

## **FOOTHILLS RURAL STRATEGY**

As adopted by Council on 13 April 2004  
Awaiting endorsement from the  
Western Australian Planning Commission

**March 2004**

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>HOW TO USE THE FOOTHILLS RURAL STRATEGY.....</b>	<b>2</b>
<b>1.0 INTRODUCTION.....</b>	<b>3</b>
1.1 BACKGROUND.....	3
1.2 OBJECTIVES OF THE FOOTHILLS RURAL STRATEGY .....	4
1.3 METHODOLOGY .....	4
1.4 RELATIONSHIP TO REGIONAL PLANNING .....	5
1.5 RELATIONSHIP TO LOCAL PLANNING .....	13
1.6 RELATIONSHIP TO ADJOINING LOCAL AUTHORITIES.....	15
<b>2.0 STUDY AREA PROFILE .....</b>	<b>19</b>
2.1 STUDY AREA LOCATION .....	19
2.2 PHYSICAL ENVIRONMENT .....	20
2.3 POPULATION AND EMPLOYMENT .....	21
2.4 SETTLEMENT AND INFRASTRUCTURE .....	22
<b>3.0 LOCAL ISSUES, OPPORTUNITIES AND CONSTRAINTS.....</b>	<b>28</b>
3.1 LANDSCAPE CHARACTER .....	28
3.2 RURAL-RESIDENTIAL .....	32
3.3 HARD ROCK QUARRIES.....	35
3.4 BUSH FIRE MANAGEMENT .....	37
3.5 WETLANDS .....	38
3.6 BUSH FOREVER.....	39
3.7 RARE FLORA AND THREATENED ECOLOGICAL COMMUNITIES.....	40
3.8 PUBLIC WATER SOURCE DRINKING AREAS.....	41
3.9 POULTRY FARMS.....	41
3.10 NATURAL GAS AND OIL PIPELINES .....	42
3.11 WESTERN POWER HIGH VOLTAGE POWER LINES .....	43
3.12 AIRCRAFT NOISE.....	43
3.13 ABORIGINAL SITES.....	43
3.14 LAND CAPABILITY .....	44
3.15 AGRICULTURAL PRACTICES .....	44
<b>4.0 THE STRATEGY .....</b>	<b>45</b>
4.1 VISION .....	45
4.2 SETTLEMENT.....	45
4.2 PRECINCT STRATEGIES.....	46
<b>5.0 IMPLEMENTATION AND REVIEW .....</b>	<b>58</b>
5.1 IMPLEMENTATION .....	58
5.2 REVIEW .....	59
<b>GLOSSARY OF TERMS .....</b>	<b>61</b>

---

## EXECUTIVE SUMMARY

The City of Gosnells Foothills Rural Strategy is an expression of the City's vision for rural land within and in the vicinity of the Gosnells foothills (Study Area) to the year 2018 and beyond. It will be used by the City to guide land use, zoning, development and subdivision of rural areas within the Study Area. It will also form part of the Local Planning Strategy (soon to be completed), which will be the broader planning strategy for the City of Gosnells.

The Study Area focuses on the Gosnells foothills and land that is on or closely adjacent to the Darling Escarpment, which traverses the eastern edge of the City in a north-south direction, approximately 20 kilometres south-east of the Perth Central Area (refer to **Figure 1**). This land includes the localities of Orange Grove and Martin and portion of the localities of Kenwick and Maddington.

The underlying objectives of the Foothills Rural Strategy are as follows:

To:

- Provide a vision for the future of the Study Area;
- Reflect State Government strategic imperatives for the Study Area;
- Reflect the objectives of the City's Strategic Plan (2004);
- Identify issues, opportunities and constraints within the Study Area;
- Provide guidance to the management of land use to minimise and avoid land use conflict within the Study Area;
- Contribute to the protection, enhancement and conservation of landscape character and the environment within the Study Area;
- Contribute to the protection, enhancement and conservation of the rural land use, character and amenity within the Study Area;
- Guide the City in the assessment of land use, zoning, development and subdivision proposals within the Study Area (consistent with Town Planning Scheme No. 6); and
- Guide any future review of Town Planning Scheme No. 6 where relevant to the Study Area.

To achieve these objectives, a number of principles, strategies and recommendations have been developed, which are relevant to the four distinct Rural Planning Precincts that have been identified within the Study Area. The Rural Planning Precincts are identified in **Figure 2**.

## **HOW TO USE THE FOOTHILLS RURAL STRATEGY**

### **Land Use, Zoning, Development and Subdivision Proposals**

Land use, zoning, development and subdivision proposals within the Study Area should firstly be considered in accordance with the provisions of Town Planning Scheme No. 6 to determine their permissibility, assessment process and relevant planning controls, with particular regard to Part 2 “Local Planning Policy Framework”, Part 4 “Zones and the Use of Land”, Part 5 “General Development Requirements” and Part 9 “Permitted Development”.

Where proposals are permissible, they should also be considered in accordance with Part 4.0 of the Foothills Rural Strategy, which identifies the vision for the Study Area and contains the various objectives and strategies for each of the four identified Rural Planning Precincts to achieve the vision. Parts 1.0, 2.0, 3.0 of the Foothills Rural Strategy should be referred to where further background, detail and guidance on each of the objectives and strategies is required.

### **Broader Statutory and Strategic Framework**

As this document forms part of a broader local statutory and strategic framework, proposals should be considered in conjunction with other parts of the framework where relevant including:

- Other components of the Local Planning Strategy (soon to be completed);
- Local Planning Policies; and
- Other local authority requirements such as Local Laws.

### **Town Planning Scheme Review**

The Foothills Rural Strategy should be used as a guide in the future review of Town Planning Scheme No. 6 where relevant to the Study Area, particularly in relation to the strategies, recommendations, and guide points contained in Part 4.0, Part 5.0 and Appendix 1 respectively. Of course, any changes to the local or state planning framework or other update should be considered where they supersede the Foothills Rural Strategy.

### **Other City Matters**

The Foothills Rural Strategy should also be considered where other non-planning matters relate to the City, such as the provision of services and facilities must be considered as it contains considerable information on the future of the Study Area, particularly in regard to settlement patterns and the management of land use conflict.

## 1.0 INTRODUCTION

The City of Gosnells Foothills Rural Strategy (Foothills Rural Strategy) is an expression of the City's vision for rural land within and in the vicinity of the Gosnells Foothills and land that is on or closely adjacent to the Darling Escarpment (Study Area) to the year 2018 and beyond. The Study Area of the Foothills Rural Strategy is shown at **Figure 1**. It is also a planning tool that enables the City of Gosnells (City) to strategically plan for land use, zoning, development, subdivision and management of rural land within the Study Area.

The Study Area is a focus of local and regional interest in terms of its function as:

- a non-urban (rural and rural-residential) edge to the Perth Metropolitan Region;
- a regional landscape resource;
- a source of basic raw materials; and
- accommodating rural and other land uses that are not compatible with urban/residential uses.

Historically, the Study Area has developed in a rather unco-ordinated manner, with a lack of strategic planning at a local level. This has resulted in land use conflict and the degradation of the environment, landscape character and amenity in many regards. It is considered that without a vision for the Study Area, land use, zoning, development and subdivision will continue in an unco-ordinated manner, resulting in lost opportunities, land use conflict and further landscape character degradation.

To ensure the relevance of the Foothills Rural Strategy and address the various concerns of stakeholders within the Study Area, the preparation of this document involved extensive input by government agencies, the private sector and the community.

### 1.1 Background

The demand for a rural strategy for the Study Area was first apparent in 1988 when the community, through the City, campaigned against plans by the Western Australian Planning Commission (formerly the State Planning Commission) for partial urbanisation of rural land within the Study Area. The release of Metroplan (1990) and the Foothills Structure Plan (1992) by the Western Australian Planning Commission promoted the retention of the Study Area as a rural landscape protection area being subject to local strategic planning.

In July 1991 the City proposed a rural strategy for the Study Area, and through extensive research and the formation of the "Foothills Study Working Group", several draft strategic plans were developed and assessed over a number of years.

Over the number of draft strategic plans prepared by or on behalf of the City, the strategic planning approach for the Study Area evolved in response to dynamic issues and changing philosophies and policies that impact on the Study Area. It is now timely to review and consolidate the various studies and strategies, and formulate a vision that, as part of the Local Planning Strategy (soon to be completed), may be used to guide land use, zoning, development and subdivision in the Study Area.

## 1.2 Objectives of the Foothills Rural Strategy

The objectives of the Foothills Rural Strategy are as follows:

To:

- Provide a vision for the future of the Study Area;
- Reflect State Government strategic imperatives for the Study Area;
- Reflect the objectives of the City's Strategic Plan (2004);
- Identify issues, opportunities and constraints within the Study Area;
- Provide guidance to the management of land use to minimise and avoid land use conflict within the Study Area;
- Contribute to the protection, enhancement and conservation of landscape character and the environment within the Study Area;
- Contribute to the protection, enhancement and conservation of the rural land use, character and amenity within the Study Area;
- Guide the City in the assessment of land use, zoning, development and subdivision proposals within the Study Area (consistent with Town Planning Scheme No. 6); and
- Guide any future review of Town Planning Scheme No. 6 where relevant to the Study Area.

To achieve these objectives, the principles, strategies and recommendations contained in Part 4.0 "The Strategy" and Part 5.0 "Implementation and Review" of this document, have been developed.

## 1.3 Methodology

The preparation of the Foothills Rural Strategy has generally been guided by the Western Australian Planning Commission Guidelines for the Preparation of a Local Rural Strategy (July 1989). As there were no significant agricultural issues within the Study Area, there was no requirement for the Foothills Rural Strategy to respond to a number of agricultural related matters identified in the Guidelines.

Since the initial commencement of the Foothills Rural Strategy in 1991, a wealth of information has been obtained and processed, resulting in the development and consideration of several draft strategies over a number of years. Some of this information included:

- Community interest and contributions through various workshops with the "Foothills Study Working Group";
- The Darling Range Rural Land Capability Study, Land Resources (Series No. 3) – WA Department of Agriculture;
- Examination of existing land use, settlement pattern and land management issues;
- Detail from the Readymix and Boral hard rock quarries in relation to their existing and projected operational areas; and
- Various State Government planning strategies, guidelines and policies.

The emerging vision for the Study Area has resulted from a combination of numerous attributes, including:

- i) evaluation of regional influences as outlined in Metroplan, Foothills Structure Plan, Statement of Planning Policy No. 10 Basic Raw Materials, Statement of Planning Policy No. 11 Agricultural and Rural Land Use Planning, and other relevant policies;
- ii) evaluation of local influences including the existing settlement pattern and infrastructure;
- iii) landscape character assessment;
- iv) land capability/suitability considerations;
- v) the findings of previous draft versions of the Foothills Rural Strategy;
- vi) community comments on draft versions of the Foothills Rural Strategy; and
- vii) liaison between the City, the Department for Planning and Infrastructure, and a number of other State Government departments.

It must be understood that the Study Area does not contain any priority agricultural areas or other significant agricultural issues, and as such, responds instead to other rural issues such as rural-residential settlement and the management of land use conflict. In comparison to other rural areas within the Perth Metropolitan Region and beyond, the Study Area is also not subjected to the same land use pressures, particularly in relation to land capability/suitability. As such, the Foothills Rural Strategy is not required to provide the detailed examination that may be required for other rural areas.

#### **1.4 Relationship to Regional Planning**

A range of state and regional planning policies, strategies and guidelines provide the context for the preparation of the Foothills Rural Strategy. The regional objectives detailed throughout these planning policies, strategies and guidelines may be broadly summarised as being directed toward the maintenance of:

- the rural (non-urban) edge to the Perth Metropolitan Region;
- rural character;
- agricultural capacity;
- landscape and environmental values; and
- appropriate management of incompatible land uses and potential land use conflicts.

The framework for these policies, strategies and guidelines, referred to as the State Planning Framework, is established under Statement of Planning Policy No. 8 “State Planning Framework Policy”.

The Foothills Rural Strategy provides a critical link between the regional objectives and the local planning that is required to provide and manage the implementation of these objectives.

## State Planning Framework

The State Planning Framework 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 “finer grain” policies, strategies and guidelines within the framework that have been taken into account in the preparation of the Foothills Rural Strategy are as follows:

- Regional Strategies
  - i) Metroplan (1990).
- Regional and Sub-regional Structure Plans
  - i) Foothills Structure Plan (1992); and
  - ii) Darling Range Regional Park (1995).
- Statements of Planning Policy
  - i) SPP No. 2.7 Public Drinking Water Source Policy (2003)
  - ii) SPP No. 4 State Industrial Buffer Policy (1997);
  - iii) SPP No. 5 Poultry Farms Policy (1998);
  - iv) SPP No. 10 Basic Raw Materials (2000); and
  - v) SPP No. 11 Agricultural and Rural Land Use Planning (2002).
- Strategic Policies
  - i) Urban Expansion Policy (1990);
  - ii) Basic Raw Materials Policy (1992);
  - iii) Metropolitan Rural Policy (1995); and
  - iv) Bush Forever (2000).
- Operational Policies and Guidelines
  - i) DC 3.4 Subdivision of Rural Land (2002);
  - ii) DC 3.7 Fire Planning (2001);
  - iii) Guidelines Preparation of a Local Rural Strategy (1989);
  - iv) Guidelines Land Capability Assessment for a Local Rural Strategy (1989);
  - v) Guidelines Planning for Bush Fire Protection (2001); and
  - vi) Guidelines Rural-Residential Development in the Perth Metropolitan Region (1992).

### Metroplan (1990)

Metroplan is the principal regional strategy that provides the major policy framework for land use and development of the Perth Metropolitan Region.

It acknowledges the need to reconcile pressure for fragmentation of land within the rural zoned areas, with regional planning and environmental imperatives. Within rural and non-urban areas Metroplan generally seeks to:

- Safeguard surface and groundwater resources from adverse development impacts.
- Conserve and protect environmental and landscape value.
- Maintain the character of rural areas which serve the purpose within the metropolitan area of containing and demarcating urban development.
- Conserve and protect productive agricultural land and basic raw materials.



Importantly, Metroplan identifies two Rural Resource Policy areas within the Study Area including the Readymix and Boral hard rock quarries.

A specific aim of Metroplan is to provide for future industrial areas. In this regard it identifies land within Rural Planning Precinct No. 4 of the Study Area as a potential strategic industrial area. The principal aim of the strategic industrial area is to provide for the future needs of general industry, large scale wholesaling, and industrial services, within the Perth Metropolitan Region.

The designation of land within Rural Planning Precinct No. 4 for future industrial uses reflects the proximity of the area to the regional road network (Tonkin Highway and Roe Highway) Perth Airport, Perth Central Area and other regional centres. Preferred land uses in these areas are the larger scale industrial activities which cannot be accommodated in the smaller mixed business areas located nearby in Maddington and Beckenham. These types of land uses by their nature have large land requirements. This indicates that controlling further land fragmentation arising from subdivisional activity should be a key objective for Rural Planning Precinct No. 4. This conclusion is further reinforced by the presence of the Greater Brixton Street Wetlands, which imposes environmental constraints on subdivisional activity in the vicinity. The strategies for Rural Planning Precinct No. 4 are discussed in more detail in Part 4.0. The timeframe for this is long-term and dependent upon demand factors and detailed feasibility assessment (also see Part 4.0 for further discussion).

It should be noted that the Western Australian Planning Commission is currently involved in an examination of Metroplan with a view to preparing a new strategic plan for Perth – “Greater Perth” – which is intended to supersede Metroplan.

### **Foothills Structure Plan (1992)**

The Foothills Structure Plan is the sub-regional strategy that specifically addresses a large portion of the Study Area. The southern portions of the Foothills Structure Plan area specific to the Study Area are identified by rural planning units R4, R8 and R9, and overlap with the Foothills Rural Strategy Rural Planning Precinct Nos. 3 and 4 as shown at **Figure 3**.

The main objectives of the Foothills Structure Plan within the rural planning units are to protect and conserve significant scenic landscapes and areas of environmental significance. To this end, lots less than 1.0 ha in size are not considered to satisfy the objectives of the Foothills Structure Plan. Also rural/non-urban land is generally seen as providing buffers to major industrial areas and a break, both physically and perceptually from widespread urbanisation within the Perth Metropolitan Region (principally being the area generally east of Tonkin Highway).

The Foothills Structure Plan classifies land between the Tonkin Highway and the Darling Escarpment, in Rural Planning Precinct No. 3, as “Rural – Landscape Protection”. A landscape character assessment of the Study Area has been undertaken to this end (see Part 3.0).

Land in Rural Planning Precinct No. 4 is classified as “Rural General” in the Foothills Structure Plan. Here land uses are to remain rural in nature pending determination of industrial potential as foreshadowed in Metroplan.

Intensification of land use and development in Rural Planning Precinct No. 3 in the form of lots less than 1.0 ha in area is therefore contrary to the underlying objectives of the Foothills Structure Plan and the Foothills Rural Strategy, as it is not conducive to maintaining the rural character and amenity provided by a non-urban (rural) break. Lots of 1.0 ha or less will result in:

- more intensive housing development that will have the potential to adversely impact the rural amenity and landscape character;
- an incoherent settlement pattern and form;
- attract non-rural land uses, create additional conflict with sensitive uses;
- necessitate the provision of expensive unplanned service infrastructure and community service; and
- facilitate environmental degradation from more intensive human activity.

### **Darling Range Regional Park (1995)**

The Study Area encompasses a portion of the Darling Range Regional Park. The major aims of the Darling Range Regional Park are to conserve natural values and provide for recreational opportunities. In July 2000 the Department of Conservation and Land Management took over management responsibility for all Western Australian Planning Commission reserve lands within the Darling Range Regional Park boundaries (freehold land not included). The City (and other affected local authorities) is represented on a community advice committee, which is currently formulating a management plan for the Darling Range Regional Park.

### **Statement of Planning Policy No. 2.7 – Public Drinking Water Source Policy (2003)**

The purpose of this policy is to provide information on those aspects of State-level planning policy concerning the protection of Public Drinking Water Supply Areas that should be taken into account in planning consideration. In particular, it summarises those aspects of State-level planning that a local government should consider when preparing local planning strategies.

Existing and future drinking water sources are protected by the declaration of Underground Water Pollution Control Areas, Water Reserves and Catchment Areas under the Metropolitan Water Supply, Sewerage and Drainage Act (1909) and the Country Areas Water Supply Act (1947). These are collectively known as Public Drinking Water Source Areas. The Department of Environment has the responsibility for managing and protecting these water resources, and has devised a number of measures to assist it in this role. In particular, the Department of Environment will use Water Source Protection Plans to protect Catchment Areas by controlling potentially polluting activities, regulate land use, inspect premises and take steps to prevent or clean up pollution within these areas.

The three classifications of Public Drinking Water Source Areas that will be reflected in the Water Source Protection Plans are identified as follows:

- Priority 1: These are water source protection areas of the highest priority, and are defined to ensure that there is no degradation of the water resource in these areas. Priority 1 areas generally relate to the Water Catchments identified on the Metropolitan Region Scheme and owned by the State Government, however in some instances may extend onto private land. Some reserved land encompassed by the Study Area in addition to land within Rural Planning Precinct Nos. 1 and 3, is affected by Priority 1 catchment areas, as further discussed in Parts 2.0 and 3.0.

- Priority 2: These water protection areas are of high priority, and are defined to ensure there is no increased risk of pollution to the water source. Priority 2 areas are generally related to private land and are not identified as Water Catchments in the Metropolitan Region Scheme. In terms of land use and development, low intensity rural uses are generally acceptable within Priority 2 areas.
- Priority 3: These water protection areas are of high priority, and are defined to manage the risk of pollution of the water source. Priority 3 areas are also generally related to private land and are not identified as Water Catchments in the Metropolitan Region Scheme. Land use and development such as urban and light industrial may be acceptable within Priority 3 areas provided that the risk of pollution to the water source can be appropriately managed.

Formal investigation of the Study Area has not been completed by the Department for Environment at this stage. As such, no Priority 2 or 3 areas have been formally defined, however the Department of Environment will do this in due course.

#### **Statement of Planning Policy No. 4 – State Industrial Buffer Policy (1997)**

The purpose of this policy is to provide a consistent state-wide approach for the protection and long term security of industrial uses such as extractive industries, principally through the use of buffer areas. This policy establishes objectives and principles and how principles should be applied to define and secure buffer areas, and identifies four criteria including risk, air quality (eg dust), noise and odour, for the purpose of determining the size of an off-site buffer area.

Importantly, Statement of Planning Policy No. 4 State Industrial Buffer Policy (SPP No. 4 State Industrial Buffer Policy) emphasises the restriction of sensitive uses within buffer areas due to the potential for societal risk, odour or dust impacts, and that the planning process has a role to ensure that compatible uses only are permitted within buffer areas (particularly through the use of a town planning scheme). Under the glossary of terms of SPP No. 4 State Industrial Buffer Policy, sensitive uses includes “*residential dwellings, major recreational areas, hospitals, schools and other institutional uses involving accommodation*”. It is also recommended that where a proposal for a sensitive use seeks to vary the boundary of an off-site buffer area, a scientific study should be required to justify any variation to an off-site buffer area boundary. Notwithstanding this, the Western Australian Planning Commission can also require a scientific study to be undertaken in order to define a buffer area.

However, SPP No. 4 also emphasises the importance of impact containment within site boundaries and the securing of buffer areas where possible.

There are a number of activities and facilities within the Study Area that require buffer areas including two hard rock quarries, three poultry farms and various public and private infrastructure (eg Epic Energy Dampier-Bunbury Natural Gas Pipeline). More specifically, SPP No. 4 State Industrial Buffer Policy and SPP No. 10 Basic Raw Materials have been used to assist in the determination of buffer areas around the Readymix and Boral hard rock quarries (refer to **Figures 8A, 8B and 8C**), the preparation of strategies to assist the City in dealing with proposals within these buffer areas (identified in Part 4.0) and the identification of matters that must be considered as part of the review of Town Planning Scheme No. 6.

It should be noted that the Western Australian Planning Commission is currently reviewing this policy.

**Statement of Planning Policy No. 5 – Poultry Farms Policy (1998)**

The purpose of this policy is to guide the Western Australian Planning Commission and local governments in determining land use, zoning, subdivision and development applications for poultry farms. The policy also sets out the process and matters to be taken into account in dealing with residential and other forms of development in the vicinity of poultry farms, which is relevant to the Study area as it is affected by four poultry farms.

The policy establishes a presumption against subdivision within poultry farm buffer areas unless it can be demonstrated that the impacts on affected land are acceptable. In regard to rural-residential subdivision, the policy indicates an acceptable generic buffer distance of 300 metres to any existing or approved poultry shed. In demonstrating impacts on affected land are acceptable, the policy lists a number of criteria to be considered in the assessment for poultry farms and land uses within the buffer areas of poultry farms. Importantly, the City has an adopted policy identifying a presumption against the approval of additional poultry farms.

Statement of Planning Policy No. 5 Poultry Farms Policy also advises that incentives may be considered to encourage the relocation of poultry farms.

Further discussion on the poultry farms affecting the Study Area is contained in Part 3.0.

**Statement of Planning Policy No. 10 – Basic Raw Materials (2000)**

The key objective of this policy is to protect the operation of strategically important extractive operations. The policy also seeks to ensure that extractive operations meet acceptable environmental and amenity standards.

In accordance with SPP No. 10 Basic Raw Materials (adopted on 28 July 2000) a 1,000 metre buffer area around extraction sites now applies (instead of the 2,000 metre buffer area stated in earlier State planning policy and draft versions of the Foothills Rural Strategy), within which it is necessary to consider the potential for conflict and adverse impacts on sensitive uses such as residential and rural-residential land uses.

In the case of the Study Area the relevant scenario is landowner pressure for approval of additional sensitive uses, primarily rural-residential lots, within buffer areas around the Readymix and Boral hard rock quarries, and the ensuing potential for resident complaints and conflicts. As such, this policy seeks to minimise conflict with sensitive uses in order to protect strategic resource areas.

The two hard rock quarries within the Study Area are discussed in more detail at Part 3.0.

**Statement of Planning Policy No. 11 – Agricultural and Rural Land Use Planning (2002)**

This policy seeks to reinforce the long-term protection and support for agriculture and responds to a range of other significant rural planning issues such as the orderly and proper planning of rural settlements. The four key objectives of the policy are to protect agricultural land resources, plan and provide for rural settlement, minimise the potential for land use conflicts and carefully manage natural resources. The policy also identifies areas of agricultural significance within State, of which there are none indicated within the Study Area.

The Policy has relevance to the City as it identifies a number of requirements that should be addressed in local government local planning strategies and policies, and mechanisms for local authorities to achieve the objectives of the policy, which have been reflected in the Foothills Rural Strategy where relevant. In particular, SPP No. 11 Agricultural and Rural Land Use Planning identifies lots with a rural lifestyle focus being between 1.0 and 4.0 ha and under a Rural-Residential zone (as opposed to the “Special Rural” zone as identified in Town Planning Scheme No. 6).

Strategies in regard to the above are identified in Part 4.0, with inclusions to be considered as part of the review of Town Planning Scheme No. 6 identified in Part 5.0.

### **Urban Expansion Policy (1990)**

This policy identifies areas suitable for urban development, to meet the long-term residential land requirements of the Perth Metropolitan Area for the next thirty years. While the Policy does mention some limited urban expansion in the foothills of the Darling Escarpment, the Policy does not identify any land within the Study Area as being suitable for urban development.

### **Bush Forever (2000)**

Bush Forever identifies regionally significant vegetation within the metropolitan area that is worthy of retention. Four Bush Forever sites are identified within the Study Area and are shown at **Figures 4A and 4B**. The four sites include:

1. No. 51, White Road Bushland, Orange Grove, located in Rural Planning Precinct No. 3.
2. No. 53, Clifford Street Bushland, Maddington, located in Rural Planning Precinct No. 4.
3. No. 246, Canning and Southern Rivers, Beckenham to Martin/Kelmscott, located in Rural Planning Precinct No. 2.
4. No. 387, Greater Brixton Street Wetlands, Kenwick, located in Rural Planning Precinct No. 4.

With the exception of site No. 51, White Road Bushland, the sites are within public ownership.

### **DC 3.4 Subdivision of Rural Land (2002)**

This policy sets out the specific principles that will be used by the Western Australian Planning Commission in its determination of applications for the subdivision of rural land. The policy complies with the objectives of Statement of Planning Policy No. 11 Agricultural and Rural Land Use Planning, which establishes the State’s objectives and policy framework and guidelines for the preparation of regional and local planning strategies. More particularly, this policy sets out the criteria to be applied to subdivision and strata title applications in rural areas.

Importantly, the policy states a general presumption against the subdivision of rural land, particularly for rural-residential or rural smallholdings purposes, unless it is specifically provided for in a town planning scheme, an endorsed local planning strategy or an endorsed local rural strategy.

**DC 3.7 Fire Planning (2001)**

This policy seeks to ensure adequate bush fire protection for new subdivisions and related developments by proper strategic land use planning, good subdivisional layout, and development criteria which ensure the least possible exposure to damage by bush fire and the best possible response should bush fire occur. The stated objectives of the policy are:

- To identify areas where bush fire poses a significant threat to life and property.
- To avoid intensifying the bush fire risk to life and property through inappropriately located or designed land use and development.
- To ensure that land use and development takes into account fire protection requirements and includes specified fire protection measures where there is any risk from fires.

Importantly, the policy should be read in conjunction with policy Planning for Bush Fire Protection (2001) (refer below for more detail on this policy).

**Guidelines Preparation of a Local Rural Strategy (1989)**

These guidelines were prepared specifically to assist local governments in the preparation of local rural strategies and in the assessment of rezoning for rural residential development. These guidelines are directed primarily at:

- Protecting environmental quality in terms of landscape character and natural resources;
- Preserving options for the future long term growth of the Perth Metropolitan Region (the Metroplan identification of Rural Planning Precinct No. 4 as a strategic industrial area is an example of this); and
- Avoiding widespread and dispersed development that will place increased pressure on the provision of infrastructure and services, and increase the need to travel by car.

(WAPC 1989)

**Guidelines Land Capability Assessment for a Local Rural Strategy (1989)**

These guidelines were prepared to assist local governments in land capability assessment for a variety of land uses that may be appropriate in rural areas, particularly in the preparation of a local rural strategy. The methodology contained in the guidelines may be used to assess proposals, and is discussed further in Part 3.0.

**Guidelines Planning for Bush Fire Protection (2001)**

The primary focus of these guidelines is on new subdivision and related development in rural and urban-rural communities and townsites that may be exposed to risks of bush fires. As such, it has significant bearing on the Study Area, which will continue to accommodate additional subdivision into the foreseeable future. The policy also provides performance and acceptable criteria for subdivision and development proposals to minimise the impact of fire.

These guidelines have principally been used by the City to determine fire hazard areas and to prepare a local policy that provides more specific appreciation of bush fire risk and management in the Study Area.

## **Guidelines Rural Residential Development in the Perth Metropolitan Region (1992)**

These seek to provide a planning framework for rural-residential development in rural areas. The objectives of these Guidelines are directed at maintaining the character, amenity, environmental values and productive agricultural capacity of rural areas.

### **1.5 Relationship to Local Planning**

The Foothills Rural Strategy forms part of the local statutory and strategic planning framework that consists of the Local Planning Strategy (soon to be completed), Town Planning Scheme No. 6 and a range of adopted Local Planning Policies. Land use, zoning, development and subdivision proposals should be considered in accordance with the extent of the local statutory and strategic planning framework, which is discussed below.

#### **Strategic Plan (2004)**

The Strategic Plan (2004) details the vision and goals for the City, and is based on extensive and innovative community research and participation.

In summary, the vision to the year 2020 is for the City to be a

- *“vibrant City with strong community identity”, and a*
- *“great place to live, work, raise children and visit, which will cater for a range of lifestyles”.*

The City will also be characterised by:

- *“offering an attractive, clean, friendly and safe environment”, with*
- *“an outstanding reputation for caring for our natural environment, cultural diversity and heritage”.*

Building on this, customers will:

- *“have access to a variety of work and leisure options within the City and they will enjoy excellent quality of life with wide appeal”, and be*
- *“part of a dynamic local and regional economy with a diversity of business, tourism and employment opportunities”.*

To achieve this vision, the Strategic Plan (2004) identifies a number of goals and strategies to achieve those goals. Of particular relevance to the Study Area is the following goal:

*“To plan and develop a natural and built environment which aims to be sustainable.”*

To achieve this goal, the development of an integrated local planning strategy is identified, of which the Foothills Rural Strategy will form a part.

## Local Planning Strategy

The development of the Local Planning Strategy (soon to be completed) is identified as a strategy under the City's Strategic Plan (2004), and is also a requirement of the Planning Regulations (1967). The Local Planning Strategy will provide the strategic direction in planning for the City and will have an outlook of 10-15 years. Local planning strategies are usually prepared or reviewed in tandem with a town planning scheme review and can form the basis for changes to a town planning scheme. As the Foothills Rural Strategy will form part of the Local Planning Strategy, it should also have an outlook of 10-15 years and thereby identify the strategic direction for planning in the Study Area to the year 2018.

## Town Planning Scheme No. 6

The following is a summary of the requirements of Town Planning Scheme No. 6 that are relevant to the Study Area.

### Local Planning Policy Framework

Part 2, Local Planning Policy Framework of Town Planning Scheme No. 6 enables the City to prepare local planning policies and identifies the process for making, amending or revoking policies. The City has a range of adopted local planning policies that deal with matters relevant to the Study Area.

Where relevant, local planning policies should be referred to as part of the assessment of a land use, zoning, subdivision or development proposal.

### Zones and the Use of Land

Part 4, Zones and the Use of Land of Town Planning Scheme No. 6 contains two zones that are specifically relevant to rural land in the Study Area including General Rural and Special Rural. Importantly, the Foothills Rural Strategy is consistent with the objectives for these zones. The objectives for these zones are as follows:

#### *“General Rural*

*To provide a range of rural pursuits which are compatible with the capability of the land and retain the rural character and amenity of the locality.”*

(Town Planning Scheme No. 6)

#### *“Special Rural*

*To provide for small rural lot development in appropriate locations, such as hobby farms, horse breeding and rural residential retreats.”*

(Town Planning Scheme No. 6)

Land within Rural Planning Precinct No. 1 is zoned either General Rural or Special Rural, and land within Rural Planning Precinct Nos. 2, 3 and 4 is zoned General Rural only.

The Zoning Table contained in Part 4, Zones and the Use of Land of Town Planning Scheme No. 6 identifies a range of uses that generally accord with the above objectives, which are permissible within the General Rural or Special Rural zones. Parts 3.0 and 4.0 of the Foothills Rural Strategy provides some guidance in assessing the acceptability of a number of uses within these zones, particularly in regard to the location of sensitive uses.



In addition, the Extractive Industry zone is encompassed by the Study Area boundary, however activity within this zone is guided by separate provisions of Town Planning Scheme No. 6 and local laws that deal specifically with extractive industry licensing, and is therefore outside of the scope of the Foothills Rural Strategy.

### **General Development Requirements**

The strategies contained in Part 4.0 of the Foothills Rural Strategy should be considered in addition to the matters contained in clause 5.11 Rural Zones of Part 5.0 General Development Requirements of Town Planning Scheme No. 6, which contains more specific requirements relating to:

- The restriction of one dwelling per rural lot;
- Council having regard to any potential conflict with existing uses and the purpose and intent of the zone;
- Development in unsewered areas;
- The parking of commercial vehicles;
- The management of land to prevent dust pollution and soil erosion; and
- Impacts on endemic vegetation, natural ground levels and rural character and landscape from development in the Special Rural zone.

### **Permitted Development**

Part 9.0, Development of Land of Town Planning Scheme No. 6 deals with permitted development, and identifies particular development that does not require planning approval.

Importantly, the clearing of vegetation may be defined as development and would require a planning approval. It is also anticipated that State Government environmental legislation in the process of being introduced, may result in the requirement for a permit to clear remnant vegetation.

Notwithstanding any exemptions from planning approval identified under Part 9.0 Development of Land of Town Planning Scheme No. 6, those proposals should be considered in the context of the Foothills Rural Strategy when providing advice or assessing building licences.

## **1.6 Relationship to Adjoining Local Authorities**

The Study Area abuts two local authorities including the Shire of Kalamunda to the north and east, and the City of Armadale to the south. A review of the rural planning documents for the land within the Shire of Kalamunda and the City of Armadale in close proximity to the Study Area confirmed that the statutory and strategic objectives for this land are generally consistent with the City's vision for the Study Area. The following section provides further detail in this regard. **Figure 5** further clarifies the location of these areas.

## **The Shire of Kalamunda**

The Shire of Kalamunda has no adopted rural strategy, and administers rural land use, zoning, development and subdivision through the provisions of The Shire of Kalamunda District Planning Scheme No. 2 (Kalamunda DPS 2), which is currently under review (Kalamunda DPS 3). Generally, land within the Shire of Kalamunda that immediately abuts the Study Area is reserved for State Forest or Parks and Recreation under the Metropolitan Region Scheme, or zoned Rural or Special Rural under Kalamunda DPS 2. The reserves and zones where they abut Foothills Rural Strategy Rural Planning Precincts are summarised as follows:

Rural Planning Precinct No. 1: Abutted by land reserved for State Forest or Parks and Recreation under the Metropolitan Region Scheme;

Rural Planning Precinct No. 3: Abutted by land zoned Rural and Special Rural under Kalamunda DPS 2 (which is proposed to become Special Rural only under proposed Kalamunda DPS 3).

Rural Planning Precinct No. 4: Abutted by land zoned Rural and Special Rural under Kalamunda DPS 2 (which is proposed to become Special Rural and Rural Composite under proposed Kalamunda DPS 3).

## **Rural Zone**

Pursuant to Kalamunda DPS 2, the Rural zone (where it abuts the Study Area) allows a broad range of rural land uses, including more intensive rural land uses such as piggeries and poultry farms that are not permitted in the Special Rural zone. As part of the review of Kalamunda DPS 2 it is proposed to rezone all of the land zoned Rural abutting the Study Area to Special Rural, discussed below.

## **Special Rural Zone**

Pursuant to Kalamunda DPS 2, the Special Rural zone restricts the number of uses allowed within the zone (and largely reflects the intent and provisions of the Special Rural zone under Town Planning Scheme No. 6), and provides for rural/residential retreats, hobby farms, and rural pursuits such as intensive agriculture, market gardens and viticulture. Areas zoned Special Rural are also subject to subdivision guide plans contained within the Kalamunda DPS 2. The minimum lot size permitted is 1.0 ha where scheme water is available.

The review of Kalamunda DPS 2 is likely to involve rezoning all of the land currently zoned Rural to Special Rural, which will permit a minimum lot size of 1.0 ha and facilitate land use compatibility (particularly with rural-residential and the like) within those rural areas. The new "Rural Composite" zone is also proposed to be introduced over land generally adjacent to the south of Welshpool Road between Tonkin Highway and Lewis Road, which would allow a mix of semi-rural and commercial land uses (as already featured within the area). Importantly, the new zone could restrict commercial uses that are not pertinent to the surrounding rural area.

Importantly, the current and proposed zonings are and will generally be compatible with the current zoning of the Study Area under Town Planning Scheme No. 6.

## The City of Armadale

The City of Armadale administers rural land use, zoning, development and subdivision through the City of Armadale Town Planning Scheme No. 2 (Armadale TPS 2) and the Armadale Rural Strategy (adopted in August 1999).

Where abutting the Study Area, the Armadale TPS 2 provides a number of zones that are rural in nature. All zones permit rural-residential land use. The Armadale Rural Strategy attempts to recognise the current and likely future rural land use issues and demands, and where appropriate to provide for ecologically sustainable rural development, with a particular focus on rural-residential land use. It is important to note that the City of Armadale is undertaking a review of Armadale TPS2. However, the rural provisions of the new scheme are likely to be similar to those provisions expressed in Armadale TPS2, albeit with a greater focus on the facilitation of rural-residential land use (in line with the increasing demand for this land use and the reduction in demand for land for agricultural purposes).

The Rural Strategy is divided into a number of separate rural planning and management areas, two of which abut the Study Area, including Area No. 6 Kelmscott and Area No. 8 Roleystone. The planning and management areas, reserves and zones where they abut Rural Planning Precincts are summarised as follows:

Rural Planning Precinct No. 1: Abutted by land zoned rural in nature under Armadale TPS2, Planning and Management Area No. 8 Roleystone and land reserved for State Forest and Parks and Recreation under the Metropolitan Region Scheme; and

Rural Planning Precinct No. 2: Abutted by land zoned rural in nature under Armadale TPS2, Planning and Management Area No. 6 Kelmscott and land reserved for State Forest and "Parks and Recreation" under the Metropolitan Region Scheme

### Planning and Management Area No. 6 Kelmscott

Area No. 6 Kelmscott abuts Rural Planning Precinct No. 2 (and is zoned Rural under Armadale TPS2). The stated principle policy objective for this area is:

*"To maintain the 'buffer' between Armadale and Gosnells urban areas and to preserve and enhance the scenic quality of the area and to improve management of the Canning River environs."*

(City of Armadale 1999)

Various uses, depending on land capability, are identified as desirable or conditional including rural residential, horticulture/floriculture/market gardening, parkland cemetery, tourism, recreation and conservation. Undesirable land uses include raw material extraction, kennels, poultry, pigs, cattle, horses, deer and goats, stock holding yards and uses of a visually incompatible nature.

It is apparent that the desirable or conditional land uses are compatible with the rural zoning of the Study Area.

**Planning and Management Area No. 8 Roleystone**

Area No. 8 Roleystone abuts Rural Planning Precinct No. 1. The stated principle policy objective for this area is:

*“To preserve the scenic quality of the area where economically viable while permitting sensitive rural residential development of suitable density in upland areas.”*

(City of Armadale 1999)

Various uses, depending on land capability, are identified as desirable or conditional land uses including horticulture, floriculture, rural, residential, grazing, tourism, market gardening, recreation and stabling, training and agistment of horses. Undesirable land uses include raw material extraction, kennels, poultry, pigs, cattle, horses, deer and goats, stock holding yards and uses of a visually incompatible nature.

It is apparent that the desirable or conditional land uses are compatible with the rural zoning of the Study Area, however the above objective infers that scenic quality may be sacrificed where it is not economically viable and that rural residential development may be permitted in upland areas (which are usually highly visible). This matter would not impact on the Study as there are few vantage points where any part of Area No. 8 Roleystone and Rural Planning Precinct No. 1 can be seen together.

## 2.0 STUDY AREA PROFILE

### 2.1 Study Area Location

The Study Area focuses on the Gosnells foothills and land on or closely adjacent to the Darling Escarpment, which traverses the eastern edge of the City in a north-south direction, approximately 20 kilometres southeast of the Perth Central Area (refer to **Figure 1**). This land includes the localities of Orange Grove and Martin and portion of the localities of Kenwick and Maddington. The Study Area comprises an area of approximately 1,990ha.

#### 2.1.1 Study Area Boundary

The boundary of the Study Area has been determined principally by:

- The municipal boundary of the City;
- Areas included within the Foothills Structure Plan; and
- Land zoned Rural or Special Rural under Town Planning Scheme No. 6 that is likely to be retained for rural purposes in the longer term.

#### 2.1.2 Exclusions from the Study Area

Certain areas encompassed by the Study Area are excluded from the Study Area. These excluded areas include land that is not zoned Rural or Special Rural under Town Planning Scheme No. 6. As such, areas reserved under the Metropolitan Region Scheme or areas zoned otherwise under Town Planning Scheme No. 6 (including Extractive Industry) are excluded from the Study Area.

Areas zoned otherwise under Town Planning Scheme No. 6 have been excluded as other provisions of Town Planning Scheme No. 6 or specific local laws deal with those zones. This refers mainly to the Extractive Industry zone, which accommodates the Readymix hard rock quarry, located between Rural Planning Precinct Nos 2 and 3. Notwithstanding the above exclusions, the impacts generated by any land uses or activities within excluded areas on land within any of the Rural Planning Precincts have been addressed by the Foothills Rural Strategy where appropriate.

#### 2.1.3 Rural Planning Precincts

Four Rural Planning Precincts have been identified within the Study Area and are depicted at **Figure 2**. These areas have been selected on the basis of:

- Similar characteristics in terms of land use and settlement;
- Areas that have logical boundaries (eg roads);
- Areas that have a similar local or regional strategic imperative; and
- Are considered manageable for the purpose of precinct planning.

The Rural Planning Precincts have also been given titles indicative of their locations and are as follows:

Rural Planning Precinct No. 1 - Martin Escarpment

Rural Planning Precinct No. 2 - Southern Foothills

Rural Planning Precinct No. 3 - Tonkin Highway East

Rural Planning Precinct No. 4 - Tonkin Highway West

Further discussion on the location and characteristics of each Rural Planning Precinct is contained throughout Parts 2.0, 3.0 and 4.0 of the Foothills Rural Strategy.

## **2.2 Physical Environment**

The most notable feature of the Study Area is the largely vegetated Darling Escarpment that dominates the eastern part of the Study Area (and forms an eastern edge to Rural Planning Precinct Nos. 2 and 3), and provides a backdrop to the largely cleared, lower and flat Swan Coastal Plain land form at the base of the Escarpment (the western portions of Rural Planning Precinct Nos. 2, 3 and 4). The Ellis Brook and Bickley Brook valleys punctuate the line of the Darling Escarpment (in Rural Planning Precinct Nos. 1 and 3 respectively). The Yule Brook Valley is a feature, although a degraded one, of Rural Planning Precinct No. 4.

The Tonkin Highway is a major constructed feature and landmark that traverses the Study Area along a north-south alignment running parallel and marginally west of the base of the Darling Escarpment. The presence of Tonkin Highway and its impact on landscape character will be exacerbated by the extension of it through Rural Planning Precinct No. 2. Immediately either side of the Tonkin Highway the land is generally low lying, flat and gently rising on the eastern side towards the Darling Escarpment, and comprises soils of the Swan Coastal Plain, predominantly from the Forrestfield and Guildford formation. The quality of the soils, particularly the Forrestfield formation, attracted agricultural activity in particular, and has resulted in the clearing of large areas of the Study Area. The Darling Escarpment is characterised by granite giving way to laterite and gravel soils in the hills.

Forests of Jarrah, Marri and Wandoo with a dense understorey of banksia, sheoak and woody pear, formerly predominated in the Swan Coastal Plain portion of the Study Area. Due to extensive historical clearing in the Study Area for timber, rural activities, and the excavation of basic raw materials, almost all of the original forest cover has been removed. Extensive areas of forest, however, remain within reserved areas including State Forest and Water Catchments located on the Darling Escarpment. The fungal disease, Dieback, poses a threat to vegetation in the Study Area.

Bickley Brook, Ellis Brook and Yule Brook are the main watercourses that channel into the Canning River system. However, Yule Brook in particular is significantly degraded and now forms what is essentially a drainage channel.

The Bickley Brook Reservoir, located at the eastern extremity of Hardinge Road, and portion of its immediate catchment area are located within the Study Area. Bickley Brook has been the subject of a Water Corporation hazard assessment relating to the potential consequences of a breach to the Bickley Brook Reservoir. The Water Corporation has determined that there is insufficient risk of a breach, and that such an occurrence should not be factored into land use planning.

The area west of Tonkin Highway contains a large portion of the Greater Brixton Street Wetland complex. The Greater Brixton Street Wetland complex is made up of a number of different wetland types consisting of numerous sumplands within a large palusplain area. A large portion of that area has already been reserved for Public Purposes and Parks and Recreation in the Metropolitan Region Scheme. The entire Greater Brixton Street Wetland complex has been identified for conservation under Bush Forever as Bush Forever Site No. 387 Greater Brixton Street Wetlands. The Greater Brixton Street Wetland complex is also listed on the Register of the National Estate. Further discussion on Bush Forever sites and wetlands is included in Part 3.0.

## **2.3 Population and Employment**

### **2.3.1 Population**

Analysis of demographic data reveals that the population of the Study Area has been relatively static over the last decade. The Australian Bureau of Statistics 2001 census indicates a Study Area population of approximately 2,069 persons. This compares to 1,986 persons in 1991 and 2,040 persons in 1996. This equates to a low density of settlement of approximately 1 person per hectare (the Study Area comprises approximately 1,990 ha).

Coupled with the statewide trend toward smaller household sizes, there has been minimal but steady subdivisional activity in the Study Area in recent years, hence the minimal but steady increase in the population of the Study Area.

Within the City as a whole, Australian Bureau of Statistics data for 2001 indicates that the population contains a lower than average population of younger people (when compared to the Regional profile) and a higher than average proportion of mature persons 55 years and over. This masks though a marked locational variation within the City with a higher concentration in the Study Area of persons aged 55 years or over. Associated with this is a concentration within the Study Area of higher income households (\$1000 per week or more). As a generalisation therefore the population of the Study Area is characterised by high incomes and more mature age groups.

### **2.3.2 Employment**

There are a variety of opportunities for employment of local persons within the Study Area, ranging from the established enterprises such as the quarries, Cohunu Wildlife Park, poultry farms, orchards, viticulture and agistment, through to the increasing trend towards home business, cottage industry and “bed and breakfast” accommodation. While the majority of persons residing in the Study Area continue to be employed elsewhere, the changes in workplace and technology will no doubt provide increased opportunities to work from the home.

The Study Area is also in close proximity to major urban centres of employment such as the Maddington industrial area, Maddington Regional Centre, Gosnells Town Centre and other areas within the City and Metropolitan Region generally that are made more accessible by Tonkin, Roe and Albany Highways.

## 2.4 Settlement and Infrastructure

This section provides detail on the settlement pattern within the Study Area and existing infrastructure and any upgrades or additions to infrastructure within the foreseeable future. **Figure 6** also provides further detail.

### 2.4.1 Settlement and Infrastructure

The purpose of settlement within the Study Area is predominantly for rural-residential lifestyle opportunities reflecting the proximity of the Study Area to the Perth Central Area and other urban areas. The rural-residential settlement pattern within the Study Area has largely been influenced by the provision of infrastructure such as scheme water and reticulated sewer. Commercial rural activities are also located throughout the Study Area including orchards, viticulture and agistment, and are generally located on the larger lots remaining (however, are concentrated around Rural Planning Precinct Nos. 3 and 4). These activities usually contain a single caretakers dwelling.

For a rural area, the Study Area is relatively well serviced, principally due to its close proximity to urban areas, immediately west of Bickley Road and Tonkin Highway, however there are some areas (mainly Rural Planning Precinct No. 1) that are not serviced by infrastructure such as scheme water, reticulated sewer and gas. It should be noted that any further expansion of infrastructure into areas where these services are not available would likely be at the cost of the developer. Part 4.0 identifies some of the requirements and location criteria for the provision of facilities such as on-site effluent disposal systems, where the appropriate public infrastructure is not available.

- **Rural Planning Precinct No. 1 - Martin Escarpment**

Rural Planning Precinct No. 1 comprises 83 lots and represents a sparsely settled area of large Special Rural zoned lots (ie 4.0 ha minimum, for rural-residential purposes) and several remaining Rural zoned orchards on top of the Darling Escarpment. Forests and reserves that have significant environmental and landscape value surround the entire Precinct. There is very limited infrastructure in this Precinct given its relative remoteness and elevation, with no scheme water, reticulated gas or sewer, and no community facilities. Electricity and telephone are available.

Where scheme water is not supplied, larger lot sizes and rainwater tanks for the collection of water for domestic and bush fire control purposes are required.

- **Rural Planning Precinct No. 2 Southern Foothills**

Rural Planning Precinct No. 2 comprises 205 lots and is located adjacent to the Canning River and the City of Armadale. It comprises a range of lot sizes including larger rural lifestyle lots up to approximately 4.0 ha abutting the Canning River and a more historic higher density rural living settlement (approximately 2,000 m<sup>2</sup> lots) located on the lower slopes of the Darling Escarpment. This Precinct is relatively well serviced with scheme water, electricity and telephone, however is not serviced by reticulated sewer. Reticulated gas is available to a portion of the Precinct.

The availability of scheme water in particular has facilitated the prescribed minimum lot size of 1.0 ha within this Precinct.



- **Rural Planning Precinct No. 3 Tonkin Highway East**

Rural Planning Precinct No. 3 comprises 331 lots and accommodates rural-residential, hobby farms, agricultural lots, rural industrial uses, etc, on a variety of lot sizes ranging from 0.4 ha up to 5.0 ha, with a prevailing settlement pattern of approximately 2.0ha lots. This Precinct is relatively well serviced with scheme water, electricity and telephone, however is not serviced by reticulated sewer. Reticulated gas is available to a portion of the Precinct.

The availability of scheme water in particular has facilitated the prescribed minimum lot size of 1.0 ha within this Precinct.

- **Rural Planning Precinct No. 4 Tonkin Highway West**

Rural Planning Precinct No. 4 comprises 188 lots and accommodates rural-residential, hobby farms, agricultural lots, rural industrial uses, etc, on a variety of lot sizes ranging from 0.4 ha up to 5.0 ha, with a prevailing settlement pattern of approximately 2.0 ha lots. This Precinct is relatively well serviced with scheme water, reticulated gas, electricity and telephone, however is not serviced with reticulated sewer.

The following table summaries the provision of public infrastructure in the Precincts:

**Table 1: The Provision of Public Infrastructure**

Rural Planning Precinct	Scheme Water	Reticulated Sewer	Reticulated Gas	Electricity	Telephone
1	No	No	No	Yes	Yes
2	Yes	No	Portion	Yes	Yes
3	Yes	No	Portion	Yes	Yes
4	Yes	No	Yes	Yes	Yes

#### 2.4.2 Road Networks

In terms of road networks, the Study Area is well serviced with local and regional roads.

- **Regional Roads**

Tonkin Highway is the major regional road that bi-sects the Study Area, and will be extended further south in the near future (as facilitated by the existing Metropolitan Region Scheme Primary Regional Road Reserve). The extension of the Tonkin Highway will increase the importance of maintaining the high scenic qualities of Rural Planning Precinct No. 2.

- **Local Roads**

Rural Planning Precinct No. 1 and 2 are accessible from Tonkin Highway via an intersection with Mills Road East. This road and other local roads in Rural Planning Precinct No. 1 and 2 are of a suitable “rural” standard (ie uncurbed, with gravel sidings). The modest increase in population or activity of the Readymix quarry within these Precincts is unlikely to warrant additional roads or to upgrade existing roads to a higher standard.

Rural Planning Precinct No. 3 is accessible from Tonkin Highway via intersections with Reservoir Road, Maddington Road and Kelvin Road, which are all of a suitable “rural” standard (ie uncurbed, with gravel sidings). Maddington Road and Kelvin Road provide important transverse links east-west across the Study Area into the Maddington industrial and commercial area. Welshpool Road located further to the north within the Shire of Kalamunda also offers access to Rural Planning Precinct No. 3, principally via intersections with Kelvin and Valcan Roads. The modest increase in population or activity of the Boral quarry within this Precinct is unlikely to warrant additional roads or to upgrade existing roads to a higher standard. Kelvin Road is complimented by a cycle path.

Rural Planning Precinct No. 4 is accessible from Bickley Road and Kelvin Road (within the City of Gosnells), and from Welshpool Road located further north within the Shire of Kalamunda via Coldwell Road and Brook Road, which are all of a suitable “rural” standard (uncurbed, with gravel sidings). Immediate access from this area to Tonkin Highway is provided via intersections with Kelvin Road and Welshpool Road. The unlikely increase in population or activity of existing commercial rural uses under the current General Rural zone within this Precinct is unlikely to warrant additional roads or to upgrade existing roads to a higher standard. However, road infrastructure would need to be considered as part of any future industrial or urban expansion proposals for this Precinct.

The road networks are not complemented by pedestrian paths, as there is insufficient demand in the Study Area for such facilities.

### **2.4.3 Public Transport**

No public transport is available to Rural Planning Precinct No. 1. Rural Planning Precinct No. 2 is within 1.0 km of the Seaforth Railway Station. Bus services exist along major link roads within the northern portion of Rural Planning Precinct No. 3 and the southern portion of Rural Planning Precinct No. 4 and provide a connection to the Kenwick Railway Station.

### **2.4.4 Commercial, Retail and Medical Services**

While there is easy access to the major shopping and medical facilities just beyond the Study Area, there are only two small convenience stores within the Study Area, located at the Crystal Brook Caravan Park on Kelvin Road and the Shell Service Station on Albany Highway. The City’s Draft Commercial Strategy does not identify the potential for additional commercial, retail or medical services within Rural Planning Precinct Nos. 1, 3 or 4, however does identify the potential for a “corner store” within Rural Planning Precinct No. 2 by the year 2011.

Future industrial or urban expansion proposals for this Precinct (the extent of which is largely dependant on market demand and other environmental constraints) could yield additional commercial, retail and medical services.

### 2.4.5 Education

The Study Area population is insufficient to cater for its own high school and as such the surrounding local high schools cover this particular catchment, including Lumen Christie College on Mills Road West in west Martin. In terms of primary schools, the Study Area is catered for via the Orange Grove school located in Rural Planning Precinct No. 3, the Wattle Grove school located on Welshpool Road to the north of the Study Area (within the Shire of Kalamunda) and the Clifton Hills school located on Connell Avenue to the south of the Study Area (within the City of Armadale).

### 2.4.6 Community Facilities

Passive recreational opportunities are available at various locations within the Study Area. The majority of these take advantage of the Darling Range Regional Park, including bridle/walking trails, lookouts and barbeque/picnic spots located across the Darling Escarpment. Passive recreation opportunities are also provided at the Orange Grove Recreational Ground located in Rural Planning Precinct No. 3 and the Ellis Brook Valley Reserve located between Rural Planning Precinct Nos. 2 and 3. The Brixton Street Wetland located in Rural Planning Precinct No. 4, although reserved for Parks and Recreation, is generally inaccessible to the public.

Active recreational opportunities are more limited, however there are several public and private sites used by organised sporting groups. Sport shooting is available in Rural Planning Precinct No.1. The Gosnells Archery Club and the Orange Grove Horse and Pony Club are located at the Orange Grove Recreation Ground located in Rural Planning Precinct No. 3. Soccer facilities are provided at the Serbian Community Centre located in Rural Planning Precinct No. 4.

The draft community facilities strategic plan identifies the vision for the management and development of community facilities and publicly owned sites within the City up to and including the year 2020. In particular, the draft strategic plan provides recommendations for a number of the above sites and other facilities within the Study Area including:

- a bridle/walk trail
- the former Kelvin Road Domestic Waste Disposal Site
- the Orange Grove Recreation Ground
- Hillside Farm
- Hardinge Park
- Ellis Brook Valley Reserve
- Cohunu Wildlife Park; and
- the Brixton Street Wetland.

A brief overview of each of the sites/facilities is provided below, together with some of the relevant recommendations.

- **Bridle/Walk Trail**

Due to the number of equestrian users in the Study Area, the City has worked with the community to establish a 6.6km bridle/walk trail through the Gosnells Foothills, extending from Ellis Brook Valley Reserve to Hardinge Park. The main purposes behind the construction of the bridle/walk trail is the part removal of equestrian users from local roads in an attempt to improve the safety of riders and the formalisation of existing bridle activities in the Gosnells Foothills.

- **Kelvin Road Domestic Waste Disposal Site**

The City of Gosnells operated a domestic waste disposal site adjacent to Kelvin Road, Orange Grove, until its closure in December 1999. Most of the 58ha site was used by the City of Gosnells for waste disposal however the northern portion of the site was leased to the Western Australian Trotting Association (which still contains a trotting track for training purposes). As part of the rehabilitation of the site, the area used for domestic waste disposal has been buried with soil.

Department of Environmental Protection regulations require that methane and other gases generated by buried waste be burnt off. The City has let a long-term contract for disposal of methane, with the resultant power generated (approximately 3 megawatts) to be sold back to the Western Power Corporation. A number of these small facilities are located throughout the site.

The City established a Community Reference Group to assist in the development of a master plan for the site and the completion of site rehabilitation. The majority of the site is to be converted to passive recreation with an integrated path network, bridle path, car parking and playground equipment. A central area will be converted to a large grassed oval to permit active recreation. A decision relating to the use of the former trotting track on the northern portion of the site has been delayed awaiting the outcome of additional community consultation.

Given closure of the domestic waste disposal site the non-statutory 500 metre buffer recommended by the Office of Waste Management is no longer relevant, particularly as there are no residual odour problems. The ongoing rehabilitation of the site will in time provide a significant recreational asset in the Study Area and represents an opportunity in terms of improving local amenity.

- **Orange Grove Recreation Ground**

The Orange Grove Recreation Ground is likely to be improved in the near future, with a management plan being prepared.

- **Hillside Farm**

Hillside Farm is a 171.0ha facility managed by the City, with portion of the area subleased to the Education Department. Management of Hillside Farm is guided by an ethos of ecological sustainability with strong emphasis on education. Although Hillside Farm is not located within a Rural Planning Precinct, it does form a significant focus within the Study Area, and will be further enhanced with the development of a master plan for the site.

In the context of the Foothills Rural Strategy, the continuation and enhancement of this activity will contribute to rural character, provide employment opportunities and provide a sustainable focus to the Study Area.

- **Hardinge Park**

Harding Park is a passive recreational area that provides a meeting place for trail walkers and equestrian users (particularly as a terminus for the bridle/walk trail). It is likely that additional car parking and barbeque/picnic facilities will be provided as the popularity of the location increases over time.

- **Ellis Brook Valley Reserve**

Ellis Brook Valley Reserve is located between Rural Planning Precinct Nos. 2 and 3 and covers an area of approximately 184.0ha. The Friends of Ellis Brook Valley and the City jointly manage Ellis Brook Valley Reserve. The reserve contains a rich and diverse ecology, and provides important walking and recreation trails.

In the context of the Foothills Rural Strategy, any improvements to the Ellis Brook Valley Reserve will enhance landscape character and provide additional tourism opportunities in the Study Area.

- **Cohunu Wildlife Park**

Cohunu Wildlife Park is located between Rural Planning Precinct Nos. 1 and 2 and is currently managed by the private sector. Although the facility is not intensely used by the local community, it is one of the main tourist attractions within the City with a regional and international reputation.

In the context of the Foothills Rural Strategy, the Cohunu Wildlife Park provides a regional focus to the Study Area, tourism opportunities, recreation opportunities for local residents and is not detrimental to landscape character or other nearby uses.

- **Brixton Street Wetland**

The Brixton Street Wetland located in Rural Planning Precinct No. 4 comprises a 19.0ha site owned and managed by the Western Australian Planning Commission, and has been recognised at all levels of government as having a significant conservation value. Planning for future industrial expansion into the Precinct will require consideration of the social, ecological and conservational value of the Brixton Street Wetland.

#### **2.4.7 Fire Control Services**

In terms of fire suppression facilities, in addition to the various hydrants provided as part of the water reticulation system within Rural Planning Precinct Nos. 2, 3 and 4, the City and State Fire & Rescue Services both have fire units located at the Maddington Fire Station on Albany Highway.

### 3.0 LOCAL ISSUES, OPPORTUNITIES AND CONSTRAINTS

This section identifies significant issues, opportunities and constraints within the Study Area. The matters raised in Part 3.0 will largely contribute to the vision, objectives, strategies and provisions expressed in Part 4.0. Plans identifying a number of the following matters are also included at **Figures 7, 8A, 8B and 8C**.

#### 3.1 Landscape Character

Landscape character refers to a combination of attributes that contribute to the unique identity of an area, and is closely linked to the attraction an area holds for residents and visitors. Therefore, it is important to identify those attributes requiring protection, conservation and if required, enhancement, to ensure that the desired landscape character or identity is maintained (particularly where an area will be subject to development pressures).

Attributes can include any aspect of the landscape relating to land form, vegetation, land use and vistas. It should be noted that residents and visitors may have different responses to the local landscape. As such, a method of classifying landscape attributes that is based on generally accepted qualities must be used to ensure that landscape character analysis is relevant to both residents and visitors.

An officer from the Department for Planning and Infrastructure (S Clegg) has identified three main classifications of landscape character attributes in the Study Area:

- landscape features;
- discrete significant areas;
- key views.

The landscape features of an area are those prominent components that stand out to the onlooker, such as prominent landforms, land uses or types of vegetation.

Discrete significant areas with a more individual, coherent landscape character are also important. They contain prominent, distinctive features and the entire defined area may be viewed from a specific vantage point or travel route.

Key views may comprise panoramic views from elevated positions, such as from the top of the Darling Escarpment, or views of prominent features such as the Darling Escarpment. It is generally accepted that areas with views are more desirable, and that buildings or vegetation planting should not screen these views where possible.

A detailed assessment was undertaken for each Precinct to identify specific attributes that contribute to landscape character and a plan was developed to highlight individual important features, discrete significant areas and key views (included at **Figure 7**). The outcomes for the Precinct identified below. From the assessment of each Precinct, the prominent attributes that contribute to landscape character for the Study Area summarised and a general landscape character identified.

The Study Area comprises a combination of significant landform features such as the Darling Escarpment and minor valley systems, areas of remnant vegetation, rural land uses that are prominent throughout the Study Area, such as rural-residential, hobby farms, agistment, orchards and vineyards and infrastructure such as the Tonkin Highway. Although not within any of the Precincts, the Readymix and Boral hard rock quarries are also significant landscape features within the Study Area, particularly as they are highly visible from inside and outside of the Study Area. Therefore, it is apparent that the Study Area contains a combination of natural and rural attributes, however as rural land uses are more prevalent in each of the Precincts, the Study Area could be summarised as having a rural landscape character.

**Table 2: Landscape Character Assessment for Rural Planning Precinct No. 1**

<b>Rural Planning Precinct No. 1 – Martin Escarpment</b>	
<b>General landscape character</b>	The Precinct has a combination of elevated topography, valley formations, endemic vegetation, orchards and rural-residential uses. As the subdivision pattern in the Precinct still contains relatively large lots (generally in excess of 4.0 ha), significant areas of endemic vegetation, including the understorey, have been retained. This has enabled the retention of bushland character for much of the Precinct. Several commercial orchards also operate within the Precinct, located prominently in the valley formations identified below. These elevated valley formations also provide panoramic views of the Swan Coastal Plain.
<b>Landscape features</b>	<ul style="list-style-type: none"> <li>• Marri trees in both a natural (more densely located with endemic understorey) and parkland cleared rural context (less densely located with a low grass understorey).</li> <li>• Remnant vegetation located particularly in the vicinity of the rural-residential subdivision on Versteeg Road.</li> <li>• Remnant vegetation in proximity to Canning Mills Road.</li> <li>• Commercial orchards.</li> <li>• Ellis Brook Valley.</li> <li>• Weed infestations on several rural properties (particularly those cleared of endemic vegetation).</li> </ul>
<b>Discrete significant areas</b>	<p>As indicated on <b>Figure 7</b>, two significant smaller portions of this precinct were identified as being of particular significance:</p> <p>A. A valley formation between Douglas Road and Frensham Place. This pocket contains orchards and a grove of marri trees (with parkland cleared understorey), and offers panoramic views of the Swan Coastal Plain, inclusive of the buildings of the Perth Central Area.</p> <p>B. A valley formation at the commencement of the Ellis Brook Valley (adjacent to Warfield Place) that contains commercial orchards and provides panoramic views of the Swan Coastal Plain and the Perth Central Area.</p>
<b>Key views</b>	As indicated on <b>Figure 7</b> , views significant to the Precinct are of and across the two Areas identified above.

**Table 3: Landscape Character Assessment for Rural Planning Precinct No. 2**

<b>Rural Planning Precinct No. 2 – Southern Foothills</b>	
<b>General landscape character</b>	<p>The Precinct has a combination of elevated landform, an enclave of higher density rural living settlement (approximately 2,000m<sup>2</sup> lots), significant areas of introduced vegetation, views of the Darling Escarpment (including the Darling Range Regional Park), the Swan Coastal Plain and the Perth Central Area. As the subdivision pattern in the Precinct contains higher rural living lots, dwellings tend to be located in closer proximity to each other. These lots also contain more conventional “urban” gardens containing a large variety of introduced plant species including plants with the potential to become noxious weeds. Whilst the remnant native vegetation on the Darling Escarpment close to the higher density rural living lots is still in relatively good condition, the threat of the spread of weeds to the Darling Range Regional Park is significant.</p> <p>Native marri trees and flooded gums are also located throughout the Precinct, contributing to the landscape character, however are generally more prominent in road verge areas.</p>
<b>Landscape features</b>	<ul style="list-style-type: none"> <li>• Darling Escarpment.</li> <li>• Granite outcrops and granitic heath vegetation with scattered native trees (particularly noticeable at Lowannaa Road Reserve).</li> <li>• Lowannaa Road Reserve.</li> <li>• Canning River.</li> <li>• Marri trees in Connell Avenue road reserve.</li> <li>• Weed infestation in private property, road verges and on the Canning River foreshore.</li> <li>• Tonkin Highway and extension.</li> </ul>
<b>Discrete significant areas</b>	<p>As indicated on <b>Figure 7</b>, one portion of the Precinct was identified as being of particular significance:</p> <p>C. An enclave of higher density rural living settlement (approximately 2,000m<sup>2</sup>), accessible by Lowannaa Road, Milleara Road and Karralika Crescent, located on the lower slopes of the Darling Escarpment, which has panoramic views of the Swan Coastal Plain. This area abuts the western boundary of the Darling Range Regional Park. A variety of dwelling sizes and styles are found in this pocket in addition to more “urban” gardens that contain a variety of introduced plant species (with the potential to become noxious weeds).</p>
<b>Key views</b>	<p>As indicated on <b>Figure 7</b>, there are several significant views in the Precinct. Panoramic views of the Swan Coastal Plain and the Perth Central Area are available from the ‘pocket’ identified above (eg Karralika Crescent), in addition to views of the Canning River from Connell Avenue. Views are also permitted to the Darling Escarpment (particularly from the intersection of Mills Road East and Cockram Road). Future views from roads may become screened by buildings or planted vegetation if located inappropriately.</p>



**Table 4: Landscape Character Assessment for Rural Planning Precinct No. 3**

<b>Rural Planning Precinct No. 3 – Tonkin Highway East</b>	
<b>General landscape character</b>	The landscape character of this Precinct is largely dominated by the Darling Escarpment, which provides a backdrop and gives parts of the Precinct a sense of enclosure, particularly in valleys). The flatter parts of the Precinct (adjacent to the western edge) accommodate the highest density of commercial rural land uses such as rural/cottage industry, vineyards and agistment, which contribute to a more intensive rural character for this Precinct. The Precinct also comprises areas of remnant vegetation, particularly in road verges where a canopy may be formed over the roadway, it is bordered by significant remnant vegetation in the Darling Range Regional Park.
<b>Landscape features</b>	<ul style="list-style-type: none"> <li>• Darling Escarpment.</li> <li>• Ellis Brook valley.</li> </ul> <p>Bickley Brook valley.</p> <ul style="list-style-type: none"> <li>• Highest density of commercial rural land uses such as hobby farms, agistment, orchards, and vineyards.</li> <li>• Victorian tea tree weed infestation in private property and road verges.</li> <li>• Bamboo infestation in private property close to Bickley Brook.</li> </ul>
<b>Discrete significant areas</b>	<p>As indicated on <b>Figure 7</b>, two portions of this precinct were identified as being of particular significance:</p> <p>D. A pocket comprising a combination of commercial rural land uses (such as agistment and a palm plantation), and rural-residential, located in the Ellis Brook valley at the base of the Darling Escarpment, giving it a sense of enclosure. This sense of enclosure is amplified by the view corridor southwards along Pitt Road (the entry road to this pocket) with the Darling Escarpment as the focal point.</p> <p>E. The topography of the Bickley Brook valley and proximity to the Darling Escarpment give this area a sense of enclosure. Views towards Bickley Brook, particularly from Maddington Road, Dale Place, White Road and Hardinge Road, across vineyards and other rural land uses enhance the coherence of this area. However, land along the brook itself and within the valley is subject to significant weed infestation (predominantly bamboo and Victorian tea trees).</p>
<b>Key views</b>	As indicated on <b>Figure 7</b> , the Precinct provides significant views of the Darling Escarpment, Ellis Brook valley and Bickley Brook valley. Views to the Darling Escarpment are particularly important from within pocket D (identified above), from Reservoir Road (which is located parallel to the face of the Darling Escarpment), from Kelvin Road and from White Road (in particular as the Darling Escarpment forms the focal point of a view corridor looking south-east down White Road). Views to the tall, dense, native vegetation along Bickley Brook, particularly from Maddington Road and Dale Place, across vineyards and other rural land uses located in the Bickley Brook Valley are significant.

**Table 5: Landscape Character Assessment for Rural Planning Precinct No. 4**

<b>Rural Planning Precinct No. 4 – Tonkin Highway West</b>	
<b>General landscape character</b>	The Precinct is generally low lying, flat and swampy. Larger areas of remnant vegetation are contained in reserves (including the larger groves of <i>Actinostrobos pyramidalis</i> ), however some remnant vegetation, generally Melaleucas and Actinostrobos, are scattered around the Precinct, especially along roadsides. There is also substantial roadside growth of the woody weed, Victorian tea-tree. A number of commercial rural land uses are located within this Precinct, adding to the sense of proximity to the adjacent industrial and residential areas to the south and west of Bickley Road. The Darling Escarpment provides a noticeable backdrop seen from the more elevated areas of the Precinct (eg along Victoria Road).
<b>Landscape features</b>	<ul style="list-style-type: none"> <li>• Yule Brook, which is significantly degraded.</li> <li>• <i>Actinostrobos pyramidalis</i> endemic to Rural Planning Precinct No. 4.</li> <li>• Some vegetation in road reserves (particularly specimens of <i>Actinostrobos pyramidalis</i> and Melaleucas).</li> <li>• Taller remnant vegetation on private property and within reserve areas.</li> </ul>
<b>Discrete significant areas</b>	This precinct does not contain any particular areas of unique landscape character as landscape character is generally consistent throughout.
<b>Key views</b>	As indicated on <b>Figure 7</b> , views of the Darling Escarpment are available from Brentwood and Victoria Roads, which are slightly elevated and with large areas of cleared of remnant vegetation.

### **3.2 Rural-Residential**

The fragmentation of rural land to accommodate the minimal but steady demand for land to be used for rural-residential purposes has occurred across the Study Area. The landscape character and close proximity of the Study Area to urban services, facilities and infrastructure contribute to both the demand and suitability of this area for rural-residential development. The majority of the Study Area is also serviced with scheme water, which facilitates smaller lot sizes. In addition to this, there has also been a reduction over time of agricultural activity in the Study Area, thereby increasing the amount of land available for rural-residential uses. As such, rural-residential is seen as legitimate rural use in the Study Area.

For the purpose of the Foothills Rural Strategy, the definition for rural-residential as contained in SPP No. 11 Rural and Agricultural Land Use Planning (2002) (under the definition of “Rural-Residential zone”) has been adopted, and is as follows:

*“Land used for residential purposes in a rural setting which provides for alternative residential lifestyle and which seeks to preserve the amenity of such areas and control land use impacts.”*

(WAPC 2002)

The difficulty with rural-residential however is that it is classified as a sensitive use as it includes accommodation, and may be adversely affected by impacts generated from a range of other uses in rural areas, such as quarries (eg noise, dust, vibration, odour etc) and intensive agriculture (eg spray drift). Rural-residential uses may also contribute to a range of impacts such as land degradation (through the clearing of vegetation or water pollution from effluent disposal) or increase bush fire risk. Because rural-residential tends to consist of smaller lots, though not less than 1.0 ha, the potential for these conflicts increases. As such, rural-residential uses, and other uses in close proximity to rural-residential must be managed appropriately to ensure compatibility and impacts are minimised. In this regard, consideration and application of an appropriate minimum lot size for rural-residential is of high importance.

Rural-residential has occurred within the two rural zones within the Study Area on the following basis:

### **Special Rural zone within Rural Planning Precinct No. 1**

Town planning scheme controls have had a positive effect in terms of integrated planning and design, environmental protection and rehabilitation, fire control, improved servicing and land use/amenity control in the Special Rural zone within Rural Planning Precinct No. 4. In particular, a minimum lot size of 4.0 ha was recommended under Town Planning Scheme No. 1 (now superseded by Town Planning Scheme No. 6) in recognition of the particular environmental constraints pertaining to the area. However, this minimum lot size is no longer required under Town Planning Scheme No. 6.

This area is not considered suitable for lots less than 4.0 ha for the following reasons:

- The 4.0 ha lots allow for a variety of rural lifestyle opportunities, and hobby horticultural and agricultural pursuits, both of which are compatible with existing horticultural activities and the adjacent reserved areas that also influence the Precinct.
- The Precinct is surrounded by forested areas and is a high bush fire risk area. Additional rural-residential type development at a higher density would mean that in the event of a bush fire outbreak additional fire fighting resources would be needed to protect a greater number of homes. Also the increased population would further exacerbate the fire risk;
- Any additional clearing to accommodate fire-breaks, buildings and access is contrary to preserving the landscape character;
- Increased on-site effluent disposal may adversely affect water courses (including Ellis Brook) and adjoining water catchment areas;
- Increased stormwater runoff may adversely affect downstream properties by increasing the risk of soil erosion and siltation of watercourses. Runoff feeds Ellis Brook, an important regional recreation asset that may be seriously affected by siltation resulting from increased clearing and associated soil erosion;
- Increased human habitation and denser development will increase the potential for noxious weed infestation within the Precinct and in adjacent reserved areas;
- The Precinct has very thin soils over laterite. Intensification of land uses may lead to loss of ground cover and significant erosion problems; and

- The Precinct is not supplied with scheme water. Larger lots are required to ensure water may be provided through means such as dams and rainwater collection tanks. An increased lot density may also lead to more bores and potentially adverse impacts on local groundwater levels.

In light of the above, it would be appropriate to introduce the minimum lot size requirement of 4.0ha onto the Town Planning Scheme Map for the area included within Rural Planning Precinct No. 1 as part of any future review. It would also be appropriate to rename the Special Rural zone to Rural-Residential in line with the terminology expressed in SPP No. 11 Agricultural and Rural Land Use Planning, at that time.

#### **General Rural zone within Rural Planning Precinct Nos. 2, 3 and 4**

In the General Rural zone within Rural Planning Precinct Nos. 2, 3 and 4, as a result of incremental historic circumstances, there has been minimal control over environmental, visual, amenity and servicing aspects leading to degradation of the environment and landscape character in some areas. Here subdivision has been of an in-fill nature that has typically led to the creation of lots of between 1.0ha and 1.5ha in area.

Lots less than 1.0 ha are considered to represent a residential form of settlement that is a density higher than rural-residential is not supported in Rural Planning Precinct Nos 2 and 3. In light of the possible industrial options within Rural Planning Precinct No. 4, a presumption against the further fragmentation of land has existed for some time.

In light of the above, it would be appropriate to require any proposal for a rural-residential use be initiated with an amendment to Town Planning Scheme No. 6 to change the zone from General Rural to Special Rural to ensure the provisions contained in Part 5.0 General Development Requirements may be applied. It would also be appropriate to introduce the minimum lot size requirement of 1.0 ha onto the Town Planning Scheme Map for the area included within Rural Planning Precinct Nos 2 and 3 as part of any future review of Town Planning Scheme No. 6.

More extensive use of Special Rural provisions under Town Planning Scheme No. 6 in relation to rural-residential is warranted as the provisions give greater emphasis to landscape character protection and rural amenity issues, required in line with the definition of rural-residential. The Zoning Table also permits greater control over uses that may have an impact on rural-residential uses.

The rural-residential issues associated with the Study Area may be summarised as follows:

- Past subdivision has led to fragmentation of landholdings and a trend toward smaller lot sizes less able to accommodate the broad range of land uses that may be established in the General Rural zone under the provisions of the Town Planning Scheme No. 6. This has led, in some areas, to impacts on Landscape Character and land degradation.
- The ongoing demand for rural-residential lifestyle lots has increased the potential for land use conflicts.
- Changing community expectation and increased awareness regarding environmental issues points to the need for a proactive stance and increased level of planning control. This need is exacerbated by rural-residential subdivision.

- Rural-residential subdivision satisfies a legitimate lifestyle demand and attracts residents and development that contributes to the socio-economic benefit of the community.
- Rural residential subdivision has the potential to impact on the environment, particularly in terms of hydrology, erosion hazard, visual resource, waterways, vegetation, bush fire risk, and environmental buffers. These impacts may be ameliorated or changed to opportunities for enhancement, facilitated by careful site development and appropriate planning controls.
- The intrusion of non-rural uses into the Rural zone has the potential to increase land use conflicts and impact on landscape character.
- The existing road system is generally sufficiently robust to allow for the limited in-fill rural residential subdivision contemplated for the Precincts. An exception to this is an area within Precinct No. 2 that is bounded by Connell Avenue the Canning River and the Tonkin Highway extension reservation. Here a new (subdivisional) road layout is required to maximise public access to the Canning River Regional Reserve.
- Site specific investigation to determine land capability for rural-residential subdivision is required. Measures such as use of building envelopes, placement of fill and aerobic effluent treatment units needs to be considered.

### 3.3 Hard Rock Quarries

The Study Area accommodates two hard rock quarries on the face of the Darling Escarpment, being the Readymix and Boral hard rock quarries, which represent major sources of supply of the hard rock construction material for the Perth Metropolitan Region (as shown on **Figures 8A, 8B and 8C**). The quarrying operations are subject to regular licensing and implementation of environmental plans, and it is anticipated that the quarries could continue to supply resources for the region well into the next century. Importantly, the quarry operations and the surrounding rural area have coexisted for many years.

The ability for these hard rock quarries to continue operation is consistent with regional planning objectives in respect of Metropolitan rural areas as expressed in Metroplan and the Foothills Structure Plan. SPP No. 10 Basic Raw Materials more specifically identifies and seeks to conserve deposits of basic raw materials considered essential for the future development of the Perth Metropolitan Region. This policy promotes the continuation of the existing extraction operations by preventing or minimising the intrusion of incompatible sensitive uses such as rural-residential that may be prejudicial to their activities, particularly in regard to noise, dust, odour and vibration complaints.

The Foothills Rural Strategy adopts the 1,000 metre buffer area around quarry activities, consistent with SPP No. 10 Basic Raw Materials, and is taken from an “operations boundary” drawn to encompass all sources from which off-site emissions such as noise, dust, odour and vibration or unacceptable levels of risk may arise (as shown on **Figures 8A, 8B and 8C**). As the “operations boundary” reflects the planned operations of the quarries over the next 15 years, the buffer areas should be sufficiently accurate for the outlook of the Foothills Rural Strategy. Due to the potential for impacts on sensitive uses, subdivision of land within buffer areas will not be supported. Indeed, it is a recommendation of the Foothills Rural Strategy to create special control areas that are inclusive of the buffer areas to ensure the potential for conflict with sensitive uses is minimised.

As the quarries could continue to supply resources well into the next century, the location of operational areas (the active quarry face in particular) would change. As these changes would affect the operations boundary and consequently the buffer areas for each quarry, the Foothills Rural Strategy has also identified a “memorial area” (as shown on **Figures 8A, 8B and 8C**). The memorial area represents the ultimate buffer area should Readymix or Boral be permitted to extend their operations to the edges of their respective sites. The memorial area comprises the balance of land between the nominated buffer area boundary and a boundary drawn 1,000 metres from the relevant lot boundaries of each quarry. A requirement of subdivision of land between the buffer areas and the memorial areas will be the imposition of memorials on certificates of title of new lot titles notifying potential purchasers of the quarries existence and potential for buffer encroachments. Additional measures such as noise attenuation should also be encouraged for new dwellings within the memorial areas (eg roof/window insulation, box eaves, etc) to help further reduce the potential for conflict.

Further to the above, it should also be noted that the active quarry face of the two quarries is moving eastward into the Darling Escarpment, and away from the western portion of the Study Area. However, this movement will increasingly affect Rural Planning Precinct No. 1 in the longer term. Because the operational areas, including processing and storage areas, are likely to remain in the same position, the buffer areas affecting the western portion of the Study Area are unlikely to change.

The following table identifies the number of lots in each Precinct that will be affected by the buffer areas:

**Table 6: Summary of Lots Affected by Quarry Buffer Areas**

Rural Planning Precinct	Readymix Hard Rock Quarry	Boral Hard Rock Quarry	Total Lots Affected Per Precinct
1	14	Nil	14
2	108	12	120
3	Nil	126	126
4	Nil	Nil	Nil
Total	122	138	260

Importantly, SPP No. 4 State Industrial Buffer Policy supports a variation to the 1,000 metre buffer area where a site specific scientific study demonstrates that the buffer area boundary may be varied. The Department for Planning and Infrastructure, in combination with the Department for Industry and Resources, the Department of Environment, the City and representatives of Readymix and Boral will be undertaking such a study for the purposes of scientifically defining the buffer areas. Once undertaken, the Foothills Rural Strategy should be amended to reflect the new buffer areas. Notwithstanding this, the memorial areas should be retained to ensure the future options for the quarries are maintained.

To address some of the impacts of the quarries, Readymix and Boral have sought to secure their buffer areas by acquiring land within the buffer, in accordance with SPP No. 4 State Industrial Buffer Policy. Boral also holds regular public meetings to discuss issues the public may have with its operations.

### 3.4 Bush Fire Management

Minimising the risk to life and property from bush fires is a very significant issue in the Study Area. The vegetation and topography of the Darling Escarpment contributes to substantially higher fire risk, as fires are rapidly drawn up slopes, whereas on the Swan Coastal Plain bush fires are susceptible to strong winds and rapid changes in wind direction. The increasing land use demands within the rural areas inevitably result in greater risk to life and property from bush fires with a consequence that improved fire management and resources are required.

The City has developed a comprehensive range of fire control mechanisms based on risk management assessment. These include:

- a bush fire policy;
- a fire prevention plan;
- fire suppression plan;
- fire fighting equipment and maintenance strategies;
- emergency management plan;
- Hills Area map; and
- A fuel age plan.

A key element of the City's bush fire management plan has been the establishment of strategic firebreaks throughout the Study Area.

Rural subdivision proposals are assessed by the City against the various elements of the overall fire management strategy and against the performance criteria and minimum performance standards for subdivision design promoted in the document Planning for Bush Fire Protection.

In the case of the Study Area the great majority of future subdivisions will be of the in-fill type where larger rural lots are subdivided to create one or two additional lots. In addition to on-site firebreaks, these new lots will also be part of existing fire management procedures and practices, including the strategic firebreak network. Consideration of specific subdivision proposals should include the assessment of, as may be required, (alternative) emergency access/egress which is of particular relevance for battleaxe lots, which are a relatively common form of land subdivision in the rural area.

The relatively small scale of anticipated subdivisional activity and its in-fill nature can be accommodated by existing bush fire management arrangements.

A significant portion of the eastern sector of the Study Area is identified as having a high bush fire risk (Rural Planning Precinct No. 1 and parts of Rural Planning Precinct Nos. 2 and 3 in particular), with the major catalyst being the vegetation aspect and slopes of the Darling Escarpment (as the potential of bush fire severity doubles with every ten degree increase in slope). The lower flatter parts of the Study Area (the majority of Rural Planning Precinct No. 3 and Rural Planning Precinct No. 4), are considered to have a lesser bush fire risk in comparison to the eastern sector, however bush fire behaviour would be very susceptible to strong winds and rapid changes in wind direction particularly with the afternoon south-west breeze in these areas.

Changes to rural land use, particularly increased intensity of development and resident population can significantly increase the bush fire risk of an area in terms of both cause and effect. Clearly, increased development and population in a rural area increases the potential threat of bush fire occurrence, risk to assets and the difficulty of bush fire suppression.

It is important that any application for land use, zoning, development and subdivision, particularly in well vegetated areas, take into account the high bush fire risks and the need for careful design and sensitive management practices. In doing so, bush fire risk and the damage to the environment as a consequence of bush fire can be reduced.

The bush fire management issues associated with the Study Area maybe summarised as follows:

- The local Volunteer Bush Fire Brigade and the career Fire and Rescue Service for the Study Area are located in Maddington, which is outside of the Study Area. The Study Area encompasses Regional Parks and State Forest that are under the control of Conservation and Land Management.
- The City currently applies Local Laws, the Bush Fires Act 1954 and various other local initiatives in partnership with other agencies within the Study Area to contribute to bush fire protection in the Study Area.
- Currently, all planning proposals in the Study Area are individually assessed in terms of bush fire management.
- In some parts of the Study Area the bush fire risk and the ability to manage this risk requires that there be site specific analysis prior to any land use, zoning, development or subdivision proposal.
- A high bush fire risks exists in Rural Planning Precinct No. 1 due to it being surrounded by abutting vegetated reserve areas. As such, bush fire protection should be a significant determinant of settlement pattern, lot density and land use.

### 3.5 Wetlands

The Department of Environment has adopted the following definition for wetlands:

*“Areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt including areas of marine water the depth to which at low tide does not exceed six metres.”*

The Study Area contains a number of wetlands, as identified in **Figure 13A, 13B, 13C and 13D**, which may be categorised under the following headings:

- Conservation
- Resource enhancement
- Multiple use

#### Conservation

Conservation category wetlands support a high level of ecological attributes and functions, and are considered the highest priority wetlands. The objective for these wetlands is their preservation through various mechanisms including, reservation, protection under EPA policies and wetland covenanting by landowners. As these are considered to be the most valuable wetlands, conservation should be a high priority.



The Canning River and its immediate environs within Rural Planning Precinct No. 2 and the area zoned under the Metropolitan Region Scheme for Public Purposes and Parks and Recreation within Rural Planning Precinct No. 4 are the most substantial areas of Conservation category wetland, however there are other smaller portions within Rural Planning Precincts Nos. 2, 3 and 4.

### **Resource Enhancement**

Resource Enhancement category wetlands are those that may have been partially modified but still support substantial ecological attributes and functions. The objective is for the management, restoration and protection of those wetlands in order to improve their conservation value. Importantly, Resource Enhancement category wetlands may be enhanced to Conservation category through the restoration of their structure, function and biodiversity.

Large portions of Rural Planning Precinct No. 4 together with smaller portions of Rural Planning Precincts 1 and 3 are affected by resource enhancement category wetlands.

### **Multiple Use**

Multiple Use wetlands are those with few important ecological attributes and functions remaining and have often been degraded by activity such as agriculture or grazing. Whilst restoration, enhancement and conservation is not an objective within this category, land use, development and management of Multiple Use wetlands should be considered in the context of ecologically sustainable development to ensure the proposals maintain or enhance the environmental value of the wetland. The increasing trend towards rural-residential land use and development should assist in achieving this end.

The majority of wetlands within the Study Area are of this category, with large areas within Rural Planning Precincts Nos. 3 and 4, and smaller portions adjacent to the Canning River in Rural Planning Precinct No. 2.

Determination as to whether proposals are affected by wetlands should be made prior to the consideration of proposals and appropriate measures to protect those aspects should be considered where possible. Referral of proposals to the Department of Environment is also likely to be required.

## **3.6 Bush Forever**

As discussed in Part 1.0 and shown at **Figures 4A and 4B**, there are four Bush Forever sites within the Study Area, and include:

1. No. 51, White Road Bushland, Orange Grove, located in Rural Planning Precinct No. 3.
2. No. 53, Clifford Street Bushland, Maddington, located in Rural Planning Precinct No. 4.
3. No. 246, Canning and Southern Rivers, Beckenham to Martin/Kelmscott, located in Rural Planning Precinct No. 2.
4. No. 387, Greater Brixton Street Wetlands, Kenwick, located in Rural Planning Precinct No. 4.

As site No. 51 White Road Bushland, is the only site not in public ownership, it is the only site likely to come under direct private development pressure. Proposals affecting this Bush Forever site should be referred to the Western Australian Planning Commission for comment.

### 3.7 Rare Flora and Threatened Ecological Communities

Rare flora and threatened ecological communities are located throughout the Study Area, and in some instances, are located on privately owned land.

Under the Wildlife Conservation Act, the Minister for the Environment may declare species of protected flora to be Rare Flora if they are considered to be in danger of extinction, rare or otherwise in need of special protection. Such species are referred to as Threatened Flora, and receive special management attention.

There are also three categories of Priority Flora defined to cover poorly known species. The categories are arranged to give an indication of the priority for undertaking further surveys based on the number of known sites, and the degree of threat to those populations. A fourth category of priority flora is included for those species that have been adequately surveyed and are considered to be rare but not currently threatened. Special consideration should be given to the management of these species.

There are also three categories for listing threatened ecological communities. An ecological community may be included in the critically endangered category if, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future. The endangered category if, at that time, it is not critically endangered and is facing a very high risk of extinction in the wild in the near future, or the vulnerable category if, at that time, it is not critically endangered or endangered, and is facing a high risk of extinction in the wild in the medium-term future.

Determination as to whether proposals are affected by rare flora or threatened ecological communities should be made prior to the consideration of proposals and appropriate measures to protect those aspects should be implemented where possible.

Any proposal to clear vegetation land within the area to which this Rural Strategy applies must:

1. Receive Development Approval under the Town Planning Scheme and Development Act.
2. Identify whether the Declared Rare Flora (DRF), as defined and covered by the Wildlife Conservation Act 1954, might be located on the site. Should DRF be identified, a Licence to Take must be sought from the Department of Conservation and Land Management.
3. Consider whether Matters of National Environmental Significance (MNES), as defined and covered by the Environmental Protection and Biodiversity Conservation (EPBC) Act (Comm.) 1999, might be located on the site. Should MNES be identified as actually or potentially on the subject site, the proponent must liaise with Environment Australia. At the time of drafting this Rural Strategy, proposed amendments to the Environmental Protection (EP) Act 1986 would implement a signed bilateral agreement to streamline the approvals process and provide the implementation of the EPBC Act through the amended EP Act. It is recommended that the proponent liaise firstly with the Department of Environment.
4. At the time of drafting this Rural Strategy, proposed amendments to the Environmental Protection (EP) Act 1986 would afford statutory protection to Threatened Ecological Communities (TEC). Any proposed clearing of land subject to this Rural Strategy must be cognisant of the passage of this amended legislation, and its implications for the proposed clearing. It is recommended that the proponent liaise with the Department of Environment and/or Department of Conservation and Land Management.
5. Lodge a Notice of Intent (NOI) with the Commissioner for Soil and Land Conservation if the area proposed clearing is one hectare or greater.

### 3.8 Public Water Source Drinking Areas

As identified in Part 1.0, two Public Drinking Water Source Areas encroach within the eastern fringes of Rural Planning Precinct Nos. 1 and 3. These are the Bickley Brook Reservoir and Victoria Reservoir Catchment Areas. Although proposals will not be affected by Priority 1 Catchment Areas as they are generally within reserved areas, Priority 2 and 3 Catchment Areas (once identified) may affect private land.

Importantly, only compatible land use, zoning, development and subdivision will be supported within Priority 1 and 2 areas. As stated in SPP No. 2.7 Public Drinking Water Source Policy (2003), the following statement may be used to assist in the definition of a compatible proposal.

*“Acceptable land uses in source protection areas are those which are compatible with, or can be managed to be compatible with, the sustainable use of the water resource and the retention of environmental values associated with that resource.”*

(WAPC 2003)

Rural-residential proposals that are subject to the densities identified in Part 4.0 (ie 4.0 ha minimum in Rural Planning Precinct No. 1 and 1.0 ha minimum in Rural Planning Precinct Nos. 2 and 3 are considered acceptable densities), may be acceptable, however appropriate envelopes and on-site effluent disposal systems would be required in a Priority 2 Catchment Area none the less. Further consideration would need to be given to the compatibility of more traditional agricultural uses, such as the keeping of livestock, within Priority 2 areas (compliance with relevant guidelines, such as those provided by the Department of Agriculture, would be required in this regard).

SPP No. 2.7 Public Drinking Water Source Policy (2003) would also require that Priority 1 and 2 Catchment Areas be included in special control areas under Town Planning Scheme No. 6, unless included within Water Catchments under the Metropolitan Region Scheme. The incorporation of special control areas for Priority 1 and 2 Catchment Areas that encroach within any of the Rural Planning Precincts may be considered as part of the future review of the Local Planning Strategy.

Priority 3 Catchment Areas would not be subject to any town planning scheme controls, however should be considered in context with Water Quality Protection Note: Land Use Compatibility in Public Drinking Water Source Areas to ensure that there is some level of protection.

Buffer areas around important drinking water infrastructure have also been identified, and have been identified on **Figure 8A**. Advice should be sought from the Water Corporation were proposals are affected by those nominated buffer areas.

More detailed objectives and strategies provisions are contained in Part 4.0.

### 3.9 Poultry Farms

The Study Area accommodates four existing poultry farm operations (refer to **Figure 8A**). Due to their potential off-site impacts, (ie noise, odour, dust and flies) poultry farms are the subject of SPP No. 5 Poultry Farms, and other Department of the Environmental guidelines.

The buffer distances recommended under SPP No. 5 Poultry Farms that are applicable to poultry farms include:

- 500m separation from residential subdivision;
- 300m separation from rural residential subdivision; and
- 100m separation from existing/proposed dwellings.

Provisions of SPP No. 5 Poultry Farms allows subdivision and development applications to be considered within these buffer areas subject to a site-specific impact assessment being undertaken to demonstrate the nature and extent of any impacts from the poultry farm operations. The impact assessment would take into account the nature and scale of the poultry farm (eg broiler farms tend to emit more odour than egg farms), local topography, wind patterns, etc, and will provide guidance regarding an appropriate buffer distance.

While the Study Area will retain its rural diversity and zoning, wherein existing poultry farms can be accommodated, due to the existing rural-residential settlement pattern there is a presumption against additional poultry farms given the preferred settlement strategy in Part 4.0. In this regard, it is recommended that poultry farms be identified as a prohibited use within the General Rural and Special Rural zones.

### **3.10 Natural Gas and Oil Pipelines**

Three pipelines traverse the Study Area, outlined as follows:

- i) The BP Australia White Oil Line is physically located within the Forrestfield to Kwinana (freight) railway line reservation which constitutes the northern boundary of Rural Planning Precinct No. 4. Whilst this pipeline is subject to the provisions of the Anglo-Iranian Oil Act there are no defined buffer requirements. Proposed development on abutting land is referred to BP Australia for comment. The pipeline is not seen as representing a significant development constraint.
- ii) The Epic Energy Dampier to Bunbury Natural Gas Pipeline (DBNGP) is aligned along the eastern boundary of the Tonkin Highway reservation within the Study Area and affects Rural Planning Precinct Nos. 2, 3 and 4. A 30 metre wide easement, or “corridor” applies within which buildings of any type are not permitted. Any works within the corridor require the formal approval of the DBNGP Land Access Minister via written application to the Department of Land Administration.

Proposed development within a 300 metre buffer area either side of the pipeline requires a risk assessment under the Department of Environment Exclusion Guidelines No. 50. A dwelling and a rural-residential lot are generally seen as low risk (in terms of impacts on the integrity of the pipeline) and such development may be approved within buffer areas.

- iii) The West Australian Natural Gas Pipeline (WANG) is aligned alongside the southern boundary of the Roe Highway reservation, within Rural Planning Precinct No. 4. The WANG pipeline is not governed by an act of parliament, however, the abovementioned DEP Exclusion Guidelines No. 50 still apply in terms of development within the 300 metre wide buffer area.

Development applications received for land within 300 metres of the pipeline require referral to Department of Environment for assessment. Subdivision applications require the determining authority, ie the Western Australian Planning Commission, to undertake these referrals.

### 3.11 Western Power High Voltage Power Lines

Two high voltage (330 kv) power transmission lines traverse the Study Area, one of which predominantly crosses reserved land between Rural Planning Precinct Nos. 1 and 2, and the second line follows the base of the Darling Escarpment north-south through Rural Planning Precinct Nos. 2 and 3. Whilst the 60 m wide easements that accommodate these transmission lines may be used for access and non-intensive rural purposes, no structures or development may take place within such easements. While this represents a developmental constraint it is to be noted that many lots traversed by a power line are only partially affected and could potentially be subdivided, possibly with the establishment of a nominated building envelope.

### 3.12 Aircraft Noise

The matter of the Aircraft Noise Exposure Forecast (ANEF) for Perth Airport has recently been reviewed in the context of the Perth Airport Master Plan, particularly in relation to the parallel runway proposal. Noise modelling completed by Westralia Airports Corporation shows that the north-western portion of Rural Planning Precinct No. 4 will be marginally affected by the 20 and 25 ANEF contours at some time in the future. (see **Figure 8A**). The modelling is based on 350,000 flight movements per year and it will be some considerable time in the future before the airport reaches this capacity. The current Australian Noise Exposure Index 2000 shows that the subject land is currently well outside the 20 ANEF contour. (See **Figure 8A**)

The impact of aircraft noise on residents in proximity to airports is subjective and is influenced by a number of factors including attitudes toward the aviation industry, personal sensitivity to noise and fear of aircraft crashing. Figure A1 of *Acoustics-Aircraft Noise Intrusion-Building Siting and Construction* (AS 2021) indicates that 17% of the population will be seriously affected by aircraft noise at the 25 ANEF noise contour.

To draw attention to this issue, the Western Australian Planning Commission is to impose, as a condition of subdivision, the requirement for a memorial on title drawing attention to the potential noise impacts.

SPP No. 5.1 Land Use Planning in the Vicinity of Perth Airport (SPP No. 5.1, currently in draft form, however soon to be gazetted) provides guidelines for land use, development and subdivision within noise prone areas surrounding the Perth Airport boundaries and therefore has application to the affected portion of Rural Planning Precinct No. 4. In particular, SPP No. 5.1 does not support subdivision of greenfield sites into smaller allotments that may facilitate incompatible land uses (eg “sensitive uses”) such as residential or rural-residential. Due to the impending nature of SPP No. 5.1, the Foothills Rural Strategy has only referred to this document where ANEF matters arise.

### 3.13 Aboriginal Sites

A number of Aboriginal Sites are located within the Study Area. As the specific location of many Aboriginal Sites cannot be generally disclosed, the Department of Indigenous Affairs should be contacted to determine the location of any known sites or be made aware of any proposal within the vicinity of an Aboriginal Site. It should be noted that Aboriginal Sites are given protection under the Aboriginal Heritage Act (1972), which also requires anyone who may believe there to be an Aboriginal Site on their property to have it brought to the attention of the appropriate authorities.

### 3.14 Land Capability

While land capability information is a useful planning tool in the context of the many planning demands and land management issues within the Study Area, capability mapping should not be used out of the context in which it was originally produced. Notwithstanding the relative importance of land capability in evaluating land use and land management practices based on the physical characteristics of the land, land capability mapping is but one component of any land use plan and is necessarily qualified by:

- The level of capability being based purely on assumptions and estimates as to which factors render land more or less capable for any particular use;
- No regard has been given to the fact that land capability rating can be improved by land management; and
- The broad scale of mapping and the use of fine definitive lines to represent gradual changes between landforms and soil types is appropriate for broad brush planning only and is not a substitute for detailed site assessment.

For these reasons a capability map does not represent the final analysis and is to be used as a guide only and open to interpretation. Importantly, land capability in itself should not be used to permit or preclude any development or land use. It is only one of the many considerations involved in decision-making, albeit an important one.

Nonetheless, land capability assessment should be required in the following instances due to their potential environmental impact:

- Activities that may impact on watercourses, water bodies or ground water resources;
- The location of on-site effluent disposal units;
- Activities that could further degrade land; and
- Sites that may have geological constraints such as granite outcrops.

Land capability information for the Study Area should be sourced from the Department of Agriculture.

### 3.15 Agricultural Practices

Although the incidence of agricultural activity within the Study Area is diminishing, it is likely that some agriculture such as orchards and vineyards would continue to operate into the future (in Rural Planning Precinct Nos. 1, 3 and 4 in particular). Agricultural activity should be undertaken in accordance with best practice to limit land degradation and impacts on nearby sensitive land uses located outside of their buffer areas (where nominated). In particular, soil erosion due to land clearing and the grazing or movement of livestock should be minimised to protect the land form and reduce dust nuisance. As such, best practice should be encouraged by providing operators with appropriate advice or directing them to other organisations such as the Department of Agriculture, local Landcare groups or other voluntary organisations, that can assist them further. It should be noted that other organisations may be able to provide assistance with land rehabilitation in particular. In this regard, the preparation of an information kit by the City that provides these details would be appropriate.

## 4.0 THE STRATEGY

A primary objective of the Foothills Rural Strategy is the development of a vision for the Study Area, which has been derived from:

- Attributes such as landscape character and the natural environment that contribute to the unique identity of the Study Area;
- Regional and local planning imperatives;
- Various issues, opportunities and constraints; and
- Input from local stakeholders such as residents and business operators.

A number of detailed objectives, strategies and provisions have been developed for each Precinct to achieve the vision for the Study Area.

### 4.1 Vision

Through the protection, conservation and enhancement of the landscape character and natural environment of the Study Area, the unique identity of the Study Area will be maintained. The Study Area will also accommodate, where appropriate, the ongoing demand for rural-residential land use and development, whilst maintaining other compatible rural uses. Therefore, by 2018 the Study Area will sustain a marginally higher population and maintain enhanced landscape, environment and rural attributes that contribute to its unique identity.

### 4.2 Settlement

As stated in the vision, the Study Area will accommodate, where appropriate, the ongoing demand for settlement in the form of rural-residential land use and development. The ongoing demand will continue to be driven by the unique landscape character of the Study Area and the close proximity of the Study Area to urban services, facilities and infrastructure. Therefore, it will be a key challenge for the Foothills Rural Strategy to facilitate increased rural-residential land use and development, whilst maintaining the unique landscape character and compatibility with other land uses within the Study Area. In this regard, it is recognised that matters such as land capability and suitability, land use compatibility and the protection, conservation and enhancement of landscape character and the natural environment must be considered as part of all rural-residential proposals. Further to this, the minimum lot sizes of 4.0 and 1.0 ha for Rural Planning Precinct No. 1 and Nos 2 and 3 respectively have been identified to assist in addressing these matters, and will form a basis for guiding settlement within the Study Area.

As examined in Parts 2.0 and 3.0, the regional significance of the basic raw materials supplied by the two hard rock quarries located in the Study Area is recognised, and will be the most significant constraint to rural-residential land use and development. Rural-residential (and other sensitive uses) will be restricted from the 1,000 m buffer areas that have been identified around the operational areas of each of the two hard rock quarries.

It should be noted that buffer areas can be reviewed pending a scientific study to determine the actual impact of quarry off-site impacts. The outcome of any review of the buffer areas in this regard should be reflected in the Foothills Rural Strategy (and until such time, may supersede the Foothills Rural Strategy).

The long-term strategic objectives articulated in Metroplan relating to industrial options indicate that further land fragmentation via subdivision should, as a general rule, not be supported in Rural Planning Precinct No. 4. Accordingly the Foothills Rural Strategy does not support subdivision in Rural Planning Precinct No. 4.

Based on the above, the following table identifies a potential lot yield for each Rural Planning Precinct.

**Table 7: Potential Lot Yield Per Precinct**

<b>Rural Planning Precinct</b>	<b>Existing Lots (as of September 2003)</b>	<b>Potential Additional Lot Yield as per Minimum Lot Sizes</b>	<b>Potential Additional Lot Yield Outside of Quarry Operational Buffer Areas and Rural Planning Precinct No. 4</b>
<b>1</b>	83	53	53
<b>2</b>	205	49	33
<b>3</b>	331	317	175
<b>4</b>	188	N/A	N/A
<b>Total</b>	807	419	261

Therefore, the more realistic potential additional lot yield (ie including only those lots outside of quarry operational buffer areas and Rural Planning Precinct No. 4) is 261 lots. This represents a reasonable population increase for the Study Area, particularly as it is unlikely to place significant burden on the existing infrastructure provision such as roads. At the current rate of subdivision at approximately three to four lots per year, it is also unlikely the Study Area will realise this potential for many years.

## **4.2 Precinct Strategies**

This section focuses on the four Rural Planning Precincts and the objectives and strategies that have been formulated to achieve the vision for the Study Area.

It should be noted that Appendix A contains a number of more detailed potential provisions that provide further guidance on how to apply the strategies expressed below.

### **4.2.1 Rural Planning Precinct No. 1 – Martin Escarpment**

#### **Overview**

Rural Planning Precinct No. 1 Martin Foothills is located on top of the Darling Escarpment in the eastern part of the Study Area within the locality of Martin. The land form is characterised by valley systems, which have historically accommodated orchards, and flatter areas beyond the top of the Escarpment, which have accommodated rural-residential activities and significant areas of remnant vegetation. The reserved areas that effectively surround Rural Planning Precinct No. 1 are extensively forested areas. Land to the immediate north and east of the Precinct is also designated as a Priority 1 Public Drinking Water Source Area and identified as a water catchment area on the Metropolitan Region Scheme.

While several orchards are still operating primarily on General Rural zoned land in the west of Rural Planning Precinct No. 1, the area has generally evolved into a rural-residential settlement with substantial areas now zoned Special Rural and developed as 4.0 ha rural-residential lots.



Of the 83 lots within the Precinct, 15 are in excess of 8.0 ha and subject to a minimum lot size of 4.0 ha, may permit further subdivision, potentially resulting in an additional 53 lots. However, this subdivision potential would also be contingent on a range of other considerations such as land capability/suitability, land degradation, buffer areas or the like.

Buffer areas, such as those from the Readymix hard rock quarry and agricultural activities, are likely to affect proposals that involve sensitive uses such as rural-residential and the residential component of a rural activity, which should be restricted from buffer areas. Careful assessment, consideration of appropriate design response (eg noise attenuation measures and envelopes) or the imposition of appropriate memorials on certificates of title may also be required for lots within the memorial area.

### **Summary of Issues, Opportunities and Constraints**

- Landscape character features, pockets and views relating to views of the Swan Coastal Plain inclusive of the Perth Central Area, Ellis Brook Valley, commercial orchards and remnant vegetation, which should be maintained;
- The impact on landscape character and the environment due to the loss of understorey and individual trees (especially mature ones), noxious weed infestation and the inappropriate design and placement of buildings;
- High importance of water courses, foreshore areas and wetlands in the Precinct and adjacent reserved areas;
- Minimum lot size of 4.0 ha to maintain landscape character and minimise bush fire risk and other impacts to the environment;
- Demand for rural lifestyle opportunities;
- Relative remoteness from urban services and community facilities;
- Spray drift impacts and best management practices, relating to intensive agriculture such as orchards. Consideration should be made of the 500 metre buffer area recommended around orchards to minimise spray drift problems;
- Readymix hard rock quarry buffer area of 1,000 metres (radius taken from operational areas of the quarry that may generate impacts);
- The restriction of sensitive uses from buffer areas;
- High fire risk and limited accessibility to fire facilities.

### **Objectives and Strategies**

The following are the objectives and corresponding strategies and provisions for Rural Planning Precinct No. 1, based on the issues, opportunities, constraints and other local and regional requirements identified above.

<b>Objective 1</b>	<b>Protect, conserve and enhance the landscape character of the Precinct.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Protect, conserve and enhance of the landscape character of the Precinct by <ol style="list-style-type: none"> <li>a) Ensuring the appropriate design and placement of buildings, infrastructure and envelopes so they do not detract from the landscape character.</li> <li>b) Ensuring the appropriate provision and location of planted vegetation.</li> <li>c) Discourage further clearing of remnant vegetation, unless required for envelopes or bush fire protection.</li> <li>d) Maintaining a 50 metre wide vegetated screen along Canning Mills Road where possible.</li> <li>e) Considering the rehabilitation of degraded land (including the removal of noxious weeds).</li> <li>f) Ensuring infrastructure, where possible, contributes to the landscape character of the Precinct.</li> </ol> </li> <li>2. Discourage proposals that result in an unacceptable degradation of landscape character.</li> </ol>

<b>Objective 2</b>	<b>Protect, enhance and conserve the natural environment, such as remnant vegetation and watercourses in the Precinct.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Protect, conserve and enhance the natural environment in the Precinct by: <ol style="list-style-type: none"> <li>a) Considering land capability/suitability where proposals involve: <ol style="list-style-type: none"> <li>i) Activities that may impact on watercourses, water bodies or ground water resources;</li> <li>ii) The location of on-site effluent disposal units;</li> <li>iii) Activities that could further degrade land; and</li> <li>iv) Sites that may have geological constraints.</li> </ol> </li> <li>b) Discourage further clearing of remnant vegetation, unless required for envelopes or bush fire protection.</li> <li>c) The use and appropriate placement of envelopes where required to minimise site-specific impacts.</li> <li>d) Encourage the planting of endemic vegetation where possible;</li> <li>e) Consider the rehabilitation of degraded land (including the removal of noxious weeds).</li> <li>f) Consider impacts on wetlands, Bush Forever sites, rare flora and threatened ecological communities.</li> </ol> </li> <li>2. Utilise organisations that can assist in the protection, enhancement and conservation of the natural environment.</li> </ol>

<b>Objective 3</b>	<b>Protect drinking water resources in the Precinct and adjacent reserved areas.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Minimise impacts on Public Drinking Water Source Areas and associated infrastructure through appropriate land use management and control.</li> </ol>

<b>Objective 4</b>	<b>To protect and manage land uses within the Precinct.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Expansion of rural-residential activities within this Precinct occur within the context of the existing settlement pattern and road network.</li> <li>2. Recommend a minimum lot size of 4.0 ha;</li> <li>3. Where relevant, require any rural-residential land use, development or subdivision proposal to be preceded by a rezoning proposal to “Special Rural” and incorporation of the subdivision guide plan and any appropriate conditions into Town Planning Scheme No. 6.</li> <li>4. Maintain the productive capacity of land used for agricultural activities.</li> <li>5. Manage incompatible land use through their appropriate location.</li> <li>6. Not support any sensitive use within a quarry buffer area.</li> <li>7. Recommend a memorial to be placed on the certificate of title for any newly subdivided lot within the memorial area.</li> <li>8. Encourage the incorporation of measures that may ameliorate any impacts associated with any quarry the subject of a memorial buffer.</li> <li>9. Refer to appropriate authority where required, and consider impacts or requirements that may relate to infrastructure or Aboriginal sites.</li> </ol>

<b>Objective 5</b>	<b>Maintain an adequate level of bush fire protection.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Ensure proposals comply with relevant bush fire protection measures.</li> <li>2. Ensure infrastructure, where possible, contributes to bush fire protection.</li> </ol>

#### 4.2.2 Rural Planning Precinct No. 2 – Southern Foothills

##### Overview

Rural Planning Precinct No.2 Southern Foothills is positioned in the southernmost part of the Study Area within the locality of Martin and extends from the Canning River eastwards up the lower slopes of the Darling Escarpment. The landform is characterised by a gentle elevation sloping up eastward from the Canning River, with the eastern part of the Precinct comprising steeper (albeit the lower) slopes of the Darling Escarpment.

Aside from one poultry farm and several small orchard operations, the majority of the Precinct is used for rural lifestyle purposes. An area in the south east of the Precinct (on the lower slopes of the Darling Escarpment) consists of historic development being an enclave of higher density (approximately 2000m<sup>2</sup> lots) rural living settlement, whereas the remaining rural land within the Precinct comprises larger lots ranging from 1.0 ha to 4.0 ha in area. The larger lots generally adjoin the Canning River.

Of the 205 lots within the Precinct, 16 are in excess of 2.0 ha and subject to a minimum lot size of 1.0 ha, may permit further subdivision, potentially resulting in an additional 33 lots. However, this subdivision potential would also be contingent on a range of other considerations such as land capability/suitability and buffer areas.

### Summary of Issues, Opportunities and Constraints

- Landscape character features including the Darling Escarpment and associated rock outcrops and granitic heath vegetation (particularly around Milleara and Lowanna Roads), views of the Swan Coastal Plain inclusive of the Perth Central Area and remnant endemic vegetation, that should be maintained;
- The impact on landscape character and the environment due to the loss of understorey and individual trees, especially mature ones, noxious weed infestation, Tonkin Highway extension and inappropriate design and placement of buildings;
- High importance of water courses, foreshore areas and wetlands in the Precinct and adjacent reserved areas;
- Water course and foreshore management both in terms of environment and public access;
- Demand for rural lifestyle opportunities;
- Attractive rural-residential opportunities due to location between the Canning River and reserved areas, and separation from Tonkin Highway;
- Minimum lot size of 1.0 ha to maintain landscape character and minimise bush fire risk and other impacts to the environment;
- Wide variety of lot sizes and shapes creating design challenges for further subdivision and servicing;
- Slope constraints for development (ie erosion, building ability, storm water, fire risk, on-site effluent disposal etc.);
- Spray drift impacts and best management practices, relating to intensive agriculture such as orchards. Consideration should be made of the 500 metre buffer area recommended around orchards to minimise spray drift problems;
- Readymix hard rock quarry buffer area of 1,000 metres (radius taken from operational areas of the quarry that may generate impacts);
- Epic Energy Dampier to Bunbury Natural Gas Pipeline buffer area of 300 metres (radius taken from pipeline);
- Poultry farm buffer area (300 metre radius from sheds);
- The restriction of sensitive uses from buffer areas; and
- High fire risk, particularly in steeper parts of the Precinct.

### Objectives and Strategies

The following are the objectives and corresponding strategies and provisions for Rural Planning Precinct No. 2, based on the issues, opportunities, constraints and other local and regional requirements identified above.

<b>Objective 1</b>	<b>Protect, conserve and enhance the landscape character of the Precinct.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Protect, conserve and enhance the landscape character of the Precinct by             <ol style="list-style-type: none"> <li>a) Ensuring the appropriate design and placement of buildings and envelopes, particularly in relation to buildings on the Darling Escarpment.</li> <li>b) Ensuring the appropriate provision and location of planted vegetation.</li> <li>c) Discourage further clearing of remnant vegetation, unless required for envelopes or bush fire protection.</li> <li>d) Retaining marri trees within road reserves where possible.</li> <li>e) Considering the rehabilitation of degraded land (including the removal of noxious weeds).</li> <li>f) Ensure infrastructure, where possible, contributes to the landscape character of the Precinct.</li> </ol> </li> <li>2. Discourage proposals that result in an unacceptable degradation of landscape character.</li> </ol>

<b>Objective 2</b>	<b>Protect, enhance and conserve the natural environment in the Precinct.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Protect, conserve and enhance the natural environment in the Precinct by:             <ol style="list-style-type: none"> <li>a) Considering land capability/suitability where proposals involve:                 <ol style="list-style-type: none"> <li>i) Activities that may impact on watercourses, water bodies or ground water resources;</li> <li>ii) The location of on-site effluent disposal units;</li> <li>iii) Activities that could further degrade land; and</li> <li>iv) Sites that may have geological constraints.</li> </ol> </li> <li>b) Discourage further clearing of remnant vegetation, unless required for envelopes or bush fire protection.</li> <li>c) The use and appropriate placement of envelopes where required to minimise site-specific impacts.</li> <li>d) Encourage the planting of endemic vegetation where possible.</li> <li>e) Consider the rehabilitation of degraded land (including the removal of noxious weeds).</li> <li>f) Consider impacts on wetlands, Bush Forever sites, rare flora and threatened ecological communities.</li> </ol> </li> <li>2. Utilise organisations that can assist in the protection, enhancement and conservation of the natural environment.</li> </ol>

<b>Objective 3</b>	<b>Protect drinking water resources in the Precinct and adjacent reserved areas.</b>
<b>Strategy</b>	<ol style="list-style-type: none"> <li>1. Minimise impacts on Public Drinking Water Source Areas and associated infrastructure through appropriate land use management and control.</li> </ol>

<b>Objective 4</b>	<b>To protect and manage land uses within the Precinct.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Expansion of rural-residential activities within this Precinct occurs within the context of the existing settlement pattern and road network.</li> <li>2. Recommend a minimum lot size of 1.0 ha;</li> <li>3. Where relevant, require any rural-residential land use, development or subdivision proposal to be preceded by a rezoning proposal to “Special Rural” and incorporation of the subdivision guide plan and any appropriate conditions into Town Planning Scheme No. 6.</li> <li>4. Maintain the productive capacity of land used for agricultural activities.</li> <li>5. Manage incompatible land use through their appropriate location.</li> <li>6. Not support any sensitive use within a quarry buffer area.</li> <li>7. Recommend a memorial to be placed on the certificate of title for any newly subdivided lot within the memorial area.</li> <li>8. Encourage the incorporation of measures that may ameliorate any impacts associated with any quarry the subject of a memorial buffer.</li> <li>9. Refer to appropriate authority where required, and consider impacts or requirements that may relate to infrastructure or Aboriginal sites.</li> </ol>

<b>Objective 5</b>	<b>Maintain an adequate level of bush fire protection.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Ensure proposals comply with relevant bush fire protection measures.</li> <li>2. Ensure infrastructure, where possible, contributes to the bush fire protection.</li> </ol>

#### 4.2.3 Rural Planning Precinct No. 3 – Tonkin Highway East

##### Overview

Rural Planning Precinct No. 3 Tonkin Highway East is positioned central to the Study Area and comprises a margin of land between the Tonkin Highway and the base of the Darling Escarpment. The land form of the Precinct is characterised by predominantly flat, cleared, rural land with gentle undulations generally rising upwards towards the Darling Escarpment in the east.

While the majority of land holdings within the Precinct comprise rural lifestyle activities, there is a variety and mix of other rural related land uses that are more prevalent within the Precinct than in any other Precinct within the Study Area. Aside from the disused tip site on Kelvin Road in the north of the Precinct, other land uses include a poultry farm, several nurseries, orchards, a winery, rural industrial uses, caravan parks, primary school, and a horse and pony club. The portion of Kelvin Road between its intersection with Tonkin Highway and White Road is the most intensively developed commercial area within the Study Area containing uses such as a stockfeed manufacturer, landscape supplies, a poultry farm, recycling operation, etc.

The existing settlement pattern consists of regular shaped 2.0-4.0 ha lots, which form the basis for the existing road network within the Precinct. In some parts of the Precinct, particularly towards the north, there are instances of relatively large lots of approximately 6.0-10.0 ha in area. In recent years, subdivision of lots in the central southern portions of the Precinct down to sizes of 1.0-2.0 ha has occurred.

Of the 331 lots within the Precinct, 142 are in excess of 2.0 ha and may permit further subdivision, potentially resulting in an additional 175 lots. However, this subdivision potential would be contingent on a range of other considerations such as land capability/suitability and buffer areas.

Buffer areas, such as those from the Boral and Readymix hard rock quarries, poultry farms or agricultural activities are likely to affect proposals that involve sensitive uses such as rural-residential and the residential component of a rural activity, which should be restricted from buffer areas. Careful assessment, consideration of appropriate design response (eg noise attenuation measures and envelopes) or the imposition of appropriate memorials on certificates of title may also be required for those uses located in close proximity to buffer areas.

### **Summary of Issues, Opportunities and Constraints**

- Landscape character features including the Darling Escarpment, rural industries, agistment, orchards, vineyards, Bickley Brook Valley and remnant endemic vegetation, that should be maintained;
- The impact on landscape character and the environment due to noxious weeds (Victoria tea tree and bamboo in particular), overhead high voltage powerlines, which are emphasised by visual exposure to Tonkin Highway, and land that has been over-cleared;
- High importance of water courses, foreshore areas and wetlands in the Precinct and adjacent reserved areas;
- Demand for rural lifestyle opportunities;
- Minimum lot size of 1.0 ha to maintain landscape character and minimise bush fire risk and other impacts to the environment;
- Potential for conflict between the wide variety and mix of rural land uses; specifically between rural-residential and rural industry uses;
- Readymix hard rock quarry buffer area of 1,000 metres (radius taken from operational areas of the quarry that may generate impacts);
- Boral hard rock quarry buffer area of 1,000 metres (radius taken from operational areas of the quarry that may generate impacts);
- Epic Energy Dampier to Bunbury Natural Gas Pipeline buffer area of 300 metres (radius taken from pipeline);
- Poultry farm buffer area (300 metre radius from sheds);
- Spray drift impacts and best management practices, relating to intensive agriculture such as orchards;
- The restriction of sensitive uses from buffer areas; and
- High fire risk.

### **Objectives and Strategies**

The following are the objectives and corresponding strategies and provisions for Rural Planning Precinct No. 3, based on the issues, opportunities, constraints and other local and regional requirements identified above.

<b>Objective 1</b>	<b>Protect, conserve and enhance the landscape character of the Precinct.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Protect, conserve and enhance the landscape character of the Precinct by <ol style="list-style-type: none"> <li>a) Ensuring the appropriate design and placement of buildings and envelopes.</li> <li>b) Ensuring the appropriate provision and location of planted vegetation.</li> <li>c) Discourage further clearing of remnant vegetation, unless required for envelopes or bush fire protection.</li> <li>d) Encourage screen planting between overhead high voltage power line pylons and roadways.</li> <li>e) Considering the rehabilitation of degraded land (including the removal of noxious weeds).</li> <li>f) Ensure infrastructure, where possible, contributes to the landscape character of the Precinct.</li> </ol> </li> <li>2. Discourage proposals that result in an unacceptable degradation of landscape character.</li> </ol>

<b>Objective 2</b>	<b>Protect, enhance and conserve the natural environment in the Precinct.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Protect, conserve and enhance the natural environment in the Precinct by: <ol style="list-style-type: none"> <li>a) Considering land capability/suitability where proposals involve: <ol style="list-style-type: none"> <li>i) Activities that may impact on watercourses, water bodies or ground water resources;</li> <li>ii) The location of on-site effluent disposal units;</li> <li>iii) Activities that could further degrade land; and</li> <li>iv) Sites that may have geological constraints.</li> </ol> </li> <li>b) Discourage further clearing of remnant vegetation, unless required for envelopes or bush fire protection.</li> <li>c) The use and appropriate placement of envelopes where required to minimise site-specific impacts.</li> <li>d) Encourage the planting of endemic vegetation where possible.</li> <li>e) Consider the rehabilitation of degraded land (including the removal of noxious weeds).</li> <li>f) Consider impacts on wetlands, Bush Forever sites, rare flora and threatened ecological communities.</li> </ol> </li> <li>2. Utilise organisations that can assist in the protection, enhancement and conservation of the natural environment.</li> </ol>

<b>Objective 3</b>	<b>Protect drinking water resources in the Precinct and adjacent reserved areas.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Minimise impacts on Public Drinking Water Source Areas and associated infrastructure through appropriate land use management and control.</li> </ol>



<b>Objective 4</b>	<b>To protect and manage land uses within the Precinct.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Expansion of rural-residential activities within this Precinct occurs within the context of the existing settlement pattern and road network.</li> <li>2. Recommend a minimum lot size of 1.0 ha;</li> <li>3. Rural-residential proposals to be compatible with the settlement strategy and objectives for this Precinct, and site-specific land capability/suitability.</li> <li>4. Maintain the productive capacity of land used for agricultural activities.</li> <li>5. Minimise the potential for land use conflicts through the appropriate location of land uses.</li> <li>6. Not support any sensitive use within a quarry buffer area.</li> <li>7. Recommend a memorial to be placed on the certificate of title for any newly subdivided lot within the memorial area.</li> <li>8. Encourage the incorporation of measures that may ameliorate any impacts associated with any quarry the subject of a memorial buffer.</li> <li>9. Refer to appropriate authority where required, and consider impacts or requirements that may relate to infrastructure or Aboriginal sites.</li> </ol>
<b>Objective 5</b>	<b>Maintain an adequate level of bush fire protection.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Ensure proposals comply with relevant bush fire protection measures.</li> <li>2. Ensure public infrastructure, where possible, contributes to bush fire protection.</li> </ol>

#### 4.2.4 Rural Planning Precinct No. 4 – Tonkin Highway West

##### Overview

Rural Planning Precinct No. 4 Tonkin Highway West is located to the west of the Tonkin Highway and to the east and north of Bickley Road in the locality of Kenwick, with an approximate area of 558ha. The Precinct is generally flat and has been largely cleared of vegetation, with the exception of the regionally significant corridor of vegetation which traverses the precinct, reflecting the Brixton Street Wetlands which is a designated Bush Forever site (see **Figure 4B**).

The current settlement pattern comprises rural-residential and hobby farm agricultural land uses on lot sizes predominantly between 1.5ha-4.5ha. Some rural land uses and activities which may affect the planning and direction for this precinct include poultry farms, rural industrial uses, and landfill activities. Conflict has also arisen between existing rural land uses and non-rural land uses that have located to the Precinct (principally due to the close proximity of the Precinct to the Maddington industrial area), with particular regard to transport depots. This matter has partly been resolved by redesignating transport depots as prohibited uses within the General Rural zone.

Buffer areas, such as those from poultry farms are likely to affect proposals that involve sensitive uses such as rural-residential and the residential component of a rural activity, which should be restricted from buffer areas. Careful assessment, consideration of appropriate design response (eg noise attenuation measures and envelopes) or the imposition of appropriate memorials on certificates of title may also be required.

As stated earlier, the Precinct is identified in Metroplan as a future strategic industrial area, principally due to the proximity of the Precinct to regional road networks, the Maddington industrial area and urban services. Prior to any industrial expansion occurring however, appropriate feasibility studies and structure planning will need to be undertaken to ascertain:

- the market demand for industrial land in the Precinct;
- the environmental capability and suitability of industrial expansion into the Precinct;
- the type, extent and staging of industrial land appropriate for the Precinct; and
- the cost and configuration of the infrastructure required to facilitate industrial expansion into the Precinct.

Importantly, ongoing community consultation will be required to help shape any industrial proposal within the Precinct. Should the feasibility studies and structure planning identify land not appropriate for industrial expansion, strong consideration should be given to the retention of that land for rural purposes.

### **Summary of Issues, Opportunities and Constraints**

- Landscape character features including views of the Darling Escarpment, Yule Brook Valley and remnant endemic vegetation including the conifer *Actinostrobus pyramidalis*, that should be maintained. The specimens grow on road reserves, private property and the University of Western Australia Botany Research Area that is in a reserved area on Bickley Road. These trees have a high conservation value and add a unique element to the landscape, particularly as they are found nowhere else on the Swan Coastal Plain.
- The impact on landscape character and the environment due to noxious weed infestations affecting remnant endemic vegetation, blocking views and increasing fire risk. Noxious weeds include wild oats, watsonia and the Victorian tea tree, which grows prolifically along sandy roadsides to a height of 3m or more.
- Introduction of unauthorised, non-rural land uses such as transport depots has caused conflict with rural land uses.
- Epic Energy Dampier to Bunbury Natural Gas Pipeline buffer area of 300 metres (radius taken from pipeline).
- Poultry farm buffer area (300 metre radius from sheds).
- The restriction of sensitive uses from buffer areas.
- Consistent demand for more intense rural land use and rural-residential settlement in particular.
- Metroplan, the strategic plan for Perth adopted by the State Government, has identified the Precinct as a potential strategic industrial area.
- The Precinct is strategically located in proximity to regional road networks, the Maddington industrial area and urban services.
- Fragmentation of land holdings is seen as prejudicial to future industrial development of the area, hence a presumption against further subdivision.
- The encroachment of sensitive uses near or into the Precinct is seen as prejudicial to future industrial development of the area.

## Objectives and Strategies

The following are the objectives and corresponding strategies and provisions for Rural Planning Precinct No. 4, based on the issues, opportunities, constraints and other local and regional requirements identified above.

<b>Objective 1</b>	<b>Protect, conserve and enhance the landscape character of the Precinct.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Protect, conserve and enhance of the landscape character of the Precinct by             <ol style="list-style-type: none"> <li>a) Ensuring the appropriate design and placement of buildings and envelopes.</li> <li>b) Ensuring the appropriate provision and location of planted vegetation.</li> <li>c) Discourage further clearing of remnant vegetation, unless required for envelopes or bush fire protection.</li> <li>d) Encourage retention of <i>Actinostrobus pyramidalis</i> where possible.</li> <li>e) Considering the rehabilitation of degraded land (including the removal of noxious weeds).</li> </ol> </li> <li>2. Discourage proposals that result in an unacceptable degradation of landscape character.</li> </ol>

<b>Objective 2</b>	<b>Protect, enhance and conserve the natural environment in the Precinct.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Protect, conserve and enhance the natural environment in the Precinct by:             <ol style="list-style-type: none"> <li>a) Considering land capability/suitability where proposals involve:                 <ol style="list-style-type: none"> <li>i) Activities that may impact on watercourses, water bodies or ground water resources;</li> <li>ii) The location of on-site effluent disposal units;</li> <li>iii) Activities that that could further degrade land; and</li> <li>iv) Sites that may have geological constraints such as granite outcrops.</li> </ol> </li> <li>b) Discourage further clearing of remnant vegetation, unless required for envelopes or bush fire protection.</li> <li>c) The use and appropriate placement of envelopes where special consideration is required to minimise site-specific impacts.</li> <li>d) Encourage the planting of endemic vegetation where possible.</li> <li>e) Consider the rehabilitation of degraded land (including the removal of noxious weeds).</li> <li>f) Consider impacts on wetlands, Bush Forever sites, rare flora and threatened ecological communities.</li> </ol> </li> <li>2. Utilise organisations that can assist in the protection, enhancement and conservation of the natural environment.</li> </ol>

<b>Objective 3</b>	<b>Protect drinking water resources in the Precinct and adjacent reserved areas.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Minimise impacts on Public Drinking Water Source Areas through appropriate land use management and control.</li> </ol>

<b>Objective 4</b>	<b>To protect and manage land uses and maintain future strategic industrial land use options within the Precinct.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Minimise the potential for land use conflicts through the appropriate location of land uses.</li> <li>2. Infrastructure, where possible, to contribute to the protection of rural character and landscape in the precinct.</li> <li>3. Maintain the productive capacity of land used for agricultural activities.</li> <li>4. Maintain a presumption against further intensification of land use and further subdivision, thereby maximising future strategic industrial land use options.</li> <li>5. Discourage sensitive lands uses, thereby maximising future strategic industrial land use options.</li> <li>6. Appropriate studies and structure planning, in conjunction with the Department for Planning and Infrastructure where possible, to be undertaken to determine the feasibility etc, of the Precinct for industrial purposes. Particular attention should be given to interfaces with abutting environmentally sensitive and urban areas.</li> <li>7. Refer to appropriate authority where required, and consider impacts or requirements that may relate to infrastructure or Aboriginal sites.</li> </ol>

<b>Objective 5</b>	<b>Maintain an adequate level of bush fire protection.</b>
<b>Strategies</b>	<ol style="list-style-type: none"> <li>1. Ensure proposals comply with relevant bush fire protection measures.</li> <li>2. Ensure public infrastructure, where possible, contributes to bush fire protection.</li> </ol>

## 5.0 IMPLEMENTATION AND REVIEW

### 5.1 Implementation

The Foothills Rural Strategy will be used as a planning tool to assist the City, State Government and the community in their respective roles of land use planning. In particular, the Foothills Rural Strategy should be used to guide the City when determining land use and development proposals, initiating rezoning proposals and for making recommendations to the Western Australian Planning Commission in respect of proposals for the subdivision of land. As such, the strategies contained within this document should be considered as part of any proposal.

In regard to rural-residential subdivision proposals, rezoning applications (which must precede applications for subdivision) or applications for subdivision will be considered by the City on their individual merits with the Foothills Rural Strategy providing a guide to the preferred settlement pattern, lot density and size. The minimum lot size recommended for Precinct Nos. 1, 2 and 3 should therefore not be deemed to be as of 'right'. As such, all subdivision proposals will need to address all relevant strategies, and if supported, should be reflected in Town Planning Scheme No. 6.

Many of the strategies may be further developed and implemented through the adoption of Local Planning Policies if required, or through rezoning and amendments to Town Planning Scheme No. 6 to incorporate special provisions (although this is envisaged to occur as part of the review of Town Planning Scheme No. 6, as further discussed in Part 5.0). Appendix A contains "suggested provisions" that may be considered as part of an amendment or review of Town Planning Scheme No. 6, the preparation of a Local Planning Policy or for further guidance in relation to the objectives and strategies contained in Part 4.0.

## 5.2 Review

While the Foothills Rural Strategy provides a vision for the Study Area to 2018 and beyond, it is inevitable that in the context and timeframe of the Foothills Rural Strategy the many issues, opportunities and constraints affecting the Study Area will change. As the vision outlined in the Strategy must be responsive to this change, it should be reviewed as part of the Local Planning Strategy. Further to this, there are also a number of matters addressed as strategies that should be considered as part of any future review of Town Planning Scheme No. 6 and the Local Planning Strategy.

In particular, the following matters raised in Parts 3.0 and 4.0 of the Foothills Rural Strategy should be considered as part of the future reviews, if not sooner, where appropriate:

<b>Hard Rock Quarries</b>	<p>The Foothills Rural Strategy to incorporate buffer areas based on scientific studies for both the Readymix and Boral hard rock quarries, as deemed acceptable for the appropriate authorities.</p> <p>The future scheme to incorporate special control areas that reflect the buffer areas of the Readymix and Boral hard rock quarries. The buffer areas should reflect the anticipated operations of the quarries for the outlook of the Foothills Rural Strategy (and possibly beyond).</p> <p>The restriction of sensitive uses from within the Special Control Area, unless a scientific study acceptable to the City and the relevant State Government authority can prove otherwise.</p> <p>The requirement for memorials to be placed on certificates of title where subdivision is proposed in the vicinity of a special control area.</p>
<b>Poultry Farms</b>	The future scheme should include poultry farms as a prohibited use.
<b>Aircraft Noise</b>	The future scheme to incorporate the ANEF noise contours and reflect the relevant State Government authority requirements in regard to aircraft noise.
<b>Public Drinking Water Supply Areas</b>	<p>The Foothills Rural Strategy to reflect the Public Drinking Water Supply Areas and the relevant State Government authority requirements in relation to land use, zoning, development and subdivision on or in the vicinity of Public Drinking Water Supply Areas.</p> <p>The future scheme to incorporate special control areas over Priority 1 and 2 Catchment Areas and to reflect the relevant State Government authority requirements in relation to land use, zoning, development and subdivision on or in the vicinity of Water Catchment Areas.</p>

<p><b>Rural-Residential</b></p>	<p><b>Rural and Rural-Residential Zones</b></p> <p>In line with SPP No. 11 Agricultural and Rural Land Use Planning, rural land intended to be used for rural lifestyle purposes should be renamed to Rural-Residential in the future scheme. This will ensure compatibility of terminology with SPP No. 11 Agricultural and Rural Land Use Planning and enable future scheme provisions to be imposed accordingly. The zoning will also be required to reflect the minimum lot sizes permitted in Part 4.0.</p> <p>Proposal:</p> <ol style="list-style-type: none"> <li>1) Rename rural land used for rural lifestyle purposes or zoned Special Rural to Rural-Residential.</li> <li>2) Land rezoned Rural-Residential within Rural Planning Precinct No. 1 should have a minimum lot size of 4.0 ha, in accordance with Part 4.0.</li> <li>3) Land rezoned to Rural-Residential within Rural Planning Precinct Nos. 2 and 3 should have a minimum lot size of 1.0 ha, in accordance with Part 4.0.</li> </ol>
<p><b>Planning Approval</b></p>	<p>To be required for all single dwellings and associated outbuildings within land zoned General Rural or Rural-Residential under the future scheme to permit a planning assessment of proposals.</p>

## **Glossary of Terms**

### ***Darling Escarpment***

The steeper slopes along the western extent of the Darling Plateau.

### ***Endemic vegetation***

Vegetation native to the local area.

### ***Landscape Character***

Landscape character refers to a combination of attributes that contribute to the unique identity of an area, and is closely linked to the attraction an area holds for residents and visitors. Attributes can include any aspect of the landscape relating to land form, vegetation, vistas, land use and other unique features.

### ***Land Degradation***

Land degradation has the same meaning given to the term in the Soil and Conservation Act 1945, as amended being land degradation includes:

- (a) Soil erosion, salinity, eutrophication and flooding; and
- (b) The removal or deterioration of natural or introduced vegetation, that may be detrimental to the present or future use of the land.

### ***Proposals***

Proposals include applications for land use, zoning, subdivision or development.

### ***Remnant Vegetation***

Remnant vegetation is endemic vegetation that has been retained.

### ***Reserved Areas***

Reserved areas include land under the Metropolitan Region Scheme including Parks and Recreation, Public Purposes and State Forest.

### ***Rural Planning Precinct***

Areas within the Study Area that have been selected on the basis of:

- Similar characteristics in terms of land use and settlement;
- Areas that have logical boundaries (eg roads);
- Areas that have a similar local or regional strategic imperative; and
- Are considered manageable for the purpose of precinct planning.

### ***Rural-Residential***

Land used for residential purposes in a rural setting which provides for alternative residential lifestyle and which seeks to preserve the amenity of such areas and control land use impacts.

***Sensitive Uses***

As per Statement of Planning Policy No. 4 State Industrial Buffer Policy, sensitive uses are identified as residential dwellings, major recreational areas, hospitals, schools and other institutional uses involving accommodation.

***Special Rural***

Special Rural has the same meaning as Rural-Residential.



## Appendix 1

Provisions for inclusion into TPS or LPP, or as further guidance.

<b>Objective 1</b>	<b>Protect, conserve and enhance the landscape character of the Precinct.</b>
<b>Provisions</b>	<p>1. To protect, conserve and enhance the landscape character of the Precinct, the imposition of the following conditions may be considered where relevant:</p> <ul style="list-style-type: none"> <li>i) general limitations on building height to two stories or a maximum wall height of 6 metres, whichever is the greater;</li> <li>ii) buildings to be located where practical, away from view corridors, ridge tops and focal points that maximise their visual impact;</li> <li>iii) buildings and structures to be located, where practical, to utilise screening vegetation or landforms in order to minimise off-site visual impacts.</li> <li>iv) building design, materials and colour scheme(s) to harmonise with the landscape character. Use of rustic, earth tone colour finishes is preferred;</li> <li>v) buildings and structures to be grouped together where possible and to be of similar and complementary form, design, colour and materials;</li> <li>vi) any proposed subdivisional roads or internal access driveways to follow land contours where practical, and to be constructed to a “rural” standard where practicable (ie unkerbed with gravel sidings). Road features, where practicable, should also harmonise with the landscape character in terms of colour and finish;</li> <li>vii) top soil from earthworks to be reused on site;</li> <li>viii) endemic species to be planted where possible;</li> <li>ix) clearing of endemic vegetation to be limited to envelopes and that necessary for the construction of roads, the installation of services and firebreaks.</li> <li>x) Remnant understorey and individual remnant trees should be retained.</li> <li>xi) Weeds to be removed and/or controlled.</li> </ul>

<b>Objective 2</b>	<b>Protect, conserve and enhance the natural environment in the Precinct.</b>
<b>Provisions</b>	<p>1. An envelope shall be identified for any proposed structures or activities, such as single dwellings, outbuildings, effluent disposal systems or agriculture, and shall be assessed on the following criteria:</p> <ul style="list-style-type: none"> <li>i) The envelope complies with the objectives of this Precinct; and</li> <li>ii) Buildings contained within the envelope comply with the setbacks prescribed in Town Planning Scheme No. 6.</li> </ul> <p>In the case of rural-residential proposals, envelopes shall be identified on the Subdivision Plan and be included within Schedule 11 of Town Planning Scheme No. 6 together with any relevant conditions, or in the case of existing development, identified as caveats on certificates of title. For all other land uses, envelopes shall be identified as caveats on certificates of title.</p> <p>2. The removal of endemic vegetation, including remnant understorey vegetation, shall only be permitted where required for envelopes and bush fire protection.</p> <p>3. A vegetation plan shall be provided as part of any proposal, which identifies the location and type of vegetation to be planted, to assess the suitability of the vegetation for the Precinct (principally to avoid weed infestation, maintain the habitat of native fauna and reduce bush fire risk).</p> <p>4. A landscape rehabilitation plan shall be provided as part of any proposal where a site is or may be subject to land degradation (such as the loss of soil condition) or lost biodiversity (such as the loss of remnant endemic vegetation or weed infestation).</p> <p>6. The City to provide owners and occupiers with the contact details of organisations that can assist them in the protection, enhancement and conservation of the natural environment on their property.</p>

<b>Objective 3</b>	<b>Protect watercourses and groundwater resources in the Precinct and adjoining state forest and water catchment areas.</b>
<b>Provisions</b>	<p>1. Ensure envelopes are located a minimum of 30 metres away from any watercourse, unless it can be demonstrated that development located in closer proximity would not result in any impacts to the watercourse or be affected by flooding;</p> <p>2. The City will assess any proposal within a Public Drinking Water Source Area in accordance with relevant provisions (and referred to the appropriate authority for comment if required).</p>

<b>Objective 4</b>	<b>To protect and manage rural land uses within the Precinct.</b>
<b>Provisions</b>	<ol style="list-style-type: none"> <li data-bbox="443 232 1332 360">1. A minimum lot size of 4.0 ha shall be permitted for any subdivision proposal, and only supported on the basis that the proposal accords with the objectives, strategies and provisions of this Precinct, where relevant.</li> <li data-bbox="443 367 1332 600">2. Rezoning of the subject site to “Special Rural” should precede any application for rural-residential type subdivision. The rezoning proposal should demonstrate the resulting subdivision would accord with the objectives, strategies and provisions of this Precinct. The Subdivision Plan and any relevant provisions should also be included within Schedule 11 of Town Planning Scheme No. 6.</li> <li data-bbox="443 607 1332 734">3. Proposals to be supported by a site-specific land capability/suitability assessment. The assessment should demonstrate how constraints and land management requirements would be satisfactorily addressed.</li> <li data-bbox="443 741 1332 824">4. Require proposals to demonstrate the nature and extent of site impacts and how they will be ameliorated and managed to satisfy the objectives of this Precinct.</li> <li data-bbox="443 831 1332 965">5. The envelopes containing sensitive uses will not be supported within nominated or recommended buffer areas unless it can be demonstrated that there would not be any adverse impacts on the proposal.</li> <li data-bbox="443 972 1332 1070">6. Consider land management issues in the context of the proposed agricultural activity to ensure the capability of the land is not degraded and apply appropriate planning conditions if required.</li> <li data-bbox="443 1077 1332 1133">7. Consider impact on any Aboriginal Sites in the Precinct, and undertake referrals to relevant authorities where required.</li> </ol>

<b>Objective 5</b>	<b>Maintain an adequate level of bush fire protection.</b>
Provisions	<ol style="list-style-type: none"> <li>1. All proposals will be required to address bush fire protection, and may be required to implement the following depending on the intensity and form of development:               <ol style="list-style-type: none"> <li>i) Fire protection plans depicting appropriate fire control measures such as water supply, hydrants, tanks, wind breaks, fire breaks, fuel reduction areas etc;</li> <li>ii) Appropriate mechanisms to ensure ongoing implementation of fire protection measures, and require fire-safe building and development standards to Australian Standard 3959 for building in high fire risk areas;</li> <li>iii) For proposals to comply with performance criteria and minimum performance criteria and minimum performance standards detailed in the document Planning for Bush Fire Protection.</li> </ol> </li> <li>2. Make provision for the use of strategic fire breaks in lieu of perimeter firebreaks in topography, environmentally and visually sensitive areas.</li> <li>3. Provision for fire sensitive building design and property management guidelines to all owners and occupiers within the Precinct.</li> <li>4. Maintain a minimum lot size of 4.0 ha in Rural Planning Precinct No. 1.</li> <li>5. Require that available fuel levels to be below eight tonnes per hectare before any new subdivision applications are cleared.</li> <li>6. Ensure that local roads are designed to contribute to the system of strategic bush fire breaks in the area.</li> </ol>