchment is planned and managed to ensure the health of the catchment and its watercourse within the Shire is maintained or enhanced.

Threats to the Natural Environment

Subdivision and Development Approvals. Until recently, biodiversity conservation has not been considered an important aspect in land use planning. Activities such as subdivision have therefore led to widespread clearing of endemic vegetation. This is apparent where urban areas have been subdivided and the retention of areas with biodiversity conservation value has not been considered a priority. It is apparent that degradation of remnant vegetation has occurred where rural zones have been changed to special rural zones and led to smaller lot sizes, without the retention of vegetation.

Protection of biodiversity needs to be considered in the early stages of the land use planning process. This consideration will require detailed desktop assessment during the structure planning phase of subdivisions. Land capability analysis is required during subdivision of land zoned for special rural and rural composite uses. This analysis needs to consider retention of remnant vegetation, wetlands and waterways. In order to preserve biodiversity values within these zonings this requirement should be implemented. The protection will focus on Local Natural Areas as identified in the Shire's Biodiversity Strategy.

The Shire's Local Planning Scheme No. 3 contains provisions for the protection of the environment as part of any development approval. These provisions can be used to provide conditions for the achievement of biodiversity conservation. The main opportunity for biodiversity conservation comes from its inclusion in the planning process. Biodiversity therefore needs to be considered during the assessment of all development applications, during structure planning and when enforcing the purposes of various zonings.

Key Issue: Protection of Local Natural Areas

The Shire's Biodiversity Strategy has identified a number of Local Natural Areas (LNA's) totalling an area of 2,110 ha as the key areas for protection to achieve the intentions of the Biodiversity Strategy. Refer Figure 5 – Local Natural Areas.

Implementation of the Local Biodiversity Strategy will assist in the protection of Local Natural Areas through consideration of:

- biodiversity when preparing detailed structure plans;
- assessing subdivision and development applications with more rigorous ecological criteria; and
- making minor amendments to the Local Planning Scheme No.3.

It is important that detailed planning investigations are undertaken at the early stages of the planning process to ensure significant local natural areas are identified and afforded the necessary protection.

Between 2001 and 2005, 59 ha of endemic vegetation were cleared, mostly in LNAs. Indicating therefore the future of LNAs is uncertain and the remaining LNAs be considered as retained but not protected. The Local Biodiversity Strategy aims to increase the protection of these areas through the following mechanisms:

- Public land has been vested for the purposes of conservation;
- Private land is covered by a management agreement of at least 5 years; or
- Private land has a permanent conservation covenant.

In respect to the first dot point, The Shire has undertaken an independent assessment of its freehold reserves, vested reserves and state government controlled properties with a view to providing short to medium term options for preservation, redevelopment, disposal acquisition or use to deliver long term financial sustainability to its community. The assessment will also allow for the rationalisation of reserves which have no environmental value, no amenity value and are costly to maintain, to provide greater community benefit and service delivery. Some of the freehold sites have been identified and planned for community housing including aged accommodation.

It should also be noted that protected natural areas will need to be managed to alleviate the threats to biodiversity and funds will need to be allocated. Generally larger areas in good or excellent condition require less maintenance than smaller more degraded areas.

Locally significant natural areas in the Shire of Kalamunda have been identified using the criteria detailed in the Local Government Biodiversity Planning Guidelines. The standard ecological criteria for local biodiversity planning are grouped under the following themes:

- Representation of ecological communities;
- Diversity;
- Rarity;
- Maintaining ecological processes or natural systems – connectivity; and
- Protecting wetland, streamline and estuarine fringing vegetation.

Key Issue: Maintaining Ecological Linkages

Ecological linkages are non-contiguous, natural areas that connect larger natural areas by forming stepping stones that allow the movement, over time, of organisms between larger areas. Habitat fragmentation is a key threatening process leading to the loss of biodiversity. Survival of species within natural areas will depend on well planned and managed ecological linkages.

Regional ecological linkages link protected Regionally Significant Natural Areas (RSNAs) by retaining the best condition LNAs available between them that can act as stepping stones for flora and fauna.

This increases the long-term viability of the RSNAs as well as the LNAs in the link. To be effective the linkages should incorporate the major variation in plant communities and fauna habitat typical of the region so that the widest range of flora and fauna possible can use the links.

Regional ecological linkages have been identified by the Perth Biodiversity Project (PBP) with input from the Department of Environment and Conservation and the Department of Planning. Regional Ecological Linkages identified by PBP are included in the Local Biodiversity Strategy. On-ground assessment will however be required prior to making planning decisions enforcing the proposed linkage target.

Local ecological linkages are an important part of improving the viability of natural areas that may be too small to be viable on their own if isolated. The Shire of Kalamunda identified a number of local ecological linkages as part of the development of the Wildlife Corridors Strategy 1998.

Local ecological linkages should aim to link protected Locally Significant Natural Areas (LSNAs) to other LSNAs, protected regionally significant natural areas and Regional Ecological Linkages. The linkages recognised in the Wildlife Corridors Strategy should be assessed to ensure that these linkages meet current criteria for local ecological linkages.

Identification of regional ecological linkages and wildlife corridors at the site analysis stage of the planning process will assist in improving the viability of local natural areas.

Weeds

A weed is a plant growing out of its natural habitat and where it is not wanted. Environmental weeds that compete with and displace local endemic plant species are a significant threat to natural areas. Weeds compete with local endemic plant species for space and light and deprive local fauna of suitable habitat. Controlling weeds in natural areas is a significant cost to the management of these natural areas.

There are approximately 197 weed species known to occur within the Shire of Kalamunda. The top ten priority weeds are summarised in the table below:

Specific Name	Common Name	Rating
<i>Asparagus asparagoides</i>	Bridal Creeper	High
<i>Cortaderia selloana</i>	Pampas Grass	High
<i>Eragrostis curvula</i>	African Love Grass	High
<i>Freesia</i> aff. <i>Leichtlinii</i>	Freesia	High
<i>Homeria flaccida</i>	One Leaf Cape Tulip	High
<i>Hyparrhenia hirta</i>	Tambookie Grass	High
<i>Heptospermum laevigatum</i>	Victorian Tea Tree	High
<i>Watsonia bulbifera</i>	Watsonia	High
<i>Rubus</i> spp	Blackberry	Moderate
<i>Echium plantagineum</i>	Paterson's Curse	Moderate

Feral Animals

Feral Animals are introduced animals that compete with, predate upon and introduce diseases into endemic local faunal populations. They can alter the structure, density and floristic composition of natural areas through grazing and soil disturbance. Feral animals sighted or likely to occur in the Shire include, but are not limited to, the following; house cats, red foxes, European honey bees, black rats, European rabbits and Rainbow Lorikeets. Feral animal control is largely the responsibility of State Government although the Shire has produced a checklist for domestic cat owners encouraging responsible pet ownership. There is scope to investigate further controls with regard to domestic and feral cats.

Altered Hydrological Regimes and Water Quality

Plants and plant communities are strongly influenced by water availability. Urbanisation has significantly altered water regimes in the Shire and therefore the water available to plants and plant assemblages. Wetlands on the Swan Coastal Plain, for example, have historically been used for stormwater discharge. Some wetland areas that were previously seasonally inundated have become permanently inundated which has led to death of some flora species. Excessive nutrients, sediments and pollutants can also have a significant effect on endemic vegetation, wetlands and waterways. Excessive nutrients and pollutants contribute to algal blooms (eutrophication events), death of aquatic life in wetlands and promote the spread of weeds in both upland and wetland natural areas.

Climate

The unique biodiversity found in Western Australia is largely a result of its climate, soils and isolation. Current and future climate change will affect biodiversity directly through changes to temperature, rainfall, extreme events, and through altering the nature and intensity of existing biodiversity pressures. This will bring changes to landscapes and ecosystem services as species adapt, emigrate or immigrate and others become isolated. Reducing the effect of other threatening processes may help to increase the resilience of communities within the Shire. This will mean that they are more likely to withstand the effects of climate change and can adapt as necessary.

Key Issue: Drinking Water Protection

The Middle Helena Catchment is a priority drinking water catchment. Originally the catchment drained into the Helena River and was collected in the Pump-back Dam (Middle Helena Dam). Currently the water quality from the catchment is not good enough to be used for drinking water and the Water Corporation discards the water into the Helena River. The "Middle Helena Catchment Area Land Use and Water Management Strategy", was endorsed by the Western Australian Planning Commission in June 2010. Once this has been completed it is intended that a detailed Catchment Management Plan is prepared to identify point sources of pollution and work with the landowners to eliminate the pollution.

Planning Implications

Planning Implications from the assessment of the natural environment section are as follows;

1. The Shire of Kalamunda contains large areas, 24,081ha (74%) of land reserved for conservation purposes and not able to be developed for urban or residential purposes.
2. The Shire has responsibility for the following; Local Natural Areas, Shire Reserves in the urban areas and advice on ensuring that overall development throughout the Shire is sustainable.
3. The Shire has a major priority to eradicate weeds as a means of ensuring long term biodiversity.
4. Wetlands and waterways need to be protected and enhanced as a means of protecting sensitive habitats and water quality.
5. Areas of endemic vegetation need to be identified at the site analysis stage of the planning process and protected and enhanced so as to ensure biodiversity protection.
6. Identification of local natural areas and ecological linkages needs to be undertaken
7. The Middle Helena catchment is an important drinking water collection area and is presently polluted. The Shire needs to monitor the water quality so as to identify point sources of pollution and work with the land owners to rectify the issues.

3.4.2 Population Characteristics

Current Population and Projections

The Commonwealth Government 'State of Australian Cities 2010 Report' refers to Australian Bureau of Statistics (ABS) population forecasts which project that the population of Australia will grow to 35.5 million by 2056 and that Perth will reach a population of 3.5 million by 2056. The ABS has published population forecasts which suggest that the population of Perth and Peel will be between 2.40 million and 2.88 million by 2031. An additional number of dwellings ranging from 358,000 to 429,000 will be required in Perth (Directions 2013 and beyond 2010, p9).

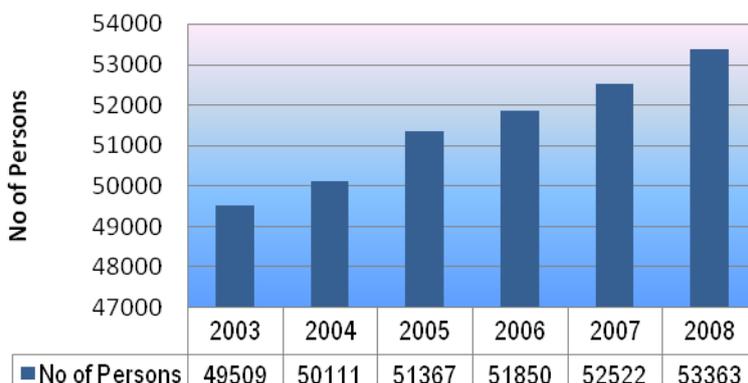
The population of the Shire of Kalamunda was 49,534 persons at the 2006 Census. According to the WA Planning Commission projections the Shire will reach a population of 52,300 people by 2011, 57,000 people by 2016 and 59,400 by 2021. It is estimated that the population of the Shire will increase by 8,666 persons over the next ten years, i.e. 17.5% growth. The median age of the Shire's population is 37 years which is the same as the median for the whole of Australia.

At the time of the 2006 Census 12,248 people (25%) were aged over 55 years. The Shire has a slightly higher age profile in the over 55 age group than the Perth Metropolitan Region. Some localities within the Shire have a higher proportion of residents in the over 55 age group, i.e. Kalamunda has 35%. By 2030 the over 55 age group in the Shire will have increased by 50% to 18,459 people. The majority by 2030 will be in the over 75 age group.

Population Trends

The population growth for the past five years has estimated to have grown between 7.5% and 8%. This trend is consistent with the Australian Bureau of Statistics and the Department of Health and Ageing statistics, which show the population growing from 49,509 in 2003 to 53,363 in 2008, an increase of 7.8%.¹

Figure 6: Kalamunda Population Trends, 2003 - 2008



Source: ABS, 2006

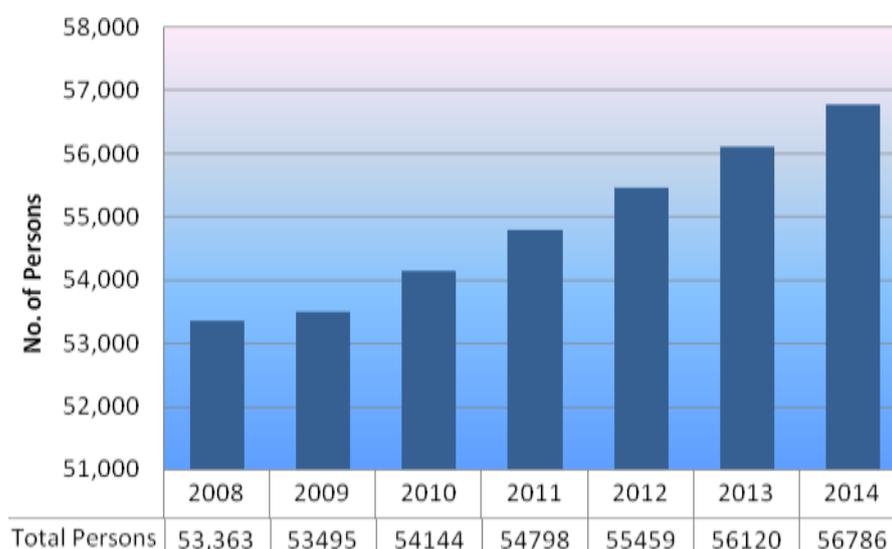
Short Term Population Forecast

¹ Figure 5 contains population statistics from the 2006 Census for the Kalamunda Local Government area and population projections for 2007 and 2008 from the Department of Health and Ageing

Based on the Department of Health and Ageing Statistical Local Area Population Projections 2008 to 2014, the population of the Shire of Kalamunda is estimated to grow at 6.4%; an absolute increase of 3,423 people. As highlighted in the Kalamunda Sporting Reserve Development Plan 2008, this rate of growth is approximately half the expected rate of growth for the state of Western Australia at 13.02%.²

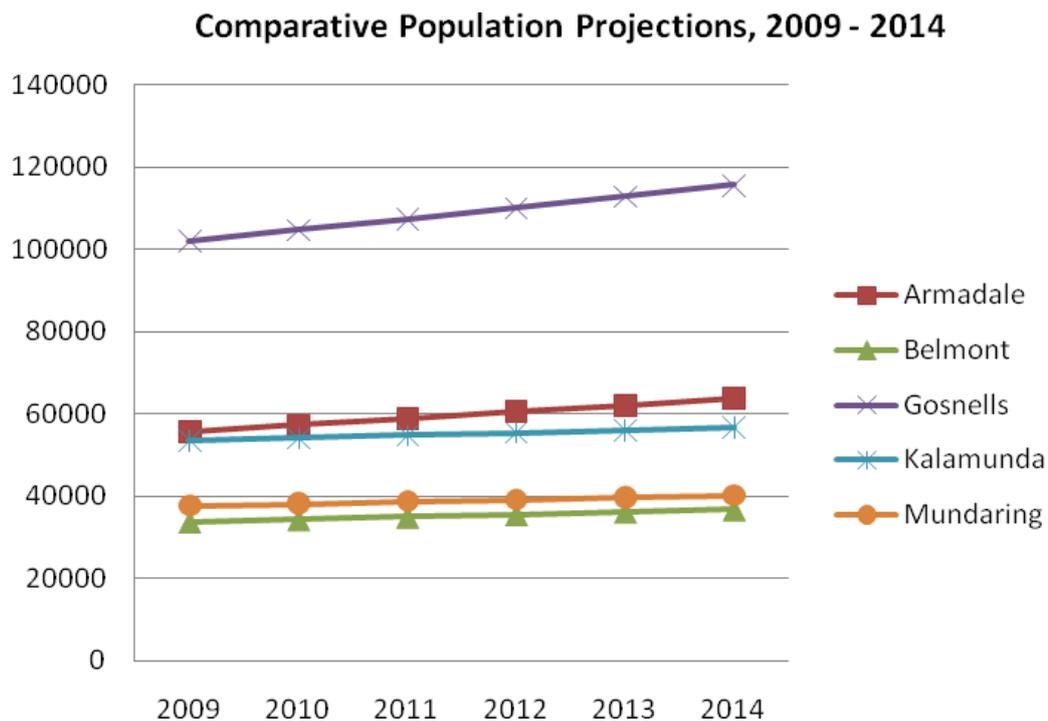
Over the next five years, it is projected that the major population growth areas within the Shire will be in the foothill areas; such as Forrestfield, Wattle Grove, High Wycombe and Maida Vale.

Figure 7: Kalamunda Short Term Population Projections, 2008 - 2014



² The WA State rate of growth was cross-checked using the sum of all projected population figures for all WA Statistical Local Areas from the Department of Health and Ageing

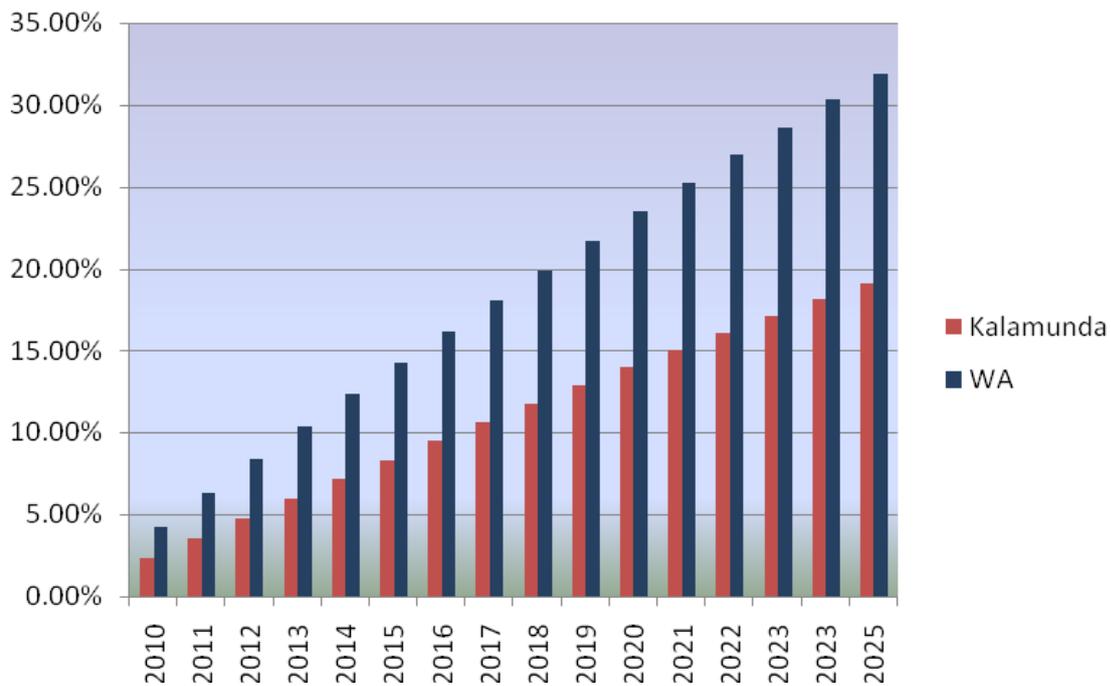
Figure 8: Regional Comparison of Population Projections, 2009 – 2014



Long Term Population Forecast

The Department of Health and Ageing Statistical Local Area Population Projections 2007 to 2027 indicates that the population of Kalamunda will grow from 53,495 in 2009 to 63,986 people in 2025; an increase of 19.6%. This is less than the expected rate of growth for the whole State, the population of which is projected to increase by 34.3% from 2009 to 2,953,600 in 2025.

Figure 9: Long Term Projection, Comparison of Kalamunda and W.A., 2010 – 2025

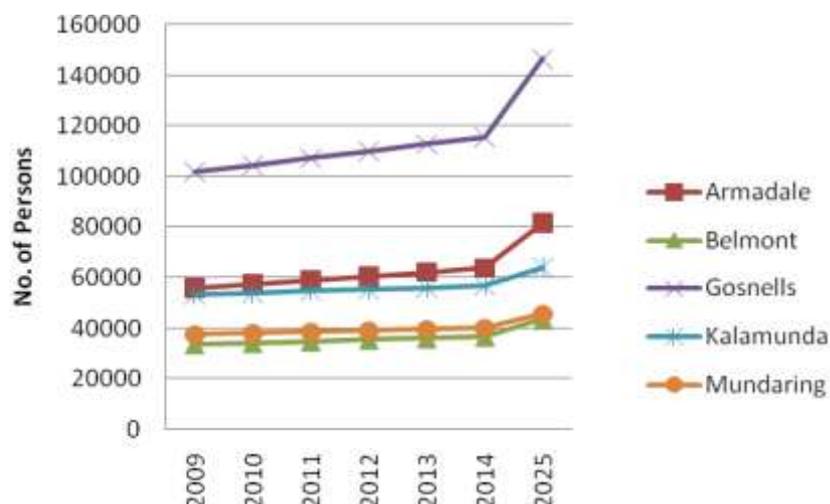


Source: Department of Health and Ageing, 2007

This growth in population is likely to put increased pressure on Shire services, land availability and asset and infrastructure requirements.

An analysis of the projected population growth for Kalamunda and neighbouring Councils was undertaken. As seen in the chart below, it is projected that the rate of population growth will significantly increase between 2014 and 2025.

Figure 10: Regional Comparison of Long Term Projections, 2009 – 2025

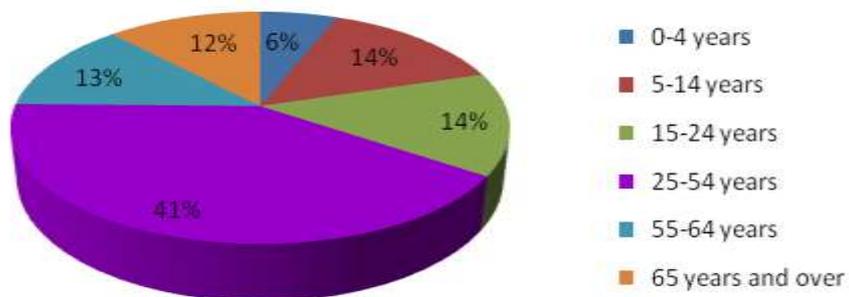


Source: Department of Health and Ageing, 2007

Age Composition

The Shire of Kalamunda current age composition below shows that 41% of the Shire’s population are aged between 25 and 54 years. People aged between 5 and 24 represent 28% of the Shire population and 25% are aged 55 years and over.

Figure 11: Kalamunda Age Composition, 2006

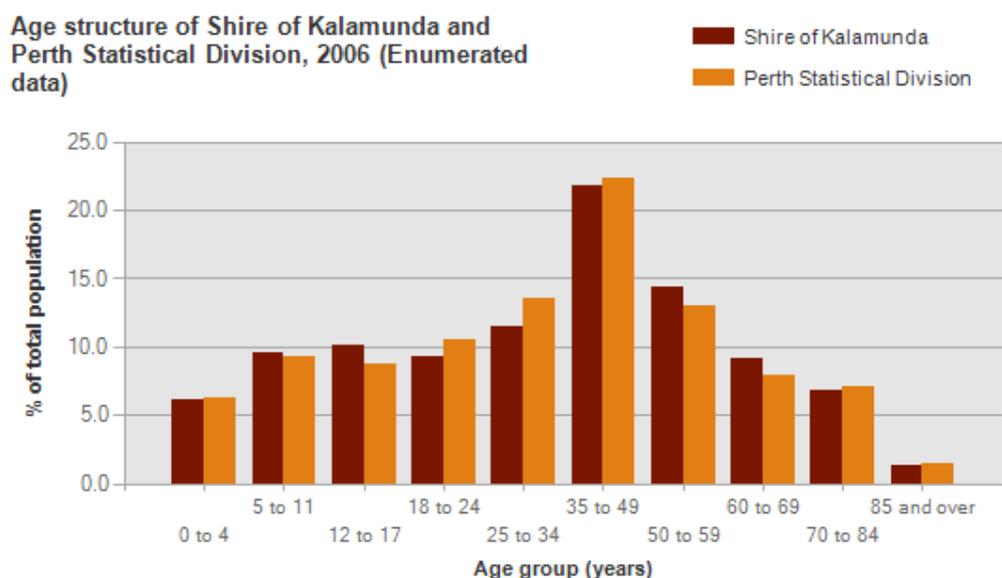


Source: ABS Census of Population and Housing, 2006

Analysis of the age composition of Kalamunda compared to the Perth major statistical area revealed that in large, the age composition is very similar, with some of the minor differences including:

- A larger percentage of 55-64 year old people live in Kalamunda (13% compared to 11% in Perth)
- A smaller percentage of 25-54 year old people live in Kalamunda (41% compared to 43% in Perth)

Figure 12: Kalamunda Comparative Age Composition with Perth, 2006



Source: Australian Bureau of Statistics, 2006 Census of Population and Housing (Enumerated)

Age Trends

From 2001 to 2006, the most significant change in the Shire of Kalamunda's age composition has been the increase of the 55+ year old people, as depicted in the chart below.

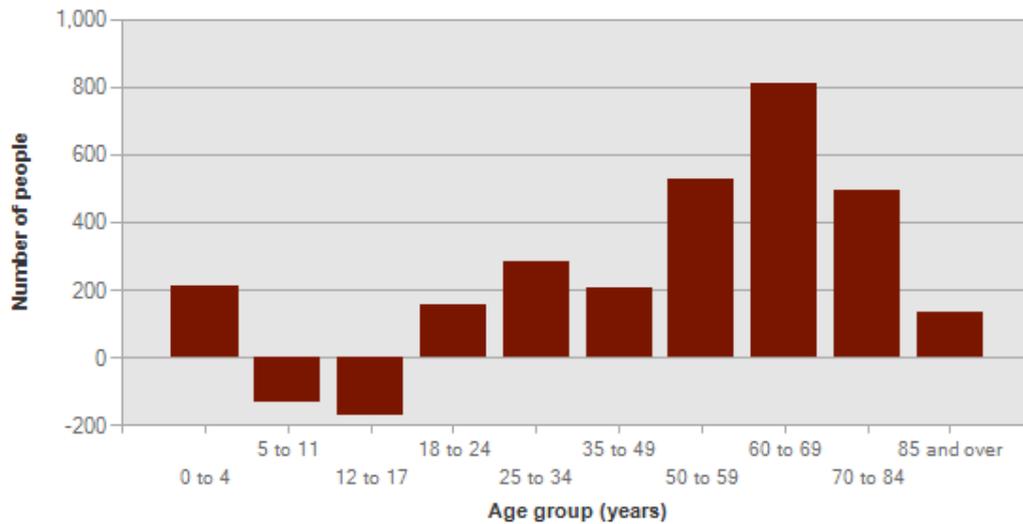
In contrast, the proportion of people aged below 54 has reduced in since 2001.³ As seen in the chart below, there are notable differences between the changes in age composition between Kalamunda and Western Australia; however the trends at large are similar.

The number of people aged over 55 years has increased from 9,702 in 2001 to 11,981 in 2006. It is evident that the increase in the proportion of people aged 55 years and above is greater in Kalamunda than the State total increase since 2001. The Kalamunda Aged Accommodation Strategy clearly identifies that the Shire will be required to address the ageing population.

³ In 2001, the proportion of an age group was calculated using the number of people aged within the age bracket, divided by the total population. This same formula was used for 2006 statistics, which allows us to measure the relative proportion increases or decreases of an age group to the total population. So, even though the population of an age group may have increased from 2001 to 2006, this increase may have been lower than the overall increase in population, hence negative growth displayed on the graph.

Figure 13: Kalamunda Comparative Change in Age Composition, 2001 - 2006

Change in age structure of Shire of Kalamunda, 2001 to 2006 (Enumerated data)



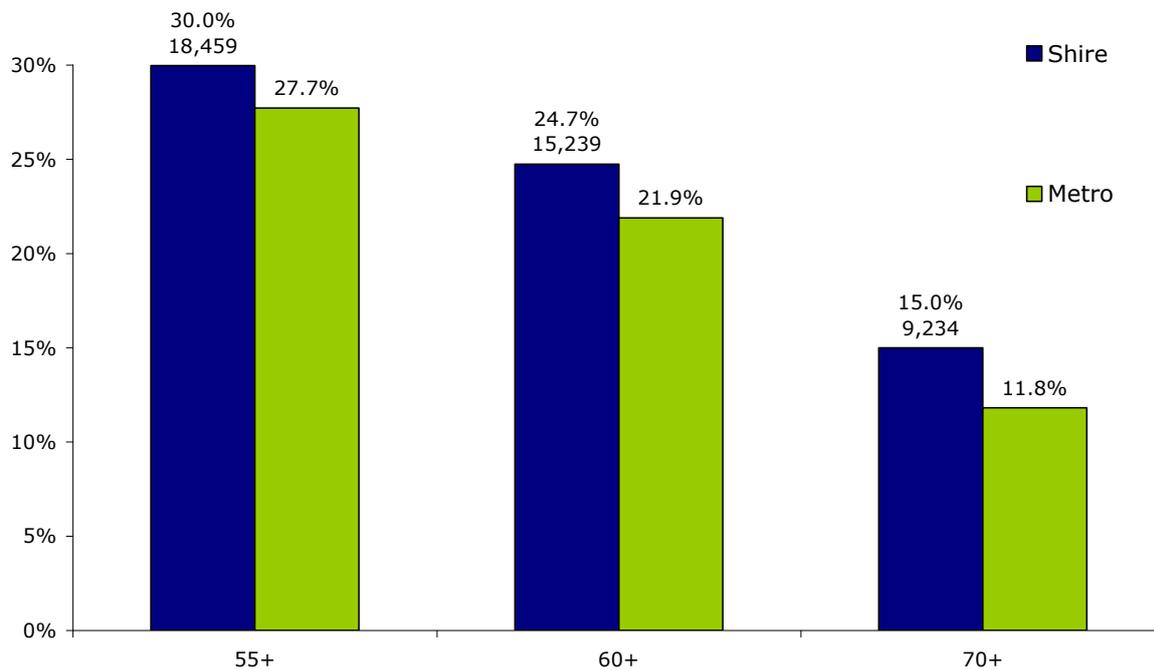
Source: Australian Bureau of Statistics, 2006 and 2001 Census of Population and Housing (Enumerated)

Age Projections

By 2030, the Shire of Kalamunda estimates that the 55+ population in the Shire will have increased by 50% to 18,459 where effectively, one in three people will be over 55 years and half of the 55+ population will be over 70 years of age (Aged Accommodation Strategy 2008).

This ageing trend is also indicative of world population trends resulting from longer life spans, declining birth rates and the ageing of the 'baby boomer' generation.

Figure 14: Comparative Age Composition and Projected Growth at 2030



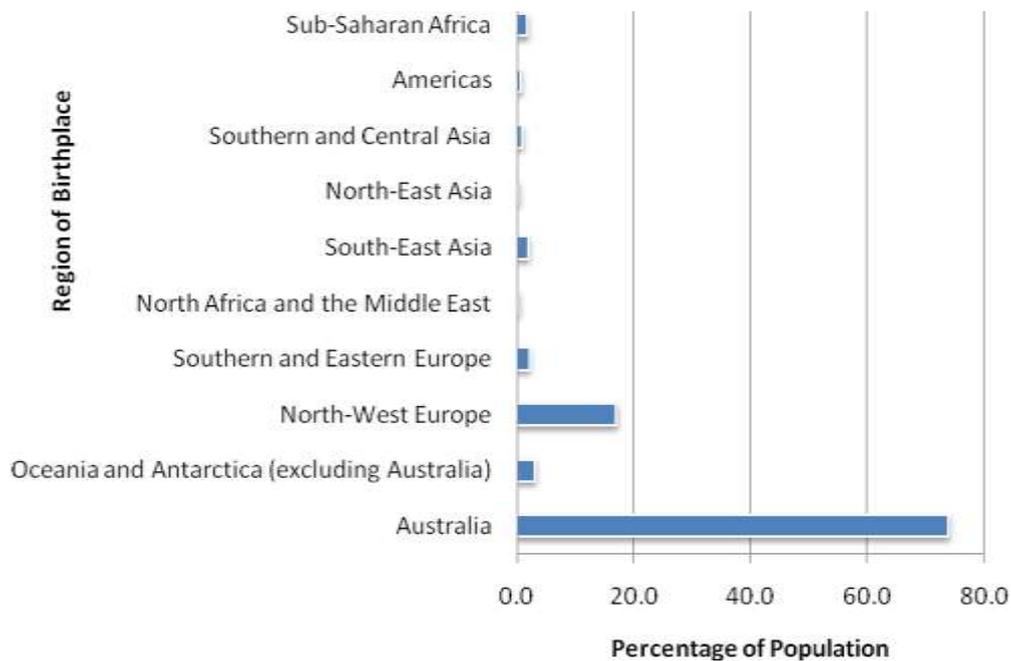
Source: Aged Accommodation Strategy June 2008

The Shire of Kalamunda recognises that this trend will have a significant impact on the Shire's ability to deliver services and provide facilities to address this growing demand. The Shire of Kalamunda has developed an Aged Accommodation Strategy (June 2008) and a Seniors Plan to address associated issues such as home and community care services and residential care needs of older people.

Migration

The majority of Kalamunda residents are Australian born (72%) followed by North-West Europe born persons migrating to the region (17%). This current trend is not dissimilar to Perth with Kalamunda showing a slightly lower migration rate of 26.6% compared to Perth at 31.3% (ABS, 2006).

Figure 15: Birthplace by Region, 2006



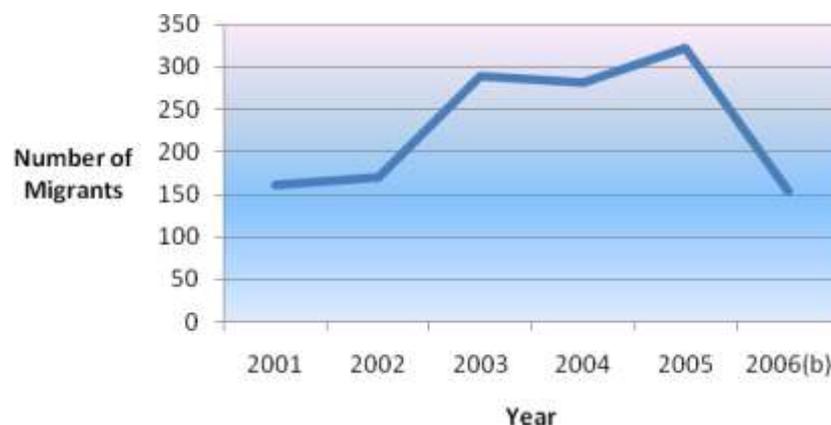
Source: ABS Census of Population and Housing, 2006

International Migration Trends

The 2006 Census data shows that the international migration trend has been fluctuating from 2001 to 2006, with its highest rate of migration in 2005 (322 persons) and its lowest rate in just the following year (154 persons). Of all the international regions, all except North-East Asia had a decrease in migration in 2006.⁴

Between 2001 and 2006, 1,629 people moved from overseas to Kalamunda.

Figure 16: Kalamunda International Migration Trends



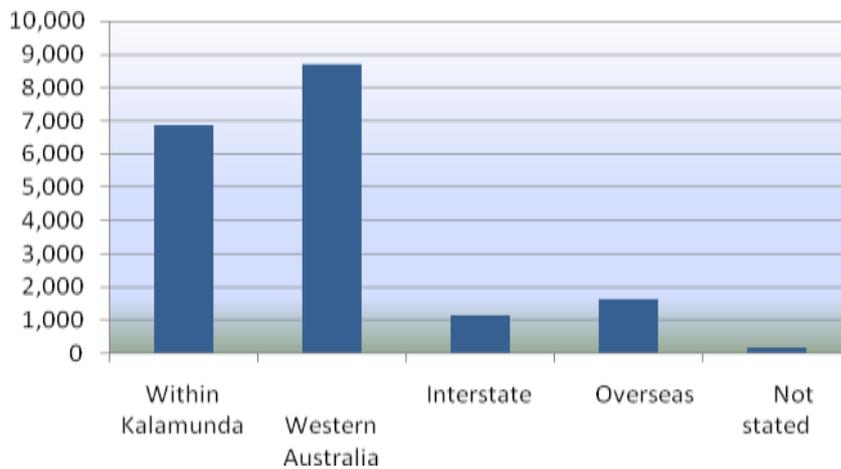
Source: ABS Census of Population and Housing, 2006

⁴ Note that the year 2006 is the period 1 January 2006 to 8 August 2006

Intrastate and Interstate Migration Trends

Between 2001 and 2006, 6,875 people moved within the Shire of Kalamunda, 8,689 people moved from elsewhere in WA to Kalamunda and 1,168 people moved from interstate to Kalamunda.

Figure 17: Migration to Kalamunda, 2001 – 2006



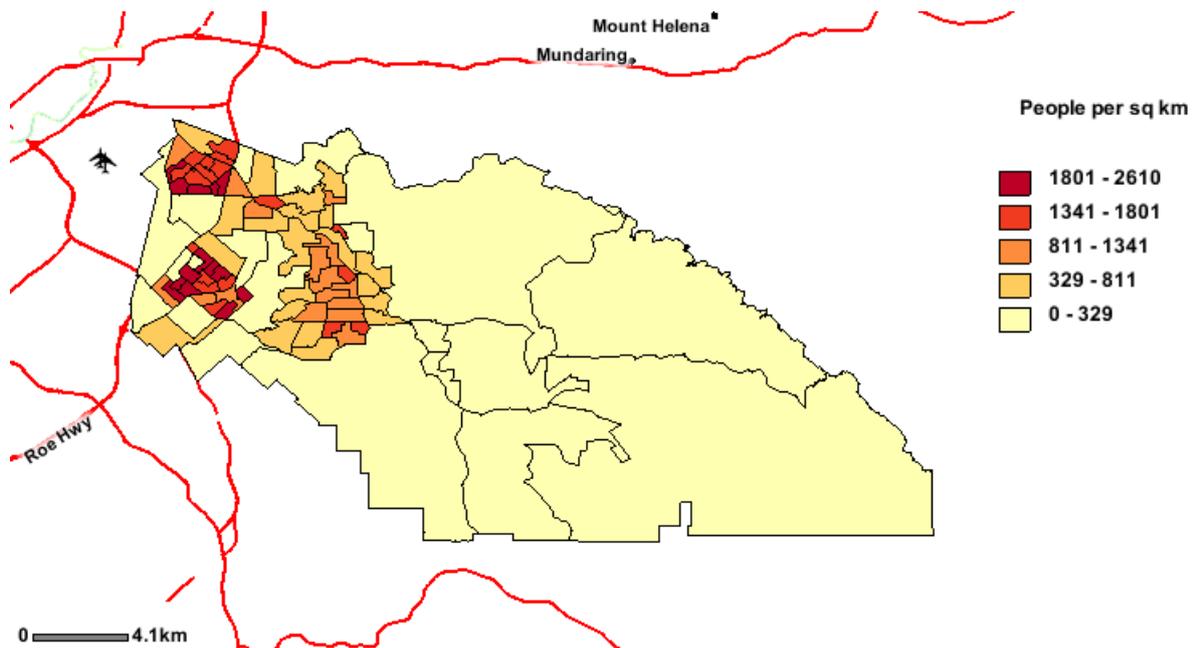
Source: ABS Census of Population and Housing, 2006

Interstate migration trends on a national scale highlight that persons aged 45 years and over were less likely to move interstate than younger persons. As seen in the chart below, approximately 80% of all migrant persons to Kalamunda in 2005-06 were aged 44 years or below.

Population Density

Based on the WA Local Government Directory 2008, the Shire of Kalamunda's total population is 51,778 for 2006/07. The highest population density is within the Foothills/Plains and the Escarpment geographical area. The Eastern Rural District has a much lower population density by comparison, as most of this land is national parks and reserves.

Figure 18: Kalamunda Population Density, 2006



Source: ABS, 2006

Assessment of Future Population Scenarios

In addition to the above broad assessment it was decided to provide a more detailed examination of the potential of the Shire to accommodate additional population so that the Shire Council would have a more detailed basis for decision making. It was decided that scenarios would be prepared for; an additional 10,000, 20,000, 25,000 and 30,000 people.

Population Scenario 1: Growth by 10,000 people accommodated in Existing Development Areas (Wattle Grove U9, Forrestfield U7, High Wycombe U2, Maida Vale U6 and U4 and Orange Grove Road, Lesmurdie) Proposed Urban Area (Stirling Crescent) and Proposed Urban Infill Areas (Kalamunda, High Wycombe, Forrestfield and Maida Vale). See plan of Scenario 1 below. At current development rates Scenario 1 will be achieved in approximately 7 years (2017) without any major changes.



Example of Low Density R20 Development



Example of Light Industrial Development

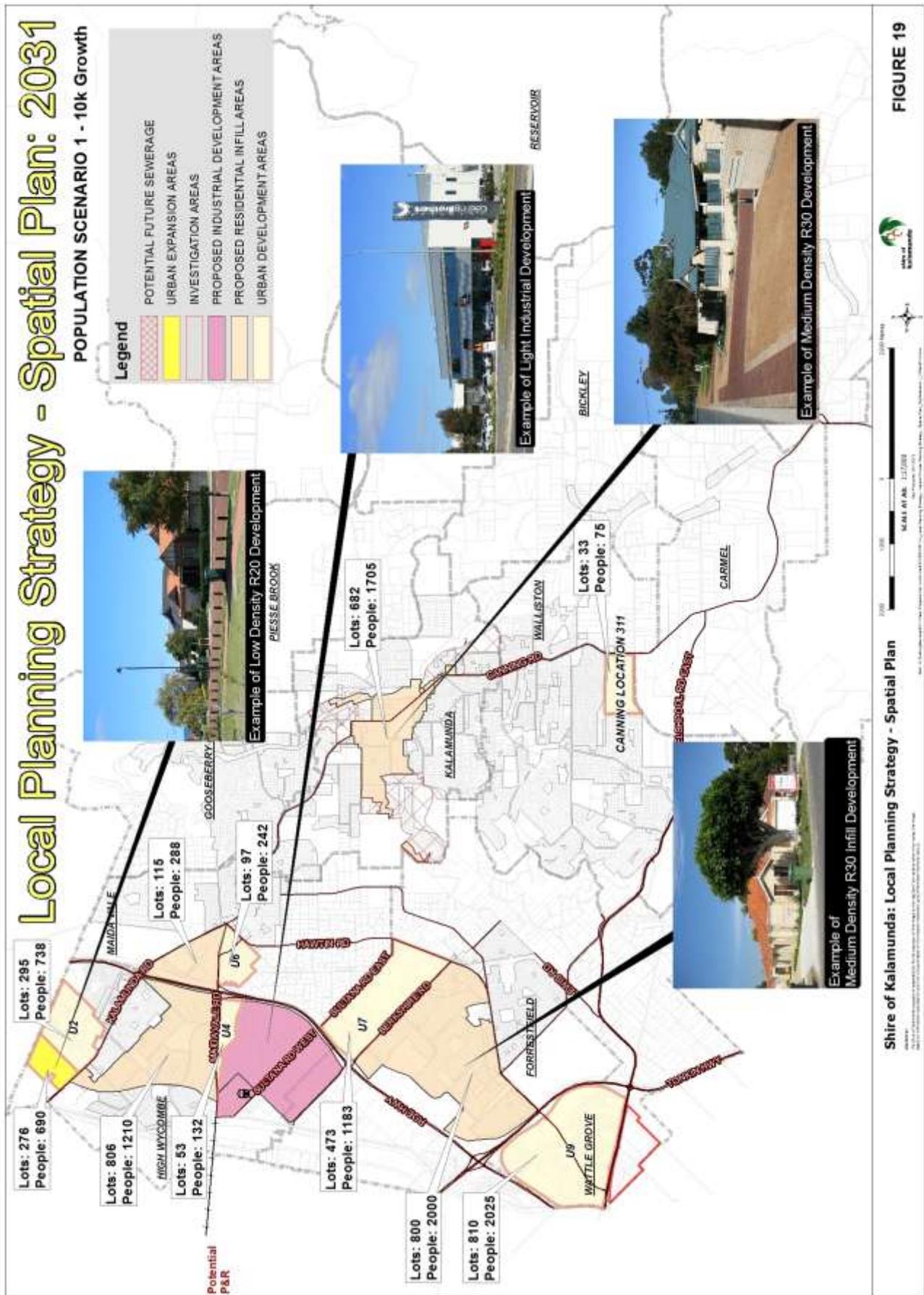


Example of Medium density R30 Development



Example of Medium Density R30 Infill Development

Figure 19: Scenario 1; Additional 10,000 Population



Population Scenario 2: Growth by 20,000 people accommodated as in scenario 1 above (with some higher take up rates) plus Proposed Urban Development Area from Special Rural to Urban (R20/30) (Maida Vale South and Pickering Brook). See plan of Scenario 2 below. At current development rates this would be achieved in 15 years (2025).

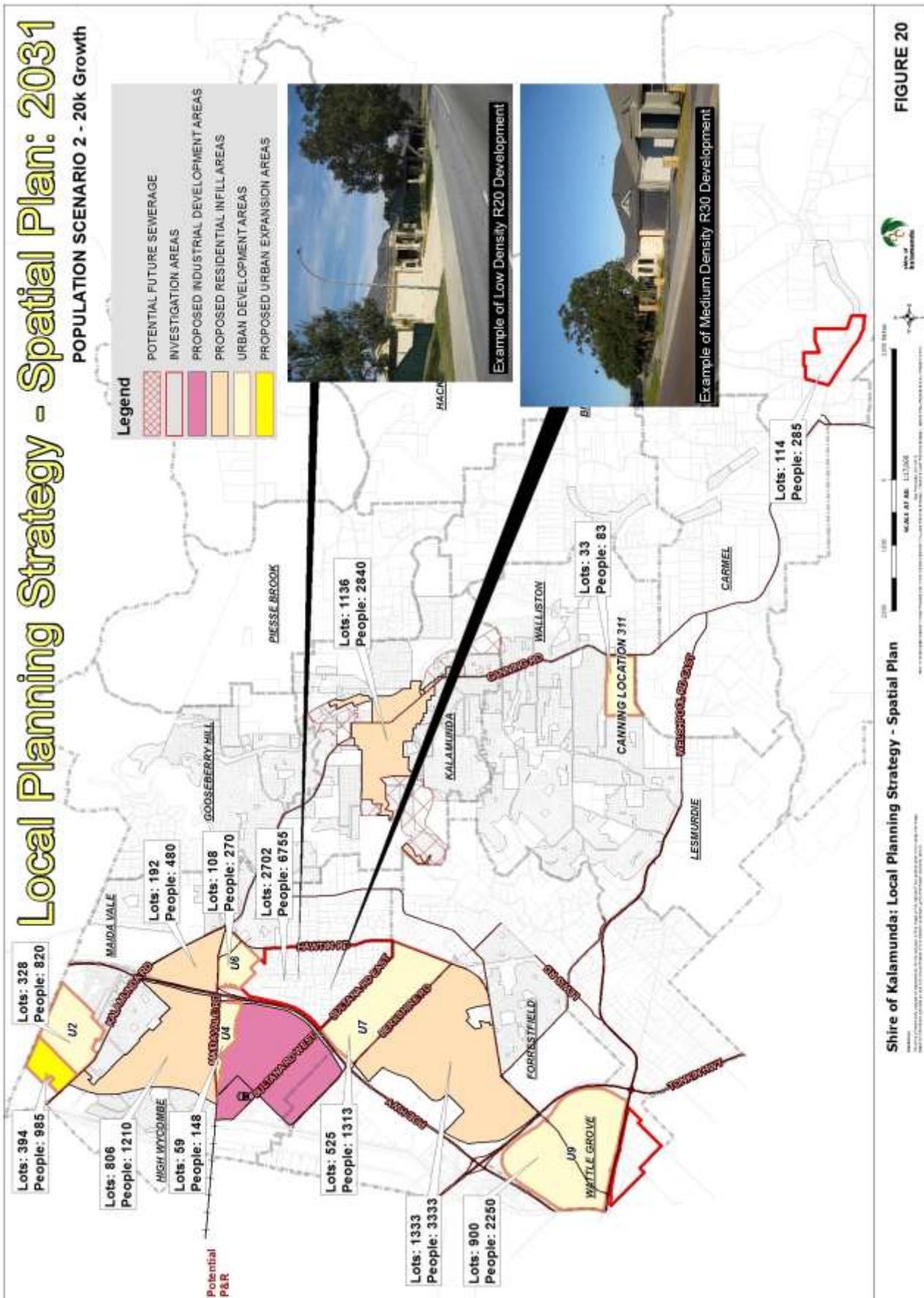


Example of Low Density R20 Development



Example of Medium density R30 Development

Figure 20: Scenario 2; Additional 20,000 Population



Population Scenario 3: Growth by 25,000 people accommodated as in scenarios 1 and 2 plus Residential Bushland development (R2.5) of Special Rural land to the east of Hawtin Road and Lewis Road (R5) and Wattle Grove south of Welshpool Road to a range of densities (R2.5, R5, R20 and R30 in centre) and including a Neighbourhood Centre in Wattle Grove. See plan of Scenario 3 below. At current development rates the final part of this scenario (Special Rural land to Urban) would be required by 2025.



Example of Residential Bushland Development at a density of R2.5



Example of Residential Bushland Streetscape at a density of R2.5



Example of Low Density R20 Development



Example of Medium Density R30 Development

Figure 21; Scenario 3; Additional 25,000 Population

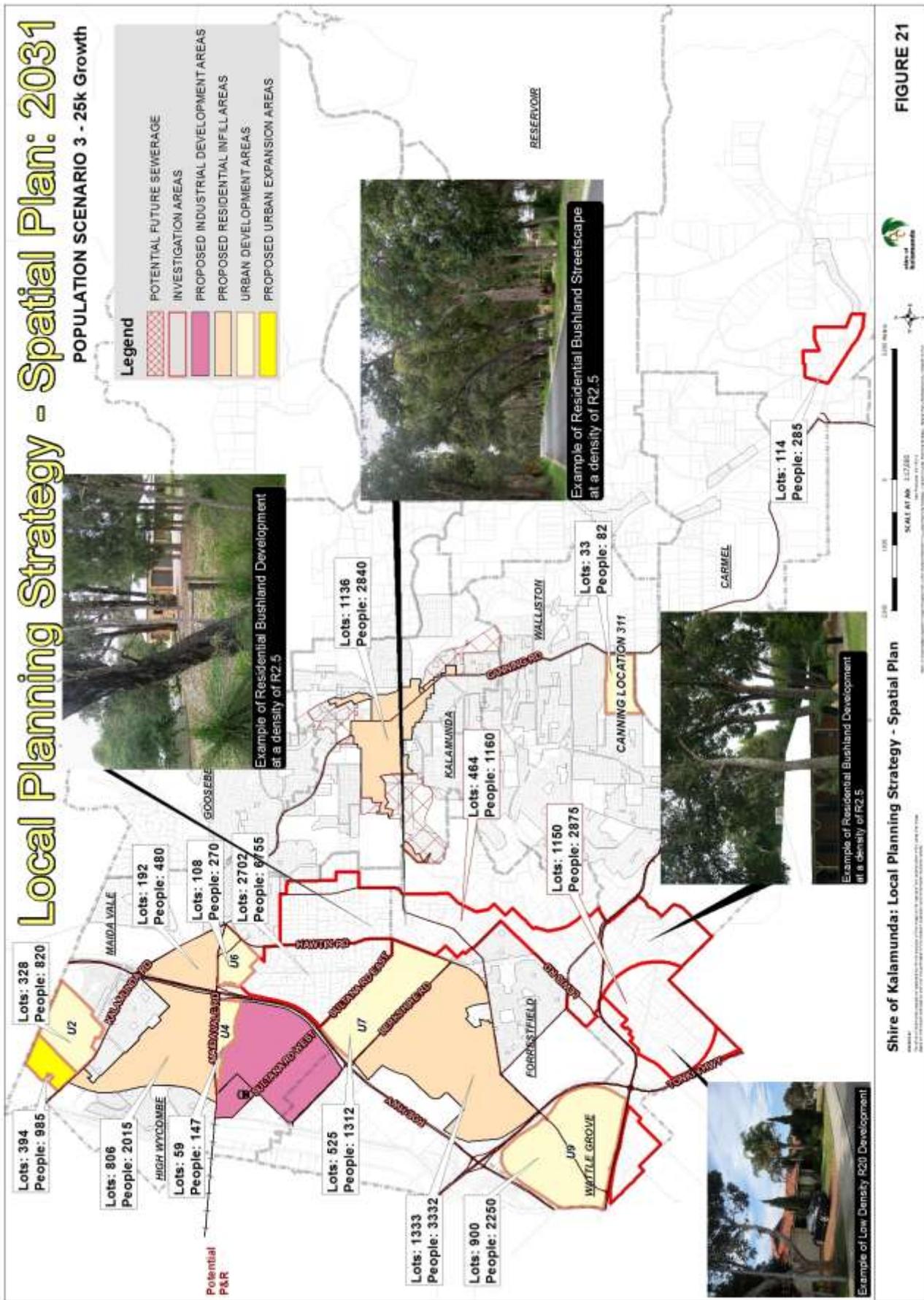


FIGURE 21

It is the recommendation of the planning staff that **scenario three** provides the best current outcome in terms of the planning analysis and community consultation.

Population Scenario 4: Growth by 30,000 people accommodated as in scenarios 1 and 2 plus Residential development (R20) of Special Rural land to the east of Hawtin Road, Lewis Road and Wattle Grove (south of Welshpool Road to densities of R20/R30) including a Neighbourhood Centre in Wattle Grove. This scenario would also retain a special rural buffer along the edge of the Scarp. See plan of Scenario 4 below. At current development rates the final part of this scenario (Special Rural land to Urban) would be required by 2025.

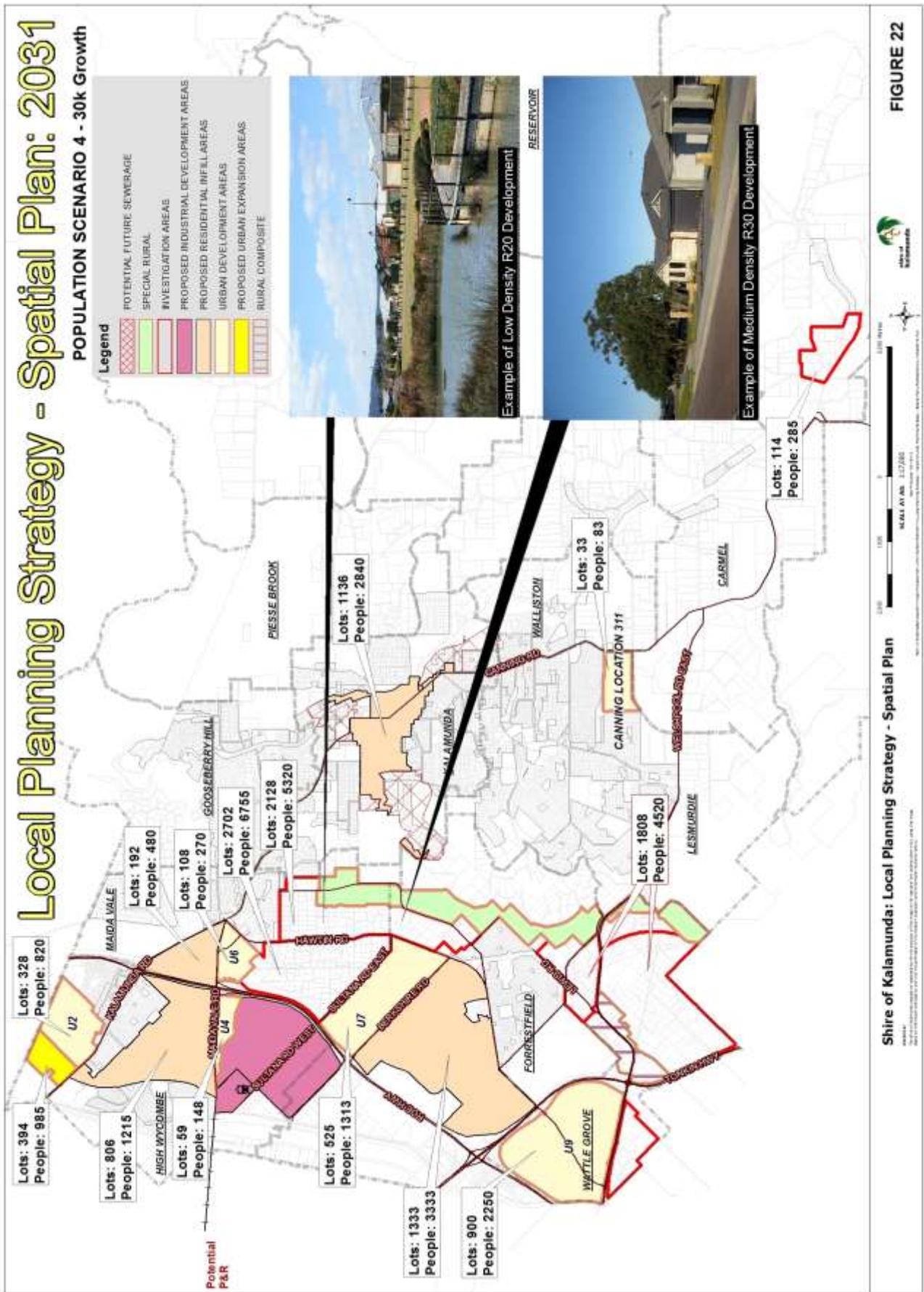


Example of Low Density R20 Development



Example of Medium density R30 Development

Figure 22: Scenario 4; Additional 30,000 Population



Key Issue: Population Projections

The most recent WAPC projection of population by local government areas was published in 2005. That report gave a projected population of 59,400 in the Shire of Kalamunda by 2021, being an increase of 8,666 people. The time horizon for this strategy is 2031 and it is reasonable to assume at least a doubling of population from 2010 to 2031, i.e. 17,332 people. From recent building trends during the recent international financial crisis development of residential housing in the Shire of Kalamunda has experienced rapid growth, i.e. 550 new houses per annum during the 'recession'. It is believed that this anomaly is driven by development of local employment in Perth Airport, close proximity to the airport and affordable residential land. Given these factors we believe that it is not unreasonable to expect an additional 20,000 people in the Shire by 2031.

Key Issue: Ageing Population

The population profile of the Kalamunda population indicates that the over 55 year group will have increased to 18,459 people. One in three people will be over 55 years and half of those will be in the over 70 year group. This ageing trend is indicative of world population trends resulting from longer life spans, declining birth rates and the ageing of the 'baby boomer' generation. His changing population profile will create a number of social and economic issues over the next 21 years. Kalamunda's housing was originally built for predominantly families, i.e. 94% of housing is single detached housing. This form of housing is not ideally suited to the older generation who will face increasing difficulties in maintaining large properties as health declines.

Planning Implications

The following are the main population implications for planning in Kalamunda:

1. The current population projections of the WA Planning Commission for the Shire of Kalamunda extend to the year 2021 and predict an increase in population from 52,300 in 2011 to 59,400 people by 2021, an increase of 8,666 people. This is ten years short of the Directions 2031 target date, however, it would be reasonable to anticipate a doubling of population extending from 2021 to 2031, i.e. approximately 17,300 people by 2031.
2. The Commonwealth Department of Health and Ageing have projected the Kalamunda population to increase to 63,986 people by the year 2027. This is an increase of just over ten thousand over 20 years. It would seem reasonable to extend this by another 2,000 people to cover the additional years to 2031. This would give an increase over the current population by about 15,000 people by 2031.
3. Enquiries made with the State Department of Planning as to the next population projection update indicates that they are being reviewed at present but the new figures will only be available by the end of 2010.
4. Development rates, including 550 new houses being constructed during the worldwide financial crisis in 2009 suggests population growth rates may be higher than projected. The reason for this is development and job creation at Perth Airport and affordable land. Based on the above it is considered that a target population increase of 25,000 people is reasonable by the year 2031.
5. The ageing of the population is believed to be one of the most significant challenges facing the Shire over the next 21 years, i.e. an additional 6,311 people will move into the over 55 age group to give a total of 18,459 people in this group. One in three people will be over 55 years and half the over 55 year people will be over 70 years of age.

3.4.3 Housing Characteristics

Housing Types, Density and Condition

Separate houses make up 93.7% of the housing stock in the Shire (compared to 74.8% Australia wide), semi-detached / terrace / town housing at 3.5% (9.2% Australia wide) and flat, units or apartments at 1.7% (14.2% Australia wide). The variety of housing types available to residents is limited in comparison to the rest of Australia whilst in contrast; the age structure and house hold compositions are very similar.

The majority of housing throughout the Shire was built in the 1960s and is therefore nearing 50 years old. This includes old State housing properties throughout Kalamunda which were not built to a high standard. The 1970s saw the development of Forrestfield and the South East of Wattle Grove. Over the last 20 years there have been pockets of new development such as the portion of High Wycombe to the North of Kalamunda Road and the remainder of Wattle Grove.

Urban investigation areas in the Foothills localities and in central Kalamunda are zoned R20/25/30 (requiring a minimum lot size of 270-440sqm) this is classified as low to medium density under the residential design codes. Localities of Maida Vale, South High Wycombe, Gooseberry Hill, Lesmurdie and Walliston are predominantly zoned R5/10 (minimum lot size of 1000 to 2000sqm) with some pockets of special rural requiring 10,000sqm lots. Carmel and Bickley are rural localities where the lot sizes are approximately 1 ha or larger and are zoned Rural Agriculture, Rural Conservation and Rural Landscape Interest.

The Implications of Population Growth/change on Future Housing Needs

To house an extra, approximately 20,000 people, over the next 21 years would require an additional approximately 8,000 new homes, needing (based on average lot size of 400sqm) approximately 320 ha of land. The land currently set aside for urban development would not meet that need and so a high proportion of infill development would be required. Land supply is predominantly driven by market demand and in the past, supply has met the demand by rezoning rural land to urban. New land releases generally attract the greatest interest from purchasers and so developers have been most interested in obtaining large tracts of land for development rather than small scale subdivisions.

Implications of Population Growth and Change for Infrastructure and Service Provision

Infrastructure and service provision will be guided by community demand unless there are major constraints to provision. At the Structure Plan stage of any new land release the provision of infrastructure and services needs to be planned. Major retailers and land developers pay close attention to population growth and developing new areas and so retail service provision is catered for by market demand.

In the case of infill development the existing infrastructure, especially sewerage, will determine the density of subdivision; in many cases the infrastructure cannot feasibly be upgraded. Service provision also provides local employment opportunities which allow a community to develop and support a higher density of population. Industrial land is in high demand and the services provided to these areas needs to be considered when opening up new areas for development. This also raises the issue of the capacity of existing utilities to keep providing for growth.

Changes in the Character and Amenity of Residential Areas, Arising from Redevelopment, Consolidation and Higher Densities

Many of the properties in High Wycombe and Forrestfield with residences built in the 1960s on large lots have potential for infill subdivision and now are in the situation that the house to the front on the

lot is old and in relatively poor condition with a new house to the back. This is of concern in terms of the character and social amenity of these areas.

When developing new areas, design standards and streetscape guidelines can be applied to whole areas (under the residential design codes) which stipulate the character and design of the locality. This is a possible way of ensuring that new land releases have some level of character and amenity for new residents and avoid the monotonous nature of suburban developments in the Shire. The Shire needs to prepare guidelines to enhance development to ensure; walking convenience, water sensitive urban design, adequate open space provisions, affordable housing, and a variety of housing types.

Issues Associated with New Housing Development, Redevelopment and Infill

Sprawling low-density suburbs will result in settlements without individual identity. Low-density development also requires a much greater infrastructure and service investment in order to cover greater land areas. Rural wedges or greenbelts could be retained to create distinct urban settlements with separate identities to preserve natural amenity and environmental character. The semi-rural lifestyle enjoyed by a high proportion of the population is important and should be considered when assessing areas for higher density.

Investigation Areas

The Key Elements Plan identifies Investigation Areas that present development and growth opportunities however require further investigations.

The key matters that will need to be investigated for each Investigation Area are, but not limited to:

- Bushfire risk.
- Transport/movement networks.
- Infrastructure/servicing.
- Environmental and landscape impacts.
- Urban water management.

It should not be assumed that Investigation Areas will be rezoned for further subdivision, urban or industrial development at any time.

The State Government's Directions 2031 and Beyond, and Outer Metropolitan Perth and Peel Sub-Regional Strategy has identified Wattle Grove as having *"potential for future consideration as a urban investigation area this is due to its proximity to the urban front and employment around the airport"*.

Residential Bushland and Foothills Investigation Area

The Residential Bushland zone provides for low density residential and residentially compatible use and development of land, which is considered suitable for such use, and development but which has special environmental characteristics including land predominately covered with vegetation. The zone caters for land largely within the Bickley, Carmel and Pickering Brook town sites, although some land is located in the Foothills, i.e. Darling Fields in Maida Vale. Lots may range in size between 2,000sqm and 1 ha; however, 4,000sqm is considered an ideal lot size to preserve substantial amounts of natural vegetation. Subdivision and development is subject to the requirements of the Residential Design Codes for the applicable residential densities inclusive of a requirement for connection to reticulated water.

Some scope exists for further subdivision of the land in the town site of Pickering Brook to a minimum of 2,000sqm and the expansion of the Residential Bushland (4,000sqm lots) zone to land immediately abutting the town site to allow for the creation of additional lots. There is also potential for a small commercial activity centre at the centre of Pickering Brook to cater for neighbourhood services and to create a focus for the settlement. Consideration should therefore be given to the

preparation of a structure plan for the Pickering Brook Town Site to guide further subdivision in the town site area.

It is also proposed to rezone land to the east of Hawtin Road in the Foothills areas of Maida Vale, Forrestfield and Wattle Grove to a Foothills Investigation Area. Development of these areas will require comprehensive and detailed planning to be undertaken including an analysis of the bushfire risk and the preparation of structure plans before subdivision or development can proceed. This will necessitate the introduction Scheme objectives and provisions for the proposed Residential Bushland zone which will identify the requirements for the preparation of a structure plan. The structure plan process will ensure that significant Local Natural Areas are identified and protected. One such mechanism could be encouraging smaller lots in cleared areas to protect areas of environmental significance.

The introduction of the residential bushland zone into the foothills area will require prior to rezoning or subdivision of the land comprehensive analysis of issues relating to bushfire risk, future servicing of the area, biodiversity protection and other relevant planning considerations to be undertaken to support the proposed zone.

Constraints to Housing Provision; Infrastructure Capacity and Existing Patterns of Development

Increase in density on residential land is dependant predominantly on sewer availability. Sewer is not available throughout Lesmurdie, Gooseberry Hill, Walliston or Carmel and so most high density residential is restricted to the relatively small area in central Kalamunda and the Foothills. A large portion of the eastern part of the Shire is located in a Drinking Water Catchment and this limits urban expansion throughout much of the eastern Hills localities. The existing pattern of development throughout Maida Vale can constrain housing provision through existing residents being unwilling to alter their semi-rural lifestyle.

Opportunities for Higher Residential Densities

There is opportunity for increased residential densities ranging from medium to high residential development around the Kalamunda District Centre and surrounding Forrestfield District Centre. Opportunities also exist for increased medium density residential infill development in the older residential areas of Forrestfield, High Wycombe and Maida Vale. As these areas are connected to sewer, and within walking distance to public transport, retail provisions, medical facilities and all areas are adjacent to a community library they have a higher suitability rating. A high density residential area, designed for pedestrian access may be beneficial for the Newburn Road, High Wycombe precinct because it would also support the existing businesses which have been impacted as a result of the newer retail development on Kalamunda Road, approximately 500m to the north.

The introduction of infill development into the older suburbs of Forrestfield, High Wycombe and Maida Vale will require existing infrastructure and services to be reviewed and potentially upgraded to accommodate the new growth.

Revitalisation of residential areas in close proximity to activity centres and services could provide a mix of housing types (town houses, apartments, single residential, and affordable housing). The proposed higher density areas are included in this Local Planning Strategy and will be introduced to the Scheme by amendment or Scheme Review.

Any increases in density should take into account the age and condition of the houses in these areas, so as to ensure that there is a financial incentive for landowners to remove the houses that are in poor condition and also aim to provide a range of different housing types. Proposed higher density areas will also need streetscape guidelines to ensure the best aesthetics possible.

Housing, Climate Change and Urban Design

An understanding of the impact of urban development on the environment and climate change has increased dramatically in recent times and is now a concern for many people developing within the Shire of Kalamunda. The rural community of the Shire as a whole attracts people concerned about the environment around them.

The Building Codes of Australia stipulate standards for insulation, glazing, lot design, building materials and energy efficiency of appliances. More specific requirements apply to industrial developments and can include lighting types, heat and energy emissions. These requirements are administered by the State Government and the Shire of Kalamunda supports these initiatives. Information availability to prospective builders and homeowners is an area where the Shire can further support these initiatives along with promotion through providing rebates or discounts in the rates system. The Shire of Kalamunda can provide leadership in this area to encourage sustainable development to support and enhance the level of interest in green technology and solar passive design in the community.

Opportunities for Aged Accommodation

The Shire of Kalamunda commissioned 'Community Perspectives' consultants to prepare an 'Aged Accommodation Strategy' for the Shire in 2008. The following are some of the key findings of the strategy report;

- Australia's population is ageing. By 2021 one in four West Australians will be over 60 years of age. The Shire of Kalamunda has higher percentages of aged residents than average. By 2030 there will be 18,459 people over 55 years of age and half of those will be over 70 years of age.
- There is a strong desire to 'age in place' which means finding suitable accommodation locally without the need to move away from family and friends.
- There needs to be a significantly greater investment in home support and community care. The existing levels are not adequate and this will fall considerably short in the future unless this changes.
- There is little choice in housing for older people in the Shire. Currently 94% of housing is separate housing for 'families'. As 25% of the population is over 55 years of age there is clearly a mismatch of housing to community needs.
- The Shire needs to encourage the development of smaller dwelling units that are better suited to the population profiles.
- There is a decline in Commonwealth and State investment in 'public housing'. The Shire will need to play an active role in promoting greater investment in 'public housing' to counterbalance the negative trends in supply.
- There is a negative trend in the supply of Residential Care Places over the past decade despite a 44% increase in the population of people over 70 years of age. The Shire will need to adopt a 'bold' approach to rectify such discrepancies.
- The Residential Care Industry is 'struggling' and is calling for reforms to funding, regulation and compliance.
- Older people are changing and it is likely that their aspirations and priorities will also change.
- Appropriate locations for aged accommodation in the Shire need to be identified now reflecting indicative requirements for each locality. A local planning policy needs to be prepared to establish location and design criteria for aged accommodation.

- There needs to be more effective planning and coordination of the 30 government programs involved in aged housing, residential care and home and community care.
- Collaborative opportunities and innovation are needed to address the housing and accommodation needs of older people and requires the involvement of government, service providers and the local community.

The following sites are considered to present the best opportunity for the delivery of 'Aged Accommodation' across the localities in the Shire of Kalamunda.

As a guide, the sites are listed in the order in which it is considered development may proceed first.

- **Lot 106 Hale Road, Forrestfield** – The land comprises 1.8 ha and is owned by the Shire in freehold. A portion of the site has been developed to include the Woodlupine Community hall with approximately 0.8 ha of the site presently vacant. This portion has been identified for development as community housing included an aged (over 55's) component. The Shire is presently seeking expressions of interests from not for profit companies who provide social and affordable housing for the community. The site is ideally located comprising part of the Forrestfield District Shopping Centre.
- **Lot 500 Gavour Road, Wattle Grove** - Large privately owned site (14 ha) located between Gavour Road and Welshpool Road, in Wattle Grove. This is the single largest site available in the Shire for such a facility and can accommodate approximately 200 independent living units and a nursing facility for the frail. The size of the property does provide for appropriate economies of scale. The site is located a short distance from a local shopping centre in Forrestfield and is well serviced by major arterial transport routes. The provision of appropriate services can be provided to the Wattle Grove area.
- **Lots 303, 53 & 213 Brentwood Road, Wattle Grove** - Large privately owned site comprising 10 ha. The land is vacant and was formerly used as a Turf Farm. The owner has previously submitted plans to develop the site as a private 'lifestyle village'. The site is relatively unconstrained with good access to major arterial roads and can be serviced by the necessary utilities.
- **Lot 7, 8 & 4255 Lewis Road, Forrestfield** – The land comprises 3, 1 ha lots, one of which is developed and is leased to TAFE. The land is freehold land owned by the Shire. This land is zoned Special Rural and Local reserve under the Shire's Local Planning Scheme No.3. The Shire is currently seeking expressions of interest for the site to be developed for aged accommodation comprising independent living units and medium to low care facilities.
- **Reserve 30314 Wilkins Road, Walliston.** The land comprises 10.774 ha and is reserved for Parks and Recreation in the Shire of Kalamunda Local Planning Scheme. The site is vested with the Minister for Works with the purpose of "Use and Requirements for the Minister for works". The Shire of Kalamunda is interested in securing a portion of the site for the purpose of aged accommodation and related activities with the balance retained as the natural bushland. The Shire is currently investigating the potential for the vesting to be transferred to the Shire. The site is relatively flat with good road access and is located approximately 300 metres from the local shopping centre on Canning Road. The site can be connected to the sewer head works in the vicinity of the Local Shopping Centre.
- **Lot 800 Kalamunda Road, Maida Vale** - Hillview Golf Course. This land is large (approximately 40 ha) privately owned and used as a 27-hole golf course. The size and location of the site makes is ideal for aged accommodation use incorporating independent living units,

assisted care and a nursing home. Development of the site could incorporate all or part of the site.

A preliminary estimate is that the above properties would potentially provide 1,250 Aged Accommodation, independent living units. This would assist the needs of the aged persons in the Shire in the short to medium term.

There is a need to plan for accessible and affordable facilities which are integrated and not separated from existing and planned future surrounding development, and infrastructure.

Prior to the rezoning of the land for this purpose, there should be a demonstrated commitment to urbanisation of the surrounding area and a structure planning process to create a quality urban environment.

Further to this, the following should also be noted:

- The 6 identified sites for aged person accommodation have been based on preliminary investigations only and that each site requires further investigation.
- Additional sites within the Shire may be suitable for aged person accommodation, having regard to accessibility criteria and the ability to be effectively serviced by infrastructure.
- The Local Planning Strategy may be required to be modified to incorporate potential criteria for determining the suitability of sites including, but not limited to the following:
 - Accessibility to public transport.
 - Accessibility to convenience shopping.
 - The ability to be effectively serviced by infrastructure in an efficient and cost effective manner.
 - The characteristics of the land.
- Matters relating to aged person accommodation will be considered further as part of the local housing strategy that is currently being prepared by the Shire.

Ability of the Shire to Provide for the Projected Population over the Next 20 Years

A count of vacant lots has been made in existing Urban Development Zones, proposed future urban areas, potential urban infill areas, urban investigation areas and rural investigation areas in the Shire. See Table 3 below. It is evident from this assessment that the Shire of Kalamunda will be able to accommodate the additional approximately 20,000 people by the year 2031.

Table 3: Proposed Future Lots and Population to 2031

EXISTING URBAN DEVELOPMENT ZONES	LOTS	*POPULATION
Forrestfield U7	525	1313
Wattle Grove U9	900	2250
Maida Vale U6	108	270
High Wycombe U2	328	820
High Wycombe U4	59	148
Canning Location 311	33	83
Total	1953	4884

PROPOSED URBAN INFILL AREAS	LOTS	POPULATION
High Wycombe 50%	806	2015
Forrestfield 50%	1333	3333
Maida Vale 50%	192	480
Kalamunda (DURE)	1136	2841
Total	3467	8669

PROPOSED URBAN INVESTIGATION AREA	LOTS	POPULATION
Maida Vale South	*2702	6755
Total	2702	6755

PROPOSED URBAN EXPANSION AREA	LOTS	POPULATION
High Wycombe – Kalamunda Road & Stirling Crescent	394	985
Total	394	985

RURAL INVESTIGATION AREA	LOTS	POPULATION
Pickering Brook Town Site Expansion	76 @ R2.5 38 @ R5	285

TOTAL		21,578
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***Population figures calculated on the basis of 2.5 persons per dwelling.**

Key Issue: Future of Urban Development Zones

The existing Urban Development zones in Wattle Grove (U9), Forrestfield (U7) are developing rapidly and will therefore be the first priority for development of new dwelling units. It will be important to develop the public open space and ensure that community facilities are developed as a matter of priority as soon in the development cycle as possible. Landscaping of the road reserves is also a high priority to ensure that the newly developing area soon looks well established.

Key Issue: Residential Growth and Density

As discussed above, the current population projections set a framework for the population growth in the Shire in the future. From a few existing projections conservatively extended to the year 2031 the Shire can expect a growth in population of approximately 20,000 people over the next 21 years. To accommodate the additional population an estimated 8,000 new dwellings will be required. There is existing Urban Development zoned land that will absorb many of the additional population. It is also proposed to increase the density of older large lot areas of Forrestfield and High Wycombe to accommodate a large percentage of the additional growth. Together these two changes have the capacity to absorb the projected additional population.

Key Issue: Review of Shire Land

The Shire has undertaken an independent assessment of its freehold reserves, vested reserves and state government controlled properties with a view to providing short to medium term options for redevelopment, disposal acquisition or use to deliver long term financial sustainability to its community. The assessment will also allow for the rationalisation of reserves which have no environmental value, no amenity value and are costly to maintain, to provide greater community benefit and service delivery. Some of the freehold sites have been identified and planned for community housing including aged accommodation.

Planning Implications

The following are the planning implications of the housing assessment;

1. Housing in Kalamunda is predominantly single residential, i.e. 93.7%. There is therefore an imbalance in housing supply relative to the demographic profile.
2. Housing stock in the Shire is getting old and there may be opportunities for redevelopment of these areas in the near future.
3. The projected population of an additional 25,000 people by the year 2031 will require in the order of 10,000 new lots and a land area of at least 400 ha. It is believed that this can be accommodated in the existing; urban development zones, proposed urban area, potential infill areas, urban investigation area and rural investigation area, i.e. 10,000 new lots or 25,000 people.
4. Residential infill and the development of new urban areas will require detailed investigations to determine the capacity of existing service infrastructure and potential upgrades required to accommodate the proposed development.
5. As increased development generally means more 'sprawl' increasing residential density is a priority. Planners and developers will need to examine alternative ways of increasing density including medium rise apartments and double storey townhouses.
6. The Foothills localities will need to absorb the majority of the new development because there is better access to infrastructure and utilities.
7. The Hills localities are generally unsewered and are not capable of increasing density to any great extent. The exception being in Central Kalamunda where there is spare capacity in the DURES Sewerage Scheme, but that will require higher levels of Residential density to generate new development.
8. Higher care accommodation options and home support services will be in demand and land needs to be set aside for such uses.
9. Six potential Aged Accommodation sites in the Shire have been identified and these if developed greatly assist the needs of the older people in the community. Aged Accommodation facilities are potentially required in all localities in the Shire to facilitate 'ageing in place'.

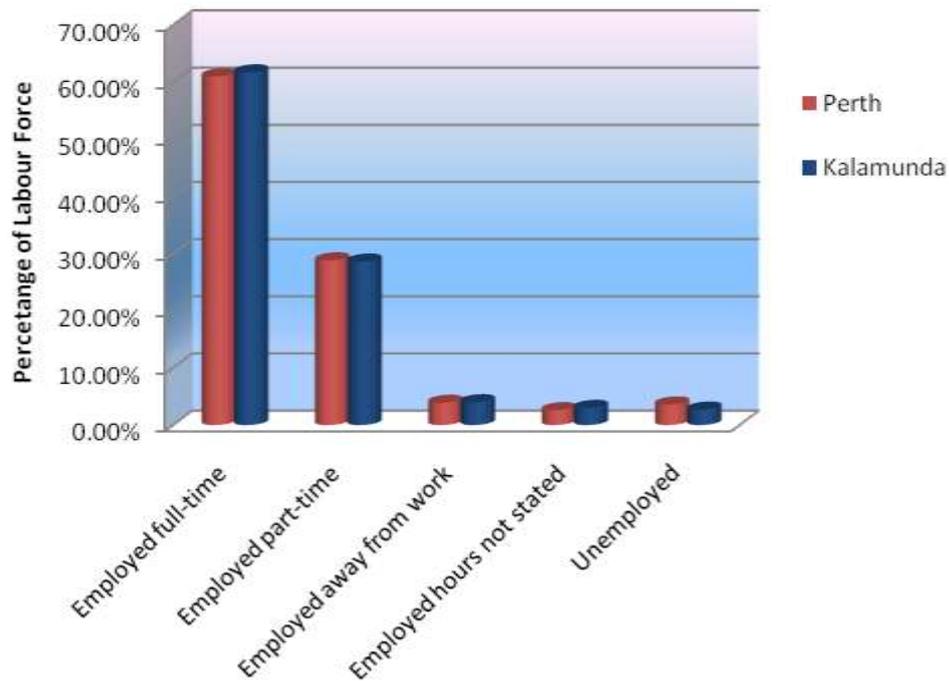
3.4.4 Employment Characteristics

Employment

The Shire of Kalamunda has a low percentage of unemployed persons (2.6%) in comparison to Perth (3.6%) and Australia (5.2%) based on 2006 Census data. Since the 2006 Census, however, the unemployment rate in Western Australia has risen (as a result of the current economic climate). The unemployment rate for WA in May 2009 was 4.9%.

Of those employed, the majority of people are full-time (61.7%) and 28.6% are employed part-time. This is consistent with the Perth labour force composition, as seen in the chart below.

Figure 23: Employment Type for Persons 15 Years and Over, 2006

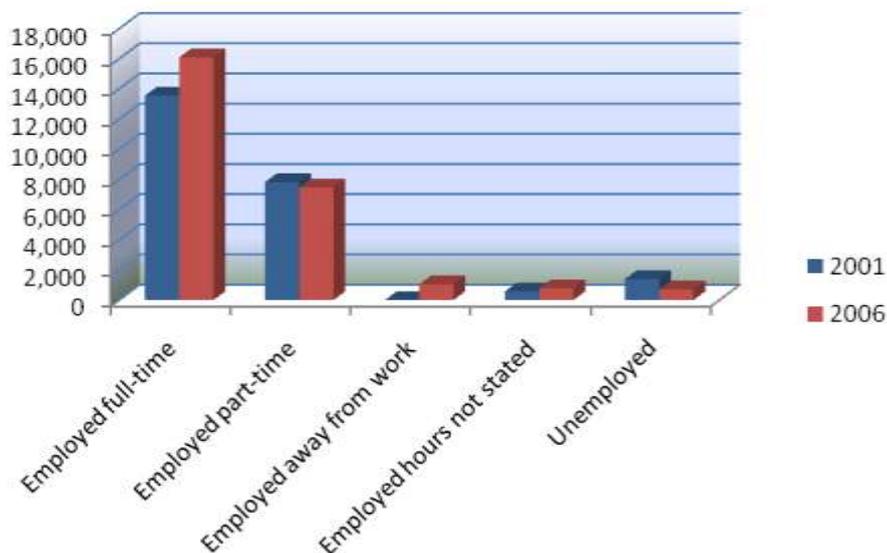


Source: ABS Census of Population and Housing, 2006

Employment Trends

The size of the Kalamunda labour force has grown from 23,330 people in 2001 to 26,087 people in 2006, an increase of 2,757 people (12%). Between 2001 and 2006, the proportion of full-time employed persons has increased by 4% (2,535 people) and the proportion of part time employed persons has reduced by 4.9% (347 people). The number of unemployed persons in the labour force has reduced by 685 people (6.8% change) in this time.

Figure 24: Kalamunda Labour Force Composition, 2001 - 2006



Source: ABS Census of Population and Housing, 2006

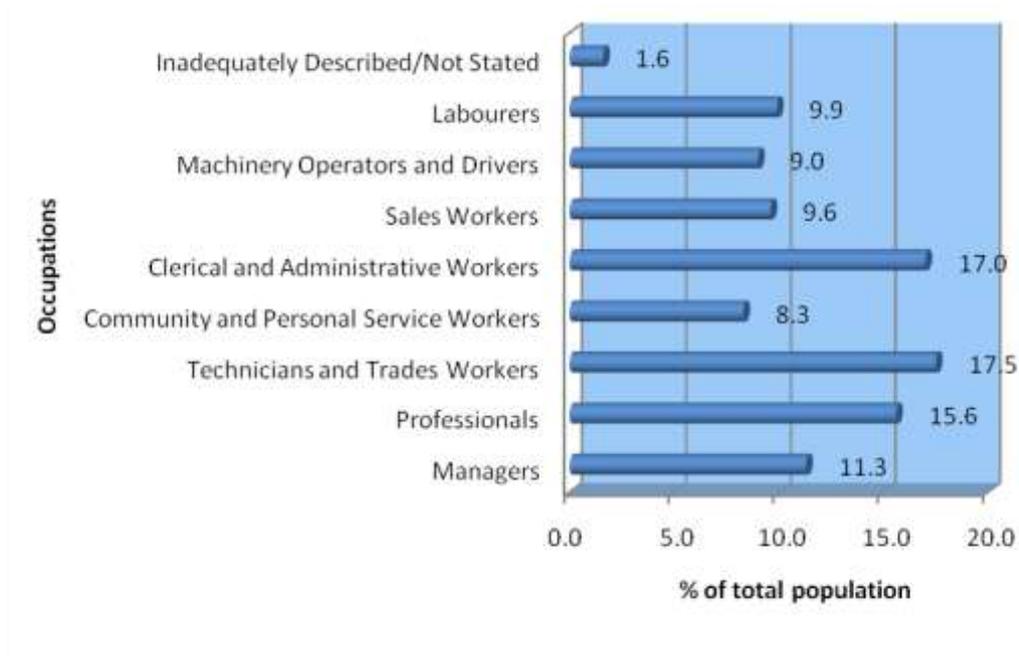
Employment by Occupation

Based on 2006 Census data, the three highest employing occupations within the Shire of Kalamunda are Technicians and Trade Workers (17.5%), Clerical and Administrative Workers (17%) and Professionals (15.6%).⁵ Currently, Community and Personal Service Workers represent the lowest proportion of the labour force. However, it is anticipated that, consistent with the ageing population within Kalamunda, there will be an increase in employment in the Community and Personal Service category in future years.

The following graph displays the composition of the labour force by occupation

⁵ Note that Kalamunda residents may be employed outside out of the Shire area.

Figure 25: Kalamunda Employment by Occupation, 2006

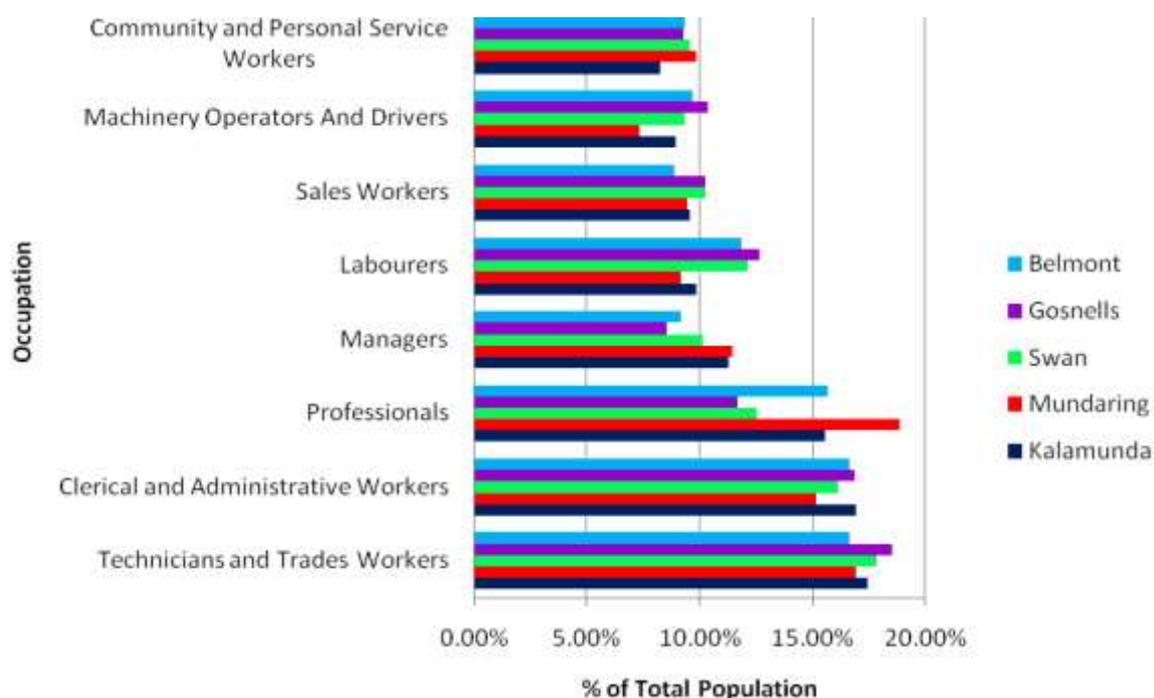


Source: ABS Census of Population and Housing, 2006

In comparison to neighbouring Local Governments, the major points of difference are:

- A larger percentage of Clerical and Administrative Workers in Kalamunda, and;
- A smaller percentage of Community and Personal Service Workers and Labourers in Kalamunda

Figure 26: Comparison of Occupation by LGA, 2006



Employment by Industry

An analysis of the three highest employing occupations within the Shire of Kalamunda identified that the Construction and Manufacturing industry had a high proportion of both Technicians and Trade Workers and Clerical and Administrative Workers. Professionals were mainly employed within the Education & Training industry. This is summarised in the table below:

Table 4: Labour Force by Industry and Occupation, 2006

Industry	Occupation Technicians Trade Workers	and	Clerical Administrative Workers	and	Professionals
Manufacturing	24.4%		21.3%		5.5%
Construction	21.3%		10.1%		1.3%
Transport, postal & warehousing	5.7%		18.9%		1.7%
Education & Training	2.8%		5.9%		45.5%

Source: ABS Census of Population and Housing, 2006

The Education industry is the highest employer within the Shire. It also ranks as one of the highest employment categories within the neighbouring local government group.

Kalamunda has the highest employment of the neighbouring local government group in the Road Freight Transport industry at 4.10%. This industry is expected to continue to benefit from opportunities associated with the development of the Perth Airport.

The following graph displays a comparison of employment by industry for residents of Kalamunda and neighbouring Councils.

Figure 27: Comparison of Employment by Industry by LGA, 2006



Workforce Occupation by Industry

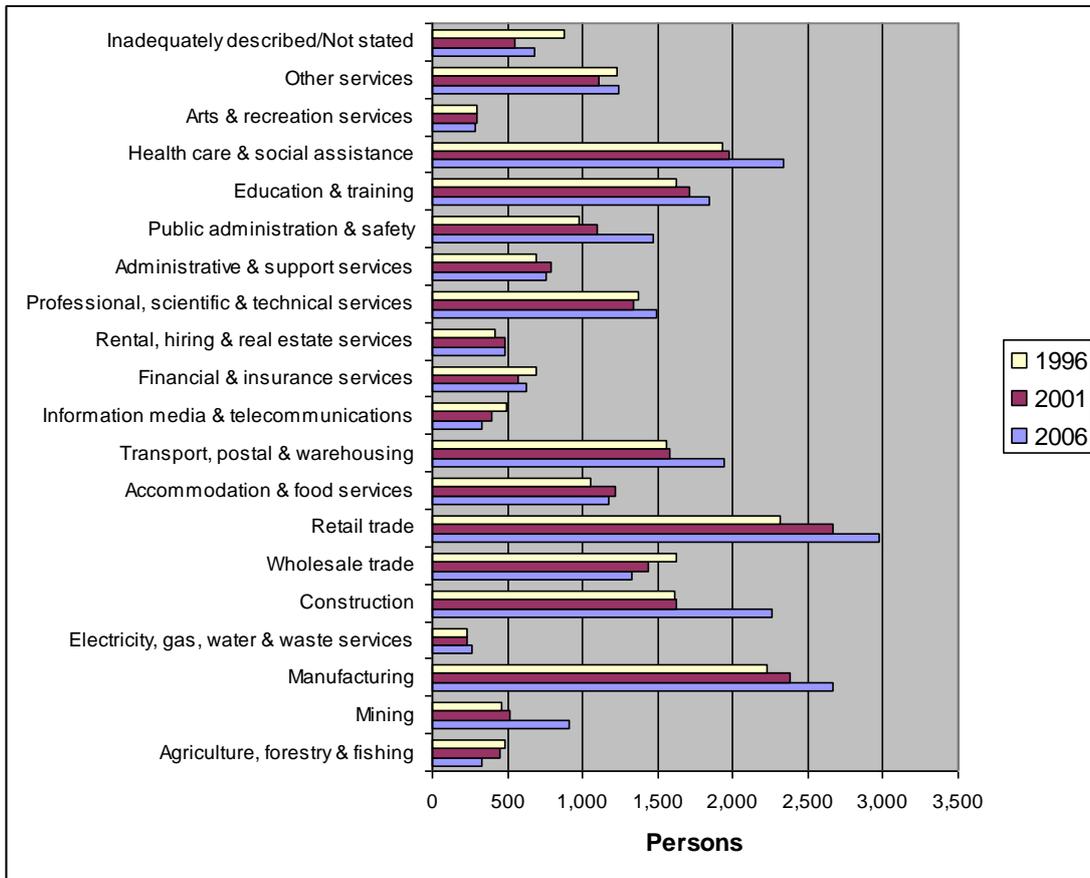
A comparison of the sectors of employment in Kalamunda and the Perth metropolitan areas reveals a very comparable composition in most sectors except in Health care and social assistance (9%) compared to Perth's 11%. Figure 4 shows the changes in each sector over the years and the more dominant sectors of employment for our residents. Retail trade 2,969 (12%), construction 2,255 (9%), manufacturing 2,664 (10%), and health care and social assistance 2,342 (9%).

The 2006 Census showed a 1.6% growth in Construction from the previous Census as well as a 1.2% decline in the proportion of residents employed in Wholesale trade.

From 2001-2006 the largest increase in the number of Kalamunda residents employed occurred in the Construction sector (633). During this same period the largest decline occurred in the Agriculture, forestry and fishing sector (124).

Mining (393), transport, postal and warehousing (362), public administration and safety (372), and health care and social assistance (366) also showed growth in the number of residents they employed.

Figure 28: Employed Persons Industry, 1996-2006



The Proposed Forrestfield Industrial Area has been identified under the State Government’s Kewdale Hazelmere Integrated Master Plan as a key strategic industrial and transport hub, which will accommodate the rapid growth of freight industry in Perth through integrated transport and land use planning.

The Shire of Kalamunda recognises the strategic importance of the area at both a State and Local Government level and as such is at present progressing the structure planning of the area between Berkshire Road and Sultana Road West for future industrial use. It is proposed that planning investigations for the area north of Sultana Road West through to Poison Gully will commence late 2010.

Unemployment

The total number of Shire of Kalamunda residents employed in 2006 was 25,379, which represents an increase of 13% from 2001. During this period the proportion of employed residents in the Perth Metropolitan Area increased by 15%. The total number of unemployed residents in the Shire of Kalamunda in 2006 was 707 people.

Table 5: Unemployment Rate and Labour Force Comparison: Shire of Kalamunda and City of Swan, 2006.

	Unemployed	Rate (%)	Labour Force
Kalamunda	707	2.7	26,086
Swan	1, 616	3.5	45,803

Planning Implications

The planning implications for the Shire of Kalamunda in terms of employment are as follows:

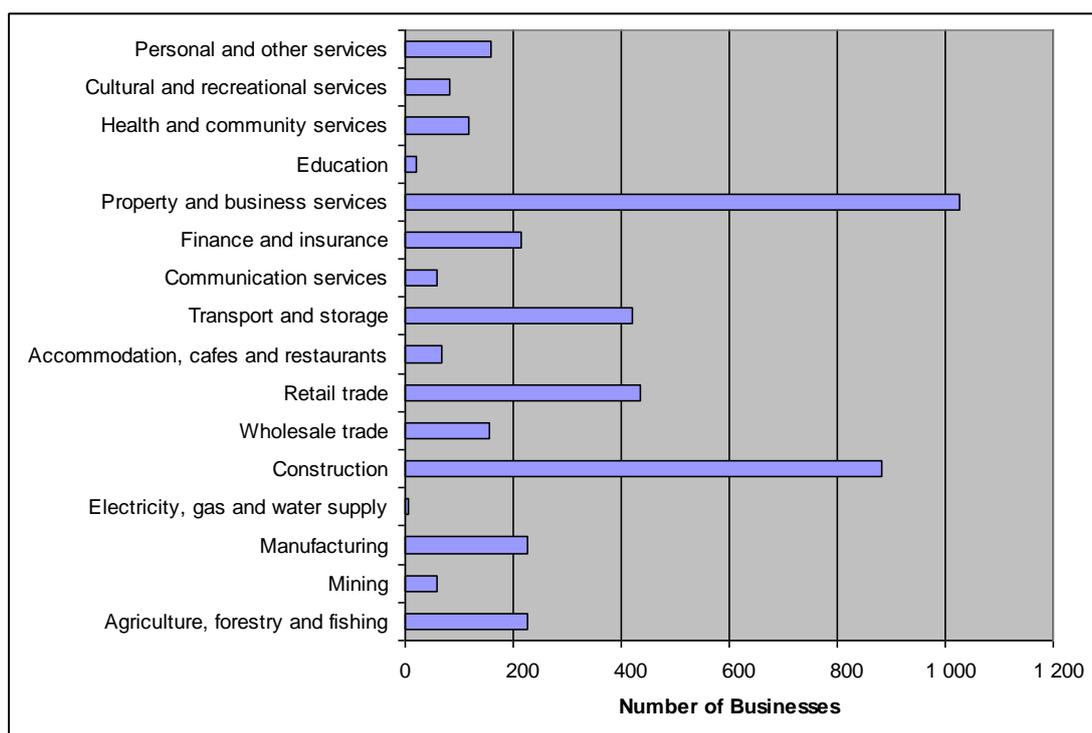
1. The foregoing analysis of employment in the Shire of Kalamunda has raised a number of important facts about the employment profile of the Kalamunda community, i.e. most people are employed full time, low percentage of unemployment, ongoing positive growth in the labour force, high percentage of 'technical/clerical jobs (34.5%), lower percentage of 'professional' jobs (15.6%), increasing jobs in construction and decreasing jobs in 'agriculture/forestry/fishing' and a growth in 'freight' jobs.
2. While being of academic interest the above facts do not have direct planning implications for the Shire.

3.4.5 Economic Characteristics

Economic Growth and Industry

The Shire of Kalamunda has a diversified economic base. The sectors with the largest number of businesses include: Construction (882) and, Property and Business Services (1,026). From 2003 and 2006 there has not been much change in the number of business establishments with only an additional 69 businesses operating in 2006. Figure 1 shows the number of business establishments by industry in the Shire of Kalamunda.

Figure 29: Number of Business Establishments by Industry, 2006



Since 2003, significant growth has occurred in Health and Community Services (30%) while the most significant decrease came from the Education sector (-22.2%). Table 1 shows the net change in the number of businesses from 2003 to 2006.

Table 6: Number of Businesses by Sector, Shire of Kalamunda, 2003 to 2006

Number of Businesses by Industry - at 30 June	2003	2006	Net Change 2003-2006
Agriculture, forestry and fishing	255	225	- 30
Mining	57	60	3
Manufacturing	264	225	- 39
Electricity, gas and water supply	6	6	0
Construction	810	882	72
Wholesale trade	156	156	0
Retail trade	471	435	- 36
Accommodation, cafes and restaurants	57	69	12
Transport and storage	426	420	- 6
Communication Services	75	60	- 15
Finance and insurance	222	216	- 6
Property and business services	933	1 026	93
Education	27	21	- 6
Health and community services	90	117	27
Cultural and recreational facilities	96	81	- 15
Personal and other services	144	159	15
Total businesses	4 089	4 158	69

Agriculture

In 2006 the ABS reported that the area of holding for Agricultural Commodities in the Shire of Kalamunda was 4,336 hectares. Of this area, 2,400 hectares of land was used to grow Cereals for grain, the other commonly grown agricultural commodities included orchard trees (587 hectares) and 'all fruits' (588 hectares).

Home Based Businesses (HBBs)

Home based businesses have become a very important vehicle of employment growth. They have become increasingly popular with new businesses looking to start-up. From 2001-2009 there have been 247 home businesses approvals by the Shire of Kalamunda. HBB's have been assisted by technological improvements such as that of internet infrastructure.

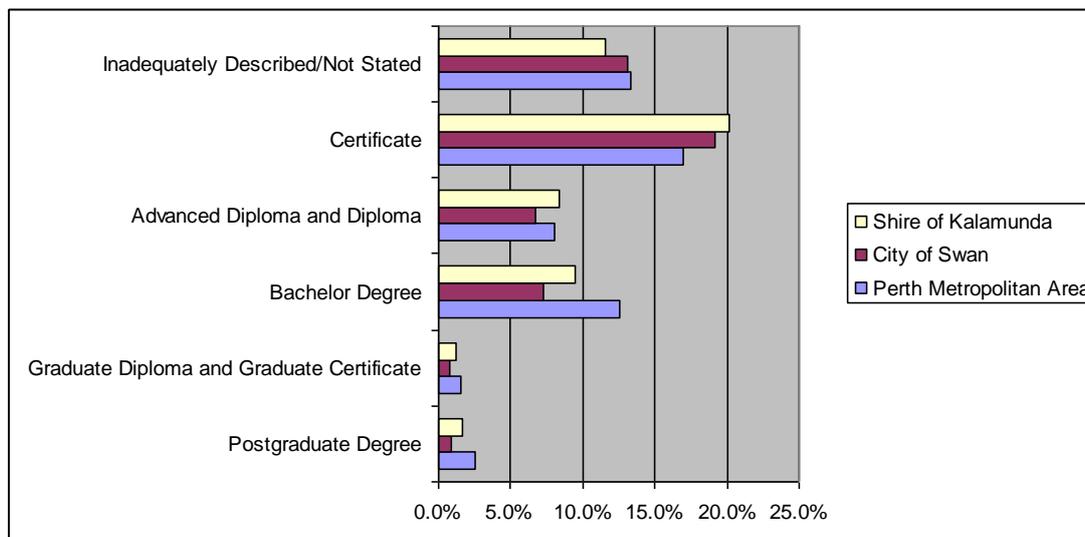
Average weekly household income

In 2005, the average individual income in the Shire of Kalamunda was \$40,762. This was lower than the Perth Metropolitan Area average individual income was \$43,013.

Population Educational Achievement

In 2006, 52% of our population had some form of post-school qualifications, 20% of these being certificates and 9.5% of these bachelor degrees.

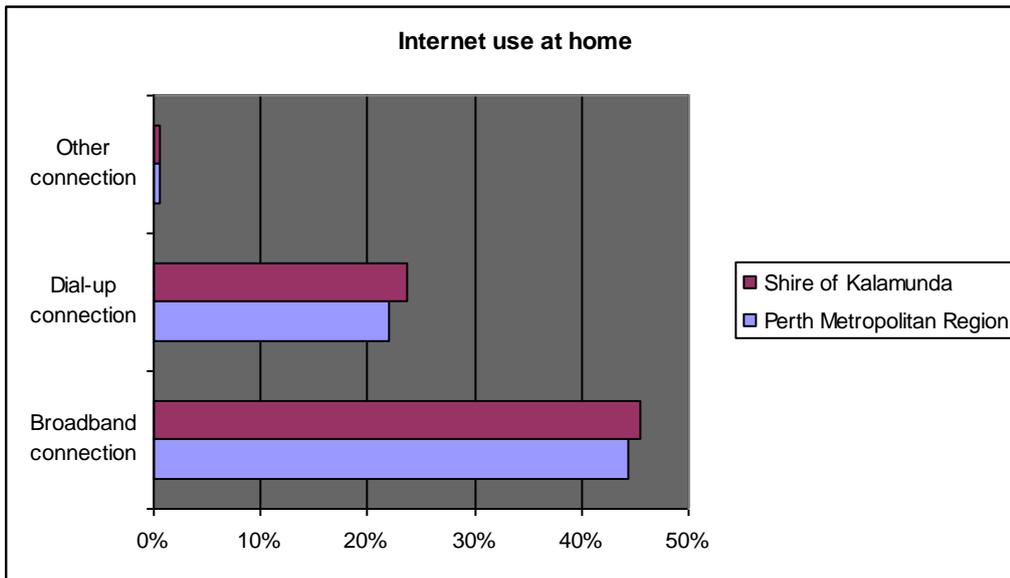
Figure 30: Post-school Qualifications by Residents



Internet Computer Use

In 2006 the proportion of people in the Shire of Kalamunda connected to the internet was 70% which is slightly higher than the Perth Metropolitan Area's percentage of 67%. The installation of internet infrastructure will give more people the opportunity to use the internet and become computer users. Figure 3 illustrates internet usage by residents in the Shire of Kalamunda compared to the Perth Metropolitan Area.

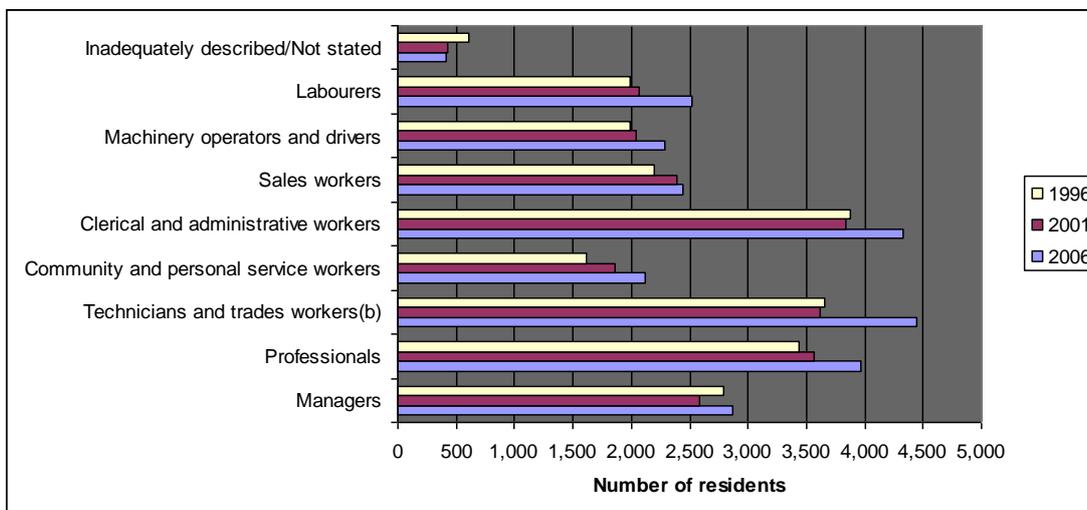
Figure 31: Home Internet Use, Kalamunda and Perth, 2006



Occupation of Kalamunda Residents

The number of employed residents in the Shire of Kalamunda has increased consistently from 1996-2006 by around 1.5 per annum. The occupations that achieved the greatest growth in terms of the residents they employed were Labourers (2,520), Clerical and administrative workers (4,325) and Technicians and trade workers (4,450). Figure 5 illustrates the occupations for Kalamunda residents and the change that has occurred in these areas over the years.

Figure 32: Residents Employed by Occupation, 1996-2006



Planning Implications

The planning implications of the economic assessment for the Shire are as follows:

1. The Shire is considered to have a diversified economic base, strong in 'construction' and 'property/business services' and has not changed much in recent years.
2. There has been a noted growth in the 'health/community services' sector.
3. There has been a marked increase in 'home based businesses' with 247 'home business' approvals. In addition 'home offices' are a permitted use and it is probable that these have increased as well.
4. The average weekly household income is \$40,762 which is lower than the Perth average of \$43,013. This is probably accounted for in terms of a high level of retirees.
5. The Kalamunda community has an education level based on 52% having post school qualifications with 9.5% having a first degree.
6. The Kalamunda community has a 70% internet use which is higher than the Perth average of 67%
7. Of the above facts 'home based business' is probably of the most interest from a planning implications point of view.
8. Most of the other facts are more of academic interest.

3.4.6 Retail and Commerce

State and Metropolitan Context

Draft 'Activity Centres for Perth and Peel'

State Planning Policy 4.2 is based on the concept of Activity Centres as against the narrower concept of Shopping Centres used in the past. Activity Centres are defined as;

"Community focal points for people, services, employment and leisure that are highly accessible Key characteristics include their levels of diversity, accumulation of activities and access to public transport. Commercial, retail, higher-density living, entertainment, tourism, civic/community, higher education, and major or specialised medical services are just a few such activities".

The Activity Centres SPP sets out an updated hierarchy of activity centres:

- Perth Central Area, including North Perth, East Perth and West Perth;
- Primary Centres, Joondalup and Rockingham;
- Strategic Centres, including 8 city centres and 4 specialised centres;
- Regional Centres, including 19 town centres and 2 specialised centres;
- District Centres, including 62 town centres (Forrestfield and Kalamunda included) District Centres are generally considered to have in the order of 20,000sqm of retail floor space; and
- Neighbourhood Centres, comprise smaller local centres in the order of 50sqm to 5,000sqm, and the WAPC generally delegates the planning of these centres to local government.

Metropolitan Region Scheme (MRS)

The Metropolitan Region Scheme map indicates only the location of the Strategic Regional Centres. The WAPC under clause 32 of the MRS requires that all applications for shopping centre development is to be referred to the Commission when:

- The proposed extensions are greater than 50,000sqm NLA in Regional Centres;
- The proposal is greater than 20,000sqm NLA for District Centres;
- The proposal is greater than 5,000sqm NLA for Neighbourhood and Local Centres, or
- The proposal has regional implications.

Existing Commercial Floorspace (2010)

The Department of Planning has prepared the following commercial information as part of its update of its 'Commercial Land Use Survey' that was originally prepared in the year 2000. The commercial data is provided in the following table.

**Table 7: Commercial Land Use by Activity Centre by Type for Kalamunda, 2010
(Department of Planning, 2010)**

COMMERCIAL COMPLEX TYPE & NUMBER	COMPLEX NAME												TOTAL	
		Primary/Rural Manufacturing/Processin g/Fabrication	Storage/Distribution	Service Industry	Shop/Retail	Other Retail	Office/Business Health/Welfare/Commun ity Services	Entertainment/Recreatio n/Culture	Residential	Utilities/Communications	Vacant Floor Area			
100	ISOLATED SERVICE STATIONS	0	0	0	270	0	350	86	0	0	0	0	70	776
750	KALAMUNDA CENTRE	0	417	0	1,295	15,083	3,700	9,816	1,905	4,479	0	420	2,516	39,631
751	FORRESTFIELD FORUM	0	0	0	478	12,044	361	2,096	121	500	0	87	1,374	17,061
752	GOOSEBERRY HILL	0	0	0	0	835	0	212	60	0	0	0	0	1,107
753	FORRESTFIELD	0	0	65	130	2,058	0	96	220	340	0	0	134	3,043
754	KALAMUNDA GLADES	0	0	0	0	4,010	0	0	0	0	0	0	0	4,010
755	SANDERSON	0	0	0	120	1,262	140	280	140	0	0	0	450	2,392
756	NEWBURN ROAD	0	0	0	0	1,035	120	90	0	0	0	0	0	1,245
757	LESMURDIE	0	0	60	0	600	0	350	0	0	0	15	270	1,295
758	HIGH WYCOMBE	0	0	0	0	575	0	45	0	0	0	0	260	880
760	MAIDA VALE	0	0	0	0	720	200	350	0	0	0	0	70	1,340
761	HALE ROAD	0	0	0	100	200	420	440	0	300	200	0	0	1,660
762	ANDERSON ROAD	0	150	0	807	530	1,600	1,100	100	0	0	0	240	4,527
763	KALAMUNDA HIGH SCHOOL	0	0	0	0	102	0	0	0	0	0	0	0	102
764	BLAMIRE ROAD	0	0	0	0	0	0	0	0	0	0	0	0	0
765	WALLISTON	0	0	0	0	160	0	0	150	0	0	0	0	310
768	HIGH WYCOMBE HOTEL	0	0	0	0	5,140	0	190	0	0	0	90	1,170	6,590
769	WATTLE GROVE	0	0	0	0	375	150	75	0	0	2,320	0	0	2,920
784	WANDILLA	0	0	0	0	1,200	600	0	750	0	200	0	0	2,750
785	HAWTIN RD	0	0	0	0	60	0	0	129	572	0	0	0	761
970	WITTENOOM RD	0	930	840	0	3,285	0	232	0	0	0	3,580	1,050	9,917
8,773	KALAMUNDA RD	0	0	0	110	580	390	60	660	870	0	0	490	3,160
8,786	KALAMUNDA ISOLATED USES	0	0	665	195	2,315	380	150	1,858	0	0	15	828	6,406
	TOTAL	0	1,497	1,630	3,505	52,169	8,411	15,668	6,093	7,061	2,720	4,207	8,922	111,883

It appears from a comparison of data from 1997 to 2010 that commercial floor space grew from 78,513sqm to 111,883sqm. This represents an overall increase of 33,370sqm over a 13 year period and equates to an increase of 2,567sqm per annum or 3.3% per annum.

On analysing the data in more detail it is evident that some centres have increased; i.e. Wittenoom Road (9,917sqm), Kalamunda Town Centre (9,240sqm), High Wycombe Town Centre changed from a hotel to a shopping centre (3,300sqm) and Kalamunda Road Maida Vale (3,160sqm). During the same time period many of the shopping centres declined in size or shut down completely.

Overall Assessment of Retail Floorspace Provision

The Western Australian Planning Commission published its State Planning Policy 4.2 - Activity Centres for Perth and Peel in June 2009. On page 10 of the Draft policy it set out; 'Guidelines on shopping Floorspace per capita (sqm) nla', the table indicates that 0.6sqm is an average requirement for Neighbourhood and Local centres and 0.4sqm for district/town centres. The overall average requirement is therefore approximately 1sqm per head of population. From Table 27 above it is, therefore, evident that the existing provision of retail floor space, 52,169sqm, relates well to the population of Kalamunda, approximately 52,000 people.

Commercial Strategy

The Shire of Kalamunda does not contain within its boundaries any regional centres, but benefits from other centres including Midland, Cannington and Belmont. These centres contain 50,000sqm or more of retail floor space. At the other end of the spectrum, neighbourhood centres may vary between 50sqm and 5,000sqm. These centres are considered too small to impact on the major retail structure and are generally self regulated according to market forces. It remains necessary therefore to address the distribution of district and local services in the context of the Local Planning Strategy.

As commercial needs are established according to population numbers, this strategy draws on the population, having regard for anticipated future urban investigation areas. It should be acknowledged that the use of standards to measure the adequacy of floor space provision has limitations. State Government policy recognises that the relationship between consumer expenditure and floor space provides only a broad notion of balance in retail provision and does not consider variations in productivity, profitability, characteristics of population served by the centre, type and mix of stores, shop hours, and design factors. The use of standards over a period of time also imposes rigidity which may stifle innovation and changes in retailing.

Specifically, the following considerations have not been factored into the assessment.

- i. Leakage to and from frame areas, for local centre needs, has not been quantified. It is considered that this is insignificant given the location of local centres in the frame area. The relative geographic isolation of the Shire is comparable to rural centres where district centres assume the function of regional centres without reaching the metropolitan based floor space standards.
- ii. 2006 Census data suggests a high level of car usage for travel to work and possibly to locations outside the Shire. Journey to work assessments would clarify these patterns and the likely leakage of expenditure to centres beyond the frame areas.
- iii. Expenditure patterns of the diverse socio-economic population in the Shire have not been assessed in detail. This may modify the floor space requirements of the Shire.
- iv. The emerging supremacy of regional centres, particularly those hosting department stores and important chain stores, may be detracting from the catchment of lower order centres. The State Government guidelines may not fully address this trend. People in the Shire have good access to nearby regional centres.

Objectives

The following objectives guide the detailed components of the commercial strategy:

- To respond to the change and growth of population.
- To ensure an equitable spatial distribution of facilities so that communities are not geographically disadvantaged from activity centres.
- To respond to community desires in terms of retailing.
- To ensure maximum integration of community facilities and residential development in relation to activity centres.
- To improve the aesthetics of activity centre environments.
- To identify commercial activities to locate in commercial centres to assist the commercial viability of centres.

Commercial Hierarchy

District Centres

It is proposed that no new district centres be established and the existing two centres remain as district centres. It is acknowledged that the Kalamunda town centre fulfils some regional service functions and has a floor area almost twice the size of other District Centres. The Forrestfield centre has expansion potential owing to the ongoing residential development and population growth in Wattle Grove and Forrestfield.

Neighbourhood Centres

Existing neighbourhood centres in the Foothills are generally well distributed except for the Wittenoom Road centre owing to its location east of Abernethy Road and the fact that it only has exposure to half of its potential 'trade area'. Hills centres are less evenly spaced, owing to the topography, although lower densities and car-oriented lifestyles make this consideration less important. An assessment of floor space supply suggests that there are opportunities for expansion of existing centres in the Foothills with limited opportunities in Hills suburbs.

Proposals for corner stores and mixed uses in infill development areas should not be dismissed outright by Council and can contribute to fulfilling minor emerging retail demands. The market place should be relatively unconstrained at this level to seek equilibrium independent of regulatory intervention based on trade area assessment.

Localities

Activity centres are discussed on a locality basis and represent a broad summary of information contained within the retail and commerce section.

High Wycombe

The completion and opening of the High Wycombe Town Centre at the end of 2008 has improved the level of retail service for the people of High Wycombe. The residents are now able to shop locally without the need to travel to shopping centres outside the Shire. It is anticipated that the existing shopping outlets along Kalamunda Road in High Wycombe will strengthen as the residential development and population growth continues to reach its full potential.

The development of the High Wycombe Town Centre will have had some impact on the other activity centres in High Wycombe. The case of the Wittenoom Road Centre, however, is struggling largely due to a poor location with almost half of its trade area vacant airport land. An attempt will need to be made to broaden the range of potential uses at the centre to assist in its viability.

Maida Vale

The northern portion of Maida Vale comprises a geographically large area which has no activity centre. The Structure Plan for the Maida Vale urban area U6 identifies a local neighbourhood shopping centre comprising 2,000 NLA. To date, no shopping centre has been developed at this site. This area, however, comprises Special Rural and Residential Bushland development which is relatively low density and does not warrant an activity centre. The central part of Maida Vale has a neighbourhood activity centre at the intersection of Kalamunda Road and Gooseberry Hill / Hawtin Road. This centre has a limited range of services.

Forrestfield

Under the State Government's State Planning Policy 4.2 – Activity Centres for Perth and Peel (2010), the Forrestfield Centre is identified as a "District Centre" in the Activity Centres' Hierarchy. This classification highlights the important role the Forrestfield Centre currently performs in the day-to-day functioning of the Forrestfield area, and more importantly, reinforces the ongoing and expanding role the Centre is expected to play into the future.

The Forrestfield Centre currently contains approximately 17,060 sq.m of commercial floor space (DPI data). Of this, approximately 12,044 sq.m is classified as "shop-retail". Clause 6.4(2) of SPP 4.2 states that "Activity centre structure plans should be endorsed prior to a major development being approved to ensure a centre's development is integrated, cohesive and accessible."

In September 2010 the Shire of Kalamunda was approached by representatives of the two major retail outlets operating within the Centre (the "Forrestfield Forum" and "Forrestfield Marketplace") with an informal proposal to undertake major extensions to those two outlets, which currently make up approx. 75% of the total Forrestfield Centre commercial floor space. The proposed extensions would increase the floor space of the two major retail outlets by over 7,200 sq.m of shop-retail, and constitute a major development.

Clause 6.4.1 of SPP 4.2 states that the relevant local authority is the approval authority for District centres of less than 20,000 sq.m shop-retail NLA. The WAPC must endorse a District Centre structure plan if the floor space exceeds 20,000 sq.m shop-retail NLA. The current shop-retail floor space of the Centre is well below this figure, and therefore the Structure Plan does not have to be referred to the WAPC for approval.

The Shire of Kalamunda is also a major landowner within the Forrestfield District Centre, and is currently developing plans for a major new residential development and a possible extension of existing community facilities. The Shire of Kalamunda has therefore prepared a Structure Plan to guide the future development and renewal of all the area identified as the "Forrestfield District Centre". The Structure Plan has been prepared generally in accordance with the "Structure Plan Preparation Guidelines" contained in SPP 4.2.

A retail Sustainability/needs assessment must be prepared by the proponents of any major development of a commercial area. The study, together with its likely impacts measured against the objectives and principles of the proposed structure plan will be assessed by the Shire prior to any determination being made by Council, and if required forwarded to the Western Australian Planning Commission for approval.

The locality of Forrestfield is also fairly well served with neighbourhood centres, such as the Edinburgh Road activity centre. The proposed new urban area located between Berkshire Road and Sultana Road East is expected to house approximately 3,160 people, and could well accommodate an additional neighbourhood centre.

Wattle Grove

The Wattle Grove (Cell 9) Urban Development area is presently developing rapidly and a new neighbourhood centre has been planned for some time in the centre of the area to serve the needs of the community. The owners of the commercial land are currently seeking approval from the Shire for a new Local Neighbourhood Centre comprising 2600sqm NLA on Hale Road.

Gooseberry Hill

The existing centre on Railway Road has a limited range of facilities for the people of Gooseberry Hill. There is no room to expand this neighbourhood centre on the existing site. The locality is not very well served by the existing facility; however, owing to the topographical form of the hills residential areas the residents of Gooseberry Hill tend to gravitate towards the Kalamunda Town Centre.

Kalamunda

The Kalamunda Town Centre is bounded by Railway Road, Stirk Street, Canning Road and Mead Street. This centre serves most of the needs of the population in the Hills area. Whilst most properties are developed, there is a mixture of old and new development, and consequently it is possible that parts of the area will be the subject of redevelopment in the foreseeable future. Redevelopment could take the form of replacement floor space or minor increases in the amount of floor space. The 'Kalamunda Central' Shopping Centre is operating well and in light of the fragmentation of ownership and occupancies in the remainder of the activity centre, demand for substantial increased floor space is unlikely in the foreseeable future unless local population and disposable income increases.

Several businesses within Central Kalamunda are nearing the end of their economic lives with the constraints of current competition with other centres. Alternative uses such as offices or renovations to facilitate rejuvenated retail innovations will emerge. Design co-ordination with existing uses and available spaces will be important for the ongoing implementation of the Kalamunda Town Centre Improvement Plan. Based on the current population and existing retail floor area there is considered to be an over-supply of district centre floor space in the Kalamunda locality. It is therefore concluded that:

- i. There is considered to be an oversupply of commercial centre floor space in the Hills areas for the current population.
- ii. As the Kalamunda Town Centre floor space is in excess of the WAPC's standard size, the 'overflow' may be operating more as a neighbourhood centre. This is because the Kalamunda, Lesmurdie and Gooseberry Hill locality accommodates both the Kalamunda Town Centre and the Glades Activity Centre.
- iii. If the oversupply of retail floor space mentioned above is significant there is little need for any additional neighbourhood centres.

Lesmurdie

Lesmurdie contains two neighbourhood activity centres; Rooth Road Centre and Sanderson Road Centre. Trade area analysis indicates that, disregarding the potential local function of the Kalamunda Town Centre for all Hills localities, there is an undersupply of neighbourhood centre floor space within Lesmurdie.

Walliston

Walliston currently contains a small neighbourhood centre. Calculations suggest there is a deficiency of local retail floor space in Walliston. It is likely, however, that as with all Hills suburbs Walliston relies on the Kalamunda Town Centre to perform a district and neighbourhood function. Walliston

also contains a general industry zone which hosts approximately 1,000sqm of miscellaneous retail operating within the service industry category. It is considered this satisfies a current demand for operators requiring floor space unavailable or unsuitable in other centres.

Design Considerations

A Kalamunda Town Centre design study was undertaken by Hames Sharley consultants in 1988. This study was utilised over many years but has more recently been considered to be out of date.

The Shire commenced the preparation of Townscape Improvement Plans for most of the Activity Centres in the Shire. To date the centres of Kalamunda, Lesmurdie, Edinburgh Road Forrestfield and Berle Way High Wycombe have been adopted. This program should result in an improvement of a broad range of townscape/streetscape issues and should result in improved urban quality of the centres. In addition, the following aspects need to be considered when assessing proposals for existing and future commercial centres.

Centre Plans

The boundaries of the Kalamunda Town Centre being Stirk Street, Railway Road, Mead Street and Canning Road are confirmed as a framework for ongoing consideration of the range of uses and movement patterns within the centre. Those have been reflected in the townscape Improvement Plan for the centre. The Forrestfield District Centre also requires the preparation of a Structure Plan prior to consideration of expansion proposals.

Development of all new or expanded neighbourhood centres should be subject to the preparation of centre plans which outline the relationship of proposals to adjacent uses and address design and movement considerations. All centre plans should be prepared in the context of housing precincts. In particular, the Kalamunda Town Centre has an important relationship with adjacent residential uses in central Kalamunda.

Parking

The following additional matters should be clarified and subject to policies or provisions of the reviewed scheme and addressed on a case-by-case basis for development proposals:

- i. Multiple egress points should be rationalised to reduce traffic conflict.
- ii. Functional relationships between car parks under separate ownership in the same centre should be addressed including pedestrian access and landscaping.
- iii. Design considerations, including landscaping and relationships to buildings should facilitate development of aesthetic, intimate and safe public spaces.
- iv. Joint use of car parking when centres incorporate co-location of community, recreation and commercial facilities which operate or peak at different times.

Movement

Traffic, pedestrian and cyclist movements should be addressed when assessing development proposals. Additionally ongoing improvement by Council of facilities in road reserves adjacent to centres should be undertaken. The following principles apply:

- i. Road design should encourage slow traffic movement to reduce conflict with other traffic, pedestrians and cyclists.
- ii. Roads subject to heavy pedestrian traffic should be subject to special treatment to rationalise on-street parking, vehicular pedestrian and cyclist movement. Total pedestrianisation should be carefully considered to avoid sterilisation of shop front interfaces with passing traffic. Thresholds of pedestrian priority should be tested with interim measures such as temporary closure to vehicles during peak periods.
- iii. Street furniture, pedestrian refuges and footpaths should aim to invite and ease access.

Mixed Uses

Commercial centres which include mixed residential and commercial uses can create lively, interactive and safe, more crime free environments. These should be encouraged and facilitated by Local Planning Scheme provisions.

Public Art

Public art should be embraced as a means to create colourful, vibrant, evolving and socially constructive use of community space. Permanent art works, such as sculpture can be integrated into the design of new buildings and spaces. Temporary installations and performing arts could be encouraged by the Shire, and particularly by commercial operators, to improve the community and commercial atmosphere of centres. The new Kalamunda 'Zig Zag' Cultural and Community Centre, includes an area for the display of public art and allow for public art exhibitions.

Co-location

Location of community, recreation and commercial facilities in precincts creates efficiencies in infrastructure provision and potential to share car parking and access to public transport nodes. Furthermore integration of co-located facilities with surrounding residential areas can be improved by linear open spaces and improved pedestrian and cyclist routes in strategically important road reserves.

Planning Implications

The following are the main planning implications to emerge from the assessment of district and neighbourhood activity centres in the Shire:

1. Ongoing urban growth in the Foothills will require ongoing commercial/retail development in these areas as the population and disposable income increases.
2. The topography and road pattern of the Hills localities play an important role in the commercial and retail activities in these areas. The Kalamunda Town Centre has a distinct District scale as well as serving a Neighbourhood scale of service.
3. The aesthetics of most of the activity centres in the Shire has become neglected and run down. The Shire is presently involved in preparing Townscape Improvement Plans together with landowners and operators to improve the quality of the activity centre.
4. The people of the Shire value the 'village' scale of activities in Kalamunda and they wish such an atmosphere to continue.
5. Forrestfield Shopping Centre is recognised as a District Centre under the Activity Centres Hierarchy and therefore requires the preparation of a Structure Plan.

3.4.7 Tourism and Visitors

The Shire of Kalamunda is located relatively close to the Perth CBD and has a number of tourism opportunities related to the views from and to the Darling Scarp. Although the prime views are presently dominated by residential and rural uses there are also scenic valleys, hobby farms, vineyards, restaurants and orchards that have tourist values. Planning for sustainable tourist development is one of the key goals of the Shire of Kalamunda as it can make a significant contribution to the local economy of the Shire and the well being of the community. There are a number of potential business attractions, natural and historical sites within the Shire that need to be identified and promoted. It is the aim of the Local Planning Strategy to ensure the sustainable growth of the industry continues into the future without compromising such businesses and attractions.

Recent Visitor Numbers to the Shire of Kalamunda

The viability of tourism in Kalamunda relies on a constant and steady flow of visitors. A survey of national and international visitors was conducted in the Shire by Tourism Western Australia between September 2001 and September 2008. The survey indicates there was an annual average of 25,000 (90%) domestic visitors and 2,800 (10%) international visitors staying overnight in the Shire. Of the domestic visitors, the average length of stay was 4 days whereas the international visitors stayed much longer, with an average length of stay of 23 days.

Table 8: Overnight Visitors to the Shire of Kalamunda, Average 2001 to 2008

	Visitors	Visitor Nights	Average Length of Stay (days)
Overnight Visitors			
Domestic	25,000	111,375	4.5
International	2,800	63,500	22.7
Total	27,800	174,875	6.3

The number of day tripping visitors to Kalamunda is substantially greater, averaging at 153,600 people per year. The following table shows this data.

Table 9: Domestic Day Trippers to the Shire of Kalamunda, Average 2001 to 2008

	Visitors
Domestic Day Trips	153,600

Tourist Accommodation

Tourist accommodation in Kalamunda is comprised predominantly of 'bed and breakfast' and 'home stay' opportunities. There is no hotel accommodation at present. The suburbs that are located on the Darling Plateau portion of the Shire of Kalamunda, including; Kalamunda, Lesmurdie, Piesse Brook, Pauls Valley, Hacketts Gully, Bickley, Walliston, Gooseberry Hill, Carmel, Pickering Brook and Canning Mills contain accommodation that suitably fit to the rural hills character.

The Foothills localities, including; Forrestfield, High Wycombe, Maida Vale and Wattle Grove also provide 'bed and breakfast' and 'home stay' accommodation to provide visitors the opportunity to experience the semi- rural atmosphere.

Tourist Attractions

The following are the main tourist attractions in Kalamunda:

Kalamunda Town Centre

The Kalamunda Town Centre is the most prominent and recognised tourism precinct within the Shire. History Village provides tourists an understanding of the early development of the area and is a starting point for those wishing to learn what the Shire of Kalamunda has to offer. The Tourist Information Centre, based at the Kalamunda Library, on an interim basis, provides tourists with essential information for their enjoyment of the visitor experience. It is intended to establish a more permanent Kalamunda Tourist Centre within the recently opened 'Zig Zag' Cultural and Community Centre located between the library and History Village. Tourist opportunities within the Town Centre include; niche store and café based activities, as well as the extremely popular Kalamunda Village Markets that occur on the first Saturday of every month. More recently the Kalamunda farmers market has commenced in the Town Centre on Sunday mornings and is proving popular with local residents and visitors from elsewhere. The tourist sites and activities in the Kalamunda Town Centre also act as an important social and cultural focus for the community at large.

Figure 34: Kalamunda Town Centre



The Bibbulmun Track

The Bibbulmun Track is one of the State's major tourism and recreation drawcards with hikers as many as 137,500 people using the track annually. The well known track begins on the eastern edge of the Kalamunda Town Centre and finishes nearly 1,000km away in Albany on the south coast. A portion of the \$21million spent annually by hikers is spent in Kalamunda.

Bickley and Carmel Valley Wine Trail

The Perth Hills Wine Region is gradually becoming known as an alternative destination to sample fine wines a relatively short distance from the city. The Bickley and Carmel Valleys are home to a cluster of orchards and boutique wineries. The wine trail currently comprises seven award winning vineyards all located within a few kilometres of each other. The region offers tourists the opportunity to visit the mix of scenic orchards and vineyards infused within National Parks in the Shire. The Bickley and Carmel Valley Wine trail is an important asset for the Shire of Kalamunda in respect to tourism development. The values of the wine trail need to be safeguarded to ensure that future land uses, development and subdivision within the area does not harm the general amenity of the area. The Shire needs to preserve the unique and picturesque landscape ideal for tourism.

National Parks and Reserves

More than 70 percent of the Shire of Kalamunda is made up of state forest, national parks, open space and water catchment areas. This provides visitors with recreational opportunities such as bushwalking, cycling, scenic drives and picnic spots. National park attractions within the Shire include:

- Gooseberry Hill National Park
- Mundy Regional Park (formerly Kalamunda Regional Park)
- Beelu National Park (formerly Mundaring National Park)
- Helena National Park
- Korung national Park (formerly Pickering Brook National Park)
- Lesmurdie Falls National Park

In addition to the more recognized tourist attractions the Shire organises and supports a number of community events annually that also attract people from outside the Shire. These include:

- Monthly Kalamunda Markets
- Weekly farmers Markets
- Zig Zag Festival
- Walk the Zig Zag
- Corymbia Festival
- Harvest Festival
- Kalamunda Show
- Targa Rally
- Pickering Brook Show
- Haynes Street Karnivale
- Carols at Stirk Park
- Carols at Edney Park High Wycombe

Research undertaken in 2007 as part of the Perth Hills Strategic Marketing Groups identified infrastructure gaps, facility needs including signage, parking and quality of public facilities. As a follow-up of the research a Style Guide was developed to ensure tourist signage is consistent and compliant with main roads statutory requirements.

Planning Implications

The following implications for planning are evident in the tourism sector:

1. Encourage the development of tourist accommodation and additional short stay accommodation in Kalamunda to lengthen the tourist stay in the Shire.
2. Establish a larger improved Kalamunda Tourist Information Centre as part of the new Kalamunda Cultural and Community Centre between the Library and History Village.
3. Develop, implement, monitor and review the Kalamunda Bike Plan, Walktrails Masterplan and the Hartfield Park Management Plan.
4. Maintain, upgrade and improve existing facilities and construct new facilities when required.

3.4.8 Rural Land Use

The rural areas comprise the localities of Walliston, Bickley, Piesse Brook, Carmel, Pickering Brook, Paulls Valley, Hacketts Gully, Canning Mills commonly referred to as the 'Hills Orchard Areas'. In addition, there are Rural Residential areas; Wattle Grove, Forrestfield, Maida Vale and High Wycombe.

The Use of the Rural Areas

Historically, the rural areas of the Shire of Kalamunda were used as a source of timber. Commencing in 1864 the first settlers were granted licenses to cut timber in Carmel. Timber mills soon spread elsewhere as the demand for timber grew. Fruit growing in the rural areas commenced in 1891 as settlers found the fertile land in the valley areas successful for the growing of a variety of fruit. It was not, however, until the construction of roads and the provision of suitable transport to markets in Perth that the orchard industry began to thrive and dominate the local economy up until the 1950s when residential development in the foothills and beyond become the focus attracting people to live in an attractive semi-rural location within commuting distance of Perth. Today the rural and semi rural areas of the Shire are characterised by a range of land use activities such as; hobby farms, orchards, vineyards, intensive horticultural activities, tourism related activities, animal agistment and timber production. Much of the land surrounding these activities comprises State Forrest, National Parks, Regional Open Space and drinking water catchments. In recent years there has been a move towards urban/industrial uses moving into rural areas of the Shire in the form of trucking businesses, earth moving businesses and other quasi-urban uses.

Hills Orchard Study

The Shire of Kalamunda prepared a 'Hills Orchard Study' during the 1980s to develop a consistent long term approach to the ongoing planning of activities in the traditionally Orchard areas of Kalamunda. There was much discussion at that time about the diversification of rural uses and the ongoing encroachment of non-orchard uses. The final study was approved by Council and has since been incorporated into Local Planning Scheme No.3. The rural zones in Scheme No.3 were all originally part of the Orchard Study. The Scheme has also set minimum lot sizes for subdivision in the rural zones. Over many years landowners who want to subdivide their properties have approached the Shire. Their predominant reason is that as second or third generation members of orchard families they earn their living in other economic sectors and they do not have time to devote to the orchards. They have a strong identity with their locality and do not want to live elsewhere.

Discussions with staff at the Department of Agriculture in 2009 indicated that the Kalamunda orchard areas are regarded as a major resource for the Perth Metropolitan Region. The Department is concerned that if the orchard areas are subdivided valuable agricultural land will be lost. They also quote that the annual income from fruit production is worth in the order of \$9 million.

It is proposed that the Shire review the Hills Orchard Study undertaken in the 1980s. The minimum lot sizes determined at that time may need to be revised. The findings of the Hills Orchard Study were incorporated into Local Planning Scheme No.3. In addition, as not all the land in the orchard is high quality for fruit growing and some of the existing lots are already too small to be farmed economically there may be scope for some adjustments to the properties and long term use of the orchard areas. Possibly, some of the smaller lots could be rezoned for a broader range of uses.

The Economic Value of Rural Production

The decline of the timber industry in the early 1900s resulted in orchards and to a lesser extent wine production becoming the major economic activity of the rural areas. Horticultural activities comprising primarily orchards and viticulture are found mostly in the localities of Pickering Brook, Carmel and Bickley. The economic value of the horticultural activities to the rural areas of the Shire of Kalamunda reflects the inherent characteristics of the land and climate, water resources, proximity to markets, availability of labour and fostered by a greater focus on improved efficiency and management of land, reduced costs and minimised environmental impacts with the aim to produce high quality fruit with efficient use of resources. The economic value of rural areas should not be underestimated. On average 50% of fruit grown in the Perth Metropolitan Region is grown in the Hills orchard area (2001) yielding a gross value of \$8.6m in the 2005 growing season (Agric. Dept WA). In addition to the economic value of horticultural activities to the rural areas, tourism related activities in the form of tearooms, restaurants, cellar door sales and tasting associated with wineries and arts and craft activities are increasing in popularity as many horticultural activities seek to diversify to supplement their income.

The ability of many horticultural businesses to manage in the face of declining prices and markets and future market trends has placed additional pressure on existing landholdings for further subdivision. In addition, the social fabric of the hills orchard area is changing. The tradition of passing on the family business to children is declining as they move away from the family home to seek careers in other sectors. Consequently, families are finding it difficult to manage the day to day operations of the business on the larger properties. This issue represents a challenge for the Shire as more landowners look to reduce the size of their landholdings through the subdivision process, yet remain viable in the face of changing economic markets. Problems exist where such landholdings are unable to subdivide due to the landholding being insufficient in area to satisfy the minimum lot size requirements of Local Planning Scheme No.3. The situation has led to requests from some landowners for the Shire to review the minimum 6ha lot size and give consideration to a minimum 2 ha lot size under the Rural Agricultural zone. This is a complex matter which needs to be carefully considered. Fundamentally, the Shire is committed to maintaining a viable horticultural activity, whether there is scope to consider a reduction in the minimum lot size needs to be considered against the broader social, economic and environmental implications of such a move.

Over the past few years some landowners have undertaken research to assess whether subdivision is a feasible option. Consulting reports have been prepared that indicate that subdivision may be feasible. The Department of Agriculture, however, is not convinced that minimum lot sizes should be reduced. They are also mindful that the Shire's orchard areas supply Perth with fresh fruit and that they are regarded as a strategic resource.

Rural Landscape and Character

Local Planning Scheme No.3 controls and manages subdivision and development through the Rural zones including; Rural Agriculture, Rural Conservation, Rural Landscape Living, Residential Bushland, Rural Composite and Special Rural. Rural land may encompass land suitable for sustainable agricultural use and conservation of significant landscapes and rural-residential land uses. The use of rural or rural-residential land should accord with the following principles:

1. The use of appropriate rural land for sustainable agricultural practices is supported.
2. The use of appropriate rural land for tourism related activities is supported.
3. Rural-Residential lots will where possible be used to form a buffer between various urban areas in the Foothills and regional parks.

Rural Agriculture

This zone provides for the protection and maintenance of the Hills horticultural industry through the sustainable development of land for horticultural activities and conservation of soil and water resources and limitations on subdivision. The zone recognises the contribution of horticultural activities to local economies and its importance as a visual landscape element. The Scheme recommends a minimum lot size of 12 ha, however a minimum 6 hectare lot size will be supported subject certain criteria being addressed in particular a requirement for at least 4 ha of the subdivided land being suitable for horticultural and rural pursuits. To provide for more tourism related opportunities within the zone it is recommended that Table 1 of Local Planning Scheme No.3 be amended to allow for chalet and tearoom uses to be classified as 'A' uses and therefore not permitted unless approved by Council. These uses should be seen as complimenting rather than replacing the rural activity.

There are a number of lots located immediately to the east of the Kalamunda and Lesmurdie town sites currently zoned Rural Agriculture and Rural Landscape Living that are currently below the minimum 6ha lot size prescribed under the Scheme. Rather than consider these landholdings in isolation, it is recommended that a review of similar sites be investigated to determine an appropriate strategy and zoning moving forward that better represents the current lot sizes in these areas.

Rural Conservation

This zone seeks to ensure development is in harmony with the natural environment. Land uses, activities and land management practices are required to be consistent with natural resource conservation and compatible with the public water supply objectives. The Scheme recommends a minimum lot size of 12 ha; however, a minimum 6 ha lot size will be supported where the applicant can address certain criteria.

Rural Landscape Interest

This zone seeks to provide for a diverse range of rural land uses in a manner which will not adversely affect the landscape and environmental qualities of the land. Land uses, activities and land management practices are to be consistent with natural resource conservation and compatible with public water supply objectives. The Scheme recommends a minimum lot size of 12 ha; however, a minimum 6 ha lot size will be supported where the applicant can address certain criteria.

Special Rural

This zone provides for small rural lots to accommodate land use activities compatible with rural residential living. There are a number of special rural zoned lots located within the Hills orchard areas; however, the majority of the special rural zoned land is located in the Foothills providing a buffer between the urban areas of Wattle Grove, Forrestfield and Maida Vale and reserved land along the Darling Scarp. The Scheme recommends a minimum lot size of 1 ha where a reticulated water supply is available. Subdivision may be possible where the lots are larger than 2 ha but will require the Shire to prepare a subdivision guide plan and the sub divider to prepare a land capability analysis to ensure cohesive subdivision of larger undeveloped lots. Special rural areas are coming under increasing pressure from competing land use activities in the Foothills as the demand for additional urban land increases. Typically these areas are located in the Foothills localities of Maida Vale, Forrestfield and Wattle Grove with access to infrastructure and services in close proximity to Perth.

Rural Composite

This zone provides for a mix of semi rural and commercial land use activities, with the latter only considered for approval when it can be demonstrated that the use is appropriate to the area and that the commercial activity will not have a detrimental impact on the surrounding land uses. The Rural Composite zone is found only in a small area in Wattle Grove adjacent to Welshpool Road. Typically, the land use activities found in this area include garden centres and related horticultural suppliers. As with the Special Rural zone, the Scheme recommends a minimum lot size of 1 ha where a reticulated water supply is available. Any future subdivision will usually require that the Shire prepare a subdivision guide plan and the sub divider a land capability analysis to ensure sustainable subdivision of larger undeveloped lots. The ability of the Rural Composite zone to accommodate commercial uses in an essentially rural residential area provides many landowners with the opportunity to combine their business interests as part of their home environment. Consideration should be given to allowing landowners to park multiple commercial vehicles on land zoned Rural Composite to encourage the parking of these vehicles away from residential areas.

Key Issue: Future of Special Rural Areas

Owing to the ongoing intrusion of the Special Rural areas by 'urban' uses and the proximity of these areas to the existing urban front, the Shire needs to consider whether it is in the best interests of the Shire and community at large to continue in the same direction. It is considered that rezoning to Residential Bushland (2,000sqm, 4,000sqm lots) may be an appropriate direction to take in the future. This would ensure that good stands of endemic vegetation will be retained and that the areas zoned as such will still create a 'bushland buffer' between existing Residential areas.

Key Issue: Middle Helena Land Uses

The Middle Helena catchment area is an important drinking water collection area for the future needs of the growing population in the Perth metropolitan region. It is therefore important that land uses that are currently polluting the catchment be managed to eliminate pollutants. It is therefore proposed that the Shire embark on a detailed water quality assessment to identify point sources of pollution and to remedy them. Despite such measures it should still be possible to expand some tourist uses on condition that they manage their nutrient outputs within the Health Department requirements. This may need proponents to consider removal of sewerage to the nearest sewerage treatment plant. In addition, land uses proposed in the Middle Helena Catchment Area are constrained by the land use controls identified in the Middle Helena Land Use and Water Management Strategy (2010) and the Department of Water Quality Projection Note – Land use compatibility in public drinking water source areas.

Key Issue: Future of Orchard Areas

As discussed above the orchard industry is important as a strategic food production area for the Perth Metropolitan Region and is the largest earning rural land use in the Shire. The Shire has through the Hills Orchard Study (1987) examined the orchard industry and land uses for many years. Much research and consideration has led to the existing planning Scheme provisions. It is proposed, however, that the Shire re-examines the orchard areas through a review of the 1987 Study and identifies under-utilised land for possible subdivision. In addition, it is proposed that a strategy be prepared to look into development opportunities such as for example restaurants and tourist accommodation in the Hills orchard areas.

Key Issue: Future of Pickering Brook

Pickering Brook is relatively isolated from Kalamunda and most of the Town Centre uses. In addition, there has been a demand expressed that a greater variety of housing is needed in the Pickering Brook locality to cater for the existing demographic profile. As a result it is proposed that land should be identified in the centre of the Pickering Brook settlement for closer subdivision to 4,000sqm lots to provide housing for the ageing local community. In addition, a focal area for a small neighbourhood activity centre should be identified to serve the local community.

Figure 35: Proposed Consolidation of Pickering Brook Townsite.



Planning Implications

The following are the main implications for planning the rural areas:

1. There is a general intrusion of rural zones in the Shire by 'urban' uses such as trucking, earth moving equipment and other quasi industrial uses.
2. The Hills Orchard Study be reviewed and consideration given to the potential for further subdivision and development.
3. The Residential Bushland zone with a minimum of 2,000sqm to 4,000sqm is an excellent zone for protecting good stands of natural vegetation and should be considered for use in Special Rural areas more widely than at present.
4. Special Rural zones, minimum 1 ha, are under increasing pressure and scrutiny for urban land uses given their proximity to the existing urban front, employment areas and infrastructure.
5. The increase of areas of Rural Composite zone is a recognition that space extensive 'urban' uses are spreading through the rural areas of the Shire.
6. The settlement of Pickering Brook is scattered haphazardly and it is believed that on overall plan to give it a focus would be an economic and a social advantage for the community.
7. Preparation of a strategy which considers the development opportunities for tourism in the orchard areas which conforms to water catchment requirements.

3.4.9 Industrial Uses

Industrial development in Kalamunda is generally limited to light and general industrial uses and is relatively constrained owing to the proximity of residential development, the location of water catchments and regional parks. The provision of land for industrial uses can provide; employment for the community and a significant economic return to the Shire. The majority of the potential and proposed industrial land in the Shire, apart from Walliston, is located in the Foothills and to the west of Roe Highway.

Economic and Employment Lands Strategy – Non Heavy Industry (2012)

As discussed above in Section 3.2.7 the State Government has recently published a ~~draft~~ Strategy dealing with the supply of future industrial land in Perth and Peel. The Shire of Kalamunda is working together with the State departments to ensure that land identified in the Kewdale-Hazelmere integrated masterplan (Forrestfield and High Wycombe areas) is included in the Strategy and is prepared for development as soon as possible.

Kewdale-Hazelmere Integrated Masterplan

As discussed in detail above in Section 3.2.4 and below, the State Government has made a major commitment to the ongoing consolidation of freight oriented industry in the Kewdale-Hazelmere area. They have also given strong backing to moves by local governments to implement the recommendations of their masterplan. In addition, they have also made funds available for local government to undertake necessary environmental studies to facilitate scheme amendments.

Existing Industrial Areas

The Department of Planning has recently updated their 'Industrial Land Use Survey' that was first conducted in the 1990s. They have supplied the data in the following table for the Kalamunda Local Planning Strategy:

Table 10: Industrial Land Use by Area, 2010

INDUSTRIAL COMPLEX TYPE & NUMBER	COMPLEX NAME	Primary/Rural	Manufacturing/Processing/Fabrication	Storage/Distribution	Service Industry	Shop/Retail	Other Retail	Office/Business	Health/Welfare/Community Services	Entertainment/Recreation/Culture	Residential	Utilities/Communications	Vacant Floor Area	TOTAL
37 WELSHPOOL-E		0	36,840	9,752	8,495	160	1,165	9,722	0	0	0	627	3,130	69,891
39 FORRESTFIELD		3,800	59,497	67,137	42,994	0	1,565	28,882	0	3,000	145	21,843	19,370	248,233
40 KALAMUNDA		0	5,038	1,518	6,177	740	230	2,475	1,150	1,040	0	2,830	2,943	24,141
TOTAL		3,800	68,215	78,407	57,666	900	2,960	41,079	1,150	4,040	145	25,300	25,443	342,265

Figure 36: Industrial Areas Location

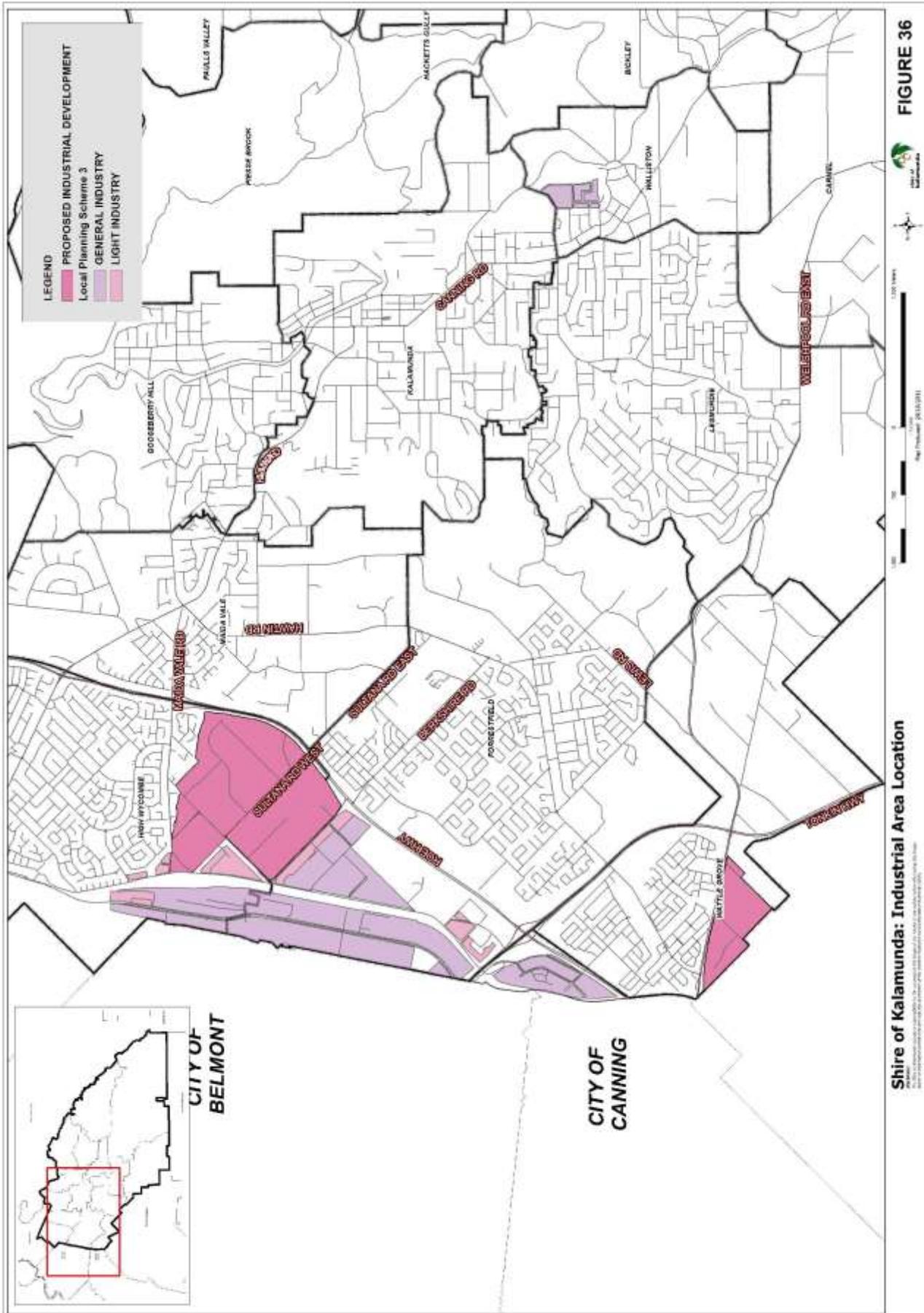


FIGURE 36

The following sections examine the existing industrial areas in detail:

Access Industrial Park

Access Industrial Park is the largest industrial area in the Shire. It provides for a range of major industrial uses including warehousing, office, freight storage, distribution, and manufacturing. Future expansion of the area is limited to the west by Perth Airport and to the east by the residential area of High Wycombe. In the Perth metropolitan context, Access Park has significant strengths, given that the site is well located in relation to road and rail networks both Inter-state and State wide.

Forrestfield Industrial Area

Forrestfield Industrial Area is bounded by Berkshire Road to the north, Roe Highway to the east and south and Dundas Road to the west. The site comprises a mixture of light and general industrial lots fronting Berkshire Road and general industrial lots over the remainder of the site. A Structure Plan was prepared for this site in 2001 and to date with exception of one modification, industrial development of the site has proceeded in accordance with the plan. A small industrial Park (Flame Tree Estate) has been created on the subject land providing for a range of warehouse and office related activities ranging in size from 1,300sqm to 2,000sqm. All other lots in the area remain as minimum one hectare lots and are leased for general industrial development which typically involves metal manufacturing and fabrication, warehousing and freight storage and distribution. Recent data from the WA Planning Commission who are updating the Perth Metropolitan Industrial Land Use Survey indicates that the Forrestfield industrial area has a total area of 248,233sqm of industrial floor space. This is, therefore, the largest industrial area in Kalamunda.

Walliston Industrial Area

This area is currently used for a range of service industries such as automotive repairs and servicing, furniture making, transport, mechanical repairs, and has the Council Depot. It consists largely of 'ad hoc' development as is found in most industrial areas in Western Australia. Inconsistent application of development conditions has resulted in a lack of uniformity in building and landscape design, compared to other industrial areas within the Shire. The area immediately adjoins residential land meaning that future expansion of the area will need to be monitored to ensure that conflict with the surrounding residential area does not arise. Some commercial uses have also filtered into the industrial area but further expansion of such uses is not recommended, as that would further constrict the already limited availability of land suitable for industrial purposes in the Hills area. The latest WA Planning Commission data gives a total area of industrial floorspace in Walliston as 24,141sqm.

Chisholm Crescent General Industrial Area

Industrial development in Chisholm Crescent, to the east of the Roe / Tonkin Highway intersection, is of a consistent nature and good quality. This area comprises light industrial uses such as warehousing, factories and salvage yards. Such uses are compatible with similar industries located in Kewdale in the Shire of Belmont and proposed future uses for the Forrestfield Marshalling Yards. The latest data from the WA Planning Commission gives a figure of 69,891sqm of industrial floorspace in the Welshpool part of Kalamunda.

Dundas Road Light Industrial Area

This industrial site is bounded by Dundas Road to the west, Maida Vale Road to the south and residential development zoning to the east, the two small light industrial pockets are separated by a local reserve. This light industrial area is characterised by low impact uses such as garden and landscape suppliers. It is considered to be compatible with surrounding residential land uses due to the low key nature of the industrial activities which are undertaken.

Dundas Road / Milner Road and Dundas Road / Bedford Crescent Light Industrial Areas

Dundas Road / Milner Road Light Industrial Area is presently vacant and a structure plan is required over the entire site prior to subdivision of the land. This needs to include an agreement of an overall road layout and consideration of water supply, drainage and reticulated sewerage. The site abuts land zoned Special Use (Home Businesses) fronting West Sultana Road and also land zoned Mixed Use fronting Milner Road. Vehicle access to the site is via Dundas Road providing a buffer between

the light industrial lots and the surrounding rural and residential land uses. Dundas Road / Bedford Crescent Light Industrial area is bounded by Dundas Road to the west, Bedford Crescent to the north and land reserved for parks and recreation to the east. The current industrial activity is characterised by small factory and warehouse developments accommodating a variety of industrial uses.

High Wycombe Business Park

The High Wycombe Business Park (zoned Special Use) to the north of the Dundas Road commercial area, combines service / light industrial uses with leisure related activities. The zone allows for but is not limited to functions including; offices, showrooms, warehouses, service industry, car parking, consulting rooms, light industry, public utilities, reception centre, restaurants, recreation and trade displays. The business park has approval for a number of activities and development of the site is required to be in accordance with the approved subdivision plan for the site. Owing to the proximity of residential and commercial development, any future industrial development is required to be compatible with nearby and adjoining residential zones.

Kewdale-Hazelmere Integrated Masterplan

The Shire of Kalamunda needs to plan for urban and associated growth to ensure the adequate provision and consideration is given to employment and industrial development. In anticipation of future industrial development in the Shire and surrounding areas, the Kewdale-Hazelmere integrated masterplan (2006) was prepared by the WAPC. The masterplan facilitates land use and infrastructure planning for the area as a major road and rail freight logistics precinct. It guides State and local government decision making for the provision of road and rail transport infrastructure and identifies potential strategic areas considered suitable for industrial and more intensive residential development.

Central to this plan for the Shire of Kalamunda is the Forrestfield/High Wycombe precinct, one of four key land use components of the masterplan. The Forrestfield precinct is a significant freight related industrial precinct adjacent to the main interstate freight rail line, Perth Airport, and the residential suburb of High Wycombe. This area encompasses Access Industrial Park and contains the Forrestfield intermodal facility. The precinct is zoned predominantly 'industrial' under the MRS and the Shire's Local Planning Scheme.

Perth Airport, which borders the Shire in the west, is located on Commonwealth Government land and is leased and operated by the Westralia Airports Corporation (WAC) for airport aviation as well as a large area of non-aviation uses, presenting a variety of challenges for integration with the state and local planning systems. Perth Airport has also been recently recognized as a 'Strategic Specialised Centre' and owing to the high levels of accessibility required to serve it will require support from the State Government for regional road improvements.

All the airport land is reserved for 'public purposes' under the Metropolitan Region Scheme (MRS). The site covers approximately 2,100ha, of which approximately half is required for aviation purposes. Of the remainder, 320 ha cannot be developed owing to environmental constraints leaving approximately 700ha available for non-aviation uses. Excess land within the boundary of the airport not required for aviation uses will generally be developed for commercial and industrial purposes, presenting an opportunity for future industrial development in the Shire. In addition the Airport is creating a large number of jobs, in the order of 8,000 to 10,000, and this is encouraging local residential development on what is some of the more affordable land in the Perth Metropolitan region.

One of the key industrial infrastructure issues concerning the Shire is the ingress / egress between Abernethy Road and adjacent industrial lots that need to be accessed by heavy freight vehicles for warehouse and distribution purposes. The portion of Abernethy Road in the Forrestfield precinct has recently been constructed to a dual carriageway due to the increased traffic usage and is a district distributor road that provides access within and through the Forrestfield precinct.

It is expected that as traffic volumes in the area increase, the efficiency and safety of access to the adjacent industrial lots will become compromised and cause long delays in the traffic network. The proposed extension to Lloyd Street from Midland to the Great Eastern Highway Bypass has been considered for some time. If constructed, the Lloyd Street extension will become part of the regional road network and provide a north-south link between Midland and strategic urban and industrial

areas to the south as well as providing a connection between Lloyd Street and Abernethy Road, potentially providing a means to help alleviate delays in the traffic network.

Key Issue: Industrial Growth

The rezoning of the rural zoned land between Berkshire Road West and Sultana Road West to Urban under the MRS and Industrial under the Local Planning Scheme is in process. Consultation was undertaken with the landowners originally and received almost unanimous support. The land to the north of Sultana Road West and south of Poison Gully Creek is the remaining land recommended as future industrial under the Kewdale-Hazelmere Integrated Masterplan. The proposed rezoning will require detailed planning investigation. It may well not be as well received as the land to the south owing to a better level of residential accommodation. However, the land is recognised at both the State and local government level as being of strategic importance for future industrial land use associated with the freight industry.

The development of industrial land associated with the Maddington Kenwick Strategic Employment Area in the City of Gosnells will be a key issue for the Shire of Kalamunda in determining suitable land use zone for land located to the south of Welshpool Road East. Given the potential impacts, it is proposed to identify the area as future industrial and work with the City of Gosnell to prepare an appropriate structure plan covering both areas.

Planning Implications

The following are the planning implications related to industrial uses:

1. Overall the industrial zoned land in the Shire is well planned and has been well developed.
2. There is an ongoing demand for industrial land in the foothills as a result of the development of the container off-loading facility to the east of Abernethy Road.
3. The location is of strategic importance to transport oriented industry as it is well located relative to major road and rail systems to and from the Eastern States and intra-state.
4. The 'Kewdale-Hazelmere Integrated Masterplan' recommended that existing Rural and Special Rural to the west of Roe Highway should be rezoned for industrial use. Part of this land, between Berkshire Road and Sultana Road West, is presently being rezoned to Urban under the MRS to allow for light industrial uses. It is further proposed that the land north of Sultana Road West, north to Poison Gully Creek also be rezoned for industry subject to environmental values being conserved.
5. The identification of the Forrestfield/High Wycombe Industrial Area in the Economic and Employment Lands Strategy will further cement this area as a key strategic industrial area for freight and logistics related industries.
6. Existing land bound by Maida Vale Road, Raven Street, Milner Road and Dundas Road currently zoned Urban Development be rezoned to Light Industry to complement existing and proposed industrial areas in Forrestfield and High Wycombe.
7. It is intended that the expanded industrial areas will absorb some of the truck parking activity that has spread throughout the Shire as truck owners look to locate close to the industrial and rail terminals.
8. The identifications of land located to the south of Welshpool Road East abutting the City of Gosnells border as future industrial development due to the development of the Maddington Kenwick Strategic Employment Area will have implications for rural zoned land.

3.4.10 Community Facilities

Community facilities and services provide both social and economic values to the community. The ability of outer-metropolitan areas such as the Shire of Kalamunda to provide, accessible, well designed community facilities can be a challenge. Ensuring the adequate provision of such facilities and services is, however, of vital importance as they are a means by which to enhance the amenity of the community, promote sustainable development and support community cohesion and interaction.

A range of government and non-government service providers, are involved in the provision of community facilities and services, often through partnership arrangements with each other. Generally, local government provides local and district community centres including community halls and recreation centres, libraries, and day care centres. It assists in the administration of community, health, youth and aged support services, sometimes in cooperation with State and Federal Government funding bodies. State Government directly provides schools, medical, dental, hospital and ambulance services, police and justice services and fire and emergency services. The Federal government is responsible for tertiary education facilities and services, and funding for employment, social security and other welfare services.

Government Initiatives Providing for Local Community Facilities and Services

The Commonwealth Government has recently made money available to the Shire of Kalamunda, under the 'stimulus package' program. The arrangement is that the State and the Shire also need to contribute to the initiative. The Shire's Community Development Directorate was engaged in the development of a Kalamunda Cultural and Community Centre at the time the money was made available and the project has proceeded to commencement. The 'centre' is to be located between the Kalamunda library and 'history village'. It will incorporate a Tourist information office, a café, rooms that can be used for; conferences, seminars, offices, meeting rooms, civic functions such as art exhibitions and a new entrance to History Village.

Existing Community Facilities in the Shire of Kalamunda

The Shire of Kalamunda has a range of well equipped local and also regional community facilities which are available to the community for a range of different purposes. These include community halls and recreation centres, libraries, day care centres and other buildings which assist in the administration of community, health, youth and aged support services throughout the Shire (Appendix 4).

In addition to the above, the Shire is currently involved with the development of the new Kalamunda Cultural and Community Centre. The structure will be developed between the existing library and the History Village and is intended to provide facilities for; a new Tourist Information Centre, a Drop-in Coffee Shop, a function space for art exhibitions and a new entrance to History Village.

Existing Educational Facilities in the Shire of Kalamunda

The Shire of Kalamunda has numerous private and public educational facilities which range from early learning to tertiary education centres (Appendix 5). The following educational facilities are in Kalamunda:

- A community based Kindergarten.
- 12 Government and 3 Private Pre-Primary Schools.
- 13 Government and 7 Private Primary Schools.
- 3 Government and 3 Private High Schools.
- 4 Education Support and 3 Technical Support Centres and
- An Adult Learning Centre.

Future Requirements for Community Facilities in the Shire of Kalamunda

The Shire has a variety of well equipped local, regional and educational facilities which are currently well utilised by the community. Considering the projected population growth in Kalamunda, however, an assessment of the Shire's current community and recreation and educational facilities is required. Such would determine the extent to which the current needs of the community are being met and whether current facilities and services are sufficient to provide for the growing population. It is now timely to conduct a review to ensure the ongoing adequacy and accessibility of the Shire's facilities, to reflect contemporary community needs respond to the Shire's future growth and expansion. The Shire will be preparing a Community Facilities Plan in 2010.

Community Facilities Plan

The Shire's Community Facilities Plan has been prepared with the aim of obtaining a detailed understanding of the current and future community facility needs of the Shire of Kalamunda over the next 20 years. As a long term strategic document, the plan dovetails with the Local Planning Strategy in developing a clear vision to accommodate expected urban residential changes and the requirements of SPP3.6 – Development Contributions for Infrastructure. Both the Community Facilities Plan and the Local planning Strategy will provide the necessary inputs for the Shire to be able to prepare a 'development contributions plan' in order to facilitate future developers making reasonable contributions to community infrastructure.

Planning Implications

The following are the planning implications from a community facility point of view:

1. The new Kalamunda 'Zig Zag' Cultural and Community Centre will provide a facility for the whole Shire in terms of Tourist Information and function space.
2. Proposed improvements to playgrounds and open spaces are also being implemented on an ongoing basis.
3. Identification and development of new areas of public open space associated with infill areas and new urban areas.
4. The new residential areas such as Wattle Grove (Cell 9), Forrestfield and High Wycombe will need to be monitored on an ongoing basis to keep up with the growing population. Facilities will need to be planned and budgeted well in advance.

3.4.11 Recreation and Open Space

The provision of Public Open Space (POS) in Kalamunda provides social, economic and environmental value to the community. Accessible, well designed POS provides opportunities for both active and passive recreation. In planning for POS consideration also needs to be given to biodiversity, intrinsic natural beauty, cultural heritage values, its role in the wellbeing of the local community and its tourism potential. The need to balance these issues can be a challenge, particularly in a Shire such as Kalamunda which includes large areas of natural bush and water catchments.

Local open space is generally planned at the subdivision stage to ensure that 10 percent of the land area is set aside for the needs of the local community. It is believed that the people of Kalamunda are generally well supplied with public open space. In new and developing areas the improvement of such land areas needs to be planned in advance so that the new communities have good facilities as soon as possible.

Figure 37: Regional Open Spaces

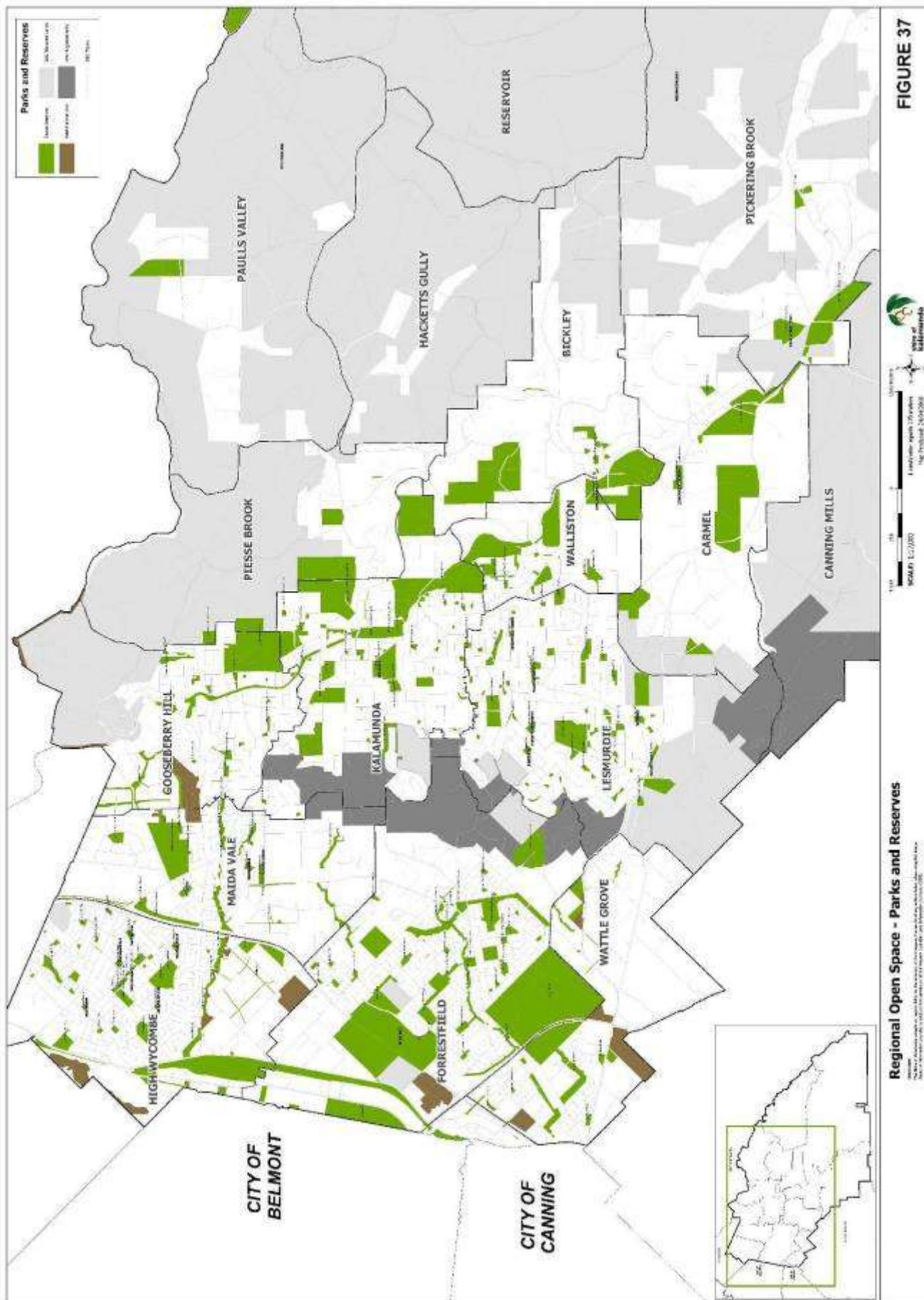


FIGURE 37

Areas of Regional, District and Local Open Space

The open space in the Shire comprises a number of distinct scales of type and magnitude ranging from the largest such as State Forest, through intermediate open spaces such as regional sports facilities, to the smallest corner parks. The Shire contains 11,011 ha of State Forest being 34 percent of the total area. In addition, conservation areas comprise another 9,091 ha being 28 percent of the Shire area. Altogether conservation areas make up 24,081ha or 74 percent of the Shire's area. Such areas are available for the local community to use as well as people from beyond the Shire's boundaries. Within the 'Urban' area of Kalamunda that comprises 8,273 ha (or 26 percent) at least an additional 10 percent is allocated to Public Open Space.

The 950 kilometre Bibbulmun Track, the State's most extensive walk, begins on the edge of the Kalamunda Town Centre and attracts people from intra-state, inter-state and inter-nationally. Crown reserves vested in the Shire of Kalamunda or controlled by State Government agencies, including the Western Australian Planning Commission (WAPC), Department of Environment and Conservation (DEC) and the Water Corporation, are important elements in Kalamunda's wildlife corridor system.

Stirk Park is a central feature in the Shire's local parks and reserves system. It offers a range of recreation opportunities including play equipment, picnic tables and facilities that can be utilised for public performances. Disabled access is available throughout the park and the Liberty Swing (that caters for people in wheelchairs) is available for community use. The Shire is committed to facilitating the inclusion of people with disabilities via the implementation of the Disability Access Inclusion Plan (2007 – 2012).

Table 11: Regional Recreation Reserves in Kalamunda

Pioneer Park Reserve	Dawson Avenue, Forrestfield
Hartfield Park Reserve	Hale Road, Forrestfield
Kostera Oval	Recreation Road, Kalamunda
Maida Vale Reserve	Ridgehill Road, Maida Vale
Scott Reserve	Norling Road, High Wycombe
Ray Owen Reserve	Grove Road, Lesmurdie

These are large reserves with built facilities, and are primarily used for formal multiple sports activities by local and regional clubs, schools and other community groups.

In accordance with the recommendations of the Sporting Reserve Development Plan (2006), the Shire has commenced the development of a Masterplan for Hartfield Park Reserve and the Kostera Oval Development Feasibility Study. This reserve is approximately 158 hectares in area. The Masterplan will guide the development of contemporary sport and recreation facilities at Hartfield Park that meet current and future user's needs, and will ensure that future development is well planned, integrated, efficient in the provision of facilities and avoids duplication of existing facilities and resources.

There are more than 30 District Reserves throughout the Shire which are primarily used for more informal social and recreational purposes. They are grassed area parks and typically have a range of facilities available for local community use such as playground equipment and picnic tables. There are also numerous other small parks and public open spaces throughout the Shire for the use of local residents. These parks are smaller than the Regional Parks in size and have limited facilities. Much of the rural and semi-rural areas of the Shire are subject to environmental constraints such as water catchments but they are available for passive recreation.

Balance of Open Space between Active and Passive Recreational Use

There is a need to achieve a balance between active and passive open spaces to ensure inclusiveness and to accommodate a broad range of community interests so that all members of the community are able to experience the unique lifestyle that Kalamunda can offer. "Active" spaces are those used for formal, usually sporting activities. "Passive" spaces are those areas that are more flexible and are used for informal or less structured activities. Passive and active spaces can often co-exist, with a number of existing open spaces within the Shire having both passive and active components. Consideration of the balance between active and passive POS will be important in the development of the proposed new Local POS Strategy.

Open Space Linkages, Corridors and Connections to Adjacent Local Government Areas

Owing to unique natural features, and the location of areas of public open space that are of local, regional and state importance, the Shire has obligations in relation to the design and management of POS that are more complex than in more traditionally urbanised areas. There is therefore a need to liaise with the Department of Environment and Conservation (DEC) and adjacent local governments.

The Shire of Kalamunda is currently engaged in a joint initiative with the Shire of Mundaring and the DEC in the development of a Local Trails Masterplan. The Kalamunda and Mundaring areas include numerous trails, which provide a significant recreation resource for local residents and visitors. Many of the trails have a dual role as recreational trails and management (particularly fire) access tracks. Existing and potential trail users include walkers, horse-riders, mountain bikers, and people with disabilities, individually and in groups. Many existing trails are or have been promoted via brochures and the media.

The Masterplan will cover all trails located within the boundaries of the Shire of Kalamunda and Shire of Mundaring. The DEC manages large portions of land within both Shire's boundaries and many of the trails cross from DEC to Shire managed areas. The Masterplan will enable all organisations involved to contribute to planning and maintenance of trails at different levels, with different standards being required for all trails. The development of a Trails Masterplan will allow each organisation to effectively, cooperatively and appropriately plan for the future.

Adequacy and Accessibility of Recreation and Open Space Facilities

Liveable Neighbourhoods Element One R 26, suggests that the layout and design of neighbourhoods should provide well distributed park land that contributes to the legibility and character of the development, provides for a range of uses and activities, is cost effective to maintain and assists with urban water management.

The most recent Local Public Open Space Strategy for the Shire of Kalamunda was completed in 1996 and has been important in guiding the Shire's open space planning and management. Considering the expected population growth of Kalamunda, however, an a review of the Shire's POS and Recreation facilities is required to determine if the current needs of the community are being met and whether they are sufficient to provide for the growing population. It is now timely to review and update the strategy so that there is an assessment of the adequacy and accessibility of the Shire's POS and Recreation, which reflects contemporary community needs and adequately guides future initiatives.

Planning Implications

The following are the implications of the Public Open Space and Recreation assessment:

1. The Shire of Kalamunda generally has an adequate supply of public open space and recreation facilities.
2. Some of the recreation buildings and facilities are in a poor condition and are in need of refurbishment.
3. Some open spaces in developing areas such as Wattle Grove (Cell 9) need to be developed. Shire staff is currently working with the community to provide formal and informal areas particularly for children to play.

3.4.12 Heritage and Urban Design

The Shire has an unofficial motto of "a home in the forest" and promotes tourist and rural events that bring outside people into Kalamunda. Feedback from community Vision workshops is that the community regard Kalamunda as a 'village' and want it to remain as such. There is, however, still a need for an attractive urban design and an individual theme for the area. The Foothills in particular suffers from a bland 'suburban' image and a lack of focal areas. The Shire needs to assist in encouraging improvements.

Heritage

The Shire of Kalamunda has 12 properties listed on the State Register of Heritage Places; 10 permanent entries and 2 interim entries. The shire also has a Municipal Inventory of heritage places which was compiled in 1995. It lists 259 properties. The Shire's Local Planning Scheme No.3 (Part 7) makes provisions for the conservation of places on the Heritage List and Heritage Areas. This includes the power to request a heritage assessment prior to development and power to vary the Scheme provisions in the case of applications relating to a heritage place or a heritage area.

The Shire of Kalamunda does not have a statutory Heritage List or Heritage Areas list and the Scheme presently has no power to require owners to undertake works relating to places on the Municipal Inventory list. Consequently, properties identified as having 'heritage significance' at local government level have no protection under the Scheme unless they are listed with the Heritage Council.

The purpose of Municipal Inventories is to identify places and areas that contain significant physical fabric from the past.

Planning Implications for Heritage

1. The Shire's Municipal Inventory of Heritage Places needs to be reviewed.
2. Consider a number of Municipal Inventory listed properties to be included in a Local Planning Scheme Heritage List, possibly all the "A" category properties,
3. Re-examine the potential Heritage Areas such as; Railway Precinct and Grove Road,
4. Draft a policy that would specify guidelines and incentives for development of places of heritage significance.

Urban Design

The purpose of urban design is the creation of; useful, attractive, safe, environmentally sustainable, economically successful and socially equitable places. The Strategic Plan for Shire of Kalamunda creates an expectation that future urban design will meet community aspirations of history, heritage and lifestyle values.

Urban design planning and development should enhance and protect the historic character of the Shire, taking into consideration indigenous heritage, lifestyle factors and effective built design principles.

A Kalamunda Town Centre study was prepared by Hames Sharley consultants in the late 1980s. That study examined a number of aspects related to the long term viability of the shopping activities and prepared urban design guidelines. These guidelines have been used for many years to manage the aesthetics of the town centre on an ongoing basis.

In 2009 the Shire commissioned Chris Antill to prepare a townscape and streetscape improvement plan to further enhance the aesthetics of the Town Centre. The plan is nearing completion and will be implemented on an ongoing basis. The consultant has also prepared a townscape improvement plan for the Sanderson Road shopping centre in Lesmurdie and it is intended that similar townscape improvement programs will be prepared for Forrestfield, Edinburgh Road and the activity Centres in High Wycombe.

Key issue: Commercial Area Improvements

The Shire is currently preparing townscape improvement plans for the commercial areas of the Shire. The Kalamunda Town Centre and the Sanderson Road shopping centre in Lesmurdie have already examined. It is intended to commence work on Forrestfield District activity centre, the Edinburgh Road shopping centre and all the shopping centres in High Wycombe to raise the standard of aesthetic appeal to be more attractive for the local communities and visitors alike.

Planning Implications for Urban Design

The planning implications from an examination of urban design are as follows:

1. Creating an image and identity for the district or precinct within the district,
2. Creating streetscapes which bring about a sense of community within a district,
3. Providing for public safety and security through urban design, and
4. Good urban design pursues local identity and sense of place, cultural responsiveness and purposeful environmental innovation.

3.4.13 Traffic and Transport

Regional Integrated Transport Strategy (2008)

Perth's Eastern Region is a major transport hub servicing the demands of the State. To address escalating traffic congestion and safety concerns the EMRC developed a Regional Integrated Transport Strategy for Perth's Eastern Region in 2008.

The key focus areas include, amongst others, integrated transport and land use planning, public transport service provision, connectivity and accessibility for walking and cycling, road and freight infrastructure, and community engagement, education and behavior change.

Eastern Metropolitan Regional Bicycle Masterplan (2011)

The Eastern Metropolitan Regional Council has prepared a Bicycle Masterplan in 2011 which will be used as a framework for more detailed planning and infrastructure delivery.

The Masterplan is one of five priority regional projects identified in the report of investigations into cycling tourism that's offers greatest benefit to Perth's Eastern Region and progresses the regional priority to improve the planning and development of cycling infrastructure in Perth's Eastern Region.

Perth and Peel Regions Freight and Intermodal Plan

The Department of Transport has prepared a Perth and Peel Regions Freight and Intermodal Plan to provide guidance and direction to proponents and decision makers on system needs.

The plan:

- Assesses the existing freight network and the main transport requirements across the Perth and Peel regions;
- Shows how freight moves across the network currently, and how freight is likely to move in the future;
- Provides an indication of major new transport links, and possible staging of developments to guide investment priorities;
- Plans and protects strategic road and rail links, particularly between major industrial estates, intermodal facilities and ports;
- Promotes integrated planning outcomes that provide an accessible, safe and efficient freight transport system; and
- Promotes land use and transport systems that facilitate economic development.

The freight plan covers up to 2031.

Major Transport Corridors and Road Network

The major transport corridors in the Shire of Kalamunda are the Tonkin and Roe Highways which are reserved 'Primary Regional Road' under the Metropolitan Region Scheme (MRS). These Primary Distributors form the top level network for the urban region of Kalamunda, provide an important link to the residential suburbs of Wattle Grove, Forrestfield, Maida Vale and High Wycombe and the industrial areas of Forrestfield. Ultimately, however, these roads connect with the State and National road network. Responsibility for the construction and maintenance of these roads rests with Main Roads WA.

Abernethy Road, Welshpool Road, Kalamunda Road and Canning Road are reserved 'Other Regional Road' under the Metropolitan Region Scheme and comprise the next highest category in the road classification system being District Distributors. Kalamunda Road, Canning Road and Welshpool Road provide a link to the Hills localities of Kalamunda, Gooseberry Hill and Lesmurdie and the Hills orchard areas beyond.

Other roads which could also be included in this classification include Berkshire Road, Hawtin Road, Hale Road and Maida Vale Road. These roads provide the necessary linkage between Primary and District Distributors to residential, commercial and industrial areas. These roads carry high levels of vehicle movements, typically Kalamunda Road 13,000 vehicles per day (VPD) and Abernethy 15,000 VPD. Abernethy Road and Berkshire Road are critical to current and future strategic planning associated with the Kewdale-Hazelemere integrated masterplan (KHIMP). The KHIMP has identified the Kewdale-Hazelemere area which includes Perth International Airport, Forrestfield Marshalling Yards and surrounding industrial areas as having strategic importance to Perth and Western Australia as a freight transport hub. A key issue for the future planning of this area is to create greater east-west linkages and therefore access between Perth Airport and planned industrial areas between Berkshire Road and Maida Vale Road. Investigations should be undertaken into future additional vehicle access for freight purposes from the Perth Airport through to the Forrestfield and High Wycombe area.

The existing intersection of Berkshire Road with Roe Highway is inadequate for the large industrial scale vehicles and this situation has led to many accidents. An obvious solution would be to construct Berkshire Road as a flyover and create a diamond intersection. This proposal is presently being designed and budgeted by Main Roads WA.

Public Transport Network

The only public transport system presently available in the Shire of Kalamunda is the bus. Anecdotal evidence suggests that there is concern within the community about the adequacy of the public transport system serving the Shire. In particular, the problem of securing an adequate bus service from the Hills suburbs of Gooseberry Hill, Kalamunda and Lesmurdie into Perth appears to be an on-going issue for Hills residents.

A potential rail connection from High Wycombe to Perth has been considered for some time. The Public Transport Authority (PTA) has engaged a multidisciplinary consultancy team to define a preferred final alignment for the Perth Airport Rail Link incorporating the railway reservation just east of Bayswater Station to the residential area east of the Perth international Airport. What is now sought is a preferred, final alignment from the Bayswater Station along Tonkin Highway, to the general area of the current domestic terminal, then under the main runway to an integrated underground station with the proposed new combined domestic and international terminal to a standard of a world class facility. The line would then continue to the eastern boundary of the airport to a station that would serve the residential catchment east and south east of the airport including the Perth Foothills.

Perth Airport Rail Alignment Plan Concept.

Of significance to the Shire, is the proposal to include a station in High Wycombe area to serve not only residents High Wycombe, Maida Vale, Forrestfield and Wattle Grove, but those residents in the Hills area and beyond. The PTA recognises the importance of securing a station east of Abernethy Road to ensure the economic viability of the rail link to Perth Airport which will need to have direct access to a potential population catchment in excess of 80,000 people in the Shire of Kalamunda by 2031.

Major Transport Infrastructure: Perth Airport

Perth Airport is located on the western boundary of the Shire of Kalamunda. All the airport land is reserved 'Public Purpose', 'Commonwealth Government Land' and is therefore exempt from requiring formal planning consent from the Shire of Kalamunda. The airport is recognized as an important an integral component of the KHIMP. From the Shires perspective the airport has a significant interface to existing and planned industrial areas in Forrestfield.

Recent expansion of Perth Airport industrial uses has identified the need for a few relatively major improvements to the road system between the airport and Kalamunda. The Grogan Road connection to Abernethy Road has proved a good relief for traffic buildup in Horrie Millar Drive. The thought now is to extend Grogan Road across the rail yards to linkup with Maida Vale Road and on to Roe Highway for light vehicles and link Grogan Road to Berkshire Road and on to Roe Highway for heavy vehicles.

Key Issue: Airport Growth and Impacts

The ongoing growth and development of Perth Airport will inevitably place more pressure on the Kalamunda community by way of aircraft noise and increased road traffic. This situation will need to be monitored on an ongoing basis and adjustments will need to be made to ensure the pressures on the community are alleviated.

Key Issue: Public Transport Connections to Perth

The current work being undertaken by the Public Transport Authority to consider the feasibility of connecting Perth CBD with Perth Airport with a potential connection to High Wycombe should be supported strongly. There may well be some environmental considerations, such as intervening wetlands, that work against the Perth Airport to High Wycombe connection. If this occurs a couple of other options should be re-examined:

- Using Tonkin and Roe Highway Road Reserves thereby creating Transit Oriented Development opportunities at Forrestfield, Maida Vale and High Wycombe.
- Constructing a 'light rail' connection through the Foothills, and
- Examining a rail connection from Midland to Kenwick along Roe Highway thereby linking up all the Foothills communities in City of Swan, Shire of Kalamunda and the City of Gosnells.

Key issue: Truck Parking

The development of the container off-loading facility east of Abernethy Road as well as the excellent access onto Roe and Tonkin Highways has made the Shire of Kalamunda an ideal location for trucking companies and truck drivers to locate. This has caused considerable planning problems for the Shire. There are known to be approximately 140 illegal trucks parking in Forrestfield and High Wycombe at present. Trucks have also invaded Rural and Special Rural zones and continually cause problems with neighbours in terms of noise and aesthetics. The peace and tranquillity of Rural and Special Rural areas has been altered by the ongoing and growing truck problem and some areas have virtually become industrial yards. It is intended to attract many of these trucks the west of Roe Highway once additional industrial land has been set aside. Shire staff is also working on an integrated strategy to manage the truck situation.

Freight Transport

Significant volumes of freight transport move through the Shire. Designated freight routes within the Shire are Canning Road, Welshpool Road East, Abernethy Road, Dundas Road, Roe Highway and Tonkin Highway.

These routes provide access to Perth Airport, and industrial areas at Kewdale, Forrestfield, Welshpool and in future High Wycombe.

The Department of Transport has prepared the Perth and Peel Regions Freight and Intermodal Network Plan, the purpose of which is to provide guidance and direction to proponents and decision makers on system needs.

The plan:

- Assesses the existing freight network and the main transport requirements across the Perth and Peel Regions.
- Shows how freight moves across the network now, and how freight is likely to move in future.
- Provides indication of major new transport routes.
- Plans and protects strategic road and rail links, particularly between major industrial estates.
- Promotes integrated planning outcomes that provide an accessible, safe and efficient freight transport system.
- Promotes land use and transport systems that facilitate economic development.

The plan covers a 20 year planning horizon to 2031.

Planning Implications

Planning implications for the Traffic and Transport component are as follows:

1. The Primary Regional Road network in the vicinity of Kalamunda is well established with Roe and Tonkin Highways being the main connections into the State and National road system.
2. Other Regional Roads are also well established including; Abernethy Road, Welshpool Road, Kalamunda Road and Canning Road. These roads create the linkages between the local roads and the regional scale roads.
3. Public transport in Kalamunda is relatively poor, owing to being a low density suburban area and having high car ownership.
4. The State Public Transport Authority has been considering a rail connection to the Perth International Terminal which will eventually become the combined international and Domestic Terminal. It is also considering a rail connection into Kalamunda and the authority is examining four options at present.
5. If the Airport rail link proceeds thought may need to be given to rerouting the bus network to link with the new rail terminal.
6. The upgrading of cycling and pedestrian facilities in the Shire is presently being assessed.

3.4.14 Utility Services

Sewerage

The urban areas of Wattle Grove, Forrestfield, Maida Vale and High Wycombe are either sewered or have access to a reticulated sewer system. No sewer system is available to the Rural or semi-rural areas of the Shire of Kalamunda. The urban area of Kalamunda has access to reticulated sewer primarily around the Town Centre. Central Kalamunda has a Special Developer Contribution area managed by the Water Corporation referred to as the Dwelling Unit Reticulation Equivalent (DURE) scheme. Home owners in the remainder of Kalamunda and the localities of Lesmurdie, Walliston and Gooseberry Hill operate on-site effluent disposal systems.

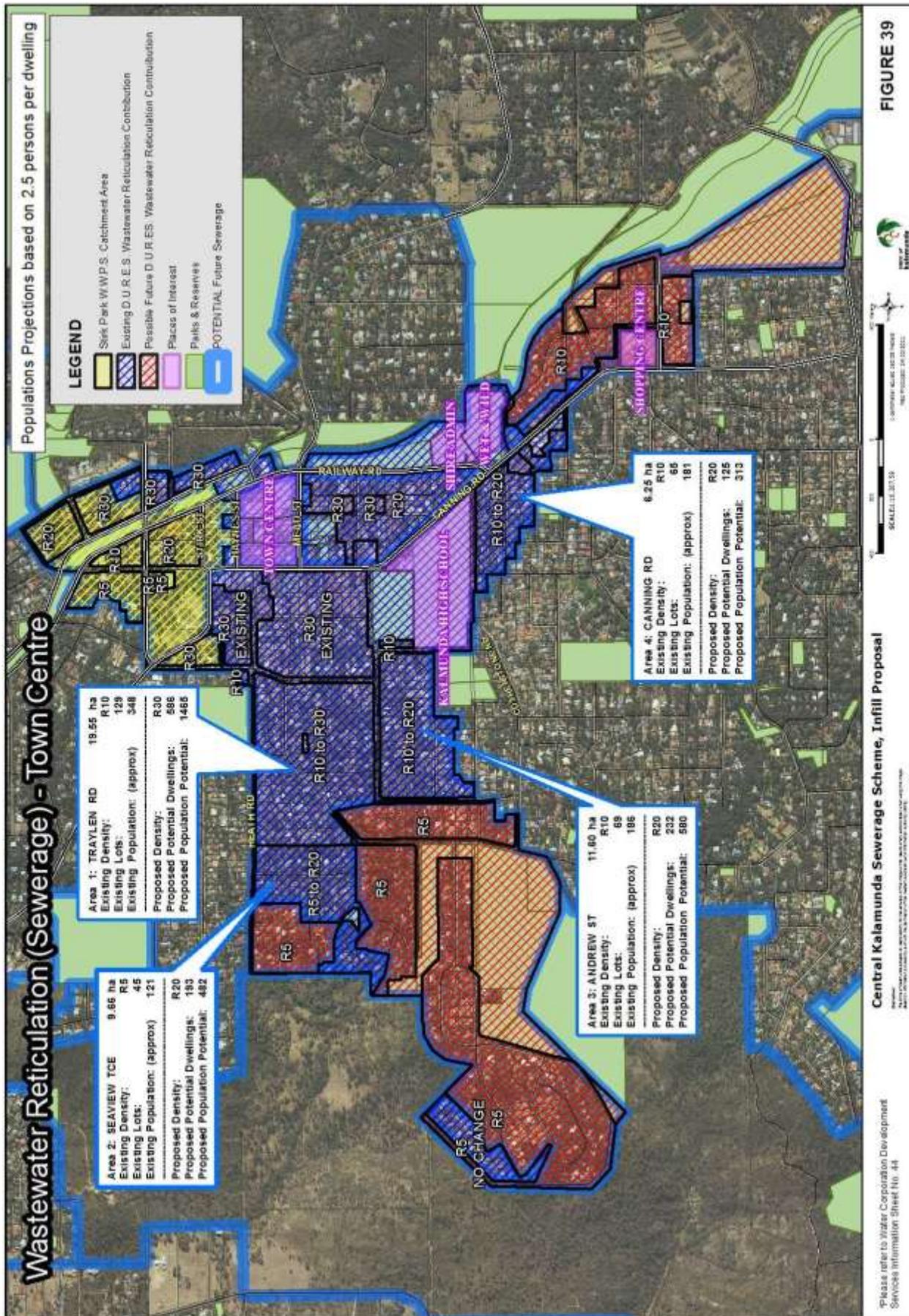
Owing to the low level of contributions received from development in the sewerage area the Water Corporation has notified the Shire that the scheme is in debt in the order of \$500,000. Their solution is to close the scheme down if the level of development does not increase to a level at which the scheme becomes economically viable. Council has recently endorsed a proposal to commence community consultation in relation to raising the Residential density to encourage subdivision and development in certain parts of central Kalamunda.

The Water Corporation also would like to remove some potential areas from the sewerage scheme including a relatively large area to the east of the Glades shopping centre and a sub-catchment in the vicinity of Stirk Park. The issue with the Stirk Park catchment is that it will require a pumping station and the Water Corporation do not want to pre-fund it. As this sewerage area is important for the future development of the northern end of the Kalamunda Town Centre the Shire may need to pre-fund the pump station and recoup the cost from future development.

Dwelling Unit Reticulation Equivalent

The DURE or Dwelling Unit Reticulation Equivalent was established in 1988 representing an agreement between the Shire of Kalamunda and the Water Corporation which requires a contribution from all developments requiring sewerage within the Kalamunda Sewer District. Within this area, the high cost of wastewater reticulation is shared by requiring a contribution called the DURE. For subdivision or development the charge is one DURE for each residential lot or building requiring connect to sewer. The DURE charge for commercial developments is one DURE for every three major fixtures. The current charge per dwelling unit is \$12,685.00. (It is thought that a realistic cost may be higher than this amount).

Figure 39: Kalamunda Sewerage Scheme, Infill Proposals



Water Supply

A reticulated water supply is available to all urban areas of the Shire and some semi-rural areas. All rural areas are serviced by rain water tanks or groundwater bores or a combination of the two. A reticulated water supply is required for all new residential lots and special rural zoned lots of one hectare in size. Extensions to the mains water supply present no constraint to future residential development within the Shire. The localities of Bickley, Hacketts Gully, Piesse Brook, Paulls Valley, Kalamunda, Pickering Brook and Carmel are located in the Middle Helena Catchment Area. The Water Corporation monitors development within these areas to ensure water quality for the public drinking water source area is not compromised. From recent feedback it is evident that the catchment is polluted and that the water captured in the Middle Helena dam is not fit for human consumption. This is an aspect that the Shire environmental staff will need to address in the near future.

Electricity

Existing urban areas are serviced by either overhead or underground power. All new subdivisions for either residential or industrial require the provision of underground power. The Shire has a number of high voltage power lines. There are currently multiple high voltage (>132 kilovolt) transmission lines that travel through the Shire of Kalamunda. Two 132 kilovolt transmission lines supply a 132 kilovolt zone substation (Kalamunda Zone Substation) at the corner of Wilkins Rd and Lewis Rd which provides the majority of the electricity requirements in the Shire. The Kalamunda Substation has recently had a third power transformer installed and current forecasts show that there is sufficient transformer capacity for the area beyond a 20 year time frame assuming current growth rates.

A 132 kilovolt transmission line and an additional double circuit 330 kilovolt transmission line travel in the vicinity of Bickley and Hacketts Gully but do not directly supply the Shire of Kalamunda. These lines support the wider bulk transmission network.

Western Power has deferred the development of Eastern Terminal in the Hacketts Gully region indefinitely due to alternative generation development. It is noted that there was significant community interest in the project, and Western Power will continue to inform and engage the local community as planning in the region progresses.

The development of Eastern Terminal and the corresponding line works was driven by a need to increase power transfer capability from generation sources located in the south west of Western Australia to the metropolitan area. The project was not originally driven by a growing need for electricity in the eastern sector of the Perth Metropolitan Region, nor was it a direct result of electricity demand requirements in the Shire of Kalamunda. Subsequently, any further development in the Shire of Kalamunda is not expected to be constrained by a lack of electricity supply in the region and will not be hampered by the deferral of the Eastern Terminal.

Gas

Existing gas mains in the Shire are provided to new urban areas. There are currently no constraints to the provision of gas to these areas. Two high pressure gas pipe lines run through the Shire.

Telecommunications

The Shire presently has a total of sixteen mobile telephone towers. In addition there are a number of television and radio towers which operate in the Shire. All infrastructure is assessed having regard to the requirements of the Telecommunications Act 1997. All facilities are assessed having regard to Council's Scheme and Policy requirements. A number of the current facilities include antenna designated 'Low Impact' facilities which are not subject to formal Council approval.

Key Issue: Kalamunda Sewerage (DURE) Viability and Lack of Sewerage in Hills

The central Kalamunda sewerage scheme is not economically viable in its present form. The Water Corporation have considered closing the scheme down because it is losing them money, \$500,000 is a recent estimate. The Shire has responded by preparing a proposal to increase residential density in parts of central Kalamunda to increase the level of dwelling unit contributions that would make the scheme viable. Council has endorsed a program of consulting the residents in the affected areas in the near future. In addition, the Shire may need to consider the pre-funding of the Stirk Park pumping station to make the Stirk Park catchment viable for development. This includes the northern part of the Kalamunda Town Centre.

Key Issue: Powerlines and Future Power Supply

Western Power has indicated that they need to implement improvements to their electricity supply to keep up with growing electricity demand for the present as well as the future. Their plans to upgrade the powerlines through the State forest were opposed by residents in the affected areas and this has caused their program to stall. As the Shire is projecting an additional 20,000 residents and approximately 8,000 new dwellings over the next 21 years a solution to the impasse will need to be found otherwise the supply of electricity will be hampered at a later stage.

Planning Implications

The following are the main implications of the Utility Services section:

1. Sewerage is relatively easy and cost effective in the Foothills but is constrained in the Hills owing to hard granite being close to the surface and being costly to dig through.
2. The central Kalamunda sewerage scheme is not developing as considered viable and it is intended to undertake community consultation to promote higher residential densities to increase the number of dwellings in the scheme area.
3. Service provision is generally adequate in the Shire to meet current needs; however, the Shire will need to work closely with western power to resolve supply issues for the future population.
4. Residential infill and the development of new urban areas will require more detailed investigations to determine the capacity of existing Service Infrastructure and potential upgrades required to accommodate the proposed development.

3.5 Opportunities and Constraints

3.5.1 Opportunities

The following is a list of the main opportunities:

- Liaise with the WAPC to improve the representation of the Shire in Directions 2031 in terms of; Kewdale-Hazelmere, future rail terminal, potential Airport growth and development, employment growth in the Airport and affordable residential land.
- Liaise with the Department of Planning on the Economic and Employment Lands Strategy in terms of the Kewdale-Hazelmere integrated masterplan (2006) recommendations.
- Preservation of remnant endemic vegetation via Bush Forever.
- Improve 'bushfire planning' especially in new developing areas.
- Work closely with the managers of Perth Airport to ensure coordination of road access for freight, employees and aviation traffic.
- Liaise with the cities of Gosnells and Swan in relation to proposed land use developments in their municipal areas.
- Improve the mix of housing in Kalamunda to better cater for the changing demographic structure; namely, a growing population of ageing people.
- Give more consideration to the opportunity to expand the use of 'granny flat' on the large lots in the Shire.
- Conserve biodiversity by implementing the Shire's Biodiversity Strategy.
- Amend the Shire's Local Planning Scheme No.3 in terms of the findings of the Local Planning Strategy.
- Weed eradication to be a high priority in terms of biodiversity preservation.
- Protect drinking water catchment areas; especially in the Middle Helena catchment.
- Plan for aged accommodation including high care facilities by identifying and rezoning properties.
- Plan for an increase of approximately 20,000 people over the next 21 years.
- Use all land available for aged accommodation.
- Focus initial development in existing Urban Development zones.
- Improve the aesthetics (urban design) of all activity centres by developing Townscape Improvement plans.
- Plan for more intensive residential development in close proximity to activity centres.
- Expand the permitted land uses as the Dundas Road activity centre to ensure its viability.
- Make better use of tourist potential, being close to Perth, by expanding accommodation possibilities, range of events and improvements to facilities.
- Advertise local events more widely.

- Promote hotel development in the Shire.
- Encourage the expanded tourist information facilities in the Shire.
- Develop, implement and monitor the Kalamunda bike plan, walk trails and Hartfield Park management plans.
- Review the viability of the orchard properties in the rural areas.
- Retain the large viable orchards as a strategic source of food for the Perth Metropolitan Region.
- Make more use of the Residential Bushland zone (minimum 4,000sqm) as they provide sufficient space to preserve large trees and fulfil the vision of the community to live in 'green' surroundings.
- Plan for the consolidation of the Pickering Brook settlement to provide better accommodation choice and give the settlement a better focus.
- Implement the recommendations of the Kewdale-Hazelmere integrated masterplan in terms of expanding industrial zoning west of Roe Highway.
- Provide industrial land for the rapidly growing freight industry.
- Optimise the use of the Kalamunda Community Centre currently under construction in central Kalamunda.
- Improve the facilities for recreation in the rapidly expanding residential areas such as wattle Grove (Cell 9).
- Manage the large areas of public open space for the residents and visitors to the Shire.
- Review the Shire's Municipal Heritage Inventory as it is 'out of date'.
- Consider the addition of a Heritage List to the Local Planning Scheme.
- Review and possibly increase the number of Heritage Precincts in the Shire.
- Improve the Urban Design, Townscapes and Streetscapes of Kalamunda to make the Shire more aesthetically pleasing for residents and visitors to enjoy.
- Provide facilities and design to promote safety and security.
- Promote the 'Village' scale of urban design to fulfil the wishes of the community.
- Provide a rail connection to central Perth via the planned international/domestic airport.
- Increase the number of dwelling units in central Kalamunda to make the sewerage scheme economically viable and to provide more disposable income for the town centre businesses.
- Resolve the power line/electricity supply issues for the growing community of the future.

3.5.2 Constraints

The following is a list of the main constraints:

- Drinking water catchments, especially the Middle Helena catchment need to control the amount of nutrients released into the environment.
- Increasing aircraft movements at Perth Airport has negative effects on residents and there is a need to control residential development in areas contained by ANEF contours.
- Poultry farms create bad odours and 'buffers' around poultry farms need to be shown on planning documents and need to control residential development.
- Omissions in 'Directions 2031' may act as a constraint to future planning and development such as; not mentioning 'Kewdale-Hazelmere integrated masterplan', airport expansion and employment creation and relatively low levels of population growth.
- Remnant endemic vegetation constrains development via Bush Forever.
- Development expansion beyond the Shire's limits constrains development in peripheral areas.
- The WAPC has not updated their population projections in 5 years.
- The ageing population will be a constraint on the Shire in terms of declining incomes, declining rates.
- The existing housing stock does not match the existing and future population demographic.
- There is a lack of sewerage in the Hills owing to the presence of hard rock and the high cost of supplying infrastructure.
- Low density residential growth adds to 'Urban Sprawl'.
- Lack of 'high care' options for the ageing population.
- Poor aesthetic condition of activity centres in the Shire inhibits investment.
- The 'Hill' is a physical/perceptual barrier to some tourists.
- Potential land with 'views' over Perth is mainly taken up by residential uses thereby keeping out potential tourist uses.
- There is a general intrusion of urban uses into rural areas of the Shire such as trucks and large machines.
- There are controls over subdivision lot sizes in the orchard areas of the Shire thereby keeping out 'boutique' orchards.
- There is an invasion of truck parking into both urban and rural areas of the Shire.
- There is a need to upgrade public facilities in the Shire particularly toilets.
- There is a lack of major public transport from the Shire to central Perth.

Appendices

Appendix 1: Results of Planning Vision Workshops

The following are the results of the workshops:

Workshop 1: Kalamunda Town Centre; Vision Workshop Summary (28 November 2007)

N.B. – The numbers in brackets indicate how many times an issue was mentioned. When an issue was mentioned numerous times in similar manners the numbers are accumulated.

1. Values

Social

1. Community spirit – community activities, sense of connection, creativity (25)
2. Atmosphere – village, relaxed, friendly (19)
3. Image – uniqueness (15)
4. Coffee strip – liveliness (hotel/restaurants), dogs welcome (15)
5. Tourism – friendliness, community tourist events, cycling events (9)
6. Kalamunda Library – stained glass window (7)
7. Facilities – mix (commercial/services), TAFE/High school (6)
8. Sporting facilities – tennis, cricket, Kostera Oval (6)
9. KADS theatre (4)
10. History – preservation, church (Mead St) (3)
11. Support to fire brigade and other emergency services (3)
12. Music in Stirk Park – jazz (2)
13. Cyclist access – easy, safe (2)
14. Christmas lights (1)
15. Playgroups (1)
16. Mixed use – residential/commercial (1)
17. Low/mixed density of population (1)
18. Residential accommodation for over 55's (1)

Economic

1. Locally run shops – small business, good mix of sizes, unique shops, vibrant (11)
2. Market (9)
3. Open air shopping precinct – Single storey (7)

4. Limited fast food outlets (4)
5. Access to Shire Staff – supportive (3)
6. Quality eating outlets (1)
7. Craft wagon (1)
8. 5 Banks (1)

Environmental

1. Heritage – buildings, history village, heritage walks (rail trail/Bibbulmun track) (22)
2. Aesthetics – preservation of mature trees, 'A Home in the Forest/Hills', street trees, floral colour, gumnut fountain, architecture of shops attractive (except Coles), quality detail of urban fabric (paving, kerbing, street furniture), not too many signs. (22)
3. Mobility – easy free parking, pedestrian friendly, calming devices, roundabouts, no traffic lights, compact shops (walkable), easy access by foot or car (21)
4. Open Space – Stirk Park, town square, rail trail (14)
5. Safety – minimal crime (6)
6. Quiet (4)
7. Lack of pollution (3)
8. KPAC and Ag Hall (2)
9. Close to forest and wineries – flora and fauna (2)
10. Canning Road – rural feel with trees (2)

2. Concerns

Social

1. Youth activities – lack of things to do (would like development of youth centres, wet & wild, skate park), lack of affordable housing and employment to keep youth in the town, lack of input from youth (7)
2. Lack of demographic range – age group ghettos (4)
3. Graffiti and vandalism – legality of accessing private property to clean it (4)
4. Canning Rd – commercial development versus school, safety of children, noise, design of fencing (attracts graffiti, unsightly) (4)
5. Lack of Police presence on the weekend (3)
6. Lack of exposure for local talents – very little public art (3)
7. Demographics – too much "over 55's" housing (3)
8. Council does not seem to have the power to regulate what the developers can do (3)

9. No community centre (2)
10. Lack of evidence of power of Shire to embrace concerns on previous issues (2)
11. Increasing number of trail bikes with no control (1)
12. No repetition of the planning process that resulted in the Coles centre (1)
13. The 'no residential dwelling' segment of current TPS (1)

Economic

1. Developments – lack of style (Chicken treat, Coles etc.), ad hoc town planning (dead spaces behind shopping centres), aesthetics lacking (15)
2. High rise building – not wanted (6)
3. Shell petrol site on Mead St – eye sore(5)
4. Access for people with disabilities – (steps from Haynes St to Paris Brest and down to Barberry Square) dangerously shallow and steep, poor quality of tracks for gofers and cycles. (4)
5. No visitor centre (3)
6. High density housing, unit developments failing to take advantage of site possibilities (3)
7. No buses or transport at night- bus service not comprehensive or regular (3)
8. Poor mobile phone reception (2)
9. Lack of good quality restaurants (1)
10. No more car yards in Kalamunda (1)

Environmental

1. Aesthetics of townsite - Kerbing, street furniture, signage, pavements, lack of standards, lack of seating in shade, visibility of overhead powerlines, streetscape, billboards, flashing lights or traffic lights, car parks and verges to be improved, insufficient setbacks, Bunning's in main street (22)
2. Poor maintenance of plants- trees not replaced, dilution of 'Home in the Forest", inappropriate tree pruning (Western Power), roses in middle of road instead of native plants (13)
3. Reserves – railway reserves, creeks – degradation by weeds, dumping and human activities, loss of native vegetation, excessive land clearing, removal of trees (8)
4. Traffic flow and lack of use of roundabouts – too much traffic in Haynes St, speeding in 50km/hr zones (6)
5. Car parks – unsightly (5)
6. Inadequate public toilets (4)
7. Powerlines – need underground powerlines – fire risk prevention (2)
8. Long grass on verges (2)

9. Appearance of 3m high fence around Kalamunda Senior High school (2)
10. Difference between the top of the hill and the flats (2)
11. Inadequate street lighting (2)
12. Development of more sewer lines needed (1)
13. Kostera oval not big enough (open space behind it) (1).
14. Impact of proposed rail service on reserve and environment (1)
15. Library area use – could be enhanced (1)
16. Lack of footpath along railway reserve (1)
17. Lack of signage and facilities for Bibbulmun track (1)
18. Impact of climate change – loss of flora and fauna (1)
19. Not enough adequate dog exercise areas (1)

3. Visions

Social

1. Create a more vibrant town centre – organisation of varied activities for all ages (especially youth) and by changing zoning for mixed use (commercial/residential) (8)
2. Activities for youth/children – skate parks (expand), parkland area for young people (like Belmont) (8)
3. Cinema – open air or not (6)
4. Art Gallery in Kalamunda – to support local artists (overlooking Stirk park), art collection in the Shire reactivated, student artwork to be showcased (5)
5. Bibbulmun Track – should create icon at start (visitor centre, water tank) (4)
6. Regional hospital (4)
7. Fully serviced and managed fulltime visitor centre with interactive displays of the natural and cultural environment of Kalamunda (3)
8. Involve the community in planning – maintaining involvement (3)
9. Stirk Park – more music in the sound shell, serviced by cafes/food outlets, improve toilet facilities, bocce pit near chess board (3)
10. More cultural facilities and pursuits – more music (multi-cultural) around town, more emphasis on multicultural heritage (3)
11. Promotion of Kalamunda – Bibbulmun track, wineries and art studio(3)
12. Enhance the information centre in the library (2)
13. Monitor/restrict motor cycles on trails (2)

14. Bands and entertainment in Central Hall Park/Town Centre Park – central focus (2)
15. Have a better mix of age groups (2)
16. Better resourced and enlarged library (2)
17. Have a Shire that is aware of our visions and in itself is creative, entrepreneurial, innovative and dedicated. Council having a commitment to planned sustainable environmentally sensitive tourism (2)
18. Interactive website – sections for 'lost and found' and 'for sale' (2)
19. Creation of a community precinct- village/library/craft centre/community building with paid employees (2)
20. Acknowledge and support community volunteers in town centre (1)
21. True 'holiday' atmosphere at Christmas – lighting, decorations, activities (1)
22. More interaction between community groups to create a more holistic community (1)
23. Nightlife – music, theatres, coffee (1)
24. Commemorative trees on railway reserve (1)
25. Community values acknowledged and retained by the Shire (1)
26. Visit high schools to get ideas from students about what they would like to see in Kalamunda to keep them in the area (1)
27. Timetable for implementation (1)

Economic

1. Underground power or aerial bundled – Aesthetics, to reduce need to drastically cut back trees near power lines, and reduce fire risk (8)
2. Better public transport – minibuses on market day, more buses at night between Kalamunda and Perth and connecting to railway, better bus service between Kalamunda and Lesmurdie (5)
3. Solar powered street lights and tree lights (5)
4. One way system developed for traffic flow along Haynes, Railway and Canning Roads (3)
5. Shell Petrol station site – mixed use (commercial/residential) 2-3 storeys (Subiaco/East Perth) London Court style (3)
6. Alfresco dining (2)
7. Decent façade to Bunnings – redevelop shop fronts rather than blankness (2)
8. Qualified arboriculturalist employed by Shire to maintain trees (2)
9. Cameras (anti vandals) in public areas (1)
10. Encourage Taxi service (1)

11. Development of tourist facilities that maintain the heritage feel and aesthetics of our forest environment (1)
12. Produce markets for local growers/organic – once a fortnight or week (1)
13. Raise the customer service standards through training (1)
14. Alfresco/teahouse at the old cottage on Stirk Park (1)
15. No more than three storey constructions (1)
16. Upgrade appearance of Kalamunda High School (1)
17. Improved infrastructure – power, water, sewer, telephone (all in one trench) (1)
18. Shire to buy land (scheme cost) to achieve unique qualities of the locality (1)
19. Francis Road – big blocks, multi-use structures (1)
20. Rework Kalamunda Central – ugly complex (1)
21. Fulltime paid professional curator for History Village (1)
22. Consider relocating banks – replace with shops and cafes etc (1)
23. Upgrade community centre halls (1)

Environmental

1. Architectural design guidelines (colours, building materials etc.) to preserve atmosphere/complement historic and rustic village feel – individual housing and commercial, complying with climate sensible designs (more solar power) ('Environment' Cultural Plan 2006), support heritage buildings (13)
2. Close off Haynes St – pedestrian mall, separate traffic from pedestrians, move pavement activities, tables, shade, seating (9)
3. Replace removed trees with suitable alternative – build on 'Home in the Forest' branding with appropriate streetscape, have tree protection policy, enforce policy to maintain trees, encourage tree planting, licence required to remove a mature tree, significant/heritage tree register (8)
4. Landscape and redesign car parks, easy parking (5)
5. Better recycling options in town centre, recycling grey water (5)
6. Replanting and maintenance of verges, beautify street scaping, more seating need for landscape specialist employed by the Shire (5)
7. Kalamunda to become an environmentally sustainable town – promoting an encouraging viable sustainability, all new buildings to comply with a set of regulations for energy and water efficiency, Storm water harvesting, implement a Shire gardens policy regarding low water usage and use of native species (4)
8. Link town centre to library and History Village- the heritage precinct to include Bibbulmun terminus (4)
9. Retain and improve Stirk Park, Town Centre Park and Railway Reserve (all recreation and nature reserves) (4)

10. Restore Stirk Park stream- change covered drain into a natural feature (3)
11. More discrete signage and better signage to Bibbulmun track entrance and Stirk Park (3)
12. Wildlife sanctuary – rescue facility (2)
13. Urban village - areas of higher density, going 2 storey allows more vegetation between buildings (2)
14. Back of shops redesigned (1)
15. Better bike paths to promote cycling (1)
16. Creative solutions for parking on market days (1)
17. Verandas over footpaths in the main street (1)
18. Stained glass window in the library should be a model for new buildings (1)
19. Beautify heritage trail (Railway Rd) with sculptures, trees, bronze statues, war veteran recognition and high school achievers recognition (1)
20. Replace conifers with native trees (1)
21. Increase public open space – shade trees and green space (1)
22. Opening a left hand turn from the roundabout at the top of Kalamunda Rd into Headingly (1)
23. Gofer/cyclist paths (1)
24. McRae Road Park to have boating pond, skate park, gofer trail (1)
25. Cotherstone Rd/Canning Rd – opportunity for village-style higher density (also at the top of Mundaring Weir Road) (1)
26. Long, leafy avenues with ample street lighting (1)
27. Village style consistent building style – focus on history, tourism and arts/crafts (1)
28. A Dandenong-like feature of deciduous trees on public and private land (1)
29. More old style lamps and street furniture (1)
30. More traffic calming (1)
31. Relocate Shire admin – to enhance civic attributes (community hub) (1)

Workshop 2; East Ward, Vision Workshop Summary (12 December 2007)

N.B. – The numbers in brackets indicate how many times an issue was mentioned. When an issue was mentioned numerous times in similar manners the numbers are accumulated. Issues raised by a table are multiplied by the number of people on that table in order to reduce bias.

1. Values

Social

1. Rural background, lifestyle and atmosphere (83)

2. Community spirit particularly that the community can come together in times of need (bushfire) (57)
3. Low crime rate, making it a safe and friendly place for young children (52)
5. Small and friendly community where you can know your neighbours (49)
6. Low population density (27)
7. Strong family history, family orientated community, three generations of hardworking Australian families (26)
8. The sporting/social club is unique and valued – Pickering Brook (especially the show) (20)
9. Healthy and active lifestyle (10)
10. Country/agricultural values (10)
11. The Shire's art's focus (6)
12. Diversity of lifestyle, architecture and recreational pursuits (6)
13. History (5)
14. Freedom (4)

Economic

1. Orchard industry and rural pursuits, such as vineyards and orchards (29)
2. Diversity of land use (18)
3. Local shopping in Pickering Brook (Store and Post Office) (16)
4. High standard of education in the hills (Pickering Brook PS) (16)
5. Access to Kalamunda – which is a liveable sized town with a country town feel, good range of shopping (incl. garden nurseries) (12)
6. No shopping centres or traffic lights (11)
7. Viable agribusiness which is sympathetic to the area (also low impact tourism) (8)
8. Responsible focussed approach to development which sustains the lifestyle (6)
9. Balance of residential and business (5)
10. Lack of heavy commercial/industrial activity (4)
11. Small school (4)

Environmental

1. "Home in the Forest", state forest, bush reserves, bush walking and walk trails (65)
2. Proximity to the city, rural yet close to CBD (63)

3. Clean living environment, air quality, unpolluted (55)
4. No noise, peace, quiet, tranquillity (39)
5. Trees (35)
6. Large block sizes (27)
7. Open space (25)
8. Low traffic, no hassles on the roads (23)
9. Not suburban, no suburban sprawl, not looking out onto a sea of other peoples' roofs (21)
10. Wildlife (19)
11. Scenic, picturesque, visual amenity, unspoilt (18)
12. Low visual, electromagnetic/electrical pollution (11)
13. High quality soil and water (10)
14. Country side (6)
15. Relative Isolation from the rest of the metropolitan area (coming up the hill you get a different perspective) (6)
16. Ability to have pets of choice (4)
17. Ability to have wood fire heating (4)
18. Altitude (4)

2. Concerns

Social

1. Increasing crime rate (19)
2. Population increase and associated traffic increase and failure of infrastructure and facilities to cope (17)
3. Lack of services in the area due to a stagnant population (13)
4. No aged care facilities for older people wishing to stay in the area (13)
5. No Police in the area (12)
6. Lack of public transport (11)
7. Subdivision could/will affect the quality of life in Pickering Brook and the rural aspect (11)
8. Not enough recreational facilities for younger children (10)
9. Number of East Ward councillors (not sufficient) (10)
10. Not able to retire on a smaller block (10)

11. As Pickering Brook is unique and small; its voice may not be heard or considered (10)
12. Inability to subdivide (10)
13. Lack of facilities (5)
14. Lack of a clear policy on the future of Pickering Brook (4)
15. Speeding hoons (4)
16. Increases in population will impact working orchards (4)
17. Loss of community spirit (4)
18. Allowing small blocks will impact on orchards trying to work their properties (not being able to spray, shoot, use machinery) (4)
19. Loss of rural atmosphere (4)

Economic

1. Western Power – power station/substation and related electricity towers (66)
2. Failure of Shire to support Pickering Brook Sports Club – not progressing well (36)
3. Orchard industry becoming unviable – due to aging orchards, lack of young people on the industry, cheap imported competition, growing costs (fuel, electricity), pests, short staffed (19)
4. Difficulty in selling orchard as a going concern – unable to subdivide large acres into smaller lots (e.g. 5 acres) (13)
5. Without subdivision Pickering Brook will die (11)
6. Subdivision and the possibility of block sizes smaller than 15 acres (10)
7. The orchards right to farm could not be maintained unless there is careful consideration with town planning (10)
8. The landscape could be changed significantly if there is too much development (10)
9. Subdivision policy in the rural zone is too rigid (8)
10. Erosion of viable agribusiness by anti-development bureaucracy (8)
11. Haphazard/inappropriate development that doesn't consider the environment (6)
12. Charging for water (6)
13. Potential failure/lack of viability for local shops (6)
14. Illegal tenants (4)
15. Lack of space for school to increase in size (4)
16. Developers moving into the area and building a lot of small/similar houses (4)

Environmental

1. Illegal use of off road vehicles (trail bikes) in the forest (38)
2. Too many horses/paddocks – concerns about land degradation (27)
3. Bush not being burnt back regularly (CALM) (26)
4. Motorbikes (particularly on Mundaring Weir Rd) (23)
5. Weekend traffic – cyclists/motorbike riders (21)
6. Lack of rubbish collection – kerbside collection (17)
7. Destruction of state forest and environmental damage to existing areas (14)
8. Overuse and decline of groundwater reserves, damage to water table, pollution of streams and underground aquifers (14)
9. Subdivision/development of bush on Cunnold St (11)
10. No subdivision between Cunnold St and East Rd (11)
11. Upkeep of roads (10)
12. Litter in the bush (10)
13. Non subdivision off blocks off main roads (10)
14. Visual/noise impact on the environment (10)
15. Feral cats, foxes and rabbits (8)
16. Lack of appropriate speed signage on Mundaring Weir Rd (8)
17. Inadequate maintenance and design of stormwater drains and verges (8)
18. Dip in Canning Rd near Melville's Nursery – needs more lighting (7)
19. Neglected properties (6)
20. Poor signage (6)
21. Trimming of verges by Western Power – need for underground power (6)
22. Orchards that are being removed are not reforested (5)
23. Poor architecture – not environmentally friendly (5)
24. Possibility of ending up suburban (like Mandurah or Forrestfield) (4)
25. Litter along roads (4)
26. Through traffic (4)
27. Agricultural spraying (4)

28. Inability to keep animals of choice (4)

29. Loss of wildlife (4)

3. Visions

Social

1. A retirement village/aged facility (perhaps in the bush behind the sports club) (32)
2. Flexible subdivision – 15 acre lots are hard to maintain, smaller lots will allow financial independence for younger people; thereby preserving the culture of family values/respect for older generations (26)
3. Population increase to provide staff for orchards/farms, club members, shop customers, community (23)
4. Better Shire representation (17)
5. Use club facilities as a meeting place for the community to get together, provide activities for newcomers and present residents (14)
6. Being able to continue living in the area after retirement (13)
7. Subdivision to allow more young families into the area (13)
8. Low crime (12)
9. Re-invent community spirit – revive the club, action, community groups and festivals (12)
10. Community to rally together to reject the Western Power substation proposal (11)
11. Subdivision (ability to subdivide) to give to children (11)
12. Viable sporting facilities (10)
13. Ability to retire on a smaller rural block (10)
14. A mix of leisure facilities that reflect the area, such as camping and bushwalking (6)
15. Privacy maintained (6)
16. Barton's Mill developed into community facility (5)
17. Service centre to provide for community needs (5)
18. Future plans in keeping with rural villages (5)
19. More youth enjoying the country atmosphere (5)
20. Retain the valued loved in the area such as lifestyle, lack of noise and the environment (4)
21. Make Pickering Brook a gated community with restricted access to unauthorised persons (with the community to approve all developments) (4)
22. Community consultation and involvement in the process of change within the district (4)

23. Work with groups (i.e. cyclists) so there is better community relations between residents and clubs, to avoid conflict (4)
24. Opportunity for children to live on separate title(s) on the parents property (subject to relevant conditions such as sewerage) (4)

Economic

1. A stronger focus on tourism (hobby wineries, rose farms, chocolate factories, microbreweries, "Spring in the Valley", "Harvest Festival" (20)
2. Railway connection to Midland train station (11)
3. Direct bus/train to Kenwick train station (11)
4. A mix of agriculture, residential, tourism and hobby farm land uses (10)
5. Better public transport – an extra bus at each end of the day (9)
6. Value adding to agribusiness (e.g. tourism) (8)
7. Viable vineyards and orchards (6)
8. 2 Hectare subdivisions (nothing smaller than 15 acres) (6)
9. Eco-friendly and sustainable development (6)
10. Swimming facilities – local pool (6)
11. Community accommodation for farm workers, tourists, farm stays, backpackers (5)
12. No high density housing (5)
13. Some subdivisions (5)
14. Blocks subdivided to 10 acres (5)
15. Limited subdivisions with strict conditions attached (4)

Environmental

1. Revegetate cleared areas (17)
2. Biomax sewerage systems/biocyclus – to overcome environmental problems of closer housing (14)
3. Maintain and improve both the visual and environmental condition (unpolluted) (14)
4. Clean and tidy road verges, general clean up of the area (14)
5. No traffic lights (12)
6. Retain the integrity of the bush in the town site area (Cunnold St) (11)
7. Minimum block size of 15 acres (11)
8. Subdivision of blocks along main roads (10)

9. State forest left intact (8)
10. Slower speed limit from Croxton Rd to Bahen Rd on Mundaring Weir Rd, improve the safety of this road (bigger signs, more policing) (8)
11. Increased wildlife (7)
12. Stop people coming into the area bringing their rubbish (7)
13. No more through traffic at the end of Pickering Brook Rd (7)
14. Better sewerage, to protect Perth's water quality (5)
15. Close Pickering Brook Rd at the last property in a cul de sac (4)
16. Provide access to Ashenden Rd via Illawarra/Dale Roads (4)
17. Clamp down on illegal traffic (motorbikes) (4)
18. Beautification of roadside properties – removal of unsightly rubbish and/or by planting screening plants (4)
19. Free access to local bulk rubbish collection (4)

Workshop 3: South Ward, Vision Workshop Summary (27 February 2008)

N.B. – The numbers in brackets indicate how many times an issue was mentioned. When an issue was mentioned numerous times in similar manners the numbers are accumulated. Issues raised by a table are multiplied by the number of people on that table in order to reduce bias.

1. Values

Social

1. Low levels of anti-social behaviour, crime rates – safe (43)
2. Family focused lifestyle choice, good place to raise children, healthy lifestyle for children (39)
3. Sense of community, village (37)
4. Country feels whilst near city, fringe, not a suburb but a close-to-city country town (35)
5. Rural feel and lifestyle (33)
6. Sporting facilities, Ray Owen (30)
7. Eclectic population, mixed demographic, diverse culture, lifestyles (24)
8. Welcoming and supportive community, know your neighbours (13)
9. Youth - cycle paths and footpaths (13)
10. Family values continue through generations (12)
11. Relaxed lifestyle (10)
12. Uniqueness of area (7)

13. Arts (6)
14. Church representation, school chaplaincy services (6)
15. Dog friendly (6)
16. Good community interests, music, jazz (6)
17. Sharing of values with Shire taking the lead (6)
18. Volunteers, fire brigade (6)
19. Conservation minded people live in the area, appreciation of the natural area (5)
20. Cultural heritage and history remains (5)
21. Isolation (5)
22. Kalamunda Community Radio (5)
23. Remote from main arterial roads (5)
24. Safe, healthy community (5)
25. The average time that residents have chosen the lifestyle (lived in Wattle Grove longer as opposed to the average stay in metro areas (5)
26. The skills and abilities people bring to the Shire (5)
27. Walk ability, to shops and schools (5)

Economic

1. Quality education, private and public, infrastructure for education and training (26)
2. Able to have horses, sheep, chickens, vegetables, rural pursuits (24)
3. Aged care facilities, elderly support (12)
4. Restrictions on building heights, low building profile (12)
5. Variety of community services, schools, hospitals, shops, childcare, shopping choices (12)
6. Corner stores, smaller shopping centres nearby, no large shopping centres (10)
7. Employment possibilities (6)
8. Hospital (6)
9. Low traffic, congestion (6)
10. Loyalty to local business. Local shopping centres (6)
11. Affordability (5)
12. Availability of home-grown produce (5)

13. Ease of access to all freeway systems (5)
14. Good libraries (5)
15. Hiring halls is easy to do (5)
16. Low density housing (5)
17. Orchards and wineries to the East (5)
18. Tourist attractions, Lions lookout, Lesmurdie falls, Scarp, Falls Farm (5)
19. When Council responds immediately (5)

Environmental

1. Trees, 'a home in the forest' (47)
2. Quiet environment (45)
3. Flora and fauna, wildlife, white-tailed black cockatoos (43)
4. Natural bush, environment, streams (38)
5. Fresh, clean air (36)
6. Large blocks 1800-2000sqm (33)
7. Rural outlook, no sea of tiled roofs (29)
8. Close to nature, connection to natural environment (26)
9. Open space, green belt between Forrestfield and Lesmurdie (22)
10. Good balance of densities of development (14)
11. Good playgrounds for young children (12)
12. Hills, gravel, rock, natural terrain (12)
13. Attractive, accessible, vibrant landscape, buildings and public places, beautiful, gorgeous (11)
14. No traffic lights (11)
15. 1/2 acre blocks (7)
16. Buffer zones, wildlife corridors (7)
17. Darling Scarp National Park (7)
18. Fruit trees (7)
19. No deep sewerage, recycle water (7)
20. Space, blocks no smaller than 1000sqm (7)

21. Wood fire (7)
22. Bush walking (6)
23. Lemon scented gums at the bottom of Welshpool Rd (6)
24. Natural landmarks, Lesmurdie falls, Bibbulmun (6)
25. Parks and gardens (6)
26. No uniformity of roads, variety of road planning with trees considered (5)
27. The weather (5)
28. Victoria Dam close by (5)

2. Concerns

Social

1. Lack of Police presence (13)
2. Density leading to more crime (7)
3. Lack of indoor pool (7)
4. Loss of our values (7)
5. Loss of sense of community (7)
6. Lack of facilities, forums for youth (6)
7. 600sqm over 55 retirement villas, too many, poor quality, aesthetics, loss of community (6)
8. Closure of Pedestrian Access Ways, reducing walk ability (5)
9. Lack of attraction for new families and youth (5)
10. Lack of Lesmurdie identity (5)
11. R20 developments with no local identity (5)

Economic

1. Shortage of public transport, especially evenings (30)
2. Lack of housing options for all ages, elderly, young families, affordability (18)
3. No town centre of Lesmurdie, shops near schools (17)
4. Lack of footpaths, bike paths (16)
5. Cost of use/lack of waste transfer station (14)
6. Lack of traffic speed control on Crystal Brook Rd (14)
7. Lack of a strategic planning framework, aged policy, commercial strategy, housing (13)

8. Increase in traffic and parking (12)
9. Lost orchards (12)
10. Shopping centre, facilities looks terrible, needs improvement (10)
11. Falling value of rural land (7)
12. How to stay at the same area after retirement while keeping excellent lifestyle (7)
13. Increase in industrial sites (7)
14. Increase in price of land (7)
15. Lack of planning on Welshpool Rd (7)
16. Lack of value for rates paid (7)
17. Traffic congestion going to be very expensive to maintain (7)
18. Lack of infrastructure for the arts (6)
19. Need swimming pool upgrade (6)
20. Upkeep of sporting centres (6)
21. Ad-hoc approach by Shire (5)
22. Commerce and money making ventures take over community concerns, e.g. natural environment (5)
23. Condition of BMX area (5)
24. Condition of public toilets (5)
25. Housing stock is coming to the end of its life, need encouragement to re-develop (5)
26. Lack of Fire & Emergency management (5)
27. Lack of good facilities, shops, in the hills (5)
28. Lack of investment and maintenance, housing and commercial (5)
29. Lack of maintenance on existing infrastructure (5)
30. Lack of prompt repair and maintenance (5)
31. Lack of regular rubbish pick up service, green waste build up is a fire hazard (5)
32. Lack of retirement provision for those who want to stay in the area (5)
33. Lesmurdie looks like the Shire doesn't care, lack of investment (5)
34. No decent public playground (5)
35. Planning department may be corrupt, easily swayed (5)

36. Poor planning in relation to aged care services (5)
37. Poor quality bus shelters (5)
38. Poor response from Shire when concerns raised (5)
39. Tourism getting too big and loud (5)

Environmental

1. Wattle Grove will lose its semi-rural appeal because of high density development, loss of rural foothills, unique, irreplaceable (62)
2. Loss of vegetation, flora and fauna, homeowners removing trees, clearing too fast, no community consultation (56)
3. Maintenance of street verges, tree trimming, street scaping (29)
4. Loss of large blocks, open space, below 1/4 or 1/2 acre blocks, increase in densities (24)
5. Graffiti (17)
6. Subdivision and land development is destroying environment, without proper controls (14)
7. Infestation of weeds (12)
8. Lack of concern for native reserves, bushland, weed and rubbish control (12)
9. Low standard of public open space, lack of facilities in these areas (12)
10. Prevalence of colorbond fencing, especially Canning Rd (12)
11. Developers, Shire, neighbours stealing/rerouting underground water (7)
12. Feral cats (7)
13. Fire security, accidental fires (7)
14. Fruit fly spraying, lack of enforcement (7)
15. Loss of special rural blocks, 1 hectare (7)
16. Loss of visual amenity (7)
17. More telecommunication towers may be permitted in Lesmurdie (7)
18. Pollution, more cars (7)
19. Take over by developers (7)
20. Lack of creative landscaping (6)
21. Lack of parks (6)
22. Land use not adhering to zoning (6)
23. Wetlands, lack of and care of (6)

24. "Moonscaping" Hale Rd, Wattle Grove area (6)
25. Burning off and wood heaters (5)
26. Council regards natural habitat as having lower value than anything else (5)
27. Developments are unsustainable (5)
28. Dieback, more action required (5)
29. Enforcement of development/subdivision conditions, relating to street scaping, removal of trees (5)
30. Height of sheds, imposing on view (5)
31. Lack of care of bushland areas, weed and rubbish control (5)
32. Radiation emitting from the TV towers/masts (5)
33. Stormwater drainage/kerbing needs to be improved (5)
34. The amount of heavy traffic (long trucks) using Welshpool Rd (5)
35. Too many signs, visual pollution (5)

3. Visions

Social

1. Retention of rural lifestyle (25)
2. Art festival, to bring artists together, better facilities and services for artists (13)
3. Youth forum, youth facilities (13)
4. Lesmurdie identity, not another 'gum nut' fountain (11)
5. A community that takes responsibility for its neighbourhood, safety for children, cleanliness of common land, neighbourhood watch (7)
6. Keep the elderly in their own homes; promote day care (7)
7. Overall artistic atmosphere for Kalamunda (7)
8. Remain a 'home in the forest' sense of community (7)
9. Retain character (7)
10. To be the best place in the world to live (7)
11. Better communication about our community values to State authorities (6)
12. A vibrant community interacting together in community spaces, a family feel (5)
13. Develop a cohesive community where people feel attachment and belonging, connecting people's resources and skills (5)

14. That Council properly consults and serve the majority of the community views (5)
15. Tree policy to retain mature trees, levy per subdivided block to be paid to the Shire for revegetation, penalty for removing trees (5)
16. We would like to be left in peace (5)

Economic

1. Provision of a reliable public transport service (41)
2. Shire to provide trucks to pick up and mulch green waste and leave mulch on the verge for residents, or green waste recycling unit (24)
3. Aged facilities and services, high quality and well located (19)
4. A cinema in Kalamunda (13)
5. Underground power and mains gas (13)
6. Promotion of tourist attractions, arts and crafts, bbq areas (12)
7. Shopping centre improvements, improve access, should blend in with the environment e.g. Mundaring (12)
8. State of the art infrastructure, internet, to allow working from home (12)
9. Adventure playground at Ray Owen (7)
10. Bring back railway line (7)
11. Community centre, with coffee shops, park, focus area in Wattle Grove (7)
12. DEC and Kanyana to merge (7)
13. Family facilities and services, high quality and well located (7)
14. High density developments to be eased off (7)
15. Lighting along the pathway at Ray Owen, Grove Road, through to Lesmurdie shopping centre
16. Walking at night safer (7)
17. Mix of facilities for old and young (7)
18. More artistic aged care developments, apartment blocks in gardens (7)
19. Open and accountable Shire (7)
20. Play areas for children (7)
21. Prioritise improvement of infrastructure to support higher density living (7)
22. Shire Council still representing the people and control development for the future (7)
23. Underground power from street to house (7)

24. Compulsory visit by a building inspector before the slab is poured for all building extensions and new houses (6)
25. Hospital with maternity (6)
26. Increase commercial type infrastructure as to accommodate training and employment possibilities (6)
27. Promote rural aspect to all composite rural businesses (6)
28. A community focused centre, with quality restaurants, coffee shops, small tavern, and licensed café/bistro (5)
29. A quality restaurant at Lions lookout e.g. "Roleys on the Ridge" in Roleystone (5)
30. Alternative to overhead powerlines, if not underground then solar distribution (by 2030) (5)
31. Don't increase car use (5)
32. Education facility for gifted and talented school of excellence, possibly to the West of Lesmurdie Road East (5)
33. Enhanced and well maintained infrastructure (5)
34. Have referenda on important issues (5)
35. Kalamunda Shire CAT (central area transit) service (5)
36. Lesmurdie town centre development where possible/ appropriate, whilst minimising footprint (2-3 storey rather than R20 single storey) (5)
37. Provision of local business facilities, shops, medical (5)
38. Pub or tavern in Lesmurdie (5)
39. Two verge pickups (5)
40. Walkway across Welshpool Road into bush (5)

Environmental

1. Shire to remain treed with less clearing, protect and retain natural vegetation/environment, history, a "Home in the Forest" (58)
2. New houses should be environmentally friendly, commercial developments should be model developments, tight restrictions energy/water/resources (36)
3. Solar power, hot water, street lighting (32)
4. Encourage green belt tree planting, maintain open space near the city, Wattle Grove (31)
5. A good and consistent network for walking and cycling, recreational hiking, more bikes and walking sporting facilities, support good health (30)
6. Rainwater tanks compulsory, government \$ assistance (30)

7. Clean up streets, all roads to have massive tree planting, tidy scrub and rubbish, improve appearance (25)
8. Entry statement, perhaps at St Brigid's roundabout, Lesmurdie Rd (17)
9. Ban wood heaters and burning off, like Gosnells did 35 years ago, particularly with easterly winds (14)
10. Avoid metal fencing, use green/ hedge fencing as in Europe (13)
11. Encourage planting of verges to sustain wildlife, promote native gardens (13)
12. Encourage clean septic, biocycle and ATU; abolish leach drains (12)
13. Public open space to be some community gardens, producing local produce, maintained by community (10)
14. An entry statement at the entry to Wattle Grove, possibly Crystal Brook Rd (7)
15. Blend of medium and low density housing (7)
16. Blocks 1000sqm so ageing residents can downsize without having to leave the area (7)
17. Bush forever wanted along Welshpool Road near Brook Road (7)
18. Develop what is already developed by subdividing large blocks and not by clearing more bush (7)
19. Diminish air pollution from airport, redesign planes (7)
20. Housing developments with buffer zones (7)
21. Improve street lighting (7)
22. Less cats to preserve wildlife (7)
23. Maintain some open area and parkland within easy walking distance of homes (7)
24. More hillside atmosphere, rural (7)
25. More trees in high density areas, conceal high density housing, apartment blocks with trees, gardens (7)
26. No dense housing which takes up more bush (7)
27. No 'Tuscan' style housing (7)
28. Preserve city air cleanliness, lungs of city (7)
29. Subdivision reduced to 1/2 hectare minimum from current 1 hectare in Wattle Grove (7)
30. Sustainable urban growth in South Ward (7)
31. View of scarp as it is now to be preserved (7)
32. Wildlife corridors (7)

33. Cemetery (6)
34. Enhance Lesmurdie Falls, walk trails (6)
35. Promote low-noise environment (6)
36. Promote well maintained and kept environment (6)
37. Rural composite zoning extended to selected areas as previously petitioned to the Shire (Wattle Grove) (6)
38. Turn Percy Seaton Park into Lesmurdie's 'Stirk Park' (6)
39. A variety of block sizes with larger blocks adjacent to main arterial roads (5)
40. Any subdivision not to be based on minimum sized lots but to have a variety of sizes (5)
41. Design growth to suit elderly and children not cars (5)
42. For the children of the future and their friends to be able to benefit from a rural/semi-rural environment, once lost will be gone forever (5)
43. High quality semi rural sustainable development guided by firm policies, development guidelines in the Shire especially foothills/Wattle Grove (5)
44. Increase density within 5 km of shopping precinct to create a town centre (5)
45. Increase of required public open space provision, greater than 10% (5)
46. Limits set on clearing of residential blocks (5)
47. Maintain current block sizes (5)
48. More attention devoted to graffiti prevention and removal (5)
49. More proactive and frequent cleanups and maintenance of verges (5)
50. New subdivisions block sizes no smaller than approx 1800sqm (5)
51. No further development on the scarp (5)
52. No growth for Kalamunda, Lesmurdie and Wattle Grove (5)
53. No population growth (5)
54. Planning to promote passive and active recreation (5)
55. Prioritise the introduction of footpaths, school areas and bus stops to get priority (5)
56. Public art, landscaping in artwork (5)
57. Uniform and legible street signs with a common Shire theme, minimise signage e.g. Tindale Rd (5)

Workshop 4: South West Ward, Vision Workshop Summary (26 March 2008)

N.B. – The numbers in brackets indicate how many times an issue was mentioned. When an issue was mentioned numerous times in similar manners the numbers are accumulated. Issues raised by a table are multiplied by the number of people on that table in order to reduce bias.

1. Values

Social

1. Community spirit (13)
2. Close to medical facilities (11)
3. Sporting facilities and community (8)
4. Lower density areas (8)
5. Being able to ride horses in foothills (8)
6. Children can see rural activities close to home (8)
7. Old persons facilities for social/entertainment (6)
8. Knowing your neighbours (5)

Economic

1. Choice of block sizes, large blocks (15)
2. Close to shops (11)
3. Public open space money spent on the area it was taken from (8)
4. Close to the airport (5)
5. Close to all areas (5)

Environmental

1. Green, rural environment, open space (21)
2. Ambiance (14)
3. Easy access to other areas of Perth (13)
4. Country living near city (8)
5. Public Open Space - Parklands - Trees – Wildlife (7)
6. Gum Nut water features (7)
7. Library (7)

8. Footpaths (7)
9. Green belt area (7)
10. Peace and quiet (6)

2. Concerns

Social

1. People parking on footpaths - pedestrian having to walk on the road (Arthur Rd, Regency Ramble) , using footpath for overnight parking while driveways are vacant (12)
2. How to protect our values - lack of faith in Council doing anything to protect them (8)
3. What will happen to Wattle Grove School when it is closed (8)
4. Not enough playing fields in growing areas (8)
5. School facilities over-crowded (8)
6. Council workers tree loppers parking on lawn where sprinklers are to cut neighbours' tree (7)
7. Swimming pool (7)
8. No police presence (7)
9. Insufficient retirement home/nursing facilities (6)
10. Lack of arts/crafts for youth and older (6)
11. Wish to remain in area when in old age (6)
12. Lack of fire fighting facilities (6)
13. Speeding through residential areas - especially Bruce and Arthur - Need '50' reminder signs. (5)

Economic

1. Rapid urbanisation, limit to sewer and water reticulation, loss of larger blocks and lifestyle of bush, rural areas, expanding facilities to accommodate population (15)
2. Too much low quality development - small houses with no variation, high density housing (15)
3. Large trucks in residential streets, unable to turn around (Forrestfield area) (13)
4. Lack of footpaths - duty of care to elderly, young & health of the community (i.e. Fitness) especially in new areas (13)
5. Looming industrial areas - Gosnells Council impacting Kalamunda residents (8)

6. Impact of developments on rates (8)
7. Vacancy of shops in shopping centre (8)
8. No room to park cars with small blocks and narrow roads (8)
9. Loss of Holmes Road to urban development - too close to scarp (8)
10. Access to south from Forrestfield/Wattle Grove (to Carousel) is difficult now - may get worse (8)
11. Double storey parking for shopping centres (7)
12. No large businesses in housing areas, keep business separate.(7)
13. Lack of traffic lights - Road Planning, roundabouts etc (6)
14. Retaining special rural buffer zones (6)
15. Poor condition of roads, drainage and kerbs in the Forrestfield/Wattle Grove areas (5)
16. Bus stops need shelters and paving (5)
17. Lack of facilities in Wattle Grove (5)

Environmental

1. Removal of trees for 'developments', blocks too small to plant trees (14)
2. Lack of streetscapes - lack of appropriate tree planting and maintenance (14)
3. Increasing traffic - can't cope with increase in population (8)
4. What will happen to Shire land in Cell 9 - will it be used for community - as originally intended. Public open space in Cell 9 - degraded, full of weeds and rubbish and no paths through (8)
5. Graffiti - no policy, no cleaning up (8)
6. High fences along roads - unsightly, prone to graffiti (8)
7. EPA controls imposed on some blocks - restricting activities and reducing values (8)
8. Foothills being sacrificed to high density to protect 'up the hill' (8)
9. Neighbours creepers coming over the fence (7)
10. Dumping rubbish and old furniture on vacant blocks (7)
11. Gum nuts - dangerous on footpaths (6)
12. Lack in parkland maintenance (6)

13. Noisy machinery in residential areas (5)
14. Smaller blocks - limit trees, birds, nature (5)

3. Vision

Social

1. Vibrant communities, safe and happy for families (8)
2. Peaceful lifestyle (8)
3. A consistency in look and amenity and feel for foothills and 'up the hill' (8)
4. Children having access to rural animals - and horse riding in foothills, (8)
5. More police presence (7)
6. Larger schools. Both primary and high so that children who live in the area can attend school in the area if they wish to (7)
7. Performing arts/swimming pool centres (6)
8. Larger library (6)
9. Swimming facilities at Hartfield Park (not having to travel across to Thornlie) (5)
10. Childcare facilities in Wattle Grove or time span for primary school in St Johns Road(5)

Economic

1. Green buffer zone to retain special rural areas - not extensive residential sprawl - retain village concept, no concrete jungle. No urban development in Holmes Road. Keep green belt (15)
2. Better public transport (13)
3. Buffer of rural/bush between residential and scarp (8)
4. Provision of mixed use zones for all trucks (composite) no more in residential (8)
5. Well designed multi story residential development only with lots of landscaped garden areas around. No less than medium quality (8)
6. More dual purpose pathways (8)
7. Less high density housing (7)
8. Blocks from 1000sqm so that 'home in the forest' still true (7)

9. Cost of land/ houses should be affordable for young generation (6)
10. Footpaths - especially in new areas, finis paths down Arthur and Hale Roads (5)
11. Local shops/deli - accessible on South side of Tonkin Hwy (not across in Forrestfield side) (5)
12. Bus shelters (5)

Environmental

1. Wildlife corridors, developers to retain parklands (13)
2. Trees and greenery surrounding residents, tree lined streets (not native scrub) (8)
3. Power lines underground (8)
4. Entity on its own (6)
5. Cat control / vermin control (6)
6. Open space area - Yule Brook - BBQ, picnic tables, gazebo or shade, watered lawn to promote outdoor play/fitness, paving and basketball hoop (5)
7. Bike path/footpath through Yule Brook open reserve (5)
8. Gum Nuts at roundabout in Arthur and Lancelot Green (5)

Workshop 5: North West Ward, Vision Workshop Summary (28 May 2008)

N.B. – The numbers in brackets indicate how many times an issue was mentioned. When an issue was mentioned numerous times in similar manners the numbers are accumulated. Issues raised by a table are multiplied by the number of people on that table in order to reduce bias.

1. Values

Social

1. Community, village atmosphere (26)
2. Peace and quiet (18)
3. Community groups (13)
4. Lifestyle for children (11)
5. Community participation in Council decision making process (7)

6. Rural atmosphere (7)
7. History Village (7)
8. To preserve the good things for future generations in Kalamunda (6)

Economic

1. Kerbside collection of waste (7)
2. Community hospital and range of medical services (7)
3. Proximity to Perth (6)
4. No parking meters or traffic lights (6)
5. Drawcards, French Patisserie (6)
6. Close to airport (5)
7. Town Centre ambience (5)
8. Facilities nearby (5)

Environmental

1. Wildlife, birds (24)
2. Trees, wildflowers (20)
3. Space, between neighbours, open space (18)
4. Clean air (13)
5. Proximity to forest (12)
6. Larger blocks (7)
7. Big backyards for kids to play in, also as buffer between city and forest (7)
8. National parks and reserves (7)
9. Uncluttered (7)
10. Bush trails and walks (7)
11. Tree preservation list (7)
12. Green corridors (6)

2. Concerns

Social

1. Graffiti on buildings, including Shire buildings, vandalism (13)
2. Increased pressure on rural lifestyle (7)
3. Switchyard/substation in the Shire without proper explanation or reasoning why it has to go in the Perth Hills. Why and where is the power going to service? (7)
4. Lack of communication and consultation from Shire in regard to Kostera Oval development, How will this development affect nearby properties? (6)
5. Lack of recreational facilities (6)
6. Where residents of Springvale Caravan Park will go (6)
7. Zero population growth, impact of ageing population (5)
8. Ageing population, blocks too large, where to move to? (5)
9. Website "save the Swan Hills" is run by a politician North of the river (2)

Economic

1. Future of Kalamunda Swimming Pool - Wet & Wild, we need indoor/outdoor swimming pool, can we support it? Could money be better spent elsewhere? (13)
2. Creeping development applications for high rise buildings in or near the town centre, high rise is not in keeping with streetscape and ambiance of town centre (7)
3. High density without the necessary infrastructure (7)
4. Youth facilities (6)
5. Sustainability of local business (6)
6. Lack of aged care (6)
7. Truck parking, policy needs to be enforced (5)
8. Poor public transport (5)
9. Lack of diversity, options in housing (5)
10. Unsightly facilities such as power stations (5)
11. Parking concerns in new developments (4)

Environmental

1. Clearing native bushland on large developments and single residential blocks without any restraints, protection by local Council (9)
2. Pressure on native flora, fauna, water and air quality (7)
3. Large powerlines through the Shire (Western Power) Clearing, visual pollution, health concerns, spread of weeds (7)

4. No forestry plans for forest in the Shire, environmental impact, poor road access, rural residences affected, dieback, salinity (7)
5. Sites (half acre) with lots of old car bodies and piled rubbish (7)
6. Drainage issues for storm water (7)
7. Studies have been done to bring up the level of Kostera Oval - subjecting residents to yet more constant chainsaws, rock breakers, trucks, noise. Drainage problems on lower level can be solved without this extreme expense and detriment to locals (6)
8. Noise along the highway (5)
9. Bush fires, Zig Zag (5)
10. Increase in housing developments leading to big problems with litter, speed, traffic, vandalism, graffiti, bin fires (2)
11. Size of blocks, Home in the Forest on 400sqm (2)
12. Footpaths in residential areas (2)

3. Visions

Social

1. Make and keep a safe, pleasant, liveable environment for children and grandchildren (6)
2. Theme for town centre, people friendly (5)
3. Cater for all ages (5)

Economic

1. Introduce more tourism (18)
2. Zoning for aged persons accommodation next to Kalamunda Hospital (Byron Road Corner) (7)
3. Underground power, aerial bundled cabling (7)
4. Pharmaceutical service is needed in Gooseberry Hill to service the elderly in area (7)
5. No brothel category in our Town Planning Scheme (7)
6. Careful consideration of applications for home based business in residential areas, impact of neighbours, trucks (7)
7. Rail, continuation of rail from airport into Maida Vale (6)
8. Accommodation for tourism, hotels (6)
9. Incorporate new tourism centre with Bibbulmun Track (6)
10. Introduce cottage industries, particularly out towards Pickering Brook (6)
11. More craft shops around History Village (6)
12. Shire purchases land and develops it to make money for Shire after research (6)

13. Working with state and federal authorities to improve access and public transport to Kalamunda - especially the section of Kalamunda Rd between Great Eastern Highway Bypass and Roe Highway. Possible railway line between High Wycombe and Forrestfield (6)
14. Upgrade lighting for Stirk Park (5)
15. Sufficient parking available in new developed areas (2)

Environmental

1. To do all we can to fight against global warming and greenhouse gases; development with water wise conditions, grey water recycling, incentives from Council (13)
2. Better maintenance of verges (7)
3. Improved drainage and water management, conscious planning to minimise water erosion, water retention policies (7)
4. Recognition that Kalamunda Shire and North Ward in particular is a very special place, lungs of the city, this must be recognised and remembered in all planning aspects (7)
5. Park and Ride facilities on Kalamunda Road (7)
6. Save the Observatory, careful planning for street lighting in town (7)
7. Cat policy needed (7)
8. Controls and strategies needed for control of feral animals (cats, foxes, parrots) Council and state government (7)
9. No development on Reserves, better maintenance of Reserves (7)
10. Enforce design guidelines for Kalamunda town centre to keep ambiance of "village" (7)
11. Support crime prevention through environmental design in public places (7)
12. Keep, update and publicise the Tree Preservation list (7)
13. Re-examination of planning codes in Gooseberry Hill, consistency (6)
14. Shire buys Shell site and makes it the village green (6)
15. Protection of native flora and fauna, green corridors (6)
16. Develop land but keep established trees alive (6)
17. Some restrictions by the Council to prevent non obtrusive native trees and vegetation from being bulldozed (6)
18. Recommend that developers compensate for environmental destruction, habitat - instead of the cost of nest boxes, replanting etc. falling on neighbouring residents (6)
19. Green bins for residents to alleviate burning of waste and regular bulk collection (6)

20. Traffic claming devices on the straight roads and give-ways on dangerous corners, Recreation Road, Boonaloo and McRae Roads. (6)
21. The Shire to ensure that any development in the hills area is carried out to conform to the local lifestyle, maintaining the 'Home in the Forest' before it is too late (6)
22. Rural agricultural blocks down to 1 acre, to allow diversity options (5)
23. Remove speed humps (5)
24. Growth: bigger blocks 1000 sqm, Sultana Road East (2)
25. Only allow burning for a short period of time each year (2)
26. Rubbish bins available in the car parking area of Kostera Oval (2)

Workshop 6: North Ward, (28 May 2008)

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25. Only allow burning for a short period of time each year (2)
26. Rubbish bins available in the car parking area of Kostera Oval (2)

Appendix 2: Results of Public Questionnaire Survey

Kalamunda Town Centre Land Planning Vision Questionnaire

	TALLY
Q1. What do you value (like) about Kalamunda Town Centre?	
Village atmosphere	////////
Everything in walking distance	////
Small size	////
Ease of parking (no meters)	///
Trees	///
Relaxed easy-going atmosphere	//
Country atmosphere	//
Readily accessible	//
Rose gardens	/
Water feature/ gum nut fountain	/
No traffic lights	/
Variety of shops and amenities	/
Small speciality shops	/
The main street- Haynes Street	
Coffee shops	
Christmas lights	
Town square (near community hall)	
Stirk Park	
No Fast Food	
Can get there on the bus	
Friendly shop owners	
Quaint atmosphere	
Local feel	
Character	
Low density	
Close to the city	
Centro Shops	
Attractive buildings (Last Drop, History Village)	
Not completely 'modernised' unlike most WA town centres	
Services available	
Kalamunda Markets	
Q2. What are your concerns (dislikes) about Kalamunda Town Centre?	
Losing 'village' character (high rise buildings/unit developments)	////
Graffiti	///
Traffic calming on Railway Rd and Haynes St	///
Parking (lack of undercover parking)	//
Canning/Mead site empty/messy	/
Power lines in streets - exposed	/
Ugly supermarket (Centro) Characterless	/
Traffic congestion (Haynes St/Canning Rd)	
Lack of vision exiting car parks at shopping centre	
Lack of shelter/sheltered seating (particularly Brumby's side of Haynes St)	
Tree roots uplifting the pathways on Haynes St/car parks - hazard for elderly	

Raised crosswalks/speed humps - encouraging pedestrians and gophers to move into the traffic flow
 Large shopping centre
 Multi housing developments
 The push for higher density
 Lack of office space
 Lack of specialty shops
 Chicken Treat - unattractive
 Segregation between the Centro mall and the shops of Haynes St
 Risk of being a township for the retired
 Extensive areas of bitumen
 Too many islands - the hump on Haynes St
 Exit from Haynes St onto Canning is too narrow/causes congestion/poor viability
 Priority given to motorists instead of pedestrians - does not encourage walking
 Landscaping surrounding Kalamunda Post Office (condition of brickwork etc)
 Congestion of traffic on Railway Rd between Mead and Haynes
 Disappearance of trees, green areas, shade
 Area behind the Last Drop - rubbish, landscaping
 Not enough security/police presence
 Ugly advertising at the entrance
 Bunning's street front
 New units do not include room for space and trees
 Poor streetscapes

Q3. What are your Visions (things you would like) for Kalamunda Town centre?

More gardens/greenery/trees	///
Haynes Street as a mall (Pedestrian only)	///
Youth activities - skate park, water park, cycle club, walking club, free training seminars	//
No high rise buildings	//
Maintain village feel	//
Swimming pool (heated)	/
Movie complex, open air theatre	/
Landscaped gardens with seating	/
More trees, native flora and fauna	/
Demolish supermarket (Centro)	/
More units for general population (not just over 55's)	/
Trees in centre of Haynes St (more street trees)	/
Attractive streetscapes (themed), classy	/
A better standard for the shop car parks in the town centre	/
More parking	/
Use of observation cameras to catch crime (robbery, graffiti)	/
Post Box in supermarket complex	
Fresh fish shop	
Car Wash	
Roundabout at Canning and Mead Street intersection	
Make Stirk Park a feature	
More walkways	
More playgrounds	
No Graffiti	
Gallery for local artists	

Retirement facilities
 Market (fresh food)
 Awnings and shelters on shopfronts
 A theme café, like a milk bar to attract tourism and younger people
 "Sizzlers"
 "Miss Maud"
 Office's and underground car park Cnr Mead St/Canning Rd
 Doctor's practice (expand, up to date, modern)
 Post office - bigger space
 Redevelopment of Barberry Square- replace with 3 storey dev with office space and retail
 Office/retail near Canning Rd - architecturally designed
 Wine-bar
 Alfresco dining
 Use exotic tree species for shade
 Stirk Street car parks developed into tiered car-park
 Chicken treat store moved
 Shade sails over Centro car park
 Halt to villas for elderly in town centre
 More benches
 Tidy up Barberry Square - make into car park
 Make the markets and community events smoke free
 Christmas lights in trees (like Albany centre) in Stirk Park
 No further reduction in parking (library)
 Reopen Kalamunda Hospital
 Train station (link to Kenwick, Midland)
 Food hall at Shell site
 More seats and shelters at bus stops (better maintained)
 Better security
 More activity for tourists at weekends (Sunday markets, art galleries and craft centres)
 Less signs (or place signs together)
 More trees near units
 Buried powerlines
 Upgrade parking areas (Barberry Sq, Bunning's, Mitre 10)
 Summer square dancing - Chess board Stirk Park
 Australia Day - international event (promoting multiculturalism)
 Kalamunda to be a sister city with an overseas city
 A music store
 Develop memorial walk (international tours, plinth at start of walk)
 Improve late night public transport services
 KADS to show productions for younger age groups
 Apartments with view, balcony, multiuse (shops below)
 Large blank walls (Kalamunda central) not attractive
 Small train track around Stirk Park for children to ride on
 More gazebos in Stirk Park
 No parking in Haynes St
 Refurbishment of shop façade with awnings
 Mural/artwork on Centro (east and south facades)
 More community art and culture

Q4. Other comments/suggestions

Change market to Sunday (locals to do shopping on Saturdays)

The streets need to be cleared of leaves and rubbish (behind banks) (behind Haynes St North) /
 Shade sails over parks for children
 Keep Kalamunda as a village - it is unique
 Kalamunda is ideally situated
 Shopping in area is good
 Move the Saturday markets to Stirk Park on a Sunday
 Maintain/improve medical/dental facilities
 Maintain village architecture and parks
 Encourage small retailers
 Congratulations for what has been done to make Kalamunda a lovely place to live in and visit
 A small circular "cat bus" service like in Perth
 Cycle access
 Must retain character through quality developments
 Slow traffic access
 The area of the town centre should not be increased
 Four lane road up and down the hill is needed
 More market days in spring and autumn
 Make Kalamunda somewhere for tourists to enjoy browsing, dining, relaxing, shopping
 Develop corner of Canning and Mead St
 Limit on tree felling on building blocks
 More fundraising concerts - outdoors
 Any future developments should be 'low rise' and sensitive to surroundings
 Advertise wildflowers more
 Not too much pavement signage
 Must be pro-active in making the town more attractive
 Ask High school students for visions, values and concerns
 Upgrade youth facilities, develop aquatic centre, skate park, youth centre and activities

Q5. What townscape aspects do you consider are essential for a 'village'?

Trees, including down centre of Haynes St	/////
Places for people to sit/rest/people watch, without having to spend money	/////
Landscaping (well maintained)	////
Open spaces	///
Compact, everything in walking distance	///
Gardens, perhaps with walkways	///
Alfresco dining	///
No high-rise buildings	//
Flowers	//
Single storey - no high rise	/
Specialised shops	/
A market style shopping precinct, with a good variety of shops	/
Local enterprises, not chains, some family owned	/
Teashops	
Bookshops	
Cottage industries, ice-cream shop	
Outdoor theatre	
Malls	
Community events	
Plenty of lighting	
A meeting place for residents	
Neat	

Peripheral multihousing development
Character and design of shops to be different from large towns
Easy access
Pedestrian access
Underground parking
Street art (like Geelong waterfront)
Reduced through traffic
Potted plants
Less cars
Verandas on shop fronts
Museums
Photo gallery
Umbrellas
Native shrubs
Lamp lights, solar
Native flora and fauna
A few restaurants and cafes
Art centres/galleries
Create a 'village green' by ensuring each shop must tend a garden or flower patch
Preserving the history
Pedestrian Malls
Sympathetic architecture
Attractive shop fronts
Removing through traffic from town centre
It is a village, leave it alone
No fast food
Preservation of quality architecture
Traffic control
Good mix of offices/residential/retail e.g. apartments on top of shops if 2 storey
Buskers

Appendix 3: Shire Planning, Building and Environment Policies

The following are the Shire's Planning and Environmental Policies:

- DEV1 – Additional Accommodation
 - DEV2 – Amusement Machines and Amusement Centres
 - DEV3 – Asbestos Cement Sheeting and Building Products – Guidelines
 - DEV4 – Building Licence Lists – Distribution
 - DEV5 – Caravan Park proposals – Guidelines for Assessment
 - DEV6 – Cash in Lieu of Car Parking
 - DEV7 - Child Care Centres – Guidelines
 - DEV8 – Delegation of Authority – Approval of Building Plans and Specifications
 - DEV9 – Delegation of Authority – Assessment of Swimming Pool Fencing
 - DEV10 – Delegation of Authority – Determination of Development and Subdivision Applications
 - DEV11 – Delegation of Authority – Issue of Stop Work Orders
 - DEV12 – Design Aesthetics – Guidelines
 - DEV 13 – Dual use Pedestrian/Cycle Paths – Inclusion in Development Plans
 - DEV14 – Earthworks – Guidelines for Assessment
 - DEV15 – Footings – General
 - DEV16 – Fuel Storage Applications – Guidelines for Assessment
 - DEV17 – Igloo/Tunnel House Applications – Guidelines for Assessment
 - DEV18 – Noise Attenuation for Buildings in the Proximity of Perth Airport
 - DEV19 – Notification of Affected Landowners – Community Consultation – Advertising
 - DEV20 – Outbuildings – Guidelines for Assessment
 - DEV21 – Outbuildings in Subdivisions
 - DEV22 – Parking of Commercial Vehicles on Private Property
 - DEV23 – Pergolas – Guidelines for Assessment
 - DEV24 – Perth Airport – Statement of Council's Position in Regard to the Future of the Airport
 - DEV25 – Public Open Space Contributions – Subdivision Applications
 - DEV26 – Radio, Television and Communication Transmission Facilities – Guidelines
 - DEV27 – Reduced Setbacks to Verandas, Patios and Carports – Guidelines
 - DEV28 – Reflective Material in Cladding or Roofing – Guidelines
 - DEV29 – Refund of Building Licence Fees
 - DEV30 – Rezoning of Properties to Residential R20 or Higher
 - DEV31 – Road Closure Procedures – Roads, Rights of Way and Pedestrian Access Ways
 - DEV32 – Revoked
 - DEV33 – Signs – Display of Portable Signs on Footpaths and in Public Areas
 - DEV34 – Signs – General
 - DEV35 - Stormwater Drainage – Subdivision Applications
 - DEV36 – Subdivision in Rural Zones
 - DEV37 – Fees – Town Planning and Building
 - DEV38 – Variation of Building Setback – Residential Design Codes
 - DEV39 – Walls on Boundaries – Local planning Policy
 - DEV40 – Boundary Retaining Walls on Residential Land – Local Planning Policy
-
- ENV1 – Control and Eradication of Pest Plants
 - ENV2 – Environmental Impact – Earthworks and Foundations
 - ENV3 – Environmentally Sensitive Areas – Guidelines for Development
 - ENV4 – Flood and Stream Management
 - ENV5 – Fruit Trees – Removal from Reserves
 - ENV6 – Hillside Protection – Guidelines for Development
 - ENV7 – Protection of the Environment
 - ENV8 – Street Lawns and Gardens
 - ENV9 – Tree Preservation

Appendix 4: Community Facilities in the Shire of Kalamunda

Community Facility	Location
Anderson Road Community Hall	Forrestfield
Carmel Hall	Carmel
Cyril Road Community Hall	High Wycombe
Falls Farm	Lesmurdie
Forrestfield Hall	Forrestfield
Forrestfield Library	Forrestfield
Gooseberry Hill Hall	Gooseberry Hill
Gooseberry Hill Multi Use Centre	Gooseberry Hill
Hartfield Park Recreation Centre	Forrestfield
High Wycombe Recreation Centre	High Wycombe
High Wycombe Library	High Wycombe
Jack Healey Senior Citizens Centre	Kalamunda
Jorgensen Park Cottage	Kalamunda
Jorgensen Park Pavilion	Kalamunda
Kalamunda Agricultural Hall	Kalamunda
Kalamunda Library	Kalamunda
Kalamunda Performing Arts Centre	Kalamunda
Lesmurdie Community Library	Lesmurdie
Lesmurdie Hall	Lesmurdie
Ray Owen Sports Stadium	Lesmurdie
Town Square Hall	Kalamunda
Walliston Hall	Walliston
Woodlupine Family and Community Centre	Forrestfield

Appendix 5: Educational Facilities in the Shire of Kalamunda

Educational Institution	Location
Pre-Primary (Government)	
Dawson Park	Forrestfield
Edney Road	High Wycombe
Falls Road	Lesmurdie
Forrestfield	Forrestfield
Gooseberry Hill	Gooseberry Hill
High Wycombe	High Wycombe
Kalamunda	Kalamunda
Lesmurdie	Lesmurdie
Maida Vale	Maida Vale
Pickering Brook	Pickering Brook
Walliston	Walliston
Woodlupine ECU	Forrestfield
Pre-Primary (Private)	
Forrestfield Christian Pre-School	Forrestfield
Kalamunda Christian Pre-School	Walliston
Matthew Gibney Catholic	High Wycombe
Community Based Pre-School	
Spring Road Community Kindergarten	Kalamunda
Primary (Government)	
Dawson Park	Forrestfield
Edney Road	High Wycombe
Falls Road	Lesmurdie
Forrestfield	Forrestfield
Gooseberry Hill	Gooseberry Hill
High Wycombe	High Wycombe
Kalamunda	Kalamunda
Lesmurdie	Lesmurdie
Maida Vale	Maida Vale
Pickering Brook	Pickering Brook
Walliston	Walliston

Wattle Grove	Wattle Grove
Woodlupine	Forrestfield
Primary (Private)	
Carmel Adventist Primary School	Carmel
Mary's Mount Primary School	Gooseberry Hill
Mathew Gibney Catholic Primary School	High Wycombe
St Brigid's Primary School	Lesmurdie
Bickley Seventh Day Adventist	Bickley
Forrestfield Christian School	Forrestfield
Kalamunda Christian School	Walliston
Secondary (Government)	
Darling Range Sports College	Forrestfield
Lesmurdie Senior High School	Lesmurdie
Kalamunda Senior High School	Kalamunda
Secondary (Private)	
Carmel College	Carmel
Mazenod College	Lesmurdie
St Brigid's College	Lesmurdie
Education Support Centres	
Forrestfield Kumon Centre	Forrestfield
Kalamunda Education Support Centre	Kalamunda
Kumon Education Centre	Kalamunda
School of Kalamunda Area Motor Program Inc	Kalamunda
Technical and Adult Education	
Wattle Grove Centre TAFE Works	Wattle Grove
Foothills Learning Centre	High Wycombe
Kalamunda Community Learning Centre	Kalamunda

Appendix 6: Townscape Improvement Plan – Kalamunda Town Centre

Example of Principle 5: Quality Street Furniture

A matching suite of quality street furniture - fabricated from materials and colours that are specifically selected to reinforce Kalamunda's character - should be installed in key areas to 'roll out the welcome mat' to residents and visitors, and demonstrate the community's pride in its town. Providing benches and other furniture in locations such as this important corner also allows users good views of the street, and celebrates a beautiful existing street tree.

Example of Principle 9: Active Shop Frontages

This section of Haynes Street is located at a key 'T' junction but is currently dominated by blank windows and walls, wide exposed pavements and over-scale advertising signage. The streetscape could be greatly improved by upgrading the landscaping, adjusting the pavement levels to allow the removal of rills, by adding murals or public artworks, upgrading facade materials, opening up shop windows and adding small shops at the front (such as the ice cream parlour).

Example of Principle 2: Location of Car Parks

The existing large car park in this location needs to be upgraded with a more efficient car parking layout and vehicle circulation, the provision of shade trees, and the construction of a clear, designated pedestrian pathway through the car park incorporating information and direction signage. The multiple crossovers to the adjoining streets should be reduced to one off Sirk Street.

Southern footpath on Sirk Street narrowed to 2m and verge mulched and planted to reduce the expanse of asphalt.

Example of Principle 6: Special Sites

This corner lot is a key entry point to the Kalamunda town centre. It would be greatly improved by being redeveloped with a quality building with a more urban character, built up to the footpath edges. The new building could also take advantage of views over Sirk Park, and help provide a covered link for pedestrians from the park to Haynes St. An appropriately designed new building at this location has the potential to provide a welcoming heritage to motorists arriving from Kalamunda Road, and would be a real asset to the town.

Power lines placed underground in Haynes Street.

Example of Principle 7: Gender Pedestrian Permeability

More pedestrian routes mid-street block would allow people to move between retail areas without having to walk around the edge of the whole block, making walking a much more attractive option. At least one of these routes must be a safe, 18 hour access way - the other can be open just during shop hours.

Example of Principle 4: Traffic Calming

The presence of overhead power lines make verge tree planting and maintenance difficult, and the resulting wide open streetscape, coupled with deep building setbacks, encourages motorists to drive faster than is safe for this busy town centre environment. By planting trees in the median the roadway is visually narrowed, which would reduce vehicle speeds, whilst also allowing the trees to grow without the need for regular pruning.

Example of Principle 1: New Development & Redevelopment

This lot should be redeveloped to provide a strong streetfront presence on all adjoining streets. The portion of building located on the corner of Canning Road and Mead Street should be developed to a higher scale to help mark the entrance to the town centre. All street frontages should accommodate a variety of small shop frontages with continuous awnings provided over the footpaths. Parking should be placed internal to the street block, and could be decked if required.



Legend	
	New pedestrian paving
	New intersection pavement
	New awning over footpath
	Development or Re-Development opportunity
	New shade sail
	Overhead power lines
	New Tree
	Existing tree
	Cycle route
	Bus facilities
	Bus Stops
	Special Site

Example of Principle 8: Bringing People into the Village

This key corner site is well suited to accommodate a two storey, mixed use development, with underground and rear car parking, offices or studios at street level, and residences above. The residences could have open rear courtyards at the upper levels which would enjoy views down the hill, and have front balconies overlooking the historic railway precinct on the other side of Railway Road and the well used, surrounding streets. Community facilities, shops and public transport are all within easy walking distance, and Sirk Park is close enough to enjoy on a daily basis.

Example of Principle 10: Transport Alternatives

A designated bike route should be constructed which is located away from the busier roads, but still gives good access to key facilities. This would make cycling safer for children and adults alike. Other initiatives to support cycling could be the provision of bike racks at appropriate locations, lock-up bike storage facilities at the bus terminus, as well as the introduction of traffic calming measures & the provision of generous road widths on designated cycle routes to allow for bikes and cars to comfortably share road space.

Example of Principle 1: Preservation of the Town's Setting

The trees in this car park are filling the pavement and have been pruned in a way which makes branch-dropping more likely. Unfortunately, most of these trees need to be removed. They should be replaced with more suitable species and planted in a way which will prevent the pavement and give the trees better growing conditions. A decision to replace mature trees in this location now will result in a much-improved landscape in the future. There are also, however, some iconic eucalypts in this car park which must be conserved, even at the expense of some car bays.

Example of Principle 3: Pedestrian Access

In this area the parking layout should be adjusted to allow widening and repairing of uneven footpaths, the introduction of shade tree planting, and an improved pedestrian link between the bus terminus and the Central Mall.

Start point for the Biblumun Track upgraded or relocated adjacent to the Library.

A mural and improved landscaping would improve the appearance of this facade.

Appendix 7: Townscape Improvement Plan - Lesmurdie Shopping Centre

Formalised footpath to give access to the centre (currently a bush track).

Improved pedestrian links from the school.

One entry / exit point only to manage vehicle movement, improve pedestrian safety and allow more efficient parking and tree planting set-out.

OPTION: Possible location for a community service facility (see ****** inset). The bushland in this zone is severely degraded.

New play area installed in the reserve. Designed to take advantage of the shade, level changes and assets of the reserve. Buffering planting to neighbouring property boundaries.

Upgrade public toilets within centre, provide baby change facilities.

New building to lot boundary. Building needs to be activated and address adjacent reserve and carpark opposite. Option to provide a lease on the reserve for an outdoor eating area overlooking the playground.

(See Fig. 4 for a concept sketch)

New service entry provided off Northcott Street to reduce conflict between pedestrians and service vehicles and to improve appearance of the rear of the centre.

****** The development of a new retirement facility currently taking place immediately adjacent could be a real asset to the Centre. An assessment of what facilities would benefit the local retired community should be undertaken. For instance:

- a shared office between the Shop and Government agent support offices could save both older adults a long journey.
- a 'Tennis Short' and 'Tennis lounge' could provide facilities for members of the community who are active but don't have space for such etc in their smaller homes. These facilities can be shared with the wider community including the outdoor school.
- a great 'free' 'book café' with internet may give the community access to email without having to purchase and manage computers at home.
- 'mochi's' delivered by theory
- a job centre where retired people can advertise skills in the community (joby making, handyperson services, child minding, tutoring, vacation house-watching, volunteer time and coaching to name but a few).
- a community garden may also be an option, as retired people in smaller units may want to grow fresh herbs etc but not have the room - these gardens have been successful at school finishes too so a partnership may be appropriate.



New roundabout with a feature in the centre and footpaths & landscaping to verges.

Protect and enhance bush reserves. Formalise pathways and provide seating. Edge with pine bollards.

Sanderson Road widened and a median created. This allows tree planting away from power lines and slows traffic at the Centre, giving it more of an address.

Rationalisation of internal vehicle movement to slow it down and reduce pavement areas. One-way or two-way can be considered. Needs to be matched with service entry improvement to south of centre.

Low wall with business signage.

Additional shade tree planting to car parks.

Main entry re-aligned to give a view to building doorway and entry improved with banners / landscaping / signage / lighting etc.

(See Fig. 5 for a concept sketch)

Improved frontage to these shops with colourful but robust street furniture, shade awnings, planter boxes and clear, safe pedestrian access. Develop new 'active' tenancies along face of existing building which open onto the carpark.

New building with active frontage built to edge of lot with verandah over footpath wrapping around to provide shaded access to Centre entry.

LEGEND

- Existing tree
- New tree
- New footpath
- New building
- New red asphalt
- Entry feature
- Council reserve
- Power line
- New awning over footpath
- Planted median or nib

Improved pedestrian links from the Lesmurdie Rd bus routes.

Appendix 8: Townscape Improvement Plan – Edinburgh Road Shopping Centre (Forrestfield)



Introduction

This plan aims to illustrate key redevelopment and enhancement options for the Edinburgh Road Local Shopping Centre. It should be read in conjunction with Figure 1: Issues and Figure 2: Opportunities.

- 1 Part of the existing tavern lot could be subdivided to create medium density homes which would overlook the adjacent reserve and help provide a wider choice of housing for Foothills residents. Housing should be designed to conserve significant existing trees on the lot, and some on-street visitor parking could be supplied on Cumberland Rd.
- 2 This part of the supermarket lot is under utilised car parking. It could be developed as 'terrace style' housing, possibly with two storey elements to take advantage of views to the Darling Scarp and surrounding reserves.
- 3 There are a number of options for improvements to this lot - see Figure 2 Point 3 for details. The option illustrated left is for a new tavern / restaurant building with an alfresco area overlooking the reserve, a drive-through bottle shop, a dedicated loading zone and landscaped buffer areas between the tavern and adjacent lots. The existing significant eucalypt should be retained in the lot parking set-out and redevelopment.
- 4 Walking/ cycling access routes through the Centre () could be made clearer and more pedestrian friendly with landscaped buffers and shade planting, clear crossover points () so that motorists are made more aware of pedestrians, better connections to undercover footpaths and wider median refuges at crossing points on Edinburgh Rd and Cumberland Rd.



Lincoln Road Reserve

- 5 Car parks could be planted with more shade trees for shopper comfort and to give the Centre a better setting. Trees will need to be planted in improved soil, reticulated and protected from vehicle damage. Suitable species would include those pictured below. Smaller growing trees need to be planted closer together to give good shade cover.
- | | | | | | |
|---|--|---|---|---|---|
|  |  |  |  |  |  |
| Chinese Elm | Liquidambar | Euc. leucorhyn | Euc. torquata | Native Peppermint | Euc. nicholii |
- 6 Redevelopment of the Service Station has resulted in an additional vehicle entry/exit point at the Supermarket's front doors. This area now has 4 access points and there is the potential for congestion and confusion. Line marking a dominant through-route, removing parking bays which require drivers to reverse into the four-way intersection, adding speed humps or slow points to reduce vehicle speeds, and landscaping nibs will help traffic move more freely through this zone. In addition, a dedicated drop-off bay for shoppers and taxis would be useful, and the two western bays could be reserved for parents with young children to make their visit to the Centre easier.
 - 7 The area adjacent to the drop-off bay could be enhanced with comfortable waiting benches, colourful planted pots, a bike rack, bins, a trolley collection rail and excellent night lighting. These would provide an added sense of welcome to the Centre's customers.
 - 8 The Edinburgh frontage of the shopping centre could be improved with new attractive retaining walls, suitable street tree planting, steps at the eastern entry (where scouring shows shoppers are tramping up the embankment) and colourful photographic panels such as have been installed on the western facade of the Centre.
 - 9 A well designed addition to the Centre on the corner of Edinburgh and Lincoln Rds would give the building a better street-front presence (see Figure 2, Point 4 for details). Possible tenants for this new section could include a relocated medical centre (this is currently in the residential area opposite) or a bottleshop if the tavern site is re-developed. In the interim however, signage should be enhanced and the appearance of this corner improved.



