

# SHIRE OF MANJIMUP

## LOCAL PLANNING STRATEGY

Endorsed by the Western Australia Planning Commission  
August 2003

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## CONTENTS

<b>1.0 INTRODUCTION .....</b>	<b>7</b>
1.1 Background and Scheme Area .....	9
<b>2.0 STATE AND REGIONAL PLANNING CONTEXT .....</b>	<b>11</b>
2.1 State Planning Strategy .....	11
2.2 State Planning Framework .....	11
2.3 Warren Blackwood Regional Planning Strategy .....	14
2.5 Statement of Planning Policy No. 11 .....	15
2.6 Natural Resource Management Initiatives .....	15
2.6.1 State Salinity Strategy .....	15
2.6.2 South West Regional Strategy for Natural Resource Management .....	16
<b>3.0 LOCAL GOVERNMENT PLANNING CONTEXT .....</b>	<b>17</b>
3.1 Town Planning Scheme 2 .....	17
3.2 Local Rural Strategy .....	17
3.3 Shire of Manjimup Town Planning Scheme 3 .....	18
3.4 Vision Statement and Objectives .....	18
3.5 Public Consultation Process .....	19
<b>4.0 SHIRE PROFILE AND RURAL STRATEGY UPDATE .....</b>	<b>21</b>
4.1 Agricultural Use of Rural Land .....	21
4.1.1 Value to the Economy .....	21
4.1.2 Land Use Overview .....	23
4.1.2.1 Grazing .....	23
4.1.2.2 Horticulture .....	23
4.1.2.3 Intensive Animal Industries .....	23
4.1.2.4 Aquaculture .....	24
4.1.3 Future Outlook for Agriculture .....	24
4.1.4 Planning Implications .....	25
4.1.4.1 Protecting Existing Horticultural Areas .....	25
4.1.4.2 Encouraging Diversity .....	25
4.1.4.3 Future Sustainable Horticultural Development .....	25
4.2.1 Background .....	26
4.2.2 Value of the Private Forestry Industry .....	26
4.2.3 Associated Activity or Facilities with the Shire's Rural Areas .....	26
4.2.3.1 Sawmills .....	26
4.2.3.2 Old Mill Settlements .....	27
4.2.3.3 Tree Plantations .....	27
4.2.4 Planning Implications .....	28
4.2.4.1 Use of Former Sawmill Sites .....	28
4.2.4.2 Application of Buffers or Setbacks .....	28
4.2.4.3 Tree Plantation Policy .....	28
4.3 Land Resources and Capability .....	28
4.3.1 Climate .....	28

4.3.1.1	Summary of Conditions .....	28
4.3.1.2	Climate Change .....	29
4.3.2	Vegetation .....	29
4.3.2.1	Original Native Vegetation.....	29
4.3.2.2	Vegetation on Public Lands.....	29
4.3.2.3	Vegetation on Private Land .....	31
4.3.2.4	Clearing Restrictions .....	31
4.3.2.5	Planning Implications .....	31
4.3.3	Landform and Soils .....	31
4.3.3.1	Overview.....	31
4.3.3.2	Soil-Landscape Mapping.....	32
4.3.4	Land Capability .....	38
4.3.4.1	General Principles .....	38
4.3.4.2	Land Uses .....	38
4.3.4.3	Classification Method .....	38
4.3.4.4	Assessment Results.....	39
4.3.5	Planning Implications .....	39
4.3.5.1	Climate Change.....	39
4.3.5.2	Visual Character.....	39
4.3.5.3	Vegetation Protection and Enhancement.....	39
4.3.5.4	Using Soil-Landscape Mapping and Capability Information for Planning .....	40
4.3.5.5	Land Degradation and Land Management.....	40
<b>4.4</b>	<b>Water Resources .....</b>	<b>41</b>
4.4.1	Surface Water .....	41
4.4.1.1	Overview.....	41
4.4.1.2	Summary of Water Resources Audit.....	42
4.4.1.3	Water Resource Protection and Controls.....	45
4.4.1.4	Water Law Reform.....	45
4.4.2	Groundwater .....	47
4.4.2.1	Darling Plateau .....	47
4.4.2.2	Scott Coastal Plain .....	47
4.4.2.3	Controls on Use.....	47
4.4.3	Wetlands .....	48
4.4.4	Planning Implications .....	51
4.4.4.1	Allocation of Water for Agricultural Uses.....	51
4.4.4.2	Land Use Controls to Protect Public Drinking Water .....	51
4.4.4.3	Future Demands for Water From Outside the Shire .....	51
4.4.4.4	Protection of Wetlands and Waterways .....	52
<b>4.5</b>	<b>Areas of Agricultural Significance .....</b>	<b>53</b>
4.5.1	Background.....	53
4.5.2	The Process of Defining Areas .....	53
4.5.3	The Results .....	56
4.5.4	Special Control Areas .....	56
<b>4.6</b>	<b>Population Profile.....</b>	<b>56</b>
4.6.1	Population .....	57
4.6.2	Size of Settlements .....	58
4.6.2.1	Manjimup.....	58
4.6.2.2	Pemberton .....	59
4.6.2.3	Northcliffe .....	59
4.6.2.4	Walpole.....	59
4.6.3	Economy .....	60
4.6.3.1	Forestry .....	60
4.6.3.2	Agricultural Production .....	60
4.6.3.3	Mineral Production.....	61
4.6.3.4	Labour .....	61
4.6.3.5	Buildings Approvals.....	61
4.6.3.6	Tourism.....	61
<b>4.7</b>	<b>Regional Infrastructure.....</b>	<b>61</b>

4.7.1	General .....	61
4.7.2	Sewerage .....	62
4.7.3	Telecommunications .....	62
4.7.4	Power .....	62
4.7.5	Water Supply.....	63
4.7.6	Transport.....	63
4.7.6.1	Road Infrastructure.....	63
4.7.6.2	Rail Transport .....	67
4.7.6.3	Air Services .....	67
4.7.6.4	Strategic Transport Considerations For The Future.....	67
4.7.7	Waste Disposal .....	68
<b>5.0</b>	<b>TOWNSITE AND ENVIRONS.....</b>	<b>69</b>
<b>5.1</b>	<b>MANJIMUP .....</b>	<b>69</b>
5.1.1	Historical Background .....	69
5.1.2	Infrastructure .....	70
5.1.2.1	Water Supply .....	70
5.1.2.2	Sewer .....	70
5.1.2.3	Power .....	71
5.1.2.4	Communications.....	71
5.1.2.5	Roads .....	72
5.1.2.6	Railway .....	72
5.1.2.7	Drainage .....	72
5.1.2.8	Engineering Considerations for Townsite Expansion.....	73
5.1.3	Community Infrastructure.....	73
5.1.4	Summary of Land Use and Environmental Planning Considerations -Manjimup Townsite .....	74
5.1.5	Land Requirements.....	78
5.1.5.1	Residential.....	78
5.1.5.2	Town Centre / Commercial.....	78
5.1.5.3	Industry.....	79
5.1.5.4	Special Rural / Special Residential .....	80
<b>5.2</b>	<b>PEMBERTON .....</b>	<b>81</b>
5.2.1	Historical Background .....	81
5.2.2	Infrastructure .....	82
5.2.2.1	Water .....	82
5.2.2.2	Sewer .....	82
5.2.2.3	Power .....	83
5.2.2.4	Communications.....	83
5.2.2.5	Roads .....	83
5.2.2.6	Railways .....	83
5.2.2.7	Drainage .....	84
5.2.3	Community Infrastructure.....	84
5.2.4	Summary of land use and environmental planning considerations - Pemberton .....	85
5.2.5	Land Requirements.....	86
5.2.5.1	Residential.....	86
5.2.5.2	Town Centre / Commercial.....	89
5.2.5.3	Industrial .....	89
5.2.5.4	Special Rural .....	90
<b>5.3</b>	<b>NORTHCLIFFE .....</b>	<b>90</b>
5.3.1	Historical Background .....	90
5.3.2	Infrastructure .....	91
5.3.2.1	Water .....	91
5.3.2.2	Sewer .....	92
5.3.2.3	Power .....	92
5.3.2.4	Communications.....	92
5.3.2.5	Roads .....	92
5.3.2.6	Railways .....	92
5.3.2.7	Drainage .....	93



5.3.3	Community Infrastructure.....	93
5.3.4	Summary of Land Use and Environmental Planning Considerations -Northcliffe Townsite.....	93
5.3.5	Land Requirements.....	95
5.3.5.1	Residential.....	95
5.3.5.2	Town Centre / Commercial.....	95
5.3.5.3	Industrial.....	95
5.3.5.4	Special Rural.....	96
5.3.5.5	Roman Catholic Church Land.....	96
<b>5.4</b>	<b>WALPOLE.....</b>	<b>96</b>
5.4.1	Historical Background.....	96
5.4.2	Infrastructure.....	98
5.4.2.1	Water.....	98
5.4.2.2	Sewer.....	98
5.4.2.3	Power.....	99
5.4.2.4	Communications.....	99
5.4.2.5	Roads.....	99
5.4.2.6	Drainage.....	99
5.4.3	Community Infrastructure.....	99
5.4.4	Summary of Land Use and Environmental Planning Considerations -Walpole Townsite.....	100
5.4.5	Land Requirements.....	102
5.4.5.1	Residential.....	102
5.4.5.2	Town Centre / Commercial.....	103
5.4.5.3	Industrial.....	103
5.4.5.4	Special Rural / Rural Residential.....	103
5.4.6	Walpole Wilderness Area.....	104
<b>5.5</b>	<b>OTHER SETTLEMENTS.....</b>	<b>104</b>
5.5.1	Deanmill.....	104
5.5.2	Windy Harbour.....	104
5.5.3	Quinninup.....	106
5.5.4	Palgarup.....	106
5.5.5	Broke inlet.....	106
5.5.6	Other.....	106
<b>6.0</b>	<b>STRATEGIC PLANS.....</b>	<b>108</b>
<b>6.1</b>	<b>MANJIMUP.....</b>	<b>108</b>
6.1.1	Opportunities and Constraints.....	108
6.1.2	Future Concept Plan for Manjimup.....	108
6.1.3	Preferred Land Uses (Generalised).....	108
6.1.3	Other Preferred Uses.....	113
<b>6.2</b>	<b>PEMBERTON.....</b>	<b>115</b>
6.2.1	Opportunities and Constraints.....	115
6.2.2	Future Concept Plan for Pemberton.....	119
6.2.3	Preferred Land Uses (Generalised).....	119
6.2.4	Other Preferred Uses.....	124
<b>6.3</b>	<b>NORTHCLIFFE.....</b>	<b>124</b>
6.3.1	Opportunities and Constraints.....	124
6.3.2	Future Concept Plan for Northcliffe.....	125
6.3.3	Preferred Land Uses (Generalised).....	126
6.3.4	Areas to be Further Investigated.....	131
<b>6.4</b>	<b>WALPOLE.....</b>	<b>131</b>
6.4.1	Opportunities and Constraints.....	131
6.4.2	Future Concept Plan for Walpole.....	132
6.4.3	Preferred Land Uses (Generalised).....	132
<b>6.5</b>	<b>RURAL SETTLEMENTS.....</b>	<b>138</b>

6.5.1	Windy Harbour .....	140
6.5.3	Deanmill .....	141
6.5.4	Palgarup .....	142
6.5.6	Broke Inlet - Reserve 19787 .....	142
6.5.7	Rural Tourism.....	143
<b>6.6</b>	<b>PROPOSED RESERVES, ZONES AND PRECINCTS .....</b>	<b>146</b>
6.6.1	Reserves .....	146
6.6.2	Zones .....	146
6.6.3	Zones in the Rural Area .....	147
6.6.3.1	Priority Agriculture .....	147
6.6.3.2	General Agriculture Purpose .....	147
6.6.3.3	Rural - Residential Purpose .....	148
6.6.3.4	Rural Smallholdings Purpose .....	148
6.6.3.5	Rural Conservation Purpose .....	148
6.6.3.6	Cluster Farm.....	149
6.6.4	Planning Precincts in the Rural Area .....	149
6.6.5	Rural Subdivision .....	149
6.6.5.1	Priority Agriculture and General Agriculture.....	149
6.6.5.2	Agricultural Trade Lots .....	150
6.6.5.3	Farm Restructuring.....	150
6.6.6	Additional Requirements .....	167
6.6.6.1	To achieve better integration of local government planning and natural resource management .....	167
6.6.6.2	Aboriginal Heritage.....	167
<b>7.0</b>	<b>POLICY DIRECTIONS.....</b>	<b>168</b>
<b>8.0</b>	<b>IMPLEMENTATION MONITORING AND REVIEW.....</b>	<b>170</b>
<b>9.0</b>	<b>DEFINITIONS .....</b>	<b>171</b>

## FIGURES

Figure 1: Location .....	12
Figure 2: Shire Map.....	13
Figure 3: Vegetation, Rainfall and Evaporation .....	30
Figure 4: Major Geomorphic units of the South West of Western Australia .....	33
Figure 5: Soil-Landscape Systems of the Shire of Manjimup .....	37
Figure 6: Drainage Basins and Natural Resource Zones .....	44
Figure 7: Shire of Manjimup – Gazetted Water Reserves and PDWSA's* .....	46
Figure 8: Regional Groundwater Geology .....	49
Figure 9: Important Wetlands, Rivers and Estuaries .....	50
Figure 10: Agricultural Priority Management Areas for the Shire of Manjimup.....	55
Figure 11: Manjimup Townsite – Land use and Environmental Considerations.....	77
Figure 12: Pemberton Townsite – Land Use and Environmental Considerations .....	88
Figure 13: Northcliffe Townsite – Land use and Environmental Considerations .....	97
Figure 14: Walpole Townsite – Land Use and Environmental Considerations.....	105
Figure 14a: Broke Inlet.....	107
Figure 15: Local Planning Strategy - Manjimup .....	109
Figure 16: Local Planning Strategy Manjimup Town Centre .....	110
Figure 17: Planning Precincts Manjimup Town Centre.....	111
Figure 18: Local Planning Strategy – Pemberton Townsite.....	116
Figure 19: Local Planning Strategy Pemberton Town Centre .....	116
Figure 20: Planning Precincts Pemberton Town Centre .....	117
Figure 21: Special Control Area Boundary .....	118
Figure 22: Local Planning Strategy Northcliffe Townsite .....	127
Figure 23: Local Planning Strategy Northcliffe Town Centre.....	128
Figure 24: Local Planning Strategy – Walpole Townsite .....	134
Figure 25: Local Planning Strategy Walpole Town Centre .....	135

Figure 26: Special control Area Boundary .....	136
Figure 27: Rural Planning Precincts and Generalised Land Use Categories.....	166

## TABLES

Table 1: Recent Key Events Affecting Agriculture In Manjimup .....	21
Table 2: Agricultural Statistics - Manjimup (1996-97) .....	21
Table 3: Comparative Value of Agricultural Production (1996/97).....	22
Table 4: DEP Recommended Buffer Distances* .....	24
Table 5: Hierarchy of Soil-Landscape Mapping .....	34
Table 6: Soil-Landscape Systems within the Shire of Manjimup .....	35
Table 7: Areas Particularly Susceptible to Land Degradation .....	41
Table 8: Census Count and Population Projection .....	60
Table 9: Summary of Land Use and Environmental Planning Considerations – Manjimup Townsite.....	74
Table 10: Summary of land use and environmental planning considerations –Pemberton .....	85
Table 11: Summary of Land Use and Environmental Planning Considerations -Northcliffe Townsite .....	93
Table 12: Summary of Land Use and Environmental Planning Considerations -Walpole Townsite .....	100
Table 13: Rural Tourism Uses in the Priority and General Agriculture Zones.....	144

## 1.0 INTRODUCTION

This Local Planning Strategy (LPS) has been prepared to support a new Town Planning Scheme for the municipality in accordance with Regulation 12A of the Town Planning and Development Act, 1928. The LPS is consistent with the Model Scheme Text requirements replacing the previous "Scheme Report" and provides the background context and justification for the proposed new Town Planning Scheme No. 4 (TPS 4).

TPS 4 will replace extant TPS 2, which has been operating since September 1987. In 1992, Council commenced preparation of a new Town Planning Scheme (TPS 3), however, due to a number of issues - including the long delay in finalising that proposed Scheme, the implications of the Regional Forests Agreement (and subsequent Ferguson Report) and changes to the legislative requirements for a new Scheme - Council resolved to abandon TPS 3 and undertake instead the preparation of a new Scheme (TPS 4) for the Shire. Relevant data from the now defunct TPS 3 have been incorporated into this LPS where appropriate.

### Why we plan

Long term planning is essential to allow for the sustainable use, development and management of lands within of the Shire of Manjimup.

In his book, "Expectations of a Better World - Planning Australian Communities", Bruce Wright states that:

*"Planning has brought us the concepts of reserving public open space in our towns and cities; of setting aside areas for factories separate from homes; of ensuring space for shopping centres and other community facilities close to residential areas; of demanding that developers provide basic services like roads, sewerage and water; of bringing employment centres to the suburbs, and ensuring adequate transport links between workplace, home, and places of recreation; of shaping urban development to ensure minimum environmental impact and maximum accessibility. And, through restricting what owners and neighbours may do on particular parcels of land, it has brought a measure of stability and predictability to the ongoing quality of neighbourhoods, and so land values.*

*It shapes our lives."*

In rural areas planning must also reflect the value of agriculture and rural land generally. In the draft *Statement of Planning Policy No. 11 (SPP 11) "Agricultural and Rural Land Use Planning"*, released jointly by the Western Australian Planning Commission (WAPC) and Agriculture Western Australia (AWA) in October 1999, the following is stated:

*"The Western Australian Government considers that productive agricultural land is a finite national and State resource that must be conserved and managed for the longer term.*

*As a general objective the exercise of planning powers should be used to protect such land from those developments, activities or influences that lead to its alienation or diminished productivity, while always accepting the need for land for expanding urban area and other uses of State significance."*

The SPP 11 was adopted in February 2002.

Forward planning for the Shire is therefore necessary to make the best use of available land, infrastructure and resources by:

- designating where the community's residents and visitors live, work and recreate;
- providing for facilities in appropriate locations for such requirements as schools, hospitals, and parks;
- ensuring there is a supply of land for all the needs of a community including housing, shopping, industry and recreation areas;
- balancing the social and economic needs of the community with the need to create and maintain environmentally sustainable development; and
- providing appropriate opportunities for rural diversification while protecting core areas of existing high productivity.

### How we plan

We plan at a strategic level - which is undertaken by the State government but also involves local governments and communities. This has resulted in the "State Planning Strategy" and the "Warren-Blackwood Regional Planning Strategy", both of which have direct relevance to this municipality.

We plan at a local level - where the local government is responsible for preparing and administering Town Planning Schemes, which incorporate strategic requirements and reflect the local community's vision.

#### Have we planned?

TPS 2 was gazetted in September 1987, Members of the community have mixed views on the effectiveness of the current Scheme and these have been expressed over the years at workshops through responses to proposed changes to that Scheme and by direct input to the Council.

It is generally agreed that the Shire has been subjected to significant impacts and social upheavals in recent years (eg. the Regional Forests Agreement, and subsequent Ferguson Report) and the existing Scheme no longer provides the necessary direction to manage the "fall out" of these events appropriately. Furthermore, TPS 2 now contains over 100 amendments and numerous inconsistencies, errors and contradictions that have long been recognised.

#### What is now required

Preparing a new Town Planning Scheme now requires the Shire to work with its community to develop a Local Planning Strategy (LPS) then to use the LPS as a basis for the proposed new TPS 4.

The LPS includes the local community's vision for the municipality and how this will be reflected in longer-term directions for land use and development, anticipating positive growth and change. It will determine the preferred pattern of rural land use and settlement having regard to the most appropriate future for agriculture, the growth of urban areas and other forms of habitation including rural-residential and rural smallholding areas.

Furthermore, the LPS should be consulted when questions of background data about the Shire emerge in relation to the future Scheme Text and Maps. It may also be useful during the planning approval process to provide the background reasoning for decisions.

The LPS will form part of the new Town Planning Scheme and will look ahead 10 -15 years, whereas the Scheme Text and Maps themselves operate over a 5 year timescale. The LPS will assist the public's understanding of:

- how State and regional policies apply to the subject municipality; and
- the planning rationale(s) for the zones, reservations and statutory provisions contained in the Town Planning Scheme.

### **1.1 Background and Scheme Area**

The entire municipality of the Shire of Manjimup is the subject of this LPS. The Shire has an area of 7,027km<sup>2</sup> and is the largest municipality within the south west region. It is not, however, anywhere near being the most populated. The townsites and privately owned rural land holdings comprise only 15% of the Shire area with a resident population of 10,030. (ABS 2001 Census of Population and Housing - first release processing).

The northern boundary of the Shire is about 300 km south of Perth via the South West Hwy, and the Frankland River / Southern Ocean forms the southern boundary of the Shire. It is bordered by the similarly rural-based municipalities of BridgetownGreenbushes, Boyup Brook, Cranbrook, Plantagenet, Denmark and Nannup, indicating the relatively large area covered by the Shire.

Manjimup townsite has developed into an important regional centre providing a wide range of services and facilities and is ideally located as the hub of the region. Walpole, Pemberton and Northcliffe are much smaller communities that service timber, tourism and agricultural activities and provide access to the forests and coastal environs. Other smaller settlements within the municipality are Deanmill, Jardee, Quinninup, Palgarup and Windy Harbour.

Historically, Manjimup's economy has been dominated by the timber and agricultural industries, including some horticulture and limited tourism. In recent years, the native timber-based industry has been subjected to significant change and is being curtailed, with a greater emphasis now being placed on value-adding and tree plantation timber.

The Shire community is working hard to meet the challenges of adapting to the changes resulting from the cessation of logging in old growth forests (and compliance with the Regional Forests Agreement).

A more diverse horticultural industry - including the thriving viticultural industry - and tourism activity is providing a promising foundation for the future economic base of the community.

It is essential that planning for the area provides a secure environment for investment and development to overcome any adverse impacts from the changes to the timber industry. History shows that this community has been able to adapt to change (in agriculture, for example) over a long period.

Maintaining a balance between positive economic development and preservation of the unique natural environment is the challenge presented to the community that can be assisted through an appropriate and flexible Town Planning Scheme. A thriving future is possible if the community accepts the present challenges as opportunities to turn to its long-term advantage.

## 2.0 STATE AND REGIONAL PLANNING CONTEXT

### 2.1 State Planning Strategy

The "State Planning Strategy" (SPS) was prepared in 1996 and provides an overall government framework for the co-ordination and management of regional planning and development. It contains a number of scenarios for the State's development based on certain predicted levels of regional economic growth.

The SPS recognises that a pattern of growth (called the *South West Urban System*) will be the major focus for growth in the foreseeable future and that there is a national trend for migration towards the coastal areas and away from inland towns. In general terms this could be expected to limit demand for population growth in Manjimup in favour of coastal locations. However, it can equally be suggested that, as Manjimup is in relatively close proximity to this system area, the build-up of population growth along the coastal strip will ultimately have a spill over affect into the Shire. As the population expands along the coastal area, people's attention will begin to turn towards the immediate hinterland and, as this trend becomes established, the overall rates of population growth may increase.

Within the proposed *South West Urban System*, the Manjimup townsite is identified as being within the "direction of growth" as a settlement between 5,000 -10,000 people, as too Pemberton, with 2,000 - 5,000 people. Most of the agricultural land north of Pemberton is within an Agricultural Management Priority Area.

The SPS proposes the following measures for the South West region:

- Focus on environmental and economic management;
- Provide a range of residential lifestyles, tourist experiences and economic opportunities;
- Develop intensive agriculture, resource development and downstream processing industries;
- Protect coastal, riparian, heritage and natural environments;
- Develop an integrated infra-regional and inter-regional transport system.

In addition, the SPS requires that land is identified in each town for future development in Local Planning Strategies and there is to be the provision of social and service infrastructure sufficient to support a range of lifestyles in smaller regional towns. Such infrastructure should be consistent with the demographic profile of the municipality.

The LPS has been prepared within the framework established through the SPS.

### 2.2 State Planning Framework

The "State Planning Framework" is a *Statement of Planning Policy (No.8)*, which applies to all land within Western Australia. It is an amalgamation of all planning policies, strategies and guidelines that provide direction on the form and methods of growth and development throughout the State.

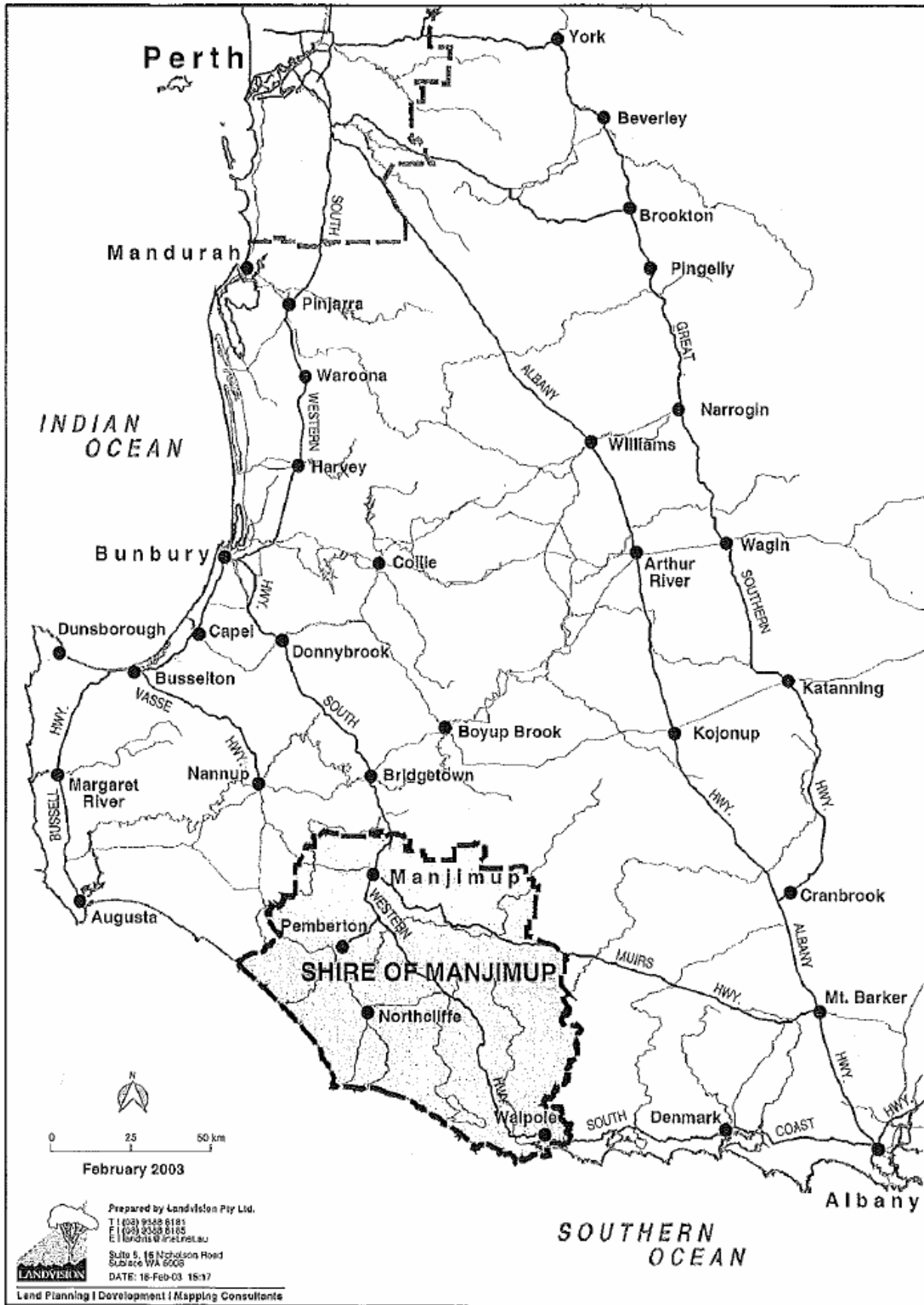
A number of strategic policies apply to, and influence, the municipality including the;

- *Agricultural and Rural Land Use Planning Policy* (SPP No. 11);
- *Basic Raw Materials Policy*;
- *State Coastal Planning Policy* (Draft SPP);
- *Environment and Natural Resources Policy* (Draft SPP);
- *Public Drinking Water Source Policy* (Draft SPP); and the
- *Liveable Neighbourhoods - Community Design Code*.

Operational policies within the Framework are also relevant, such as the general policies on subdivision and development relating to specific uses for commercial, industrial, residential, open space etc. These policies address siting, development and management issues of particular relevance to this rural and substantially forested area - for example, bushfire protection, hazard and safety reduction, land use buffers, [and capability and tree plantations.

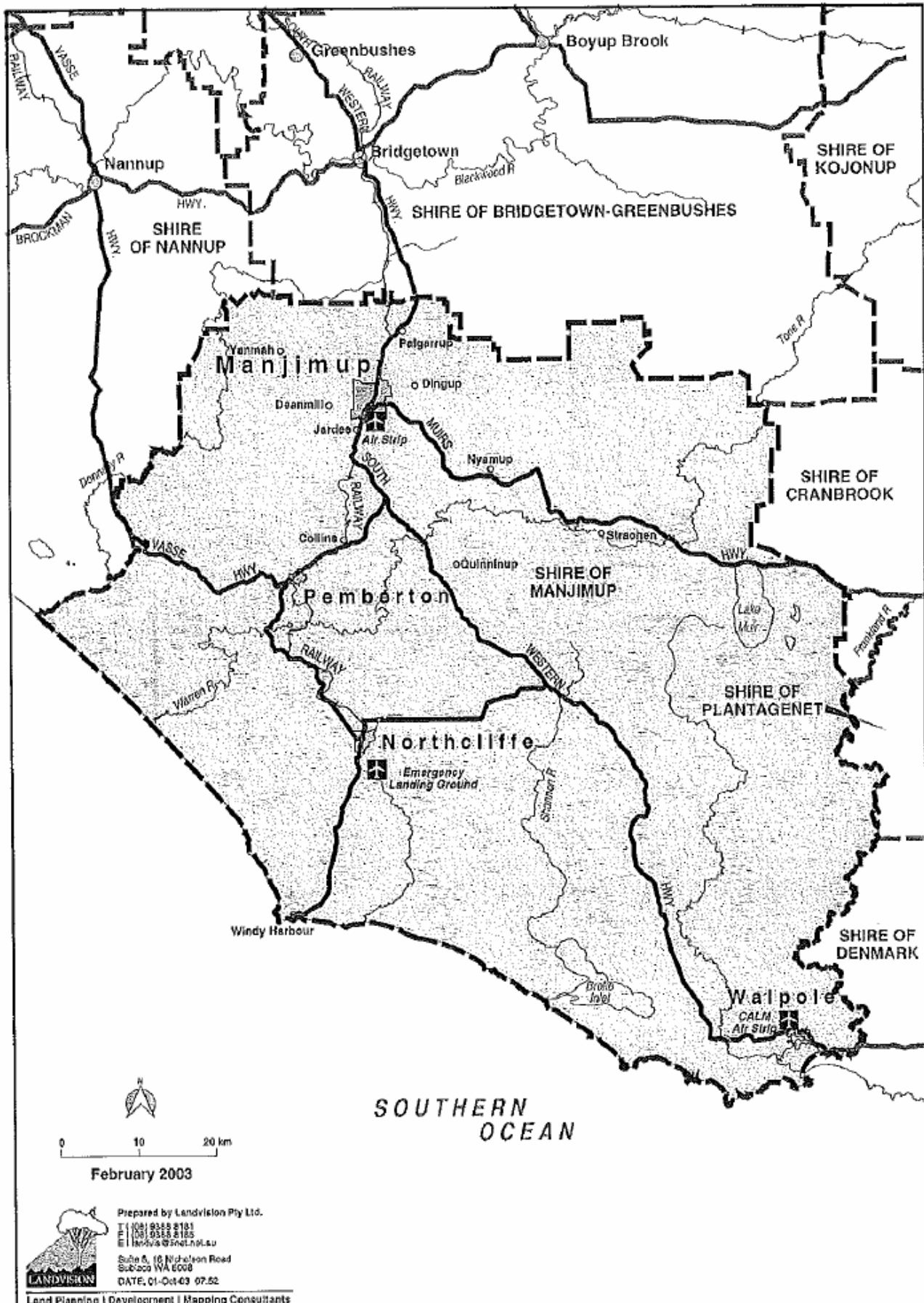
The State Planning Framework provides for a local government to incorporate any provisions of that Framework by reference into a local Scheme, with the consent of the Minister, so that the selected provisions have the force of the law under that Scheme.

**Figure 1: Location**





**Figure 2: Shire Map**



## 2.3 Warren Blackwood Regional Planning Strategy

In 1997 the Western Australian Planning Commission (WAPC) finalised the *Warren -Blackwood Region Plan*. This Plan covers the Shires of Manjimup, Bridgetown - Greenbushes, Boyup Brook and Nannup.

The purpose of this regional planning strategy is to protect and promote opportunities for future economic development, in conjunction with providing for residents' needs while at the same time preserving the natural environment and unique character of the region. This requires a careful balancing of all the economic, social and environmental aspects for the benefit of both current and future communities.

The proposed vision of the Warren Blackwood Regional Planning Strategy is:

*"To protect and enhance the special identity of the Warren - Blackwood region. Future growth and development in the region should be encouraged where it would contribute to reinforcing and diversifying the region's economic base and social well being of its community and should be appropriately balanced with maintaining the unique environmental, cultural and visual landscape characteristics of the region and the lifestyles of the people living there".*

The main issues that were identified in the study are:

- Protection and retention of the distinctive identity and landscape character of the region;
- Protection of the productive capacity of high quality rural land;
- Integration of tree plantations and agroforestry into rural areas;
- Maintaining the quality of the environment for future generations;
- Maintaining the quality of water and maximising the potential of the resource;
- Ensuring adequate land for urban development with full servicing and infrastructure availability;
- Maintaining the range and diversity of employment opportunities;
- Determining an appropriate level of development, access and usage of the south coast compatible with the retention of the area's wilderness values;
- Accommodating and promoting a range of tourist development opportunities;
- Developing a transport system to service the special needs of the region;
- Focussing on Manjimup as the principal regional centre;
- Consolidating town centres and promote townscape improvements;
- Identifying and designating areas for rural-residential and other non-agricultural uses;
- Ensure industry needs are accommodated within or adjacent to urban areas or adjacent to downstream estates.

The regional plan identifies a significant number of actions, most of which Council has generally agreed with. It was noted, however, that there were a number of recommendations that Council did *not* specifically agree with in all instances because:

1. Incorporation of general principles (eg. land care) into a legal document means that they are legally binding upon the community and that Council, as the responsible authority, would be liable for enforcing those principles.
2. In many cases there are other agencies that already have a direct responsibility for such issues under different Acts than are generally referenced by the Town Planning Scheme.
3. Many of the general principles within the Region Plan should be implemented by way of education and encouragement rather than regulation.

A significant number of the other recommendations within the Region Plan are not directly applicable to the Town Planning Scheme. However, they *do* relate to the overall proper and orderly development of the Shire and therefore have important strategic implications. When such strategic implications are clarified and resolved (eg development along the south coast) it may well be practical to then regulate these through controls within the Town Planning Scheme.

## 2.4 Warren Blackwood Rural Strategy

The Warren-Blackwood Rural Strategy (WBRS) has been prepared by the Department for Planning and Infrastructure (DPI) in partnership with the four local governments in the region and key government agencies. Final adoption of the WBRS will facilitate part of the implementation of the Warren-Blackwood Regional Planning

## Strategy.

The WBRS will provide the basis for rural land use planning, management and decision-making across the region and will form the basis for the rural component of Local Planning Strategies.

The key objectives of the regional rural strategy and the four local planning strategies are:

- Address the socio-economic impacts of rural land use change in the region;
- Identify and protect the productive capacity of agricultural land;
- Translate natural resource management principles and objectives into the planning process;
- Align the planning process with other land care initiatives - such as the State Salinity Strategy, South West Catchments Council, Blackwood Basin Group and local land care groups;
- Address the key land degradation issues facing the region;
- Protect the land, water and biodiversity resource values of the region;
- Implement sustainable land management processes that are economically efficient and environmentally effective;
- Facilitate diversification and sustainable intensification of agricultural production;
- Establish provisions for subdivision and development control;
- Allow for the accommodation of non-agricultural land uses, such as rural-residential settlement and tourism, in rural areas;
- Protect the special landscape and cultural character of the region.
- The LPS and the WBRS are being prepared concurrently and should be complementary, even though the LPS may be released for comment and eventually finalised first. Any changes required to the LPS as a result of finalising the WBRS will be implemented when appropriate.

## 2.5 Statement of Planning Policy No. 11

The State Government has recently released a "Statement of Planning Policy No. 11" (SPP 11), which applies to rural and agricultural land in the State. This Policy is guided by the following fundamental principles:

- The State's priority agricultural land resource should be protected;
- Rural settlement opportunities should be provided if sustainable and of benefit to the community;
- The potential for land use conflict should be minimised;
- The State's natural resources should be carefully managed.

The provisions of the Policy must be applied to the LPS and the affiliated TPS, which must also incorporate the identification of "Priority Agriculture" areas and other rural land uses and activities, including rural-residential areas.

"Priority Agriculture" areas, once identified, must be zoned as such in the TPS -having been refined from Agricultural Priority Management Areas shown in SPP 11 and discussed later in this report (see [Figure 10](#) and Section 4.5).

## 2.6 Natural Resource Management Initiatives

### 2.6.1 State Salinity Strategy

Salinity is perceived as the greatest environmental threat facing Western Australia. The "State Salinity Strategy" (2000) sets out a programme to manage salinity and outlines the management options and tools that are available to landholders across the south west agricultural zone. It highlights the need for urgent and large-scale intervention on the hydrological system if the Strategy's goals are to be achieved.

The salinity strategy identifies land use planning, and specifically integrated planning at a catchment level, as an important component of salinity management. The salinity strategy requires the WAPC to promote measures to address salinity through its regional planning strategies and planning schemes.

In setting priorities for government and community action on salinity the 1996 "Salinity Action Plan" designated various 'recovery catchments' where the need to protect high value public and private assets (such as water resources, natural diversity, towns and roads) justifies targeting resources and implementing more intensive management systems. Within the Shire of Manjimup these include the Warren River (which is a designated 'water resource recovery catchment' where the target is for potable water to be returned at sites suitable for future dams by 2030) and the Lake Muir-Unicup wetland system, which is a designated 'natural diversity

recovery catchment'.

## 2.6.2 South West Regional Strategy for Natural Resource Management

The development of a Regional Strategy and Action Plan for the South West is a joint initiative of the Departments of Agriculture, Conservation and Land Management and Environment, Water and Catchment Protection. It seeks to build on existing catchment and sub-regional strategies and provide a basis for funding decisions and guidelines to the planning and management of natural resources in the South West.

A series of technical reports, produced under the auspices of the South West Catchments Council (SWCC), are to be released in the near future and will contribute to an understanding of the values, state and pressures associated with natural resource management (NRM) in the South West.

In the SWCC's technical reports, the "Regional NRM Strategy" is defined as a statement by the stakeholders of the South West that considers what the Region's future will be (vision) and how, through more effective natural resources management, it will be achieved (strategies). As such, the Regional NRM Strategy has many parallels with the objectives of various planning initiatives. These include the Warren-Blackwood Regional Planning Strategy, the Warren Blackwood Rural Strategy, and at a more local level, this Local Planning Strategy for the Shire of Manjimup.

In developing the Regional NRM Strategy it has been recognised that early attempts to deal with natural resource issues in the Region centred around technocratic approaches planned and implemented by State and local agencies (*WRC et al 1997*). Furthermore, it was recognised that involvement of other stakeholders, including community groups and industry, was crucial to understanding the fundamental causes of environmental degradation and to determining and implementing solutions. This applies equally to natural resource management and to the land use planning process.

Community-based groups involved in natural resource management and hence with potential, if not current, involvement in local land use planning processes within the Shire of Manjimup include:

- Manjimup Land Conservation District Committee;
- Unicup Landcare Group;
- Upper Lefroy Catchment Group;
- Walpole -Tingiedale Land Conservation District Committee;
- Manjimup Horticultural Soils Group;
- Middlesex Conservation Farming Club Inc;
- Northcliffe Waterwatch Group (Ribbons of Blue);
- Warren Water Management Advisory Committee;
- Manjimup Regional Advisory Committee of the Agriculture Protection Board; and
- Bushfires Brigades (31 brigades with over 600 registered fire-fighters)

Other more regional groups with an interest in the management and planning of natural resources within the Shire include:

- Greening the South West;
- South West Environment Centre; and
- South West Regional Tourism Association.

## 3.0 LOCAL GOVERNMENT PLANNING CONTEXT

### 3.1 Town Planning Scheme 2

The Shire of Manjimup Town Planning Scheme 2 was gazetted on 18 September 1987.

In 1992, Council prepared a consolidated Town Planning Scheme and (in November 1992) resolved that this be advertised for public comment in accordance with Section 7AA of the Town Planning and Development Act, 1928.

The advertising of the consolidated Scheme (for the purposes of determining whether or not a new Scheme was required to be prepared) occurred between 18 November 1992 and January 1993. Council received only three (3) submissions in response to that advertising.

Following consideration of the Scheme Examination Report, Council (in March 1993) resolved to refer that Report to the Hon. Minister for Town Planning and to request that the Minister revoke the existing Town Planning Scheme. This matter was not, however, progressed.

TPS 2 operates over the entire municipal district. Since the Scheme's original approval there have been approximately 104 Amendments made to it. The majority of these Amendments relate to the approval of individual "Special Rural" (or "Rural -Residential") zones.

While there have been few major changes made to the Text, this is not a reflection of the planning issues being dealt with by Council. The focus of planning after the approval of the Town Planning Scheme shifted to the preparation and approval of Council's Local Rural Strategy.

### 3.2 Local Rural Strategy

Council's Local Rural Strategy (LRS) was approved by the then State Planning Commission on 18 September 1993, subject to a number of modifications.

While the LRS obviously focused on rural land uses, it also provided an overview of many of the major town planning issues being faced by the community. These included the expansion of the existing urban centres. The main feature of the Strategy is the introduction of 29 rural "Planning Precincts".

The configuration of these rural planning precincts were identified from consideration of:

1. Stream catchments;
2. Road structure and accessibility;
3. Landform / soil associations;
4. General land use and landscape management zones.

It is obvious, then, that the planning precinct structure used in the Local Rural Strategy is not specifically directed at any one aspect of the many factors that make up the Shire activity. Use of the precincts as an analytical base for a particular purpose is therefore limited.

The Local Rural Strategy provided a framework to assist in further planning of the Shire as needs arose and circumstances changed. The LRS made recommendations with respect to land use and management of land outside the townsites and identified land for further investigation for settlement in the countryside, as well as for urban growth and tourism.

Since the approval of the Local Rural Strategy, Council has implemented its recommendations either through the consideration of Local Planning Policies or amendments to Town Planning Scheme 2. It also attempted to implement its general philosophy and long-term vision in an accelerated timeframe through the preparation of TPS 3. However, this was later considered inappropriate in relation to actual population growth and development demands (particularly in the wake of the Regional Forests Agreement and the ramifications of the subsequent Ferguson Report).

The Local Rural Strategy has been a valuable planning document for reference purposes but further examination of the rural area is required because of:

- the need to reflect relevant recommendations from the adopted Warren-Blackwood Regional Planning Strategy;
- the need to reconsider the future of land identified for "Special Rural" (rural-residential) zones which remain

- undeveloped;
- the need to reduce the number of planning precincts to provide a simpler way of considering planning issues in essentially similar areas;
- the changing nature of agricultural activity arising from factors which include;
  - increased viticulture and aquaculture, dairy deregulation,
  - decreasing rainfall,
  - changing land prices, and
  - increased rural tourism;
- the need to take into account changes in the timber industry and impacts of the Regional Forests Agreement - by identifying areas of other possible employment opportunities (such as in tourism or intensification of agriculture);
- the need to consider impacts of the increase in plantation forestry / tree farming;
- interest in and development of tourism in rural areas;
- the need to reflect the State Government's draft Statement of Planning Policy No. 11 "Agricultural and Rural Land Use Planning" and particularly the requirement to identify *priority* agriculture; and
- the need for recommended land use categories in rural areas to reflect those required under SPP 11 and the Model Scheme Text.

The outcomes of this necessary review will be reflected in the Local Planning Strategy and the proposed new Town Planning Scheme.

### 3.3 Shire of Manjimup Town Planning Scheme 3

In 1992, Council resolved to initiate and prepare a new Scheme, Town Planning Scheme 3, after adopting a Scheme Examination Report prepared for the 5 yearly review of TPS 2. Several shortcomings were identified in TPS 2 justifying this action.

In July 1998, Council adopted the draft TPS 3 but subsequently had consent to advertise withheld by the Western Australian Planning Commission until a number of modifications were effected and the proposed TPS was made consistent with the Model Scheme Text.

**(NB.** The MST requires local government to prepare a Local Planning Strategy to provide a long-term vision for development in accordance with the principles, strategies and criteria for planning outlined in the State Planning Strategy).

By June 2001, the key issues to be resolved in TPS 3 were still outstanding, a number of other shortcomings were apparent, the Local Rural Strategy needed reviewing and TPS 3 required a Local Planning Strategy. Council, therefore, after due consideration and consultation with State government agencies, resolved to prepare a *new* Scheme (proposed TPS 4) addressing these matters and any more recent and relevant issues.

The new Scheme (TPS 4) will incorporate any appropriate material and data from TPS in the interim, TPS 2 is aimed at being consolidated, with further modifications effected to provide better planning control during the formulation of the LPS and new Scheme.

### 3.4 Vision Statement and Objectives

The LPS has adopted a *positive* outlook for the Shire aimed at providing future opportunities to help overcome the economic and social impacts on the community resulting from (most significantly) the re-structuring of the timber industry.

The vision for the municipality is to support a thriving community - utilising and consolidating existing towns and services - while developing a diversified, locally -based economy which protects and enhances the rural and natural character, and physical attributes, of the Shire integrated with a sustainable and productive natural resource base.

The strategic objectives to support this vision are:

- To protect areas of agricultural significance for sustainable production whilst accommodating other complementary rural activities;
- To promote economic growth in rural areas by identifying and securing suitable land and water resources for existing and future requirements of agriculture, forestry and timber production;
- To maintain and support rural infrastructure and settlements;

- To provide for the growth of settlements in a land use pattern which reduces pressure to convert good quality agricultural land to non-agricultural uses;
- To provide for a range of rural lifestyle and small-scale economic opportunities in proximity to existing settlements and within these settlements where appropriate;
- To ensure urban and rural-residential development is located and managed to:
  - minimize impacts on rural lands including timber production areas; protect and enhance the rural landscape and environmental values; and
  - recognize the potential for environmental repair and ensures its enhancement and management in subdivision and development proposals;
- To ensure that land use is managed in accordance with integrated management principles;
- To strategically manage the allocation of land resources in a manner consistent with maintaining a high standard of quality of lifestyle expectations of the community in order to provide for employment opportunities and be responsive to changing economic and social trends;
- To develop townsites strategies to accommodate an increased population which:
  - is achieved in an orderly and co-ordinated manner commensurate with the availability or provision of infrastructure;
  - minimises disruption to existing agricultural pursuits and forestry;
  - reinforces the role of and opportunities for existing towns;
  - recognises prime agricultural land, landscape and environmental values;
  - and encourages creative planning and design opportunities.

### 3.5 Public Consultation Process

As a result of the impact of stopping the logging of old growth forests and the restructuring of the timber industry, together with the regional planning processes, it was considered by the consultant team and Council that the Shire of Manjimup community had been consulted extensively in recent times. The results of earlier consultations were made available to this project and key issues agreed with the Committees guiding the preparation of the LPS (Steering and Technical) to assist in the preparation of draft plans for the future concepts for the townsites of Manjimup, Pemberton, Northcliffe and Walpole.

Findings from the public consultation process for the WBRPS and WBRPS have also assisted in determining the public's views on the future of rural land and the townsites. Key groups and individuals, along with representatives from government agencies, have also contributed to the preparation of this LPS.

In December 2001, a series of meetings were nevertheless held in Manjimup, Pemberton, Northcliffe and Walpole, where draft concepts were presented. Feedback - both at the meetings and subsequent to them - was carefully considered and initial draft plans amended accordingly.

A total of approximately 120 people attended the workshops, with encouragingly large turnouts in Pemberton, Northcliffe and Walpole.

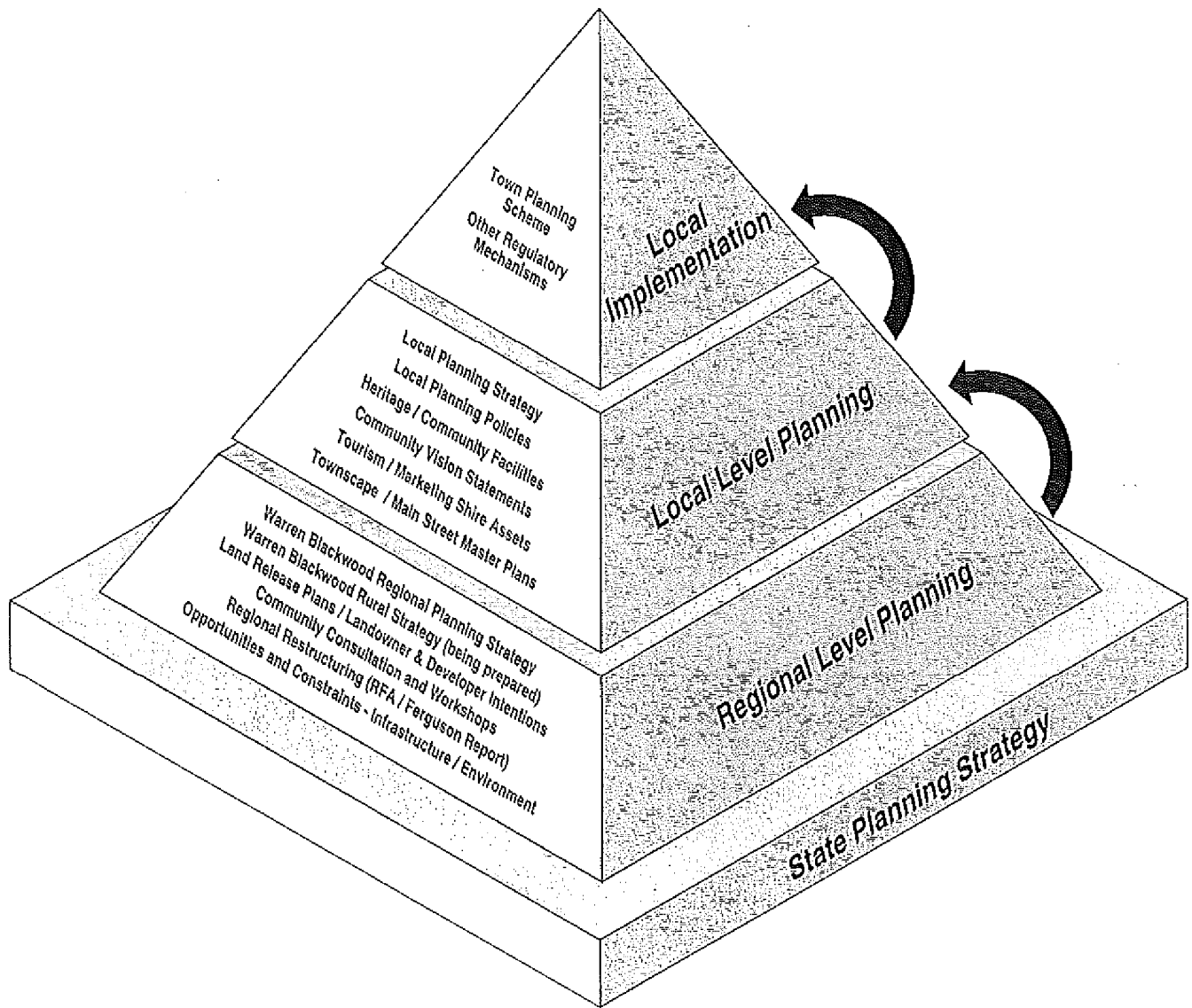
Following the public advertisement of the *draft* LPS, all written submissions received (during the prescribed submission period 7 August to 1 October) were examined and reported upon to Council. Any beneficial amendments, modifications and / or additions recommended to the draft LPS by the consultant team and Manager Planning Services as an outcome of the public consultation process were effected through resolution of Council (23<sup>rd</sup> January 2003) following consideration of such recommendations.

The final draft LPS document will be submitted to the Western Australian Planning Commission seeking Ministerial endorsement.

### **WHAT IS THE LPS?**

The following pyramid diagram illustrates the current State planning process.

The Local Planning Strategy considers all key strategic planning issues and aims to establish a framework for the focused, well - managed and attractive growth of the Shire for the next 7-10 years. It will draw on regional planning studies currently underway (such as the Warren-Blackwood Regional Planning Strategy) and existing State Planning Policies.



Once the Local Planning Strategy has been prepared, adopted by Council and endorsed by the WAPC / Minister, a comprehensive (and long overdue) review of the current Town Planning Scheme No. 2 will be initiated. This review is expected to take 6 -12 months to finalise, resulting in a Town Planning Scheme that is relevant, up to date and credible, based as it will be on thorough studies and recommendations accumulated throughout the LPS process.



## 4.0 SHIRE PROFILE AND RURAL STRATEGY UPDATE

### 4.1 Agricultural Use of Rural Land

The Shire of Manjimup has had a varied agricultural history reflecting, in part, its physical diversity. Since European settlement, a large range of agricultural land uses has been established, although not all have been successful. The present major uses are horticulture, broad acre cropping, grazing, beef and dairy farming, and timber production.

The key events or factors that have influenced agriculture since the preparation of the Shire of Manjimup's 1993 Local Rural Strategy are listed in [Table 1](#).

**Table 1: Recent Key Events Affecting Agriculture In Manjimup**

1993 - 1995	1996 -1998	1999 - 2001
<ul style="list-style-type: none"> <li>• Pink Lady orchard expansion.</li> <li>• Beef prices in decline.</li> <li>• Viticulture takes off.</li> </ul>	<ul style="list-style-type: none"> <li>• "Simplot" potato processing.</li> <li>• Centre pivot irrigation.</li> <li>• Apple scab.</li> <li>• Peak land prices of \$ 5000 / acre.</li> <li>• Corporate horticulture.</li> <li>• Increased tourism.</li> </ul>	<ul style="list-style-type: none"> <li>• Area planted to cauliflowers plateaus.</li> <li>• Land prices at \$ 1600/acre.</li> <li>• Dairy deregulation.</li> <li>• Regional Forests Agreement / Ferguson Report.</li> <li>• Large vineyard development.</li> <li>• - Rainfall down 40%.</li> </ul>

*Source:* Andrew Huffer and Associates (2001) *Notes from Warren-Blackwood Areas of Agricultural Significance Workshop*. Manjimup, 31<sup>st</sup> May 2001.

#### 4.1.1 Value to the Economy

An agricultural overview for the Shire of Manjimup has been produced by the Department of Agriculture using statistics from the 1996 197 Census. It estimates the gross value of agricultural production within the local authority at \$97.4 million and is apportioned as shown in [Table 2](#).

Vegetable production is the most important agricultural enterprise and constituted 40% (\$38.6M) of all farm outputs in 1996 / 97. Other important industries include fruit (\$18.6M), beef (\$11.6M), milk (\$11.1M) and floriculture and nurseries (\$8.1M).

Since 1982 183, the Shire's GVAP has increased from \$34.4M to \$97.4M and the value of vegetable production has increased from \$12.4M to \$38.6M. The Shire accounts for 21% of the State's vegetable production, as well as 16% of fruit, 9% of grapes and 8% of milk in Western Australia.

Animal products derived from pasture is the most extensive agricultural land use accounting for 77,705 ha of agricultural land. This figure is followed by 14,418 ha used for broad scale crops and 3,832 ha used for horticulture.

**Table 2: Agricultural Statistics - Manjimup (1996-97)**

Agricultural Industry	GVAP* (\$ '000)	Farm Area (ha)	Value per hectare (\$/ha)
<b>Intensive Animal Products</b>			
Apiculture	56	15	
Intensive meat	165	20	
Eggs	-	-	
<b>Total Intensive Products</b>	<b>221</b>	<b>35</b>	<b>6 312</b>
<b>Pasture Animal Products</b>			
Wool	1 658	10 150	
Milk	11 120	21 055	
Grazing meat	12 554	46 500	
Other	-	-	

<b>Total Pasture Animal Products</b>	<b>25 332</b>	<b>77 705</b>	<b>326</b>
<b>Crops - broadscale</b>			
Cereal crops for grain	348	5 723	
Grain legumes and oilseeds	74	1 236	
Hay/pastures	3 391	7 459	
<b>Total Broadscale Crops</b>	<b>3 813</b>	<b>14 418</b>	<b>264</b>
<b>Crops - horticulture</b>			
Nurseries, turf and cut flowers	8 095	119	
Vegetables	38 601	2 475	
Fruit	18 564	825	
Grapes	2 732	413	
<b>Total Horticulture Crops</b>	<b>67 992</b>	<b>3 832</b>	<b>17 743</b>
<b>Total Manjimup</b>	<b>97 357</b>	<b>95 990</b>	<b>1 014</b>

(Source: Agriculture Western Australia undated)

\* Gross value of agricultural production

The importance of horticulture to the Shire is indicated by the fact that it uses approximately 4% of the total farming land, while generating 70% of the GVAP. Department of Agriculture (undated) reports that dollar returns per hectare are significantly higher from horticulture than from intensive animal products and pasture products. Horticulture returns \$ 17,743 / ha compared with \$ 6,312 / ha from intensive animal products and less than \$ 326 / ha for animal products derived from pasture.

Compared with other Shires in the South West region, the Shire of Manjimup is characterised by a relatively high number of medium-sized farms, with an average GVAP of approximately \$ 240,000. Table 3 indicates total agricultural GVAP for other shires in the Warren-Blackwood Region and the South West SRD total.

**Table 3: Comparative Value of Agricultural Production (1996/97)**

<b>SHIRE</b>	<b>GVAP* (\$M)</b>	<b>No. of farms</b>	<b>Area of farms ( ' 000 ha)</b>
Boyup Brook	42	253	190
Bridgetown-Greenbushes	13	171	50
<b>Manjimup</b>	<b>97</b>	<b>406</b>	<b>94</b>
Nannup	11	69	34
Total Warren-Blackwood	163	899	368
Total South West SRD**	1 057	5 314	2 652
Total WA	4 261	13 872	112 482

(Source: Agriculture Western Australia undated)

\* The above GVAP figures are rounded to the nearest million (\$M).

\*\* Sustainable Rural Development region - a Department of Agriculture grouping of local authorities.

The Department of Agriculture is currently working on interpretation of data from more recent 1999 - 2000 surveys and the following points summarise the initial (unofficial) estimates;

- the gross value of agricultural production in 1999 - 2000 is in the order of \$103 M compared to \$97.3 M in 1996 — 97;
- there has been significant decrease in the number of farms from 406 in 1996 - 97 to 341 in 1999 - 2000;

- there has been a significant decrease in value of production from broad scale cereal crops for grain and grain legumes and oil seeds (from \$348,000 to \$11,000, and from \$74,000 to \$5,000 respectively);
- there has been a significant increase in the value of production from grapes (viticulture) from \$ 2.73 M to \$ 8.44 M.

#### 4.1.2 Land Use Overview

A regional picture of land use activities within rural areas of the Shire has been produced as part of the "National Land and Water Resources Audit", with data provided by the Department of Agriculture, the Department of Conservation and Land Management (CALM), and the Department of Land Administration (DOLA). This information has been supplemented by the results of field reconnaissance and local knowledge from representatives of the Technical Working Committee.

##### 4.1.2.1 Grazing

The largest overall use of land for agriculture is for pasture, providing feed for sheep, beef and dairy cattle. The area figures within Table 2 are unlikely to increase in the future, given the general presumption within government agencies and the general community against further clearing. Equally important is the trend towards diversification and intensification in agriculture rather than expansion of grazing based enterprises. Taylor Burrell (1993) also reported that there have been difficulties in grazing cattle on land formerly used for potato farming due to high levels of pesticide residues.

Other broad acre, but less prevalent, farming within the Shire includes the production of wheat, oats, barley, sorghum and maize crops. However, as a part of the general trend towards diversification, a number of farmers who grow crops and raise livestock are now considering other means of gaining income through activities such as tourist accommodation or aquaculture.

##### 4.1.2.2 Horticulture

Horticulture is an intensive, usually irrigated, form of agricultural production involving non-cereal crops. It is labour intensive and covers the production of vegetables, fruit, grapes, flowers and nuts.

There is general agreement among government authorities and the Manjimup community that to ensure a maximum contribution of agriculture to the District's economic activity, land regarded as being of primary quality should be protected for that use as much as possible (*Taylor Burrell 1993*). Horticultural land within the Shire seems to represent the highest productive value per unit area and, as such, land with the greatest potential for horticulture is accepted as having the highest level of agricultural importance.

Horticultural activity is widely distributed over the Shire's freehold lands. However, it assumes a greater importance in the north western sector and in valley systems where the topography and soil conditions are conducive to harvesting and storage of surface runoff in dams. Annual horticultural production occurs extensively around, and between, Manjimup and Pemberton. An area of exception occurs to the north of Manjimup where poor drainage is a limitation. Perennial horticulture, mainly fruit production and viticulture, is similarly widely dispersed, but generally occurs south of Manjimup and is currently not as extensive as annual horticulture.

##### 4.1.2.3 Intensive Animal Industries

Intensive animal industries such as feedlots and piggeries have the potential for detrimental impacts through water pollution, noise, dust, odour and possible soil erosion. Location of these land uses therefore requires careful consideration by the Council.

Department of Environmental Protection guidelines in relation to buffers to minimise land use conflicts associated with intensive agricultural industries are summarised in [Table 4](#). Generally, however, the Shire's Local Rural Strategy recommends that such industries be sited no closer than *two kilometres* from an existing or reasonably foreseeable residential area, rural-residential zone or tourist establishment.

Few records are available on the location of intensive animal industries within the Shire. Shire records indicate only one abattoir site within the local authority, located to the west of the Manjimup townsite (off 1psen Street) and, although currently not operational, its licence is being maintained and its status could

change in the future.

At the time of consideration of any other land use proposals in the vicinity of the abattoir, or any other subsequently determined sites for intensive animal industry, operational status and Department of Environment Protection (DEP) generic buffer requirements would need to be closely assessed.

**Table 4: DEP Recommended Buffer Distances\***

INDUSTRY	BUFFER DISTANCE (metres)
Abattoir	500
Animal feedlot	2000 - 3000
Aquaculture	case by case
Composting facility	1000 - 2000
Feed mill	500
Dairies	500
Horse stables	100 - 500
Greenhouse I hot house	200 - 300
Joinery and wood working	100 - 200
Market gardens	500
Mushroom farm	1000
Nurseries	1000
Orchards	500
Piggery	300 - 5000 depending on size of operation and neighbouring land use - refer Dept Agriculture guidelines ( <i>Latto et al 2000</i> )
Poultry industry	500
Rabbitries	300 - 500
Sawmill	500
Seafood processors	500
Stockyards	1000
Tannery	200 - 1000 depending on use of sulphide or not
Turf farms	200
Vineyards	500
Woolscourer	1000

\* *Source: Environmental Protection Authority (1997).*

#### 4.1.2.4 Aquaculture

Shire records (Dec. 2002) indicate that there are 61 aquaculture establishments currently approved within the municipality. These establishments operate between 1 and 80 marron ponds. Allowing for an average cost to construct, stock, pipe and net these ponds, of around \$7,000 - \$8,000 per pond, it is easy to recognize the value and importance of this industry to the Shire into the future. Through steady expansion of this industry aquaculture seems set to become an important contributor to the Shire economy, through both its ability to supply local and export markets and as a tourist attraction.

Aquaculture enterprises require careful management of nutrients (feed and waste products) to avoid adverse impacts on downstream water users. In addition, the import of yabbies (*Cherax destructor albidus*) into the Shire is prohibited because of the danger of introduction of disease into marron stocks and competition for food in water bodies.

#### 4.1.3 Future Outlook for Agriculture

The Department of Agriculture has assessed the future outlook for agricultural products within the Shire of Manjimup as part of the "Agricultural Economic Potential" sub-study of the Warren-Blackwood Rural Strategy. Most of the draft conclusions of that study, while addressing the four component local authorities, are relevant to the Shire of Manjimup and are reproduced as follows.

*"Projections for the next ten years and possibly the next twenty years indicate a substantial increase in horticultural production, specifically in vegetable production. This will probably occur with larger scale production of some vegetables (for example cauliflowers)".*

*"Potatoes may also increase substantially especially if restrictions are removed from their production. The Potato Marketing Board may however not be conducive to possible expansion of the industry".*

*"Fruit, including grade production, is also expected to increase markedly and processing is likely to be seriously considered again. Wine production is likely to capitalise on further increases in world consumption, which is likely to continue as living standards rise. Olive production is another possibility, and initial plantings will determine whether production is likely to be economic".*

*"Broad scale agriculture is likely to see the continued decline in wool production which is being replaced by cereal production. Beef production may be slightly lower".*

*"Blue gum plantings continue to offer landholders an alternative means of income in high rainfall grazing areas. However, lower blue gum growth rates and lower wood chip prices will keep expansion of plantings in check".*

*"Dairying could capitalise on the longer growing season (ten months) on the south coast and increases in production are expected to occur over the longer term. This low cost of production in the south coastal areas is likely to be a factor in replacing other areas in the state with higher costs of production. Opportunities will occur for producers to establish modern economic production systems, especially with the abolition of market milk quotas".*

#### 4.1.4 Planning Implications

##### 4.1.4.1 Protecting Existing Horticultural Areas

The existing areas of horticultural production are of particular significance to the economy of the Shire, and to the Warren-Blackwood region generally. Accordingly, the continued use of such areas for agricultural production needs to be encouraged through planning processes. This means careful site - specific consideration of proposals for any form of non - agricultural use, in order to prevent loss of good quality productive land and to prevent conflicts with neighbouring land uses arising from differing management practices on either side of the 'fence'.

##### 4.1.4.2 Encouraging Diversity

The diversity of land uses and the Shire's history of embracing structural change in its rural areas has been recognised as a key to the success of Manjimup (*Rural Planning Strategy - Taylor Burrell 1993*). This remains the case and it is important that planning processes, whilst seeking to protect established agricultural industries, do not inhibit land use diversification.

##### 4.1.4.3 Future Sustainable Horticultural Development

Provision of suitable land for further horticultural activities is important given their existing economic contribution and the potential for diversification into new crop types. Consideration needs to be given to the productive capacity of subject land, the availability of water for irrigation, and the potential for associated on or off-site environmental impacts.

Continuing development of successful horticultural enterprises within Manjimup will be dependent not only on crop yields, but also on the ability to embrace the requirements of environmentally sustainable farming. This means recognising the importance of environmental management systems and property planning. A widespread adoption of 'best management practices' is required to protect the productive capacity of land and to minimise the risk of export of sediment, nutrients and pesticides into dams and waterways.

Export-orientated agricultural enterprises are increasingly subject to demand for 'clean, green' produce. Combined with the adoption of 'best management practices', the natural environment of the Shire of Manjimup offers significant potential to meet this demand.

The Department of Agriculture predicts, in relation to horticulture, that future expansion of the industry will be linked to its ability to meet the demands of the export market. This is expected to lead to a situation where commercially viable farming enterprises will need to be in excess of 200

hectares for annual horticulture, and in excess of 400 hectares for perennial horticulture (*E Wright pers comm*).

This has ramifications for planning decisions relating to subdivision. Although many existing lot sizes in horticultural areas of the Shire are less than these figures, and farming enterprises usually consist of multiple lots, further subdivision within areas of good soils and available water may increase land values and inhibit the potential for expansion to meet commercially viable farm size criteria.

## 4.2 Forestry and Tree Plantations

### 4.2.1 Background

Production of timber and wood products from the district's forests has been a major economic activity and influence on the community structure of Manjimup since the days of early settlement. However, the Regional Forests Agreement (RFA) - which was signed by the Western Australian Government and the Commonwealth in 1999 - in combination with the State Government decision to further reduce logging in large areas of karri and jarrah forests (the Ferguson Report), is resulting in significant structural change within the forestry and, to a lesser extent, the agricultural sectors of the economy.

In recognition of broad public concern with logging of 'old growth' forest, and forest areas generally, the State Government strategy for the timber industry is to create **greater levels of employment based upon downstream timber-based manufacturing**. The Government's strategy focuses on the need to value-add forest products (such as furniture, flooring and decorative products) in order to maximise the economic return from the allocated timber resource.

The Shire of Manjimup Council endorsed a "Submission to the Conservation Commission of WA on the Draft Forest Management Plan" in 2002. A copy of this Submission is contained at Appendix B.

A significant increase in plantation forestry within the Shire's rural areas is a manifestation of the structural changes occurring within both the agricultural and forestry sectors of the economy. It also reflects a shift in government policy to supply timber needs from plantations rather than from native forests.

While pine plantations have been established on existing farming lands in the southwest of Western Australia for the most of last century, the focus since the later 1980's has swung to hardwood plantations, particularly blue gums (*Eucalyptus globulus*). By 2008 the resource base from farm forestry in the medium to high rainfall areas across the South West and Great Southern regions is expected to be around 200,000 hectares (*DPI 2001*).

### 4.2.2 Value of the Private Forestry Industry

in a 2001 report prepared by the Steering Committee representing the Private Forestry industry, estimates for the blue gum harvest period 2001 to 2021 in the South West and Great Southern regions are cited, stating that;

- *Approximately 2,700 jobs will be created; and*
- *There will be an aggregated industry output to the value of \$ 569 million a year.*

The "Timber Industry Road Evaluation Study" (TIRES), in association with the Department of Transport, originally made these estimates in a February 2001 report. There are also the pine, oil, hardwood sawlog, fuel wood and sandalwood industries within WA, the combined value of which is not known at this stage but is substantial and growing (*Steering Committee 2001*).

In addition to its contribution to the economy, commercial tree planting of cleared farmland has important implications for land care, soil and stream salinity and erosion issues in Western Australia. It is widely accepted that replacement of indigenous vegetation with annual crops and pastures is in large part responsible for these problems in allowing water tables to rise. A part of the solution lays in the establishment of large areas of profitable, deep-rooted perennial vegetation - that is, commercial tree plantings - to stabilise regional water balance (*Farm Forestry Task Force 1995*).

### 4.2.3 Associated Activity or Facilities with the Shire's Rural Areas

#### 4.2.3.1 Sawmills

The location of sawmills within the Shire is important in terms of both the potential for employment and the

potential for creating conflict with nearby land uses. The latter can result from noise and dust emissions and vehicular movements. Shire records indicate approximately nineteen (19) operational sawmill sites within the municipality and most of these are shown on the 'land use and environmental considerations' Figures as part of the individual townsites components of the Local Planning Strategy.

Major sawmills are located at Deanmill and Pemberton. Bunnings Forest Products (Sotico) timber production centre is located at Manjimup with the woodchip mill at Diamond Tree, just south of Manjimup. Other smaller sawmills are located around the townsites of Manjimup, Pemberton and Northcliffe. Former sawmills which have closed as a result of on-going rationalisation and changing technology within the industry are located at Jardee, Northcliffe, Quinninup, Nyamup, Walpole and most recently "Pempine" in Pemberton.

Sawmills in the Shire have established themselves in response to logging from areas of native forest - primarily from the CALM Estate. As a result of the structural changes occurring within the timber industry, it is expected that some sawmill operations will cease to operate. However, it is also expected that most of the industry will respond to the change in focus towards downstream timber-based manufacturing as well as increased sourcing of timber from plantations on rural land.

It should be noted that the majority of tree plantations within the Shire are based on blue gum cropping, the majority of which are used for wood chips. There are no native plantations within the Shire that are specifically being grown for structural timber requirements (*Shire of Manjimup 1997*).

The State Government moved, in December 2002, to offer financial assistance of \$2.5 million and a guaranteed karri sawlog allocation to the potential buyer ("Auswest Timbers") of the Pemberton Mill – to protect the 52 current jobs there and potentially create a further 21 more by 2007.

The Premier also announced, on a visit to Manjimup on December 18 2002, that the Government would be entering negotiations with Sotico to provide a guaranteed volume of jarrah sawlogs for the Manjimup Processing Centre (MPC), Deanmill, Yarloop and Collie, which would ensure further value-adding opportunities at the MPC. Such an agreement would ensure continuing operations at the MPC and Deanmill over the life of the 10-year Forest Management Plan commencing in 2004.

#### 4.2.3.2 Old Mill Settlements

Old mill towns of Tone River, Palgarup, Quinninup and Nyamup remain as historical reminders of the past successes and widespread activities associated with the forestry industry, and now provide opportunities for a semi-rural / residential lifestyle, or holiday accommodation.

#### 4.2.3.3 Tree Plantations

The rate at which tree plantations have been established in rural areas of the south west has been significant. For example, in July 2000, the Department of Agriculture's draft "Agricultural Economic Potential Study" for the Warren-Blackwood region predicted that if the rate of increase in plantings that occurred in the 1993 to 1997 period continued, then nearly 5,000 hectares would be planted to trees throughout the four subject Shires by 2009. Shire of Manjimup records indicate that, as at Dec. 2002, there has been a total of approximately 80 tree plantations approved throughout the Shire of Manjimup (from 1994) occupying a total area of 7,103 hectares.

Apart from the lower rainfall (north easterly) parts of the Shire, tree plantations are reasonably uniformly distributed, rather than aggregated in particular locations. Individual areas established as plantations range from 4 to 560 hectares, although the majority (59%) have areas greater than 40 hectares (100 acres).

The establishment of significant areas of tree plantations is of concern to some sections of the community - and to Council - for a number of reasons. These include:

- 'Loss' of good quality agricultural land;
- Negative local socio-economic impacts through population decline and loss of 'flow-on' employment effects generated from traditional farming;
- Impacts of harvest haulage on local roads;
- The possible required use of local authority planning processes as a means of ensuring industry compliance with a 'Code of Practice';
- Visual impacts of plantations in the landscape, particularly along 'tourist roads';

- Impacts of aerial spraying;
- Fire control;
- Possible effect of tree plantations in reducing surface runoff to dams in horticultural areas.

Important counter arguments to some of these points have been made in the Shire's Rural Planning Strategy (Taylor Burrell 1993), as follows:

*"..... it can be argued that tree farming is an acceptable form of rural land use and that in the free market, controls over the type of crop which can be grown - be it potatoes or trees - or over the reasonable maximisation of land potential by an owner, are somewhat draconian.*

*Additionally, it can be considered that continuation of a sound basis for the district's wood products industry is most important for a diversified economy".*

#### 4.2.4 Planning Implications

##### 4.2.4.1 Use of Former Sawmill Sites

Although major sawmills in Jardee, Northcliffe, Nyamup and Walpole have long been closed, the future of these sites has yet to be finally determined. Options include other industrial (value-adding etc) or tourism-based uses and the ultimate success of any re-development proposal will be determined by commercial viability.

##### 4.2.4.2 Application of Buffers or Setbacks

Due to uncertainty over the long-term future viability of a number of sawmill sites within the Shire it will be necessary at the time of consideration of land use proposals in their vicinity to determine their exact operational status, and hence the subsequent need for any buffer requirements (refer to [Table 4](#) for DEP guidelines).

##### 4.2.4.3 Tree Plantation Policy

Based on the level of public interest and involvement in workshops associated with the development of a whole of *government* "Farm Forestry Policy" by the former Ministry for Planning (now Department of Planning and Infrastructure), as well as discussions with Shire of Manjimup Councillors, the establishment of tree plantations is recognised as a particularly significant issue.

The level of Shire involvement in the application of planning controls or, conversely, encouragement of tree plantations in certain parts of the rural landscape where significant land care benefits can be achieved, needs to be resolved.

The development of a 'whole of government' policy is proving to be a very protracted process. However, because the Shire has immediate responsibility to address and process planning applications for plantations, an approved interim policy or procedural statement is required.

The development of such a policy cannot be done through the preparation of this Local Planning Strategy in isolation of Council and community involvement. Further direction on such policy development might be obtained through reference to the "Commercial Plantation Policy" commissioned in 2001 by the neighbouring Shire of Plantagenet from consultants Thompson McRobert Edgelow.

### 4.3 Land Resources and Capability

#### 4.3.1 Climate

##### 4.3.1.1 Summary of Conditions

The Shire's climate is typified by cool, wet winters and warm, dry summer conditions that are conducive to agricultural pursuits, commercial tree plantations, tourist ventures and rural-residential retirement opportunities.

The distribution of annual rainfall throughout the region is shown in [Figure 3](#). The range is from 1,400 mm / annum adjacent to the coast, to less than 600 mm / annum within the north eastern parts of the Shire.



The majority of rainfall (60%) occurs over a four month winter period between May and August. Only 10% of rainfall falls over the four month summer period between December and March. A coastal band approximately 30 km wide, extending from Walpole Inlet to the Lower Donnelly River, is one of the wettest areas in the State's south west.

The distribution of rainfall is particularly significant to agricultural land use. It directly determines water supply for storage and crop or pasture growth, and is indirectly related to salinity problems (drier areas are most susceptible). The rainfall distribution is also an important determinant of site suitability for commercial tree plantations.

The region is relatively free from very low temperatures and frosts. The average maximum temperatures for Manjimup and Pemberton are between 25°C and 30°C during December, January and February. However, the average maximum falls to only 15°C during July. Minimum monthly temperatures range from approximately 6°C in July to 15°C in January and February.

The length of the growing season (ie. number of consecutive months for which effective rainfall exceeds potential evaporation) is quite extended for the Shire of Manjimup compared to other agricultural areas in the State.

#### 4.3.1.2 Climate Change

Water and Rivers Commission (WRC) (2001) reports that in the last 25 years the temperate south west has experienced a major climatic perturbation with significant impacts on water resource management resulting from 'lower than average' rainfall.

Research has not identified a cause for this phenomenon, although greenhouse research has suggested a drier climate scenario for the south west (as well as rising sea levels) as a consequence of greenhouse gas emissions.

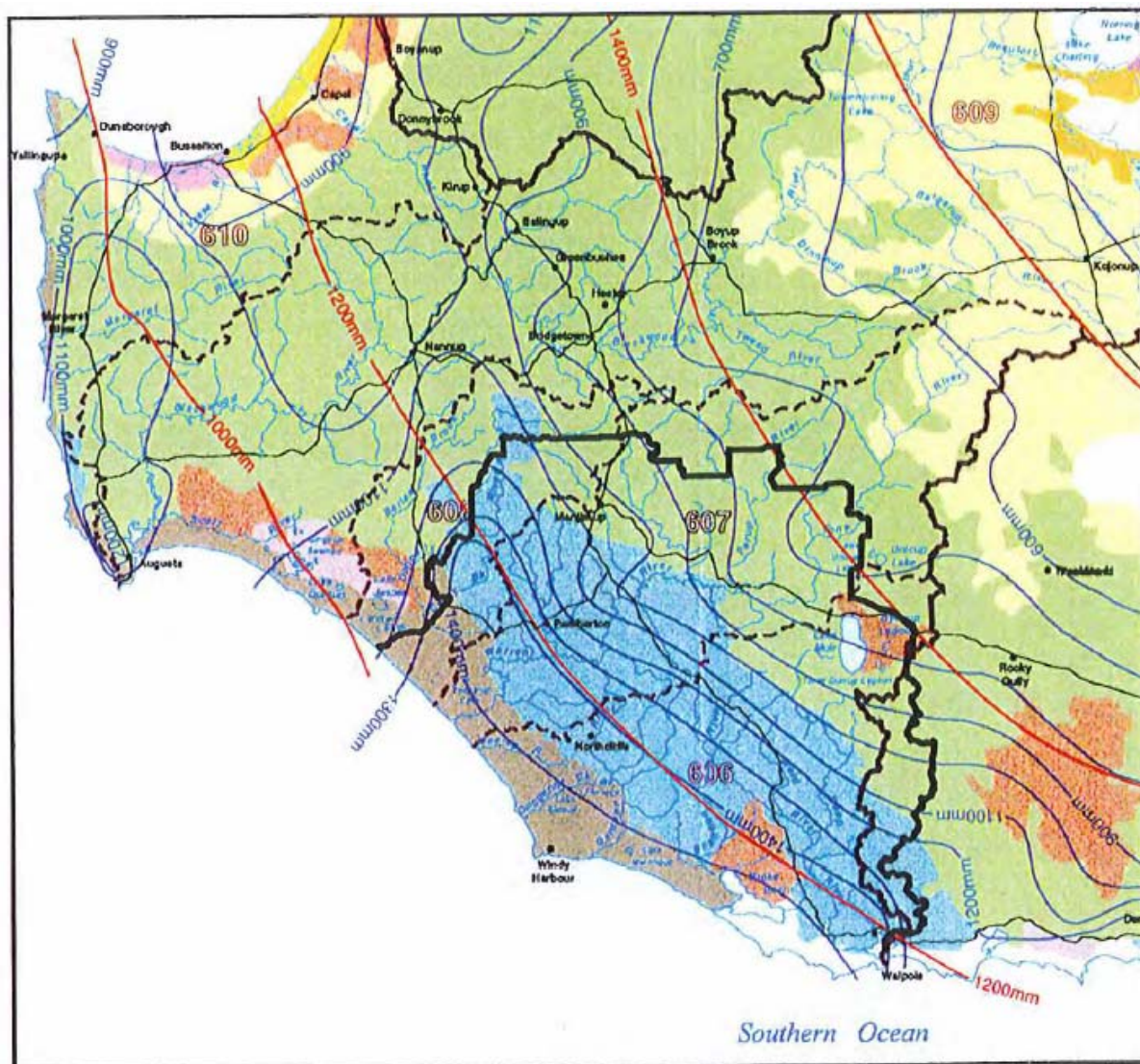
### 4.3.2 Vegetation

#### 4.3.2.1 Original Native Vegetation

The original native vegetation across the region is shown in [Figure 3](#) and is broadly related to topography and rainfall. Within the Shire of Manjimup, tall karri forest occupies the very high rainfall area in a broad 40 km wide band stretching from the Donnelly River through to Walpole. To the north and east lies a broad expanse of medium height jarrah-marri forest and, within a 10 - 15 km wide strip along the south coast, there is a mosaic of low woodlands (mainly peppermint and jarrah-sheoak, acacia thickets and peppermint scrublands and sedge lands). In localised areas to the north of Broke inlet and east of Lake Muir there is a mosaic of jarrah-marri forest, banksia woodland and melaleuca low woodland.

#### 4.3.2.2 Vegetation on Public Lands

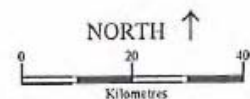
The vast majority of the Shire's area is contained within the CALM estate - State Forest, National Parks, Conservation and Nature Parks, other reserves for public purposes and Crown Land. This represents approximately 85% of the Shire's total area of 7,027 square kilometres.

**Figure 3: Vegetation, Rainfall and Evaporation**

Source: *Divertible Surface and Groundwater Resources of the Busselton-Walpole Region* (WRC 2000)

- Tall Forest: Karri
- Medium Forest: Jarrah-Marri
- Woodlands: Jarrah, Wandoo
- Tall Woodland: Tuart
- Woodland: Tuart
- Woodlands: Wandoo, Salmon Gum, York Gum
- Mosaic of Jarrah-Marri forest, Banksia Woodland & Melaleuca low woodland
- Low Forest, Low Woodland: Jarrah, Teatree, Jarrah-Banksia
- Low Woodland: Peppermint
- Mosaic of Low Woodlands (mainly Peppermint & Jarrah-Sheoak), Shrublands (Acacia thickets & Peppermint Scrub) & Sedgeland with areas of drift sand along the south coast.
- Tall Shrubland: Mallee
- Low Shrubland: Mallee & Jarrah-Mallee heath
- Sedgeland (Reed Swamp)
- Succulent Steppe: Samphires

- Lakes
- Evaporation Isopleths
- Rainfall Isohyets
- Basin boundary
- Shire of Manjimup boundary



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The settlement pattern within the Shire results in an often-complex structure of farmland and forest, particularly in the central area, with a high degree of interrelationship and length of interface between these two major land uses. Areas of remnant vegetation on freehold lands abut State forest adding to this complex structure. Activities on freehold lands thus significantly affect the CALM estate. Conversely, the management requirements of the forest and national park areas also significantly impinge upon, and influence, the planning of adjacent rural areas. The most significant influence in this regard is bushfire control.

The Department of Conservation and Land Management, in conjunction with the Department of Land Administration, has been pursuing an active policy of land purchases and adjustment of boundaries (where this is seen to be in the interests of CALM) for additions to the National Estate - or in the interests of landowners for water supplies. State forest, National Parks and other conservation reserves are a vital part of the Shire's economic structure through the timber industry and through visitor and tourism activities. Both of these activities, in and emanating from the CALM estate, directly influence much of the Shire's social and economic structure.

#### 4.3.2.3 Vegetation on Private Land

The freehold lands are located predominantly to the central west of the Shire (associated with the towns of Manjimup, Pemberton and Northcliffe) and in the extreme south east at Walpole. Within these areas, approximately 9.2% remains as natural vegetation (*Source: Department of Agriculture - D. Shepherd pers comm.*).

#### 4.3.2.4 Clearing Restrictions

As a response to issues of land degradation and loss of biodiversity, there is a general presumption within government agencies against further clearing of native vegetation in Western Australia.

Under the *Soil and Land Conservation Act, 1945* owners or occupiers of land are required to notify the Commissioner of Soil and Land Conservation of any intention to clear more than one (1) hectare of vegetation where there is a change in land use -at least 90 days prior to the expected commencement of that clearing. An assessment process is thereby initiated which involves consideration of the risk of land degradation and the possible effect on biodiversity values.

There is no requirement to notify the Commissioner of proposed clearing within the Warren River Water Reserve, where a licence to clear land is already required by the Water and Rivers Commission. However, the Water and Rivers Commission may seek advice from the Commissioner of Soil and Land Conservation in relation to assessment of clearing proposals in that area.

#### 4.3.2.5 Planning Implications

The dominant character of the district's landscape is the remaining forested area, which is represented in the State Forests, National Parks and areas of remnant vegetation within the Shire. Tourist activity is heavily dependent upon the attraction of the forest area and its unique environment.

Importantly, the forest provides the basis for timber production that forms such a significant component of the local economy. The plantation industry has also added a further dimension to the Shire's vegetation pattern.

In conclusion, the Shire is recognised and renowned for its forest regions and its natural vegetation, in terms of its diversity and presence in all areas, and this is a major determinant factor in the Shire's landscape character and environment generally.

### 4.3.3 Landform and Soils

#### 4.3.3.1 Overview

Figure 4 shows the Shire of Manjimup in relation to the major geomorphic units of the south west of Western Australia. The Shire occupies the south sloping margin of the Darling Plateau. The Darling Plateau is an ancient landform generally occurring at more than 100 m above sea level. It is characterised by deeply weathered lateritic profiles developed over crystalline basement rocks (granites, gneisses and other metamorphic rocks) of Archaen and Proterozoic age.

The Darling Fault separates the Darling Plateau from the Blackwood Plateau. The Blackwood Plateau area, also known as the Donnybrook Sunklands, has a gently undulating surface covered by lateritic gravel and sand, and underlain by Mesozoic sediments. Only a small portion of the Blackwood Plateau occurs within the Shire, in its south-western corner within areas of the CALM Estate.

Remnants of the Darling Plateau surface occur in the north of the Shire between Yornup and Palgarup. The plateau surface supports a diversity of soil types and is broken by only a few low granitic hills. In the flat to gently undulating upland portions, there is a mixture of gravelly duplex soils and areas of grey sands and swampy terrain prone to winter waterlogging. Where lateritic duricrust occurs, tillage is limited. Localised soil salinity can also occur in lower rainfall areas.

The drainage systems of the Donnelly, Warren and Shannon River basins have dissected the ancient Darling Plateau landscape to form valleys with younger, well drained duplex soils and red-brown earths. The latter red loamy soils ('karri learns') are of significant horticultural value. The degree of plateau dissection increases as the drainage systems progress towards the coast and the gradient of the valley side-slopes increase accordingly. The valley systems are separated by divides containing gravelly duplex soils that are remnants of the former lateritic profiles. On some crests and upland flats the soils are prone to waterlogging, but generally the upper slopes have well drained learns and duplex soils.

Further south, in the vicinity of Northcliffe, the landscape becomes increasingly flat and swampy. This is the inland edge of the Scott Coastal Plain, which lies between the Darling and Blackwood Plateaux and the Southern Ocean. The Scott Coastal Plain is an area of predominantly flat terrain with humus and peaty podsol soils that are subject to waterlogging. It is traversed by linear sand dune remnants, generally parallel with the coastline, but interspersed with some better-drained brown and yellow duplex soils that are more suited to agriculture.

Along the coast the landform consists of mainly parabolic shaped dunes of calcareous sand. These are consolidated inland but unstable near to the coast. In the hinterland some swamps have resulted from the blocking of surface drainage flows by migrating coastal dunes. Although some inland dunes with more leached sands have been used for summer grazing, they are generally of limited agricultural value.

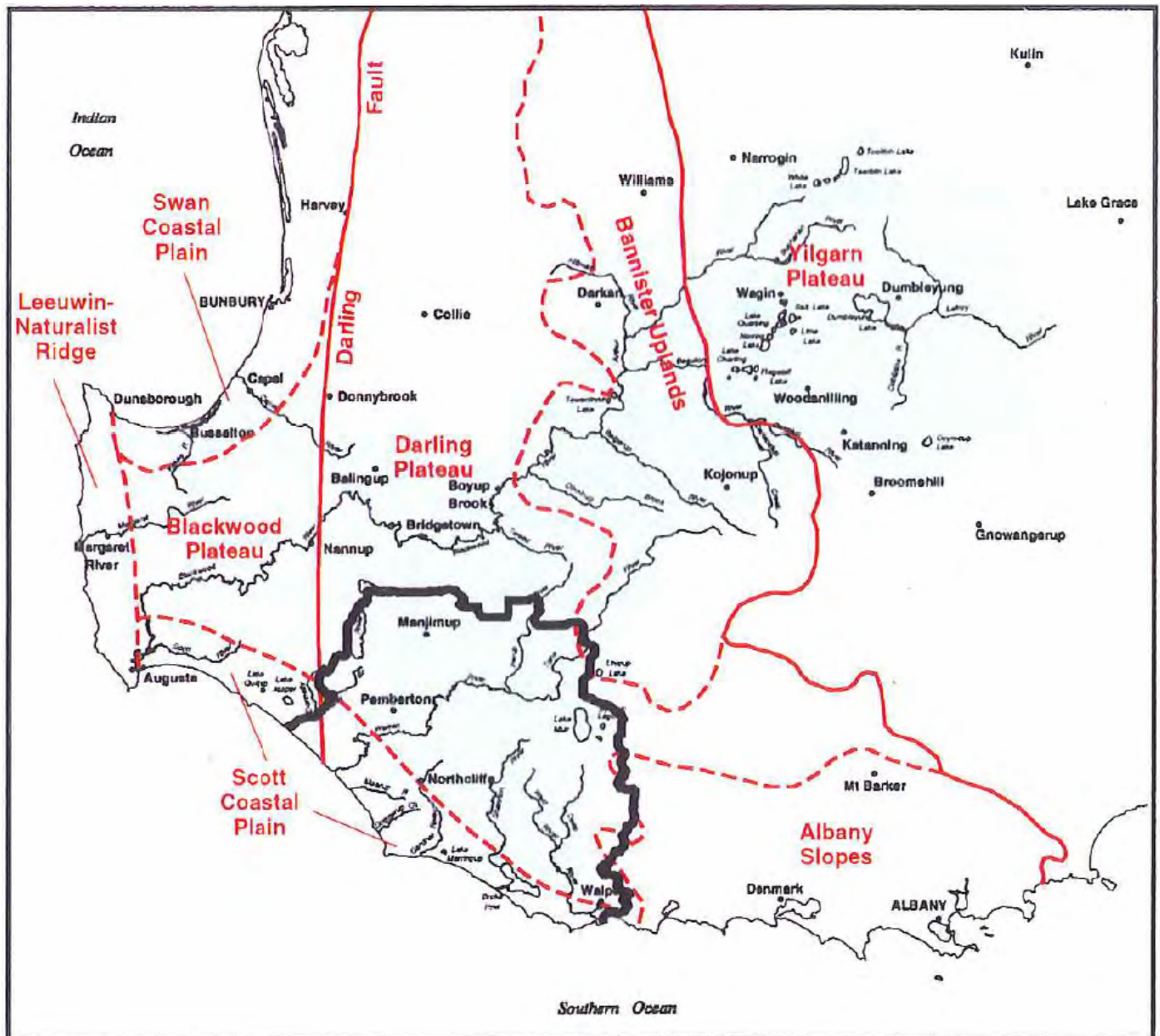
#### 4.3.3.2 Soil-Landscape Mapping

The soils and landforms within the Shire have been mapped and described by three surveys:

- Landforms and Soils of the South Coast and Hinterland, Western Australia (*Churchward et al 1988*)
- Soils and Landforms of the Manjimup Area (*Churchward 1992*)
- Soil Landscape Systems of the Tone Bridge Frankland Area (*Stuart-Street in prep*)

The Department of Agriculture is the custodial agency for government-produced soil survey information and the associated land capability interpretations that are an important part of land use planning. The Department has recently brought together all surveys in the Warren Blackwood region under an hierarchical soil-landscape nomenclature system to form a seamless coverage with standardised map units and capability interpretations. The levels relevant to Manjimup are shown in [Table 5](#) and described further in [Appendix C](#).



**Figure 4: Major Geomorphic units of the South West of Western Australia****CORRESPONDING SOIL LANDSCAPE ZONES (Within the Shire of Manjimup)****Within Darling Plateau**

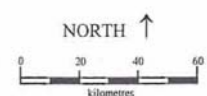
- mostly part of the WARREN DENMARK SOUTHLAND SOIL-LANDSCAPE ZONE (254) of the Avon Province.
- small part (to the east) of the BOORUKUP LAKES SOIL-LANDSCAPE ZONE (247) of the Stirling Province.

**Within Blackwood Plateau**

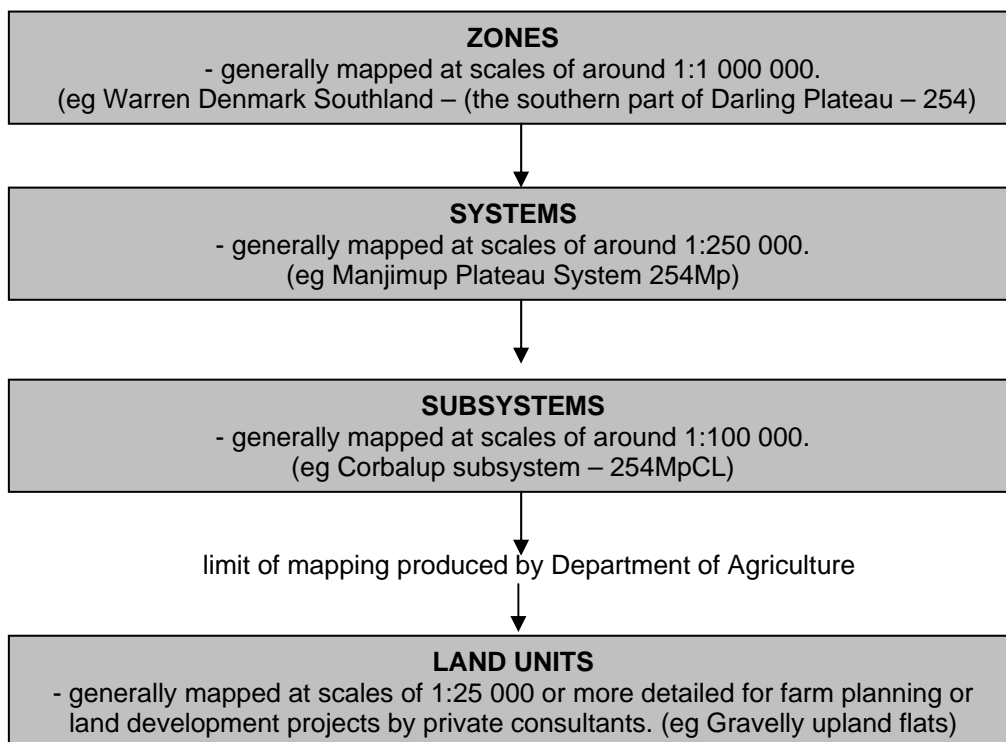
- small part of the DONNYBROOK SUNKLAND SOIL-LANDSCAPE ZONE (252) of the Avon Province.

Source. *Divertible Surface and groundwater Resources of the Busselton-Walpole Region* (Water and Rivers Commission 2000)

— Shire of Manjimup boundary



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**Table 5: Hierarchy of Soil-Landscape Mapping**

The major geomorphic units of the south west, as shown in Figure 4, generally correspond to soil landscape 'zones', three of which occur within the Shire; the Donnybrook Sunkland Zone, the Warren Denmark Southlands Zone, and a small portion of the Boorokup Lakes Zone.

Within each zone there are a number of soil landscape 'systems'. These are defined as '*areas with recurring patterns of landforms, soils and vegetation*'. [Figure 5](#) shows the fifteen soil landscape systems occurring within the Shire, and these are described in [Table 6](#).

[Figure 5](#) also illustrates how the topography changes in a south-westerly direction from a broad upland plateau, through undulating terrain and valley systems, and then to a coastal plain with extensive dunal systems. In addition to this trend, the landscape generally becomes more poorly drained towards the east.

The soil landscape systems in turn are made up of multiple 'subsystems'. These are still quite variable areas but provide the most detailed available description and mapping of soil and landform conditions across the Shire. Accordingly, they provide a key environmental data set for development of the Local Planning Strategy. Mapping and description of soil landscape sub-systems for each of the townsites areas and rural planning precincts, subsequently defined in this document, are contained in [Appendix C](#).

Soil landscape subsystems in turn are made up of multiple 'land units'. Land units are areas with relatively homogeneous landform, soil and vegetation conditions. As such, each land unit has a unique land use potential or capability and specific land management requirements.

Land units expected to occur within each subsystem can be conceptually identified by the Department of Agriculture but are not mapped. Mapping to this level of detail is usually only conducted for farm property planning purposes, or as an aid to the planning and assessment of specific land development proposals.

**Table 6: Soil-Landscape Systems within the Shire of Manjimup**

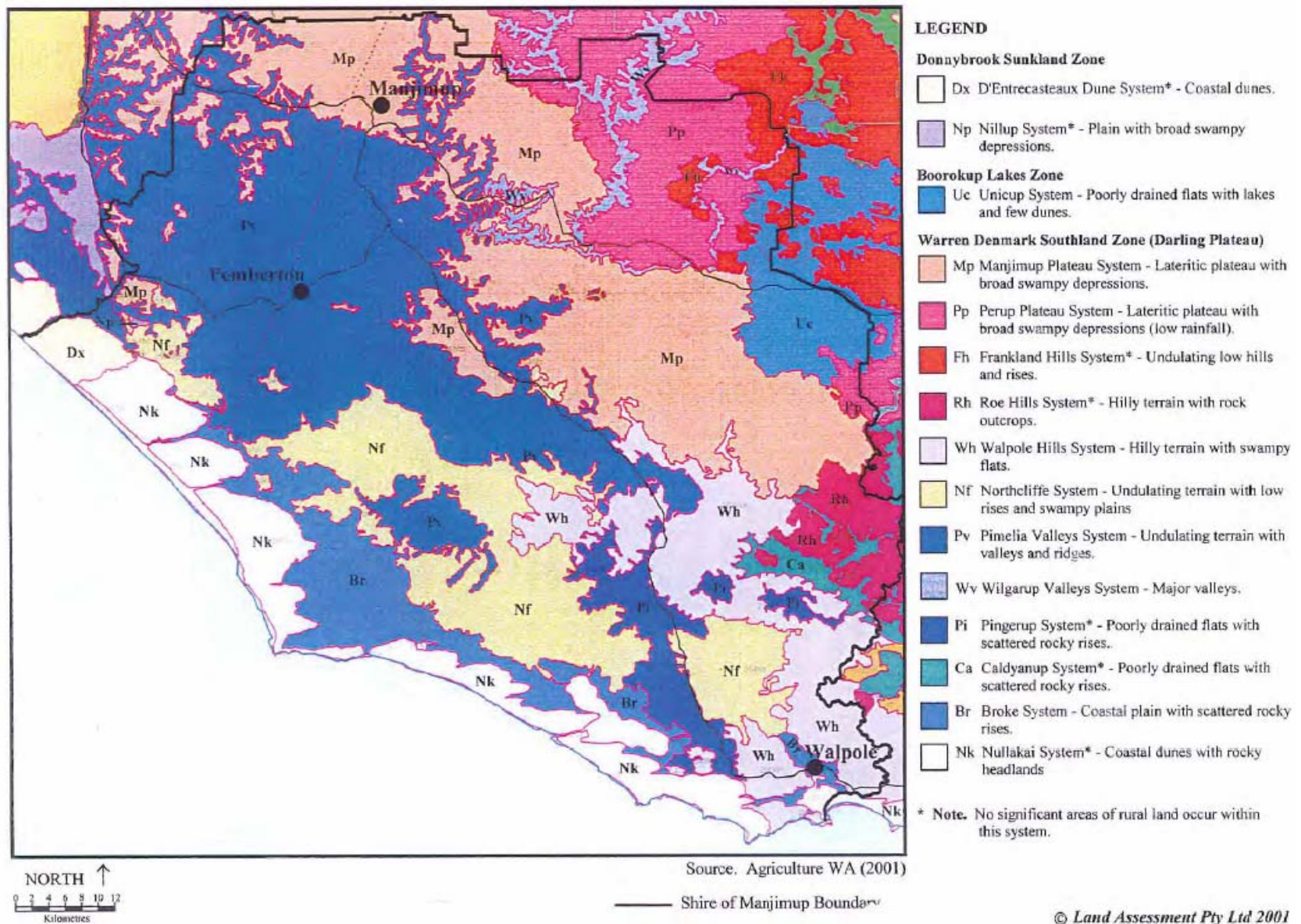
SYSTEMS	DESCRIPTION	COMPONENT SUBSYSTEMS*
<b>WARREN-DENMARK SOUTHLANDS - Darling Range Portion</b>		
Mp Manjimup Plateau	Lateritic plateau with broad swampy depressions. Deeply weathered profile over metasediments and granitic rocks. Soils** are duplex sandy gravels, loamy gravels and wet soils.	Bevan, Corbalup, Catterick, Carbunup, Camballup, Collis, Cattaminup, Cormint, Kapalarup, Mattaband, Pingerup, Quindabellup, Quinnup, Minor Valleys, Toponup, Wheatley, Yanmah, Yornup.
Pp Perup Plateau	Lateritic plateau with broad swampy depressions (inland low rainfall areas). Deeply weathered profile over granitic rocks. Duplex sandy gravels, loamy gravels and wet soils (sometimes saline).	Bevan, Corbanup, Mattaband, Collis, Carbanup, Catterick, Cormint, Yornup.
Fh Frankland Hills	Undulating low hills and rises. Laterite and colluvium over granitic rocks. Loamy gravels, duplex sandy gravels, deep sandy gravels, shallow gravels and grey deep sandy duplexes.	Frankland Hills.
Rh Roe Hills	Hilly terrain with rock outcrops. Colluvium over granitic rocks. Loamy gravels, duplex sandy gravels, brown deep loamy duplexes and friable red/brown loamy earths.	Mattaband.
Nf Northcliffe	Undulating terrain with low rises and swampy plains. Sandy deposits, deeply weathered profile and colluvium over granitic rocks and metasediments. Plane deep sands, loamy gravels, wet soils & semi-wet soils.	Collis, Crowea, Angove, Quagering, Minor Valleys, Major Valleys, Mattaband, Yanmah, Hawk.
Pave Pimelia Valleys	Undulating terrain with deeply incised valleys, shallow minor valleys and gravelly ridges. Deeply weathered profile and colluvium over metasediments and granitic rocks. Loamy gravels, friable red/brown loamy earths, brown loamy earths and brown deep loamy duplexes.	Collis, Crowea, Donnelly, Lefroy, Pemberton, Warren, Wheatley, Major Valleys, Minor Valleys, Yanmah, Wishart, Angove, Quagering, Quartzite, Scott.
Wv Wilgarup Valleys	Major valleys. Colluvium over granitic rocks. Loamy gravels, duplex sandy gravels, stony soils, friable red/brown loamy earths and brown deep loamy duplexes.	Wilgarup, Wheatley, Strachan, Yerraminup.
Pi Pingerup	Poorly drained flats with scattered rocky rises. Alluvium over granitic rocks and sedimentary rocks. Wet soils, semi-wet soils, pale deep sands and duplex sandy gravels.	Burnett, Inpgerup, Quagering, Minor Valleys, Mattaband, Collis, Major Valleys.
Ca Caldyanup	Poorly drained flats with scattered rocky rises. Alluvium over granitic rocks. Wet soils (sometimes saline) pale deep sands and duplex sandy gravels.	No significant areas occur within rural land in the shire.

<b>WARREN-DENMARK SOUTHLANDS – Scott Coastal Plain Portion</b>		
Br Broke	Poorly drained coastal plain with scattered rocky rises. Alluvium over granitic rocks. Wet soils and pale deep sands.	Blackwater, Cleave, Jasper, Kordabup, Owingup, Major Valleys, Walpole, Collis, Hawk, Keystone, Mataband.
Nk Nullakai	Coastal dunes and rocky headlands. Aeolian sand and limestone over granitic rocks. Calcareous deep sands and pale deep sands.	Meerup, D'Entrecasteaux
<b>BOOROKUP LAKES ZONE</b>		
Uc Unicap System	Poorly drained flats with lakes and low dunes. Alluvium over granitic rocks. Pale deep sand, wet soils (often saline) and grey deep sandy duplex.	Unicap, Camballup, Morande, Bevan, Lindsay.
<b>DONNYBROOK SUNKLANDS – Scott Coastal Plain Portion</b>		
Dx D'Entrecasteaux Dunes	Coastal dunes. Aeolian sand and limestone over sedimentary rocks. Calcareous deep sands, pale deep sands are yellow deep sands.	No significant areas occur within rural land in the Shire.
Np Nilup	Plain with broad swampy depressions. Deeping weathered profile over sedimentary rocks. Duplex sandy gravels, semi-wet soils, pale deep sands, wet soils, grey deep sandy duplexes and loamy gravel.	Kingia.

\* Note. Subsystems can occur within a variety of systems.

\*\* WA Soil Groups (*Schoknecht 1999*)



**Figure 5: Soil-Landscape Systems of the Shire of Manjimup**

#### 4.3.4 Land Capability

##### 4.3.4.1 General Principles

Land capability is a term used to express the ability of land to support a proposed form of land use with minimal risk of degradation to its soil or water resources. Soil landscape mapping provides the framework and data for assessments of land use capability.

Land capability is related to, but separate from, the concept of land suitability. Land suitability is a broader form of land use evaluation that forms the essence of land use planning. It is the potential use to which land can be put, based on a consideration of the prevailing physical, technical and socio-economic factors.

Soil landscape mapping and capability assessment are not the sole determinants of planning decisions in rural areas. They are, however, an important aid to decision making because if land is used beyond its capability it ultimately loses its productive capacity for both agricultural and non-agricultural uses.

##### 4.3.4.2 Land Uses

Four broad land use activities have been assessed for rural areas of the Shire of Manjimup. These are defined as follows;

Grazing - non-irrigated pasture used for sheep or other hoofed stock with occasional reseeding and fertiliser topdressing.

Annual Horticulture - irrigated annual vegetable crops but also encompassing commercial turf production and cut flowers, all of which are generally shallow rooting and the soil is cultivated at least once a year and regularly fertilised.

Perennial Horticulture - irrigated orchards, vineyards or tree crops, of generally deep rooting species and the soil is generally cultivated only at initial planting, but is regularly fertilised.

Rural-residential - this is defined as the use of land within a rural environment for predominantly residential purposes. It is undertaken on larger lot sizes than in urban areas, and with the need to use the soil environment for the absorption and purification of septic tank effluent and domestic wastewater.

It should be noted that the capability assessment method, being based on landform and soils data, does not take into account factors such as land tenure, vegetation cover, available water supply or the need for setbacks from watercourses or wetlands. Such site-specific factors will also need to be considered in order to determine areas that are most suitable for a proposed form of land use.

##### 4.3.4.3 Classification Method

Land capability classification is the systematic arrangement of land (soil landscape mapping units) into various categories according to their ability to sustain a defined form of use (and level of land management) without significant risk of land degradation.

The methodology involves a comparison of detailed soil and landform data, for each map unit, against the productivity and land management requirements of a proposed form of land use (expressed as a rating table). The process is described in the Department of Agriculture publications "Land Evaluation Standards for Land Resource Mapping" (van Goof and Moore 1998) and "Land Capability Assessment Methodology" (Wells and King 1989).

The capability classification system focuses on land use limitations with usually five classes reflecting the severity of physical limitations ranging from class 1 ('very high' capability - no significant limitations) to class 5 ('very low' capability - severe limitations).

Additionally, capability sub-classes indicate the limiting factor or factors for a particular land use (for example erosion risk or the soil's ability to retain nutrients). However, it is only at the relatively detailed land unit level of mapping where definitive statements can be made about such factors. Therefore specific land use capability ratings can only be determined for the component land units within each sub-system.

Within the Shire of Manjimup, soil landscape mapping is only available at the subsystems level. Because of

their inherent degree of variation, soil landscape subsystems cannot be directly interpreted for land capability. The mapping units are complex, each containing a suite of land units. As a result, statements about land use capability must be made on a proportional basis, expressed as follows;

- A - map unit where more than 70% of the land is suitable (Classes 1, 2 or 3) for the proposed use
- B - map unit where 50 - 70% of the land is suitable (Classes 1, 2 or 3) for the proposed use
- C - map unit where less than 50% of the land is suitable (Classes 1, 2 or 3) for the proposed use

#### 4.3.4.4 Assessment Results

Land capability assessment results for the soil landscape subsystems within the Shire of Manjimup are provided in Appendix C. Maps showing a regional picture of the capability of land within the Shire of Manjimup for specific land uses are not included within this report. However, the Department's capability interpretations for agricultural land uses have formed an integral component of the process of determining areas of agricultural significance within the Shire.

Not forsaking the value of the soil landscape mapping and subsequent capability interpretations to present a 'broad-scale' picture of land use constraints and opportunities, it is important to recognise the limitations of the data in relation to scale. For specific land use proposals, more detailed mapping and assessment should be undertaken as a precursor to land development.

#### 4.3.5 Planning Implications

##### 4.3.5.1 Climate Change

There is a potential for water shortages in some horticultural areas of the Shire of Manjimup if allocations are based on a wetter rainfall sequences than are currently being experienced. Continuing investigations of the affect of climate variability on water resources are therefore being undertaken by DEWCAP and the Water Corporation in order to best determine appropriate allocations to existing users and to proposed water sources (*Water and Rivers Commission 1997*).

Although local government is currently not directly involved in water allocations it is important that planning strategies, which can encourage or discourage high water consuming land uses in certain areas, are developed in a climate of awareness of the status of this basic natural resource.

As a drier climate would impinge on the existing agricultural industries within the Shire of Manjimup, investigations are required to identify commercial agricultural enterprises better suited to the changing conditions. It is anticipated that such investigations would be undertaken by the Department of Agriculture as part of its ongoing research into opportunities for agricultural diversification. However, the Shire again needs to be cognisant of the issue and give encouragement to the establishment of such new enterprises, particularly where they are affected by a requirement for planning approval.

##### 4.3.5.2 Visual Character

The dominant visual character of much of the Shire is associated with areas of forest. The diversity of natural vegetation within the Shire is represented within its gazetted State Forests, National Parks, and areas of remnant vegetation on private land. Tourist activity is heavily dependent upon the attraction of the forest and its unique environment.

Importantly, the forest also provides the basis for timber production, which forms such a significant - but decreasing - component of the local economy. In future it is expected that an increased proportion of timber resources will come from plantations established in agricultural areas. The plantation industry has added a further dimension to the Shire's vegetation pattern and its visual character.

##### 4.3.5.3 Vegetation Protection and Enhancement

The removal of native vegetation within freehold areas of the Shire has been integral to the development of

a strong agricultural industry. However, as in most agricultural areas, this has not been without adverse effects. Clearing of native vegetation has been a major contributor to reduced water quality in streams and wetlands, and has brought about a loss of flora and fauna habitat. Clearing has also led to raised water tables, salinisation and increased export of nutrients within some catchments.

Planning processes should therefore be used as far as possible to protect and enhance the remaining areas of native vegetation within freehold areas, particularly within strategically important locations such as riparian zones and groundwater recharge areas.

#### 4.3.5.4 Using Soil-Landscape Mapping and Capability Information for Planning

An understanding of the Shire's land resources, together with their capabilities and limitations helps to ensure that land use and planning decisions adequately reflect site-specific environmental conditions and do not contribute towards land degradation.

The scale of land resource mapping, and hence the level of land capability assessment outlined within this document, is not sufficient for the planning or assessment of specific development proposals. The information does, however, give guidance - at a broad scale - on areas likely to contain land that is physically suitable for particular uses, and the land management issues that need to be considered.

#### 4.3.5.5 Land Degradation and Land Management

Given the inherent degree of variation of soil and landform conditions within the soil-landscape subsystems mapping, only very general statements can be made about land degradation risks of particular map units.

Table 7 identifies the areas that are most susceptible to various forms of land degradation. This is based on the Department of Agriculture's ratings for individual land units, aggregated into subsystems. This information supersedes and updates the assessments given in the 1993 Local Rural Strategy; which, in turn, were based on the study of "Land Management Requirements in the Manjimup Land Conservation District" (Read 1991).

More definitive statements about risks of land degradation can be made about component 'land units' within each subsystem. The reader is referred to the Department of Agriculture for details of land units expected to occur within each subsystem. Proponents of development or agricultural change are also encouraged to identify and map land management units as part of their land use planning process.

It is emphasised however that the actual occurrence of land degradation in any location is strongly determined by land management practices. Appendix A contains a list of relevant 'Codes of Practice' and 'Environmental Planning' documents to assist the level of awareness among users of the LPS of current agricultural land management requirements and responsibilities.

**Table 7: Areas Particularly Susceptible to Land Degradation**

Form of Land Degradation	Subsystems most susceptible*
Water Erosion	within Pimelia Valleys System - Donnelly (Do), Warren (WA) and Major valley type 1 (1/1) within Walpole Hills System - Major valley type 1 (VI) within Wilgarup Valleys System - Yerraminup valley floor (Yef)
Waterlogging	within Broke System - Blackwater (BWp), Jasper (JA), Kordabup (KO), Owingup (OW) and Major Valleys type 4 (V4) within Manjimup Plateau System - Camballup (CM), Kapalarup (KP), Quindabellup (QN), Yornup (YR) within Northcliffe System- Major Valleys type 4 (V4) within Pingerup System- Major Valleys type 4 (V4) within Walpole Hills System- Major Valleys type 4 (V4) within Perup Plateau System - Kapalarup (KP), and Yornup (YR) within Unicup System - Camballup (CM), Morande (MO).
Salinity	within Unicup System - Unicup type I (Uc_1) Unicup type 4 (Uc_4), Morande (MO). Cattaminup (CP) and Yornup (YR).
Wind Erosion	within Broke System - Keystone - brown (Kb) within Nullaki System - D'Entrecasteaux (E) Meerup - calcareous (Mc), Meerup - podzols (Mp), Meerup - ridges (Mr), Meerup - silicoeouds sands (Ms) Meerup - unstable (Mu) and Meerup - youngest phase (My) within Walpole Hills System - - Keystone - brown (Kb) within Unicup System - Unicup type 2 (Uc_2).
Phosphorous Loss	within Broke System - Blackwater (BWp), Cleave (CV), Jasper (JA), Kordabup (KO), Owingup (OW), Major Valleys type 4 (V4) and Walpole (WA). within Manjimup Plateau System - Kapalarup (KP), Pingerup (Pi), and Yornup (YR). within Northcliffe System - Quagering (Q) and Major Valleys type 4 (V4). within Pingerup System - (Burnett (BU), Pingerup (P1) Quagering (0) and Major Valleys type 4 (V4). within Perup Plateau System - Kapalarup (KP), Yornup (YR) within Pimelia Valleys System - Quagering (0) within Walpole Hills System - Keystone gravely (Kg), Quagering (0) and Major Valleys type 4 (V4) within Wilgarup Valleys System - Yerraminup valley floor (Yef)

\* > 50% of the subsystem has a 'high' or 'extreme' risk

## 4.4 Water Resources

### 4.4.1 Surface Water

#### 4.4.1.1 Overview

The Shire of Manjimup forms part of the Donnelly, Warren, Shannon and Frankland River Basins. Catchments within these river basins have considerable water supply, recreational, heritage and environmental values. In recognition of these values and the need to integrate catchment management with land use planning, the Warren-Blackwood Regional Planning Strategy has adopted "Natural Resource Zones" (Allison *et al* 1993), which are initially based on drainage basins, as the framework for its 'regional planning units' (Figure 6).

As part of the National Land and Water Resources Audit a review has recently been undertaken of the mean annual flows, water quality, existing use, and potential future allocation of water resources from catchments within drainage basins (Water and Rivers Commission 2000). From this, management objectives have been determined, and updated estimates made of the current and sustainable water resource yields.

As part of the Local Planning Strategy, water resource availability and catchment management are important considerations in determining rural planning precincts and planning/land management guidelines. Mapping and data relating to catchments within the Shire of Manjimup are contained within Appendix D, with the salient features summarised below.

#### 4.4.1.2 Summary of Water Resources Audit

In summary, the Audit data in [Appendix D](#) indicates the following;

##### Donnelly Basin

- Water resources within the Shire of Manjimup portion of the basin are fresh with the exception of the Manjimup Brook catchment (D6) in the Shire's north west where water quality is currently marginal.
- Most other catchments contain only minor areas of rural land.
- Subject to addressing water quality issues, the Manjimup Brook catchment has 'high' potential water availability for agriculture (ie. sufficient available water and suitable soils to support more than 500 ha of additional irrigated horticulture).

##### Warren Basin

- Upper portions in the north-east of the Shire (Tone, Perup and Yerraminnup River catchments: W13, 14 and 15) have brackish water quality that is generally unsuitable for irrigated horticulture. These catchments contain little existing horticultural land use.
- The central portions (Wilgarup: W11 and Warren River: W4 catchments) have marginal water quality. These catchments contain some areas currently used for irrigated horticulture and are part of the Warren Water reserve where land management strategies and clearing controls are aimed at restoring water quality.
- Substantial good quality water resources are notionally available to support further horticultural development within much of the lower part of the Warren River basin, although in many catchments there are only minor areas of rural land.
- Within the Wilgarup River catchment (W11) and Upper Lefroy (W24) there is 'low' potential water availability despite significant areas of suitable soils, Water resources have been substantially utilised by existing users and any further growth of horticulture in these areas is likely to be driven by more efficient use, or transfer of current allocations.
- Water quality is fresh for the remaining portions of the river basin, generally around the Manjimup/Pemberton axis (Smiths W2, Lefroy W9122, East W8, Treen W6 and Big W20, Brooks) where there are good quality soils and considerable existing irrigated horticulture and some town water supply demands. The potential availability of water for further irrigated horticultural development varies from 'moderate' (sufficient for additional 100 - 500 ha) to 'high' (sufficient for more than 500 ha) depending on the catchment.
- Particular consideration of protection of water quality is required within the Lefroy Brook catchment where public water supplies are sourced.

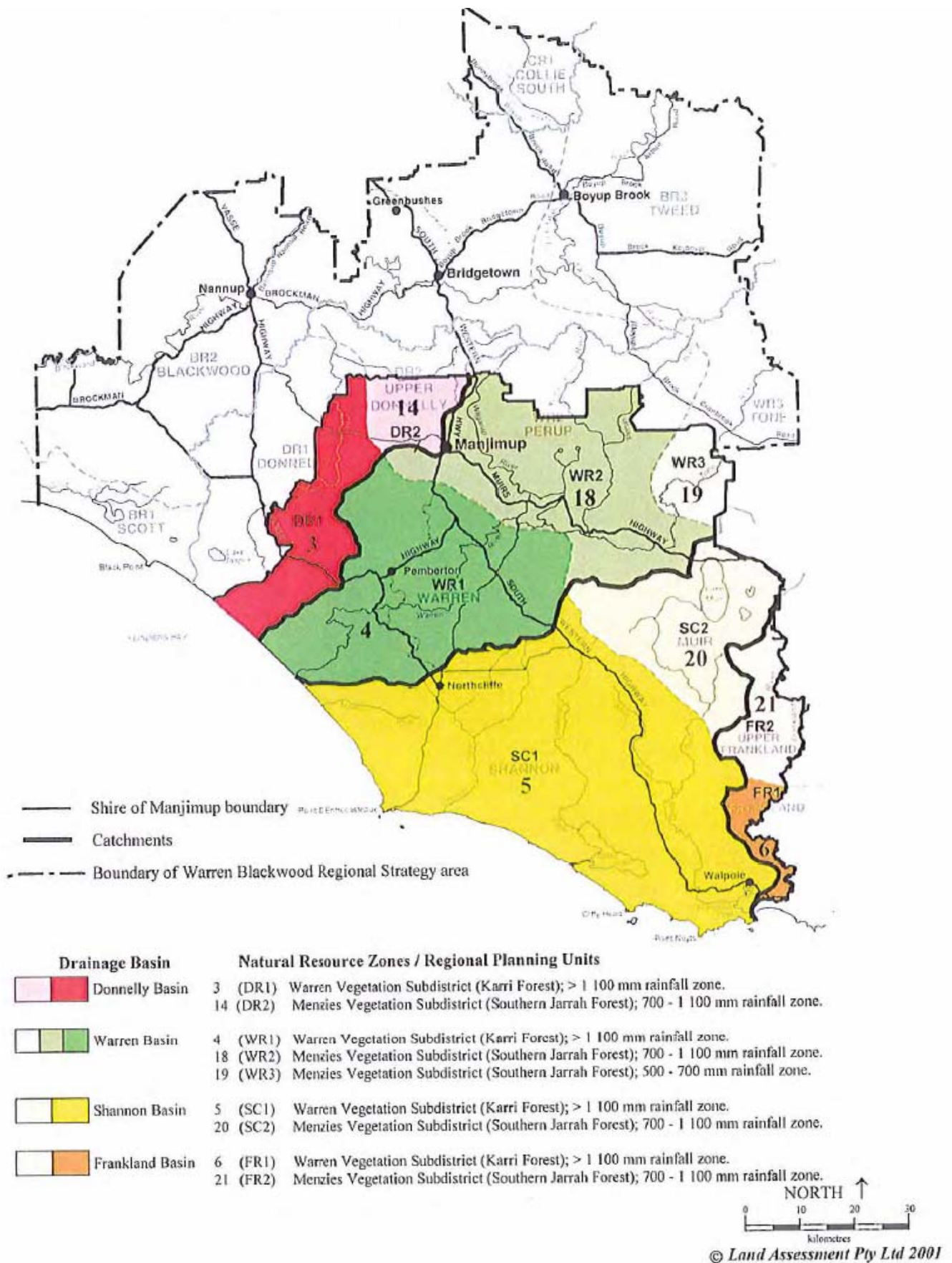
##### Shannon Basin

- Water quality is fresh.
- Only relatively minor areas of private land occur within much of the river basin.
- The potential availability of water for further irrigated horticultural development within the Gardner catchment (S13) near Northcliffe is 'high' (ie. sufficient available water and suitable soils to support more than 500 ha of additional irrigated horticulture).
- There is little horticultural development potential elsewhere within the Shannon Basin.
- Particular consideration of protection of water quality is required within Walpole River catchment where public water supplies are sourced.
- The Shannon River (S10), Deep River (S1 and S2) and Weld River (S3), in addition to the lower portions of Doggerup Creek (S19), Meerup River (S20) and Collier Creek (S6) catchments have pre-eminent environmental values and water resource development is highly restricted.

##### Frankland Basin

- Water quality is brackish to marginal.
- Only minor areas of the Shire's rural land occur within this basin.



**Figure 6: Drainage Basins and Natural Resource Zones**



- Frankland River catchment has pre-eminent environmental values and water resource development is highly restricted.

#### 4.4.1.3 Water Resource Protection and Controls

##### ☐ Water for Public Drinking Supplies

Figure 7 shows gazetted Public Drinking Water Source Areas (PDWSAs) and other Water Reserves within the Shire of Manjimup. PDWSAs are proclaimed under the Country Areas Water Supply Act 1947 and allow land uses to be managed to protect areas that are currently used, or have the potential to be used in the future, as public drinking water sources.

Proclaimed catchment areas or water reserves are in place under the Act for Lefroy Brook (Pemberton townsite supply), Phillips Creek and Manjimup Dam (Manjimup townsite supply), and Armstrong Weir (Northcliffe townsite supply). Other sources of public drinking water yet to be proclaimed are the Walpole River and Butlers Creek, for Walpole, and Quinninup Brook for Quinninup.

Water reserves have been gazetted for parts of the Donnelly, Warren and Deep Rivers. Contemporary management objectives for these catchments are strongly focussed on managing water quality impacts associated with clearing, and with preserving the river system's environmental and social values.

In recognition of its significant water resource development potential, the Warren River Basin has been subject to clearing controls since the late 1970's and has priority status under the State Salinity Action Plan for restoration to potable water quality. To assist salinity management, any clearing of vegetation within the Warren catchment has been subject to Water and Rivers Commission licensing since the late 1970's.

A WSPP for Quinninup has been completed by the DoE. The Water Corporation has been delegated responsibility to prepare a number of WSPPs under supervision of the DoE. The Water Corporation has initiated the development process for WSPPs for Walpole Weir and Butlers Creek (Walpole), Armstrong Weir (Northcliffe), Lefroy Brook (Pemberton) and Manjimup Dam and Phillips Creek (Manjimup). The DoE has yet to initiate the plan for Warren River.

##### ☐ Water for Agricultural Purposes

The Warren and Donnelly Rivers and all their tributaries have been proclaimed under the *Rights in Water and Irrigation Act 1914*, whereby any taking or diversion of surface water for purposes other than domestic or stock use is subject to licensing by the Water and Rivers Commission. Each licence will have a number of conditions which are binding on the landowner, including (but not limited to):

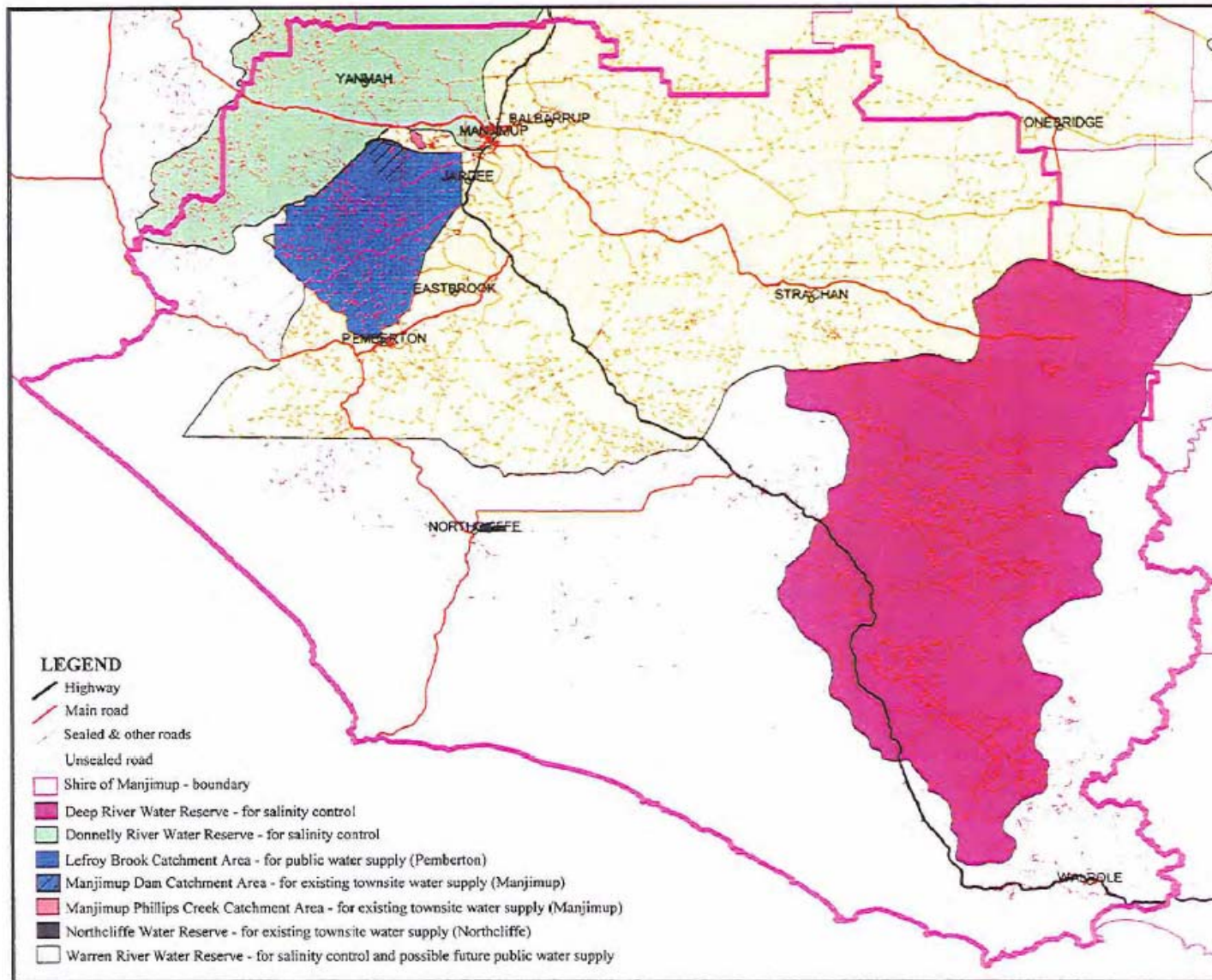
- annual usage and daily pump rates;
- bypassing low flow to downstream users;
- keeping ponding and overflow waters within the property boundary;
- reduction or limitations to the amount of water pumped from a watercourse during low flow periods.

#### 4.4.1.4 Water Law Reform

The State Government has entered into an agreement with other Australian Governments (*Council of Australian Governments: COAG*) to reform the way in which water resources are controlled and managed.

The agreement requires changes to laws and administrative processes that are primarily within the domain of the WRC. The current principal water resource management act - the *Rights in Water and Irrigation Act 1914* established a water management system that is simplistic and out of date with modern requirements because:

**Figure 7: Shire of Manjimup – Gazetted Water Reserves and PDWSA's\***



\* Public Drinking Water Supply Areas

The agreement requires changes to laws and administrative processes that are primarily within the domain of the WRC. The current principal water resource management act - the Rights in Water and Irrigation Act 1914 established a water management system that is simplistic and out of date with modern requirements because:

- it fails to recognise water uses other than irrigation, or the need to manage the environmental and social impacts of water use; and
- it doesn't provide for community input into management decisions or for passing power and responsibility on to water users.

A bill amending the 1914 Act has been introduced to Parliament. The proposed changes include trading in water licences and the ability of local groups to contribute directly to water management decision-making. It is anticipated that these changes will provide a statutory basis for WRC, in conjunction with local water users, to develop locally applicable rules to better address issues such as:

- providing opportunities for new economic activity in areas where water resources are fully allocated, or approaching full allocation;
- protecting the riparian environment of the water courses;
- transporting water from one property to another along a stream;
- building and operating dams;
- managing return flows to water courses to reduce the risk of algal blooms; and
- preventing the flooding of neighbouring land by dams.

#### 4.4.2 Groundwater

The occurrence of groundwater resources is related to the major geomorphic units and the regional geology shown earlier in [Figure 4](#) and in [Figure 8](#) overleaf.

##### 4.4.2.1 Darling Plateau

Groundwater occurs in open fractures in the unweathered crystalline basement rocks of the Darling Plateau, and also within the highly variable clay, clayey sand, sand and laterite gravel deposits up to 50 m thick in the overlying weathered zone. However yields are generally poor, ranging from very low ( $< 10 \text{ m}^3/\text{d}$ ) to moderate ( $50 - 300 \text{ m}^3/\text{d}$ ). Quality is also quite variable with higher salinities more prevalent in the low rainfall inland areas.

In the major tributary catchment divides the weathered zone is partly covered by isolated remnants of Tertiary sediments which are believed to contain up to 15 m of sand and gravel beneath about 4 m of clay and laterite. Although water quality is highly variable over short distances expected bore yields are moderate to high and there is the potential to find sources suitable to supply small to medium sized towns.

##### 4.4.2.2 Scott Coastal Plain

On the western side of the Darling Fault the Scott Coastal Plain forms part of the Southern Perth Basin where there are believed to be considerable low salinity groundwater resources within the Superficial, Leederville and Yarragadee aquifers. However, this portion of the Perth Basin comprises a relatively small area within the Shire of Manjimup and the presence of the D'Entrecasteaux National Park precludes development.

On the eastern side of the Darling Fault a Quaternary calcarenite aquifer, which overlies the basement rock, extends along the coast and up to 9 km inland. This is mostly unexplored, however the saturated aquifer thickness is believed to be very thin and likely to contain only minor groundwater resources. Again, the presence of the Shannon D'Entrecasteaux and Walpole-Nornalup National Parks precludes development.

##### 4.4.2.3 Controls on Use

No areas within the Shire outside of National Parks are considered highly prospective for groundwater and there are no proclaimed groundwater management areas. Nevertheless a licence is required from the Water and Rivers Commission for any abstraction of groundwater which, when tapped by a bore, would flow to the surface.

#### 4.4.3 Wetlands

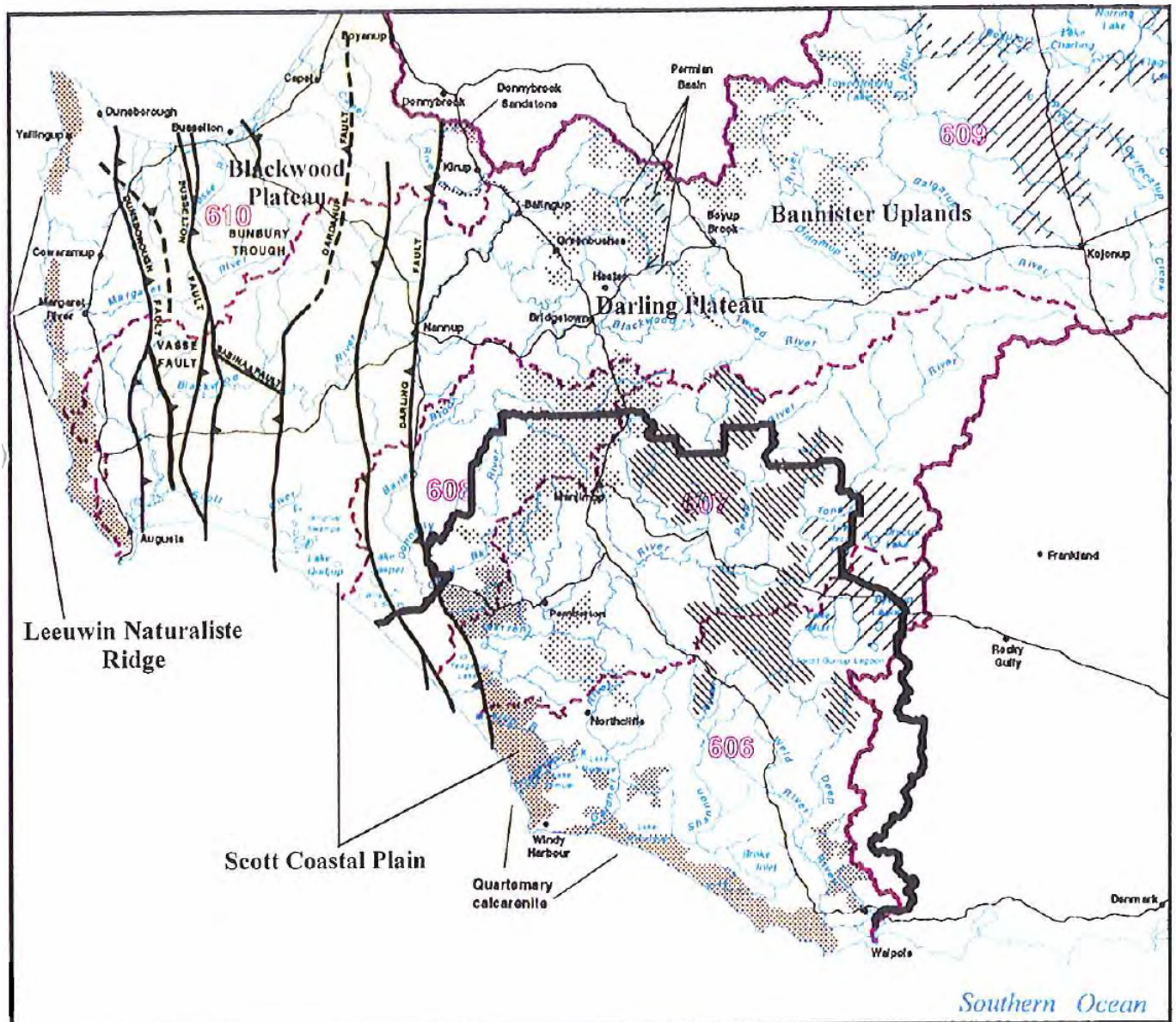
Wetlands form a vital part of the environment and to this end the State government has supported the development of the "Wetlands Conservation Policy for Western Australia, 1997" and the "Environmental Protection (South West Agricultural Zone Wetlands) Policy Approval Order, 1998".

Mapping and classification of wetlands within the Augusta to Walpole region, as well as a baseline study of the Walpole and Nornalup Inlets, has been undertaken by the *V & C Serneniuk Research Group (1997, 2001)*. A systematic overview of the environmental values of the wetlands, rivers and estuaries of the Busselton to Walpole region has also been undertaken by Pen (1997).

Within the Shire of Manjimup, three broad wetland systems have been identified by Pen as being of particular environmental significance. These are:

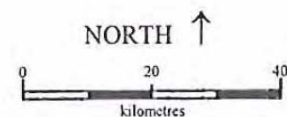
- those occurring within the D'Entrecasteaux National Park;
- Broke Inlet (virtually entirely within National Park); and
- Muir/Uncup wetland system - an internationally significant, Ramsar listed system, which is the best remaining representative area of inland lakes and swamps in the southwest.



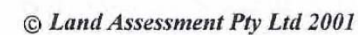
**Figure 8: Regional Groundwater Geology**

- Quaternary calcarenite
- Tertiary Sediments
- Donnybrook Sandstone
- Perth Basin
- Permian Basin
- Quartzite within basement
- Fresh (< 500 mg/L TDS)
- Marginal (500 - 1500 mg/L TDS)
- Brackish (1500 - 5000 mg/L TDS)
- Saline (> 5000 mg/L TDS)
- Geological fault
- Basin boundary

— Shire of Manjimup boundary



Page 50





Many of the Shire's wetlands occur within National Parks, State Forest and other reserves forming part of the CALM estate - arid beyond the direct area of influence of the Local Planning Strategy. However, because the catchments (surface or groundwater) can extend into the Shire's freehold areas it is important to identify wetlands in proximity to, as well as within, the rural freehold areas. [Figure 9](#) shows important wetlands, rivers and estuaries within the Shire. A listing and brief discussion of these is contained within [Appendix D](#).

An "Action Plan for the Walpole and Nornalup Inlets and their Catchment" (*Ecotones and Associates 2000*) has been prepared for the Walpole and Nornalup Inlet Systems Advisory Committee (WAMSAC). This document recommends a range of environmental condition surveys and community liaison activities, and the adoption of Water Sensitive Urban Design principles for Walpole townsite. The latter is addressed in the "Urban Stormwater Management Plan for Walpole" (*PPK 2000*)

#### 4.4.4 Planning Implications

##### 4.4.4.1 Allocation of Water for Agricultural Uses

A water supply of adequate quantity and quality is a critical factor for many existing and future horticultural operations within the Shire. In assessing applications for water allocations the WRC will be cognisant of the results of the National Land and Water Resources Audit, which suggests that water resources will be available to support modest expansion of horticultural activities within most areas of the Shire.

Areas of possible exception are the Wilgarup catchment, east of Manjimup townsite, and the upper portion of the Lefroy catchment, to the south. Within these catchments further significant expansion of irrigated horticulture will be contingent on improved water use efficiency and transferable water mechanisms.

##### 4.4.4.2 Land Use Controls to Protect Public Drinking Water

WRC considers that recognition of PDWSAs through the application of a *Special Control Area (SCA)* within the Town Planning Scheme is an effective way to ensure long-term protection through the planning process. Given the range of existing and potential land uses within the Lefroy Brook and Walpole River catchments, and the need to protect the quality of public water supplies for Pemberton and Walpole, it is recommended that Special Control Areas be designated for these PDWSAs. Two example SCA 'templates', consistent with the Model Scheme Text, are included in [Appendix E](#).

To assist local government land use planning decisions in PDWSAs, a Water Quality Protection Note "Land Use Compatibility in Public Drinking Water Source Areas" outlines the WRC position on the compatibility of a range of land uses with drinking water source protection (*Water and Rivers Commission 2000c*). This document is included in [Appendix E](#) and indicates a range of land use activities that may impact upon water quality, and should therefore be referred to the WRC for assessment and advice.

##### 4.4.4.3 Future Demands for Water From Outside the Shire

The capability of water sources within the Shire to meet likely future demands has been considered as part of the study *Divertible Surface and Groundwater Resources of the Busselton-Walpole Region (Water and Rivers Commission - draft August 2000b)*. This study concludes that current annual use of the Region's surface and groundwater resources is minor compared with the estimated total divertible yield.

While the region contains sufficient divertible water resources to meet its own internal demands for the foreseeable future, to its north lies the highly populated and developed Perth-Bunbury Region, which before very long, will be approaching the limit to the development of its own divertible resources.

Also to the east (Albany - Esperance) and to the northeast (Avon - Goldfields) lie regions that have very limited resources of their own. On this basis it is likely that the divertible resources of the Busselton-Walpole Region (including the Shire of Manjimup) will be considered by other regions to meet long-term needs.

Source planning for Perth's future water supply is being conducted by the Water Corporation. The WRC's position in relation to the longer-term option of using water resources from the lower south west to supply Perth is that such investigations should be part of the normal water resource planning process. However, if anything other than desktop studies is proposed, an investigation licence from the WRC will be required (*Water and Rivers Commission 1997*).

#### 4.4.4.4 Protection of Wetlands and Waterways

##### ☐ General Considerations

Careful management of wetlands and waterways is required to protect water quality, to preserve wildlife habitat and other ecological values, and to maintain landscape aesthetics.

Consideration needs to be given to the influence of catchment land-uses when planning developments near wetlands and waterways. Land-uses with potential to export nutrients or other contaminants, should be located away from water bodies, or else managed to retain their impacts on-site.

##### ☐ Buffers and Setbacks

Water features (wetlands, watercourses, inlets and estuaries) vary in form, geological and topographical setting, and in their associated soils and vegetation. The setting of arbitrary distances for development setbacks does not take these important biophysical factors into account. However the application of generic buffer or setback distances does provide a conservative starting point and is relatively easy to administer in a planning context.

In relation to wetlands the EPA (1997) suggests 50 metres or 1 metre AHD higher than the furthest extent of wetland vegetation, whichever is the largest, would be the minimum dry land buffer required. In relation to watercourses with permanent or only seasonal water flow, the recommended minimum buffer is 50m and 30m respectively.

These minimum buffer distances assume that separation distances recommended for specific intensive land use activities and septic tanks are also applied. These recommendations include:

- 300 metres where intensive horticulture, or other land uses likely to export nutrients, are practiced on sandy soils (unless soil amendment or other nutrient management measures are undertaken).
- 100 metres for septic tanks in areas of sandy soils with a low nutrient retention ability, or 50 metres in non-sandy soils with a high nutrient retention capacity and suitable infiltration rates (also subject to 2 metres vertical separation between the base of the leach drain and the highest known groundwater levels, although this criteria and the 100 metre setback can be reduced with Health Department approved alternative systems.)

The maintenance (or enhancement where necessary) of fringing vegetation within a buffer is also essential for protection of wetlands and watercourses. Vegetated buffers have similar functions for all water bodies in that they:

- separate water habitats from human activities on surrounding land;
- provide complimentary habitats for wildlife using the water body; and
- filter nutrients and sediments entering a water body.

##### ☐ Other Measures

The establishment of a buffer alone may not be a sufficient strategy for protection. Control of runoff and other land use management practices may be needed.

In a rural setting this could include:

- the conservative application of fertilisers and irrigation;
- limiting the clearing of remnant vegetation; and
- strategic re-establishment of perennial vegetation.

In an urban setting, the protection of wetlands and waterways can be substantially brought about through the incorporation of water sensitive urban design (WSUD) principles. Under these principles, the basic concepts of water management are:

- to maximise time of concentration;
- to minimise runoff velocities and thus the erosive potential;



- to maximise infiltration throughout the catchment and not just at the bottom end;
- to minimise the amount of impervious areas which shed water and pollutants;
- to divert and retain the first flush of runoff which contains disproportionately high pollutant loads;
- to use natural structures wherever possible to retain and convey stormwater; and
- to optimise the environmental and cultural benefits of the stormwater system.

## 4.5 Areas of Agricultural Significance

### 4.5.1 Background

The recently released Statement of Planning Policy 'Agriculture and Rural Land Use Planning' (SPP 11) is guided by a number of principles including protection of the State's priority agricultural land resource. The policy requires that Local Planning Strategies identify agricultural areas of State or regional significance and provide a guide for future land use, zoning, subdivision and development within these areas.

An agricultural area of State or regional significance is defined in SPP 11 as:

*"...one that contains productive agricultural land that is suitable for sustainable development of key or specialised agricultural uses that are of significant economic or social value to the State or a particular region".*

SPP 11 provides examples of various key or specialised agricultural uses, all of which are forms of horticulture.

As part of SPP 11 the Department of Agriculture has conceptually identified areas of potential state or regional agricultural significance (termed 'Agriculture Priority Management Areas' - APMA's) as shown in Figure 10. SPP 11 indicates that regional and local planning processes should be used to refine the boundaries of these areas.

Within the Shire most freehold land in the Manjimup and Pemberton localities, and west of Nyamup and Quinninup, is identified in Figure 10 as an 'Existing Area'. This is defined in SPP 11 as:

*"...an area containing a comparatively high concentration of irrigated and intensive agricultural uses".*

Around both Northcliffe and Walpole, freehold land is identified as a 'Potential / Developing Area'. This is defined as:

*"...an area that is undergoing intensification of agricultural land use and investment in irrigation infrastructure or may be suitable for irrigated and intensive agricultural use subject to detailed investigation".*

### 4.5.2 The Process of Defining Areas

Within the Warren Blackwood Shires the process of refining the APMA's into areas of state or regional significance has been co-ordinated by the Department of Planning and Infrastructure. It has involved a series of meetings with Shire representatives, staff of the Department of Agriculture, the Water and Rivers Commission, and consultants involved in the Local Planning Strategies.

The process is expected to be described within the Warren-Blackwood Rural Strategy, and hence only a brief overview is necessary here. In accordance with Department of Agriculture recommendations (*Kinnimonth 2000*) it has been undertaken using consultative mechanisms in conjunction with interpretation of published data.

At an initial Department of Agriculture facilitated workshop, held in Manjimup on 31 May 2001, the need for the areas of agricultural significance to focus on intensive agricultural crops (horticulture) was re-affirmed. This was because of horticulture's:

- higher production value per hectare compared with many other agricultural uses;
- requirement for a combination of suitable land and available water resources; and
- strategic location needs in relation to infrastructure, labour, services and markets.

Definition of areas of significance therefore focussed on the synthesis of two primary resource factors:

- the capability of the land for horticulture (both annual and perennial forms) - using data provided by the Department of Agriculture and based on soil landscape subsystem mapping (Appendix C); and

- the availability of water - based on Water and Rivers Commission data from the National Land and Water Resources Audit ([Appendix D](#)) with an interpretation of the nominally available water resource for future horticulture\* after allowing for current allocations, and ecological water requirements\*\*

\* Current water allocation policies are based on a 'first come first served' principle (after retaining water for environmental requirements) and hence water may well be used for other beneficial uses apart from horticulture.

\*\* Ecological Water Requirements (EWRs) are the water regimes needed to maintain ecological values of water dependent ecosystems at a low level of risk.

The information was brought together within a framework of catchments defined as part of the Audit (see Appendix D, Figure D1) and using 'areas of irrigatable land' as a common denominator. Within each of the Warren Blackwood sub-catchments the net potential for further horticultural development was determined by the most limiting factor, be it the extent of suitable higher capability soils, or the nominal area that might be irrigated from that sub-catchment's available water resources.

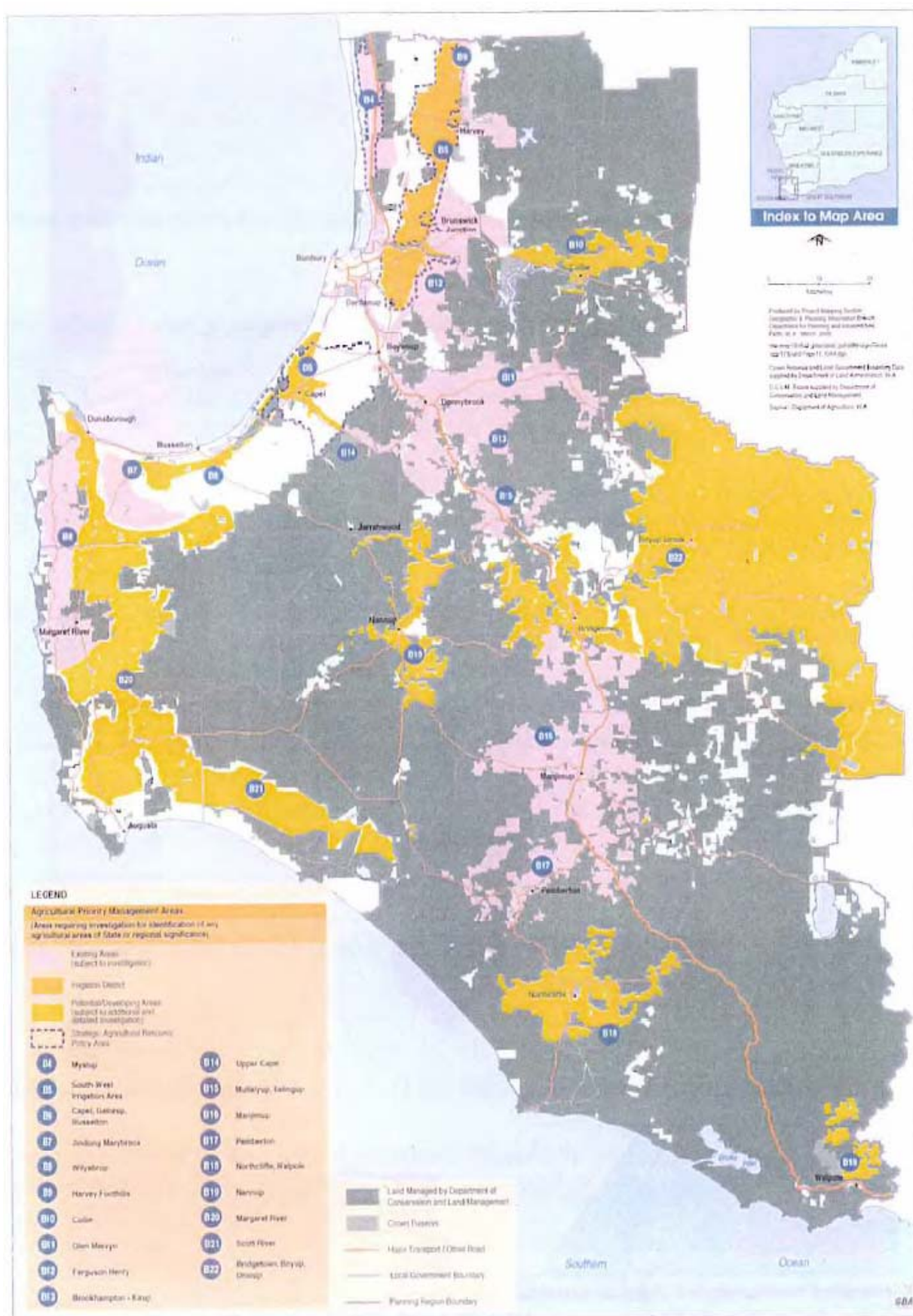
This synthesis of the 'good soils' and 'potentially available water' enables sub-catchments to be categorised as either;

High potential - areas within which there is sufficient available water and higher capability soils to support more than 500 ha of further horticultural development, or

Moderate potential - areas within which there is sufficient available water and higher capability soils to support between 100 and 500 ha of further horticultural development, or

Low potential - areas within which there is sufficient available water and higher capability soils to support less than 100 ha of further horticultural development, or where environmental considerations are pre-eminent.

Page 55



Areas of significance were then identified primarily on the basis of where mapping showed a concentration of areas of 'high' potential. However, they also included some areas of 'moderate' potential where the data indicated the area of good quality soils was a limited resource in relation to the available water.

Further refinement occurred through the exclusion of areas of less than 700 mm rainfall. This was on the basis of Department of Agriculture advice (11 Brockman pers comm) that 700 mm generally represented the climatic limit for *dry land viticulture*. Areas with a concentration of existing horticulture were also included (based on aerial photo interpretation and Councillors' local knowledge). The latter include areas such as the Upper Lefroy catchment where there is relatively low potential for significant expansion of horticulture due to limited water availability, but the area is nevertheless of agricultural significance due to existing productivity.

Other factors are identified by the Department of Agriculture (*Kininmonth 2000*) as being relevant to consider include infrastructure, availability of labour, existing services and facilities. However, in most of the Shire the effects of these factors is uniform, and the ranking of one area of significance against another serves no purpose.

#### 4.5.3 The Results

Areas of State or regional agricultural significance in the Shire of Manjimup are shown in the Warren-Blackwood Rural Strategy and, as required by SPP 11, have been reflected as "Priority Agricultural" areas within section 6 of the Local Planning Strategy.

Only relatively minor refinements, such as adjusting boundaries to relevant cadastre, have been made to the 'areas of agricultural significance' determined by the Warren-Blackwood Rural Strategy. This is because the available sources of information and expertise, as well as the processes to be followed, are the same for both local authority and regional planning studies.

#### 4.5.4 Special Control Areas

In accordance with the Model Scheme Text (WAPC 1997), Special Control Areas (SCA) are proposed to deal with issues that overlap zone and reserve boundaries. The protection and fostering of agriculture in areas of state or regional significance within the Lefroy Brook catchment is one such issue.

The gazetted Lefroy Brook Catchment Area ([Figure 7](#)) extends northwards from Pemberton to just south west of the Manjimup townsite. It contains significant amounts of high capability land and existing horticulture, and is also a source of public drinking water. There is therefore a need to carefully manage land uses within this area to balance competing resource protection interests.

Designation within the Town Planning Scheme of an SCA is therefore recommended for the Lefroy Brook Catchment as shown at Figures 21 and 27. [Appendix E](#) provides sample text for a SCA relating to the water protection issue, however this should be broadened to include reference to its agricultural significance.

Furthermore, within the Lefroy Brook Catchment, there is an important need for awareness and implementation of 'best management practices'. Appropriate references to such are included within Appendix A.

[Figures 26 and 27](#) show the proposed Special Control Area boundary that will be imposed when a Water Source Protection Plan has been adopted for the Walpole Weir Catchment Area and the Butlers Creek Dam Catchment Area. Private farming land will be affected by the protection plan and it has been suggested that the protected catchment area could be proclaimed over land in the State Forest rather than on private land. This would avoid placing constraints upon the farming area.

The "Quinninup Catchment Area" covers most of the settlement, Karri Lake and the area immediately to the east and has had a Water Source Protection Plan already adopted over it. A Special Control Area in the new TPS 4 will designate this area appropriately.

Other areas of agricultural significance within the Shire are probably not in need of designation as Special Control Areas. This is because they are predominantly areas without overlapping water (public drinking) resource protection requirements, and where the planning issue of agricultural resource protection can be satisfactorily addressed through identification of Priority Agriculture Zones in the Scheme.

## 4.6 Population Profile

#### 4.6.1 Population

From 1961, when the population of the Shire was 10,195 people, the Shire experienced a steady decline in population through to 1976 when the population reached a low of 8,402 people. This decline was common throughout the agricultural areas of the State as residents left the countryside for employment, educational and other reasons for Perth and regional centres.

Table 8 provides an overview of the changes in the Shire's population since 1976 based upon Census figures to 2001. Additionally, Table 8 shows the Shire's projected population to 2021 based upon the estimates by the Western Australian Planning Commission (see Table 8 - Notes).

Since 1976 the Shire's actual annual growth rate has been 0.676%. The projected population based upon a medium growth scenario is 12,500 people in 2021, which represents an annual average growth rate of 1.4%. The Australian Bureau of Statistics last official population growth rate estimate for the State from 1986 to 1999 is 1.79%. The State's growth rate is the highest in Australia, which has a national growth rate of 1.26% and the southwest region varied from 2.8% - 3.8%. This indicates that the Shire has a significantly lower growth rate than the region, the State and the overall national estimate.

Preliminary figures from the Census 2001 showed the population of the Shire to be 10,030, slightly less than the previous year at a time when the region and State population grew by 1.2% per annum.

A number of factors combined to cause the Shire to have a lower than average rate of population growth in recent years. The relatively stable population figure has had periods of growth and decline since 1961. In recent years the loss of some residents has been balanced by incoming residents but it will be noted from the 2001 ABS Census (first release) that the total Shire population has fallen since the 1996 census by 226 people.

The main reasons people have left the area in recent years are:

- closure of timber mills and structural changes to the timber industry;
- loss of employment opportunities in activities associated with the timber industry;
- changes in agricultural practices resulting in reduced employment opportunities.

During the last quarter of 2000 total employment in the Shire increased by 3.9% and by 7.6% over 2001. During the same period growth in employment for the State was only 1.3% (*DPI 2001*). While the unemployment figure actually dropped during that period and was lower than the State average, employment in the timber industry had fallen from 572 direct jobs at the start of 2001 to just 280 direct jobs by September of that year (with a consequent loss of over 410 million in wages and salaries). Unemployment in that industry could increase further in the short term as the continuing impact of re-structuring takes effect. [Refer to Appendix B]

Other present indicators of population growth are generally slightly lower than they were in 2000, including non-residential building activity, residential building approvals and tourism projects.

Factors working to maintain consumer confidence, and in turn to overcome the loss of jobs and subsequent population from the area due to the changes to the timber industry, include:

- diversification in agriculture, particularly viticulture, horticulture and aquaculture;
- an increase in tourism and tourism activity;
- attraction of the area for a variety of lifestyle opportunities; and
- an increase in people retiring to the area, particularly younger retirees often investing superannuation payouts into agriculture, tourism and other business ventures.

The Manjimup community has displayed great resilience in adapting to the changing fortunes of the Shire over the past 40 years. It is therefore likely that the population will remain stable or slightly increase in the future. Table 8 has adopted a *medium level* of anticipated growth to 2021 to reflect a positive scenario for the Shire even though it could be argued that this is too optimistic in view of the above comments.

There are no recent (ABS 2001 Census) population figures available for the *townsites*. However, up to 1996, populations in the main towns of Manjimup, Pemberton, Northcliffe and Walpole had remained stable, with only minor levels of growth consistent with the Shire's 0.67% annual growth rate at that time.

When preparing a Town Planning Scheme it is necessary to set aside land for residential purposes based upon anticipated demand for the ensuing 5 years. Using current estimates, existing zoned land would satisfy this demand subject to some minor adjustments.

The Local Planning Strategy takes a longer term and more optimistic view when identifying future land requirements.

Some of the residential-zoned land is not available for immediate development, however, for example:

- land in Pemberton is within the buffer of the Pemberton Karri and "Pempine" sawmill sites;
- land in Walpole is subject to environmental constraints; and
- land in Northcliffe is low-lying or subject to a high water table (and has drainage problems) and sewerage is unavailable at the present time to accommodate the release of this land,

An analysis of the age and sex distribution from 1986 to 2000 reveals some interesting changes to illustrate the characteristics of the population. The number of people aged between 0 – 4 years, 10 – 14 years, 15 – 19 years, 20 – 24 years, 25 – 29 years and 30 – 34 years fell, even though the total population increased by approximately 900 people over that period. The ratio between males and females has remained the same (as at the 2001 Census there were 5,152 males and 4,878 females). Increases in population have occurred in all age groupings from 35 years old onwards with the greatest increases in the 40 to 54-year-old category.

These figures further support the assumption that people are retiring to the Shire or moving in and investing in tourism and agriculture when children have left home, probably because they are concerned for the future education and employment prospects for their children in the country.

Key planning implications are that:

- education opportunities and standards must be maintained and enhanced to retain and attract families;
- health services must accommodate the needs of an increasingly ageing population;
- the figures reflect the South-West having the oldest population in the State;
- the age structure shows growth in the medium age groups (+40), reflecting the economically active population providing potential for economic growth;
- there is no evidence to justify a pessimistic view of future prospects;
- there is a stable base upon which to support the future; and
- the community and economy is reasonably robust and responsive to changing economic and political circumstances.

When planning the future growth and land use requirements for the Shire of Manjimup community, it is necessary to take into account these implications.

*"The population size will determine the scale of land use activities required to service the needs of the changing population such as residential, commercial and industrial land provision along with transport infrastructure, reticulated services and community facilities. The spatial distribution will determine the form and direction of future growth."*

(Population Report No. 4, October 2000, WAPC).

#### 4.6.2 Size of Settlements

##### 4.6.2.1 Manjimup

Manjimup is by far the most populous town in the Shire and the Warren-Blackwood region and is an important local and regional service centre. The economy is primarily based on agriculture, horticulture, forestry, timber processing and a tourist service centre. Table 8 shows that in the 20 years from 1976 to 1996 the population rose from 3,893 to 4,593 and then declined to 4,390 people by 1996. The town provides regional level health, education, recreation, police and other community services.

In 1995 the "Warren-Blackwood Regional Planning Study - Urban Services and Infrastructure Sub-Study" (Thompson, Taylor and Burrell) stated that the "...possible population of the townsite is projected to be 7,724 as at the year 2021, representative of a 68% increase over the period 1991 to 2021."

In light of the drop in population in Manjimup recorded in the 1996 Census - when the town housed 42% of

the Shire population - and the current economic circumstances, it is unlikely Manjimup will achieve this projected potential growth rate. It would take significant project(s) and a strong movement of new residents into the Shire to achieve such growth over the next 20 years or so.

Based upon Manjimup retaining 42% of the population in a medium level growth scenario the town would be anticipated to have approximately 5,250 residents by 2021. There is recent evidence that the other towns, together with the rural areas, would increase their percentage of the total population and Manjimup's townsite population may not reach the forecast numbers. Over 2,500 residents in the rural area are estimated to be within the Manjimup townsite catchment for shopping, health, education, etc. together with additional numbers using other regional services and facilities.

#### 4.6.2.2 Pemberton

Pemberton, which is approximately 30 km south west of Manjimup, was developed around the timber industry but its increasing attraction for lifestyle residents, intensive agriculture and tourism is becoming ever more important.

The town experienced a significant population decrease between 1961 and 1976 - falling from a high of 1,201 people to 777 people. Since that time, apart from minor fluctuations, the population has gradually increased up to 994 in 1996. While jobs in the timber industry are declining, and there is a probable limited future for the one remaining operational mill in the town, other activities - including viticulture, aquaculture and tourism - have the potential to sustainably support the town into the future.

Pemberton's growth may have also been limited over the past 5 years due to the lack of suitable land for residential, commercial and industrial expansion.

In addition, it is estimated (from the 1996 Census) that just over 800 rural-based residents are within the immediate catchment area for Pemberton utilising the town's services. This is almost the same number as in 1991, indicating that new rural residents are replacing those residents who have been forced to quit the area due to downturns in the timber industry and some agricultural land uses.

#### 4.6.2.3 Northcliffe

Northcliffe is a further 30 km south west of Pemberton - a total of 60 km from Manjimup in the lower south west karri forest at the northern edge of the wilderness reserves stretching to and along the south coast. The town is at an important crossroads, servicing Windy Harbour and the tourist route between the Augusta-Margaret River area and Walpole, and people heading south via Pemberton. The town has within (or close to) its boundaries a wide range of scenic walks and landscapes, which also support tourism and recreation activities.

The town started as a result of group settlement in the 1930s and was an important dairy area by 1950 (with timber production becoming important in the 1970s). In recent times the town has faced an uncertain future due to unfavourable changes in the timber industry and agriculture. Tourism and rural lifestyle activities are developing and should assist the local economy in the future.

No population figures for Northcliffe were available in 1976 and [Table 8](#) shows only a slight rise in population - from 225 in 1991 to 239 in 1996. There are no indications that the population has increased since then, and the lack of suitable residential lots may have contributed to this position. In 1996, 562 people were recorded living in the rural area that could be considered to be within the Northcliffe catchment. This was a slight increase from 1991 (543 people) but not significant enough to indicate a trend. The latest Census figures (2001) when available may provide a clearer picture of any "proto-trend" when available.

#### 4.6.2.4 Walpole

Walpole is one of the older settlements in the region, being settled in the mid 1800s as a coastal grazing area. Tourism and forestry remain important to its economy however, its relative isolation - being 119 km from Manjimup and 55 km from Denmark - and the high percentage of vacant holiday houses in the town (approx. 40%), has contributed to its low population base.

The resident population has remained stable over the past 20 years, rising from 273 people in 1976 to 337 people in 1996. Recent estimates indicate that Walpole has become attractive for tourism and retirement and that *"during the peak holiday season the population rises from about 450 to 2,500"*

(W.B.L.R.P., 2001-2005). It is anticipated the population will continue to grow steadily with the town's future being enhanced by the new Walpole Wilderness Area and better access to the coast, forest and scenic areas as attractions for rural lifestyle, recreation and retirement.

In 1996, 180 people were recorded residing in the surrounding rural hinterland. This number is likely to be increasing as more special rural lots are developed, rural tourism expands and agriculture diversifies.

**Table 8: Census Count and Population Projection**

LGA/Locality	1976	1991	1996	2000 estimated resident population	Medium Series Projections				
					2001	2006	2011	2016	2021 *
Manjimup Shire	8,760	10,302	10,256	10,513	<b>10,030 ABS CENSUS</b>	10,800	11,000	11,300	12,500
<b>Towns</b>									
Manjimup	3,893	4,593	4,390	N/A	N/A	N/A	N/A	N/A	N/A
Pemberton	810	985	994	N/A	N/A	N/A	N/A	N/A	N/A
Northcliffe	N/A	225	239	N/A	N/A	N/A	N/A	N/A	N/A
Walpole	273	306	337	N/A	N/A	N/A	N/A	N/A	N/A
Rest (Rural)	3,784	4,193	4,296	N/A	N/A	N/A	N/A	N/A	N/A

1. Figures for 1976, 1991, 1996, 2001 from ABS Census Figures.
2. Figures for 2000 from ABS Population by Age and Sex, Western Australia, 30 June 2001.
3. Figures for Medium Series Projections for Population Report No. 4, October 2000, Western Australian Planning Commission.

\* Figures for 2021 from Warren-Blackwood Regional Planning Strategy, December 1997, Western Australian Planning Commission. The estimate is based upon slightly higher medium level projections than current estimates used for 2001, 2006, 2011 and 2016.

#### 4.6.3 Economy

The broad scale economy of the Shire is experiencing changes due to the:

- restructuring of the timber industry;
- the introduction of farm forestry / tree plantations;
- restructuring of agriculture and development of more intensive agricultural practices and techniques, including horticulture, aquaculture and viticulture; the diversification of agriculture; and
- the growth in tourism, recreation and the number of lifestyle residents.

##### 4.6.3.1 Forestry

The full impact of the Regional Forests Agreement (RFA) will be most evident when current contracts expire in 2004. State Government aims to create greater levels of employment based on downstream timber-based manufacturing - such as furniture, flooring and decorative products - while using a reduced volume of native forest.

The State Government has formally acknowledged that "...Labor's historic decision to protect old growth forests had caused pain for some south west communities during the restructuring period" and that announcements made in December 2002 "...were aimed at ensuring the protection of existing jobs and creating future jobs in the region through investment in integrated furniture manufacturing", stating that "...a furniture precinct would have the potential to bring 200 new direct jobs to the Manjimup Shire and be an integral part of a new industrial park." [Media Statement; the Hon. Geoff Gallop, 18.12.02]

Timber production will continue to be an important part of the Shire's economy but other indications also point to an optimistic economic future, or at least a stable economic future.

Plantation timber is being promoted as a viable substitute for native forest timber. A further source of timber is from private property as part of clearing and other operations.

##### 4.6.3.2 Agricultural Production

Refer to *Section 4.1.1*.



#### 4.6.3.3 Mineral Production

Peat from the Lake Muir area and graphite from a mine in the north west of the district have not generated any recorded income in 1999 / 00 but have done in the past.

Plans for milling raw peat on a coal mining lease at Lake Muir, adjacent to Cowerup Swamp are currently being assessed by DECAP in view of the attendant environmental and cultural significance (there are two areas of Aboriginal significance which may be affected) and as it is situated in the Deep River water reserve.

Lime sand and limestone have been quarried in the district but in relatively small quantities (total value of \$170,000 in 1999/00: *Statistics Digest - Mineral and Petroleum Production, Department of Minerals and Energy*).

Low-grade coal deposits can also be found in the Shire and have not been of economic significance, although further exploration is being undertaken.

An area of interest for mineral exploration occurs where the Yilgarn Block and Albany Fraser Oregon intersect on an alignment roughly from Yornup to Mt Barker and Yornup to Lake Muir. This geological feature has similar characteristics to areas where precious metals and general mineralisation occur, such as at Greenbushes.

#### 4.6.3.4 Labour

The total labour force was 6,555 in Sept 2002 (a decline of 58 workers over 2 years) - which was the fourth highest in the South West region.

Unemployment has been trending upwards slowly and was 4.5% in December 2000 -(estimated as 4.7% in Sept. 2002) which was nevertheless the lowest in the region. In comparison, Augusta-Margaret River was 7.5%, Busselton 7.2%, Bunbury was 6.2% and Collie was 9.7%.

(Source: DEWRSB, Small Area Labour Markets - Australia, December Quarter, 2001)

#### 4.6.3.5 Building Approvals

The value of residential building approvals in the Shire dropped from \$17.1 million in 1999 / 00 to \$11.5 million in 2000 / 01, while non-residential building approvals remained stable (despite concerns for the economy) at approximately \$9.3 million.

(Source: Department of Local Government and Regional Development based on ABS Catalogue No. 8731.5)

The average sale value of dwellings has risen steadily from \$71,000 in 1992 to \$102,000 in 2000, which, in relative terms, is the seventh lowest value in the South West and is influenced by the high supply of houses for sale.

(Source: Residential Sales Data, VGO, 1995-1999)

#### 4.6.3.6 Tourism

Tourism is increasingly important to the Shire's future and although Shire-specific figures are not available indicators show a trend of solid growth.

Over 370,000 tourists visited the sub-region and the visitor numbers at the tourist bureaux support the growth trend. While visitors to the Manjimup Tourist Bureau *dropped* by 45% those at Pemberton, Walpole and Northcliffe *rose* by 5%, 44% and 52% respectively (*WATC and SWDC*).

### 4.7 Regional Infrastructure

#### 4.7.1 General

Infrastructure development in the Shire of Manjimup is strongly influenced by State Government strategies and initiatives. The "State Planning Strategy" and the "South West Region Strategy" have objectives of enhancing the role of the southwest urban centres for residential purposes, distribution of goods and services, and for the provision of cultural and recreational facilities - along with promoting the economic development of the rural and

industrial prospects of the region by making provision for efficient and equitable transport and public utilities. Much of the infrastructure provided to the Shire of Manjimup is part of the regional network. It is supported by local townsite infrastructure necessary for high-density urban development.

At a regional level, the strategic infrastructure includes the power network, the primary road system, the railway system and the telecommunications network. At the townsite level the strategic infrastructure includes the water supply system, the sewerage system and the distributor road system.

#### 4.7.2 Sewerage

The "Country Sewerage Policy" guides the provision of sewerage within the Shire of Manjimup. The Policy was developed to facilitate orderly provision of sewer services to allow expansion of country town sites.

The Policy sets out the requirements that must be met for any subdivision or development to proceed without the provision of a reticulated sewer system. The objectives in setting these requirements are to protect public health, water supplies and the environment whilst minimizing the financial burden on the community to provide infill sewerage. The Policy also requires that any new urban development in Manjimup, Pemberton and Walpole must be connected to reticulated sewerage and notes that Northcliffe had a high public health priority for the provision of a sewerage system there.

Because of the separation of the townsites, and their individual characteristics, separate sewerage systems are obviously necessary.

The cost of comprehensive infill sewerage schemes is prohibitively expensive. For example, the cost of the Walpole system (Stage 1) was about \$27,000 per lot where, on average, Perth costs \$6,200 per lot. A scheme for Northcliffe would be estimated to cost \$16,000 per lot. Unfortunately, with the demise of the State infill sewer programme since the last election, such programmes in small country towns look likely to cease.

The South West Region Strategy, however, encourages other innovations to allow development to proceed. The local authority can initiate its own sewer system, for example, or encourage use of localised, advanced treatment systems.

#### 4.7.3 Telecommunications

Telstra has a regional communications network within the Shire of Manjimup that extends to each of the town sites. The company closely monitors the growth of each town and only provides upgrades to equipment and space capacity when demand requires it.

Telstra indicates that, given sufficient support planning, it can allow for future growth and avoid large costs and restrictions on new lines. A recent proposal to introduce new base station facilities to three (3) sites, in Quinninup, Woolgalup and Northcliffe (under the "Wireless West" project), to effectively double mobile phone (COMA) coverage in the Shire, was approved by Council at its December 2002 and February 2003 meetings.

The regional optic fibre network is currently being expanded. It will increase system capacities when complete.

#### 4.7.4 Power

The Shire of Manjimup is supplied with power as part of the south west interconnected grid. Power is distributed from substations at Bridgetown, Yornup, Manjimup, Quinninup and Denmark. A high voltage supply is provided to each townsite, however, the townsites of Walpole, Pemberton and Northcliffe have only a single feed so that when maintenance is required supply has to be switched off. It is preferable to have twin feeds of high voltage to each town but the high cost of the works - and selection of environmentally acceptable overhead power line routes - are constraints to this.

The holiday settlement of Windy Harbour is not connected to the reticulated system and relies on onsite generators.

Western Power has recently studied power provision within the Shire of Manjimup and has allowed 3% growth on load up to the Year 2006. The company indicates that, while it can supply power anywhere within the Shire, there may be a need for transformers and switchgear upgrades, subject to the level of demand and local extensions to the power lines. The company also has plans to cater for this growth predominantly through the rearrangement of the transmission network, rather than the distribution network.

The Walpole system, which is fed from Albany via Denmark, is near the end of the line and a large bulk load could be difficult to support. Normal growth can be catered for, however, and Western Power has indicated that large loads are more easily catered for closer to the 22kv high voltage line and closer to the substation.

#### 4.7.5 Water Supply

The South West region has significant water resources, a small proportion of which are currently utilized. The "State Planning Strategy" requires the water resources to be conserved and their quality protected.

The water supply schemes for the various town sites within the Shire of Manjimup are 'stand alone' schemes based on either dammed and treated surface runoff or local spring fed and treated groundwater supply sources. The overriding concern regarding all of them is the need to protect the water source areas. In particular, where water sources are dams, there is a need to protect the up stream catchment from inappropriate development. Water source protection for each town site will be a fundamentally important planning issue.

#### 4.7.6 Transport

##### 4.7.6.1 Road Infrastructure

The economic well being of the region very much relies upon an effective transport system being in place. The South West region has a network of strategic transport routes covering primary roads linking the regional centres and a rail system linking Perth and Bunbury from Pemberton.

The "State Planning Strategy" and the "South West Region Strategy" promote the development and maintenance of strategic transport networks both within and to the South West region.

The "Southern Province Transport Strategy" and the "Roads 2020" for the South West region provide details for developing an efficient transport network that minimises the impacts of transport activity, provides cost-effective modes of transport and satisfies the access and mobility needs of residents and tourists alike.

The strategies are supplemented by industry-driven needs as expressed in the "Blue Gum Plantation Industry - Regional Industry Transport infrastructure Study" and the "Department of Planning & Infrastructure South West Woodchip Mill Strategic Site Assessment Study".

The Shire of Manjimup is essentially a primary producing area with its main markets outside the Shire. The transport network serves to connect the various townsites and settlements within the Shire with the other regional centres - and provide a network for the movement of freight. The overall quality and performance of the transport network is essential to the viability of the primary producers in the Shire.

The public transport task is primarily accommodated by private vehicle and bus services using the regional road network. The inter-regional bus route links Walpole, Northcliffe, Pemberton and Nornalup via the South Western Highway, Middleton Road, Vasse Highway and the Pemberton / Manjimup route (named Vasse Highway until it intersects with South Western Highway south of Manjimup). The freight transport task is shared between the road network and the South West rail system.

##### The road network operates at two levels:

1. the local road system which links primary producers with local processing facilities, or directly to their external market; and
2. the regional road system which provides the strategic links between regional centres and Perth. The freight task is concentrated on the main highways leading to the ultimate market or export facility.

Focal destinations for commodities produced within the Shire of Manjimup are the regional port at Bunbury, the Kwinana and Fremantle ports and the Perth metropolitan region in general.

The freight movement on the road system is preferred when commodities are transported direct from their source to the market with no change of transport mode or additional handling. South Western Highway is an approved road train route.

The freight movement on the rail has generally been limited to large quantities of single bulk commodities. It has been preferred when loading can take place at source and the commodity delivered direct to the point of

export or processing. In the South West region woodchips, grain and minerals are the usual commodities. Privatisation of the rail system, however, may see an increase in competition with the road freight business in terms of single commodity bulk haul over the medium distance routes.

The strategic road network within the Shire of Manjimup is made up of:

- sealed highways and main roads, which are the responsibility of the State Government;
- sealed and unsealed roads, which are the responsibility of the Shire of Manjimup;
- a large number of forestry and fire control roads through State Forests and National Parks which are managed by the Department of Conservation & Land Management.

The state of the road system can be measured by:

- the quality of ride which is expressed in terms of road roughness, age of the road and traffic volumes; and
- the safety of travel in terms of recorded vehicle crashes.

Main Roads WA monitors the condition of its regional road networks and provides comparisons on the general performance of its road system (*Main Roads WA Regional Digest 1998-1999*).

The indicators for the south west region, which incorporate the Shire of Manjimup, show that in comparison with all rural regions of Western Australia the roads in the south west have a higher percentage of roads that do not meet operational standards in terms of seal width and road roughness. The crash rates are also marginally above the State average for such roads. The average age of the primary road network is 27 years and the average age of the seal is 11 years. These statistics all show that the road network system requires a reasonable level of maintenance expenditure outlaid to keep in operating condition.

These indicators are used by Main Roads WA to assist in preparing its development strategies. "Roads 2020" reflects the current condition and prioritises upgrading works or the development of new roads in line with the "South West Region Transport Strategy".

The highest trafficked roads within the Shire of Manjimup include:

- South Western Highway north of Manjimup, which carries between 3,000 and 5,000 vehicles per day;
- South Western Highway and Pemberton Road which carries between 1,000 and 3,000 vehicles per day;
- the Vasse Highway near Pemberton and Northcliffe which carries between 500 and 1,000 vehicles per day;
- Muirs Highway near Manjimup which carries between 500 and 1,000 vehicles per day;
- Wheatley Coast Road, Graphite Road and Middleton Road which each carry up to 500 vehicles per day.

The "Regional Road Development Strategy" identified 108 road development proposals. The majority of the work involves upgrading of existing roads. The proposals have been categorized into three priorities.

High	- Priority A
Medium	- Priority B
Low	- Priority C

*State roads* within the Shire of Manjimup that have been identified as requiring attention are as follows:

1. Muir Highway

- Links Manjimup and Mount Barker;
- Forms part of an overall connection from Great Southern Region to the southern Leeuwin Naturaliste area;
- Provides access for the timber industry;
- Is an important tourist link;
- Has the potential to become an inter-regional heavy haulage route; Is a Priority A to widen the section between Manjimup and Strachan;

- Is a Priority B to widen the remaining narrow section between Strachan and Mount Barker,
2. Pemberton / Northcliffe Road
- Connects Pemberton and Northcliffe;
  - Forms part of the tourist route from Augusta and Walpole;
  - Provides access to the forest for the timber industry;
  - Is a Priority B to widen the road and provide overtaking lanes between Pemberton and Northcliffe.
3. South Western Highway
- Is the main link between Bunbury and Albany via Manjimup;
  - Provides access to market for fruit and agricultural produce, timber and timber products;
  - Provides access to the regional centre of Bunbury;
  - Carries a significant amount of tourist traffic;
  - Is a major freight route;
  - Is a Priority B proposal to widen the road and provide overtaking lanes on the section between Bridgetown and Manjimup;
  - Is a Priority B proposal to widen the road to provide overtaking lanes on the section between Manjimup and the turn off to Pemberton;
  - Is a Priority C proposal to widen the road and provide overtaking lanes on the section from the Pemberton turn off through to Walpole. The latter section is particularly difficult to negotiate at night due to the continuing changing horizontal and vertical alignment, which limits headlight sight distance and constrains the overall safe operating speed of the road.
4. Vasse Highway
- Connects Nannup and Pemberton;
  - Is part of the route between Busselton and the South Western Highway;
  - The section of Pemberton to Stuart Road is also part of an important tourist route between Walpole and Augusta;
  - Is a Priority C proposal to widen and provide overtaking lanes where this can be done to suite the character of the road on the section between Pemberton and Nannup. Any work undertaken will require close consultation with the local community and local government.

There have also been a number of local *government roads* identified as requiring attention. Within the Shire of Manjimup the following roads have been identified:

- A. Graphite Road / Davidson Road
- Is an important east west connection from Manjimup to the Vasse Highway and Nannup;
  - Provides access to several major tourist attractions;
  - Is an approved heavy haulage route between Manjimup and Nannup;
  - Is used for the transportation of forestry products;
  - Links a regional and inter-regional route and forms part of an alternative route between Busselton and Albany;
  - Is a Priority A proposal to upgrade the section of Davidson Road for approximately 8kms;
  - Is a Priority B proposal to upgrade the balance of Davidson Road and widen Graphite Road to improve the horizontal and vertical alignment.
- B. Mowen Road, Bridgetown, Nannup Road and Rosa Brook Road
- A proposal not within the Shire of Manjimup but directly related to the upgrading of Graphite Road/Davidson Road;
  - Is an east-west link between the popular tourist destinations in the Margaret River area with Nannup, Bridgetown and Manjimup;
  - Interconnects several major north south freight and tourist routes;
  - Forms an inter-regional route linking the South West, the Great Southern and the wheat belt regions;

- Its development to the sealed stage is considered a high priority;
- Is a Priority A to upgrade:
  - Rosa Brook Road;
  - Mowen Road from Nannup to Sues Road to a sealed standard;
  - Mowen Road from Sue's Road to Rosa Brook Road to a sealed standard.

C. Wheatley Coast Road (Windy Harbour Road)

- Is the only access to Windy Harbour;
- Passes through the D'Entrecasteaux National Park;
- Is access to several tourist destinations;
- Is used for timber haulage and local based agricultural traffic;
- Is a Priority C proposal to widen and upgrade the road from Northcliffe to Windy Harbour.

D. Middleton Road

- Is a principal connection to Northcliffe from the South Western Highway;
- Is part of the tourist route between Augusta and Walpole;
- Serves abutting farm properties and the timber industry;
- Is a Priority C proposal to widen and upgrade the section between Northcliffe and South West Highway.

There are two review proposals for new road routes that will affect the Shire of Manjimup. These are only concepts at this stage:

1. A realignment of the South Western Highway from Donnybrook to Manjimup further to the west to improve its freight carrying capacity; and
2. A potential tourist route running along the south coast from Augusta through to Windy Harbour, each of these routes would require significant investigation, environmental assessment and justification before proceeding further. They have, however, been marked on planning documents and will require acknowledgement as part of future planning. In particular, the south coast route to Windy Harbour could logically be extended along Chesapeake Road through to Walpole.

Local issues that have been identified within the road network relate to:

1. Protecting the integrity of the major highways as they pass through the townsites by controlling direct access and providing appropriate noise buffers near residential developments.
2. The number of bridges that are within the local authority. Many of these bridges are old and require condition assessment and upgrading. Of particular concern are the number of unrecorded bridges and road crossing structures located on gazetted roads that have been developed largely by CALM to provide access for forestry purposes or fire control. As these roads are on public thoroughfares the local authority may be responsible for protecting the road user. These bridges require condition assessment and either upgrading or removal. The local authority and CALM will need to come to an agreement about the function and use of such forestry roads.
3. The periodic concentration of forestry product traffic on local roads as various forestry blocks or tree farms are developed and/or harvested. Generally this is a short-term use but the intensity and impact is high. The timber industry and the local authority will need to agree on a management plan for such roads during the periods of high use. In some cases the roads may require:
  - specific works at intersections or upgrading of structures prior to carting taking place;
  - the undertaking of remedial works once carting has been completed.

Where carting operations aggregate on local roads before they connect to a major highway there is a need to plan for maintaining the level of service of those roads, The following roads have been identified as requiring upgrading works:

- Perup Road from South Western Highway to Perup - widen and improve geometry;
- Channybearup Road - upgrade to a 6.0 metre width;
- Pemberton Road North - upgrade to full seal;

- Beardmore Road, which is within the CALM estate, from South West Highway to Walpole - upgrade to sealed status.

These roads all cater for additional tourist and forest and agricultural freight traffic, Upgrading will improve their level of service and safety.

#### 4.7.6.2 Rail Transport

Rail access into the Shire of Manjimup is provided by a single narrow gauge line from Perth, via Pinjarra I Bunbury I Boyanup and extending through to Manjimup and Lambert. This rail is used predominantly for the freight task with occasional passenger services run by the Hotham Valley Tourist Railway.

A small private railway running on the old timberline between Pemberton and Northcliffe is operated by Pemberton Tramways.

The rail is generally the most efficient mode of transport for large quantities of single (particularly bulk) commodities over medium to long distances.

The commodity accounting for the major volume hauled by rail within the Shire is woodchips. A total of 4 trains per day run from Lambert to Bunbury carrying native and plantation woodchips. The two products are segregated and transported in separate trainloads.

The Australian Railroad Group has operated the rail network since the deregulation of the rail industry. The Group must keep the line open through to Pemberton until 2006. After that time it can request closure of sections of the rail on viability grounds. There is concern that the section south of Donnybrook may close. There is also a developing tourist potential for rail services through to the Pemberton area. A private company leisure rail is examining the merits of a regular tourist service. However, the cost of maintenance and upkeep on the rail track may be a deterrent.

The outcome of the DPI review on a possible site location for a southwest woodchip mill will have a considerable impact on the viability and preservation of the rail network. If a timber processing facility is established at Diamond Mill south of Manjimup there may be opportunity for increased freight of bulk timber products. The viability of the mill is subject to the annual production for the Mill catchment. There may need to be transfer of timber product from other areas into Diamond Mill to make it viable. Timber resources in the southwest section and east Cranbrook area are currently directed to Donnybrook but could be directed to Diamond Mill to increase production to a viable capacity. If this were the case it would increase the local road freight task on Muir Highway but, after processing in Manjimup, would reduce the impact on the strategic road network to Bunbury and increase the use of the rail network to Bunbury.

#### 4.7.6.3 Air Services

There are few freight or passenger aviation services available in the Shire of Manjimup. A public airfield, which is managed by the local authority, is located in the Manjimup town site and accommodates private (non-jet) aircraft movement and the Royal Flying Doctor Service.

The DPI indicates that there is little planned airport development in the immediate future. However, local development should not be permitted to encroach on potential flight paths or future development areas of the airfield.

#### 4.7.6.4 Strategic Transport Considerations For The Future

The "Southern Province Transport Strategy" recognizes significant potential increases in the freight task for the South West region, particularly from Manjimup, and that expansion of existing agriculture, development of new industries and potential expansion of processing activities will generate such potential.

To meet forecast demands, infrastructure investment in the Shire of Manjimup will need to focus on:

- a) Managing the haul of bulk commodities and the modal share between road and rail, especially in relation to containing the impact on local communities.
- b) Providing suitable linkages between industrial estates and transport terminals or ports.
- c) Improving and upgrading the primary roads in both the Shire of Manjimup and those connecting the Shire to other regional centres on which there are multiple road users, e.g. heavy freight

- vehicles, tourists and light traffic.
- d) Upgrading the rail facilities from Lambert through to Bunbury to take a greater proportion of the bulk freight if an industrial estate is established in the Shire of Manjimup or if the Diamond Mill becomes a focal point for the woodchip industry. This will require associated inter-regional roads to be improved to enable the road transport of forestry products through to the Diamond Mill area. In particular will be the need to complete the upgrading of Muir Highway.

The "Southern Province Transport Strategy" also considered the likely future demand for rail passenger services and concluded that regular services into the Manjimup region would not be viable in the immediate future. However, given the deregulation of the rail network to private operators, the opportunity may exist for those operators to re-establish tourist-related rail services.

Nevertheless, the *primary* public transport system will still be by bus service.

#### 4.7.7 Waste Disposal

Planning for the proposed "Warren Blackwood Regional Waste Facility" commenced in early 2003 and has been through a public consultation process. Final site selection for the facility is anticipated in early 2004.



## 5.0 TOWNSITE AND ENVIRONS

### 5.1 MANJIMUP

The name Manjimup was derived from the Aboriginal word "Manjim" - a special edible reed and "up" meaning place of water. The reference to food appears appropriate as the area has the attributes of a highly productive location for food production. Little now remains to show the history of Aboriginal occupation other than a number of identified sites and the Bibbulmun Nation nomenclature for places. There is little doubt that, for as long as Aboriginal people have occupied the area, it has been highly productive with abundant flora, fauna and fresh and salt-water animals. These factors probably made the south west the most heavily populated part of the State before European settlement.

#### 5.1.1 Historical Background

The district has a relatively long history for Western Australia, dating back to the 1850s when the first settler Thomas Muir took up land in the Manjimup locality. The Giblett family, who were to begin a long association with the area, soon followed him. By the 1870s there were approximately a dozen major homesteads established within the Manjimup locality (also known as the Warren District).

The establishment of the town of the Manjimup did not take place until 1910 - more than 50 years after the district was first settled.

The railway line to Manjimup from Bridgetown was opened in 1911 and a timber mill established at nearby Jarnadup in the same year. The first State Mill (No. 1) was established at Deanmill, 6 kilometres west of Manjimup, and linked to the town by rail in the next year. These State Mills were built to fulfil a contract to supply sleepers for the transcontinental railway line. The railway line was extended to Pemberton in 1914 and State Mill No. 2 opened there around the same time.

In the Manjimup townsite, St Joseph's Convent School opened in 1923, the Post Office in 1924 and the Town Hall in 1927. The district's first newspaper was also established in 1927.

The town's economic base began to expand to include dairy products, apples and tobacco. The Group Settlement Scheme was largely a failure but it did result in the extension of the railway line to Northcliffe, the clearing of large tracts of forest and a significant increase in the district's population. Manjimup, as well as Pemberton and Northcliffe, grew rapidly as both a town and service centre as a result of this population growth.

Although the 1930s witnessed a period of slower growth, Manjimup did continue to grow and the Warren District Hospital opened there in 1935. After the Second World War, Bunnings built a large workshop complex in Manjimup and a new golf course was constructed.

During the 1950s and 1960s the general prosperity of the district continued and the Manjimup High School was opened in 1957. The Agricultural Society grounds and the enlarged railway station opened in 1959 and the police station, Law courts and telephone exchange were all constructed in 1961.

Continued growth of the fruit and vegetable industry resulted in the development of a cannery in the 1970s and potato processing plant in 1986 (which was last re-opened in mid-2002). The 1970s also saw the start of the decline in the number of dairy farms that has continued to the present day. Dairy industry deregulation has contributed markedly to recent closures.

Woodchip production and wood products - including sawn timber, wood pulp and the expansion of tree plantations – all contributed to economic growth for the next two decades. Recent changes to the timber industry are yet to serve their full impact and it is anticipated (and hoped) that the growth in tourism and the viticultural, aquaculture and horticultural industries will eventually replace any permanent loss of jobs and incomes in the Shire.

The following statement from the 1993 Rural Strategy is, therefore, still particularly relevant:

*"Additional settlement can be anticipated in the district's towns and attractive countryside, and must be provided for in a manner compatible with other rural uses. It is evident from this summary of Manjimup's economic and social development that diversity has been the key to its success. If the Shire is to continue to develop in a positive manner, this process of diversity must be maintained, taking advantage of opportunities afforded by the district's cultural legacy".*

Manjimup has become an important regional centre providing a wide range of facilities and services along with a commercial hub for transportation and industry supporting the region.

#### 5.1.2 Infrastructure

Manjimup is the major centre within the Warren-Blackwood region and it is considered to provide the full spectrum of infrastructure required by residents and visitors.

This section covers aspects relating to primary infrastructure affecting the development, location and expansion of the Manjimup town site.

The data has been obtained from various service authorities - and through discussions with service authority and local authority representatives - and forms part of the "opportunity and constraints" analysis supporting local townsite development plans further on in the document.

##### 5.1.2.1 Water Supply

###### ☐ ***Scheme Description***

The Manjimup Water Scheme is sourced from 2 reservoirs, at Manjimup Dam and Philips Creek. Water from each source is transferred to scheme storage comprising a 9000m<sup>3</sup> ground tank at Mottram St, within Manjimup. The town reticulation proper is supplied from an elevated tank, 1000kL, to maintain adequate pressure. The elevated tank is filled by transfer pumps located at the Mottram St site.

Treatment occurs at each of the dam headworks sites.

###### ☐ ***Growth in Services***

There were 2,122 services supplied at the end of the 2001/02 financial year, with average annual growth of 1.0% over the last six years.

###### ☐ ***Water Source Capacity***

Annual raw water capacity is constrained by source yield. The licensed allocation is 894ML/yr.

*Total annual water delivered to Manjimup was approximately 838 ML in 2001/02.*

###### ☐ ***Treated Water Capacity***

Current daily treated water capacity is 7,180 kL/d. Scabby Gully Dam pump station can transfer 5,184 kL/d and Phillips Creek Dam pump station can transfer 1,996 ML, Annual treated water capacity is constrained by raw water capacity (source yield).

During peak demand the treatment plant is operating at about 80% capacity.

The existing transfer capacity would support a further 15+ year expansion in services based on the current average annual growth of 1%.

###### ☐ ***Future Planning***

Planning has been undertaken to secure source water for the medium to long term. Proposals to increase the yield of the scheme include: catchment thinning, expected to provide immediate yield and ongoing improvements, raising of Phillips Creek Dam and investigation of an additional upgrade of source capacity by installing a pumpback scheme from Record Brook, not expected to be required before about 2012.

##### 5.1.2.2 Sewer

###### ☐ ***Scheme Description***

The Manjimup Wastewater Scheme consists of five reticulation areas, four pumping stations and a treatment plant.

The reticulation areas convey gravity flows either to a Wastewater Pump Station (WWPS), pumping to the treatment plant via pressure mains and gravity mains, or directly to the Manjimup Wastewater Treatment Plant (WWTP). Treated wastewater is used on the golf course (30%) and the remainder on woodlots.

#### ❑ **Growth in Services**

There were 1,371 services connected at February 2003, with average annual growth of 3.8% over the last six years.

#### ❑ **Treatment Capacity**

The WWTP has a capacity of 1,200 kL/d.

Average day inflow to the WWTP in 2002 was about 885 kL/d, 71 % of capacity.

#### ❑ **Future Planning**

Works to sewer 214 lots (area 8A, see attached map) are provisionally scheduled for construction during the 2007/08 financial year.

##### 5.1.2.3 Power

The 132kv radial feed from Muja power station supplies Manjimup. It also has a 66kv supply from Muja power station through the Yornup sub-station. This 66kv supply can be used when maintenance is undertaken on the 132kv line, but is not able to supply the major industries in Manjimup. Thus maintenance can only be done at specific times to suit resident industries. Western Power is progressing with an upgrade of the 66kv line to 132kv to overcome this situation and to allow greater flexibility.

The first subdivision in Manjimup with underground power was recently constructed in the light industrial area. Major growth can be catered for easily in the town due to the strong supply available. Some areas contain overhead power lines that may restrict development. These will require relocating should development in such locations occur into lots of less than 4 hectares.

##### 5.1.2.4 Communications

Effective communications is an important part of regional businesses being able to perform. It is essential they have effective data transfer facilities and modern communication facilities to sustain economic growth and local employment opportunities.

The Bosch Group communications audit for the south west region (carried out in 1997) found that in the Manjimup town site:

- Telephone and facsimile services were average;
- Mobile telephone services were poor to very poor (Telstra is currently proposing the construction of two new mobile telephone base stations at Quinninup and Woolgal.up, along with an extension to an existing facility in Northcliffe, that should double the present CDMA coverage throughout the Shire once in place);
- Reception for national radio broadcasting services;
  - ABC Regional Radio were indicated as good;
  - ABC National Radio had poor or no reception;
  - ABC Classic FM Radio as poor or no reception; Triple J Radio as poor or no reception;
  - WA FM Radio as poor or no reception; The local commercial radio as good reception.
- Television:
  - ABC TV as poor reception;
  - GWN TV between good and poor reception depending on the locality.

There was a desire to have readily available SBS television services.

#### 5.1.2.5 Roads

The Manjimup town site has largely developed on a grid road pattern. The roads currently allow high permeability and good access to most parts of the town.

Road hierarchies have developed largely based on the volume of traffic that particular roads carry. Through necessity, some traffic management measures have been placed on the junctions of these roads, particularly in the central business district.

The majority of the roads are sealed, kerbed and drained and provide all weather access.

Crash statistics over the last 5 years indicate that several roads have higher crash rates than the regional norm. In particular, Ipsen Street has a crash rate in the order of 3.5 crashes per million vehicle kilometres, where the regional crash rate is 0.74 crashes per million vehicle kilometres.

Roads within the town site that are noted as having a regular number of crashes are as follows:

- Graphite Road, Perup Road and South West Highway where the majority of crashes are right turn through;
- Brain Street, Mottram Street and Pritchard Street where the majority of crashes are right turn through;
- Local roads where the majority of crash type is all right angled:
  - Brockman Street / Rose Street,
  - Ipsen Street / Rose Street,
  - Mount Street / Rose Street,
  - Pritchard Street / Chopping Street / Giblett Street, Ipsen Street / Summerville Street,
  - Arnott Street / Leman Street.

These intersections are all four-way junctions and are mainly contained within the town centre. Local traffic management initiatives could be expected as part of future growth.

in general, the existing road network provides an adequate framework to accommodate further frontal development.

#### 5.1.2.6 Railway

The South West Narrow Gauge Railway passes through the Manjimup town site. It provides for occasional tourist rail use and commercial rail haulage (mainly forest products).

The rail line effectively divides the town and should be worked around to examine opportunities for significant town centre beautification - creation of linkages between the central business district and the major community health facilities / caravan park east of Mottram Street etc.

#### 5.1.2.7 Drainage

The townsite is located on a higher section of terrain and is effectively divided by four primary drainage catchments:

- The Ringbark Brook / Upper Donnelly Catchment to the north west;
- The Lefroy Brook Catchment to the south west;
- The Smith Brook Catchment to the south east;
- The Wilgarup Brook / Manjimup Brook Catchment to the east.

Local open drains characterize the townsite drainage, along with sections of pipe drain transferring urban runoff to the upper reaches of the streamlines in each catchment. The general purpose of the drainage is to connect isolated internal catchments and street runoff into the natural drainage system as quickly as possible.

The drainage lines need to be adequately protected in both existing and future developments. It is imperative that drainage systems be acknowledged as a legitimate land use and protected by easements and / or reservation.

Where urban runoff discharges into the natural stream system, appropriate controls to remove

contaminants and reduce scour are necessary.

Progressive review of each catchment and development of drainage management plans recognizing land use requirements for drainage are recommended.

It is important in any future urban development that detention facilities be incorporated as part of the local area drainage to ensure that the post-development rate of runoff does not exceed the pre-development rate of runoff. It will be necessary to create detention areas that can serve both a runoff control function and a water quality improvement function.

#### 5.1.2.8 Engineering Considerations for Townsite Expansion

Any expansion of Manjimup or redevelopment / increased density within existing urban areas must address the following engineering implications:

- Further urban development west of the townsite is outside the current sewerage area and a new pump station is likely to discharge effluent to the water catchment to the north and east. Both water and electricity are available and could be extended;
- Consolidation of the town centre is within existing sewer and water supply systems and power is available;
- Expansion to the east of town would be within the sewer and water systems and
- power is available, however, the north-eastern and south-eastern sections
- would require extension of electricity and the sewer. A new pump station would
- probably discharge to the existing system;
- Extension of the existing industrial area eastwards would require water and sewer but only an extension to the water supply main for some of the area. Any southern extension of industry towards the airport would be outside the sewer area and a new pump station will be required to discharge to the existing system.

#### 5.1.3 Community Infrastructure

Based upon the anticipated growth of Manjimup, which is unlikely to be significant, the demand for additional community infrastructure will be limited. Even on the medium growth scenario additional requirements will be manageable.

Manjimup has a Senior High School with 690 (2003) students, encouragingly more than the previous year. An extensive range of education facilities is available with the school farm offering comprehensive horticultural and agricultural programs. The University already does some research on campus and Edith Cowan University may develop a Centre for Higher Learning and Education. Also on campus is the Manjimup Education Support Centre catering to 13 students with a range of disabilities from years 8 to 12.

The Manjimup Primary School will be re-sited to the High School campus by 2006 making it a truly multi-purpose campus. Student numbers at the Primary School are rising again (from 362 in 2001 to 415 in 2003). A second government school, the East Manjimup Primary School has increased its student numbers from 245 in 1996 to 380 in 2003.

Kearnan College is a Catholic secondary school providing education from kindergarten to year 12 and the student numbers have slipped markedly in the past year from 402 in 2000 to 234 in 2003. Students from Bridgetown, Pemberton, Northcliffe and the Shire's rural areas attend the high schools.

The Education Department has advised that there are no plans for new schools or expansion other than building a new primary school on the high school campus to replace the present school. Continued efforts to develop the multi-purpose campus at the high school will provide positive educational and training opportunities for the area.

Warren District Hospital is part of the "South West Area Health" system and has 30 beds. It offers services such as pathology, physiotherapy, radiography, podiatry, speech pathology, physiotherapy etc and is attended by visiting surgeons for generally minor procedures.

Other community services available in the township include general practitioners, dentists, library, child and health clinic, chiropractor, hearing centre and essential services such as police and ambulance.

A full range of indoor and outdoor recreation facilities are also available to the community.

#### 5.1.4 Summary of Land Use and Environmental Planning Considerations -Manjimup Townsite

Table 9 must be read in conjunction with Figure 11 and it provides a summary of considerations regarding a number of sites in and around the townsite that may provide opportunities for consolidation and expansion.

**Table 9: Summary of Land Use and Environmental Planning Considerations – Manjimup Townsite**

Number	Comment
1	Land with urban development potential. Bevan map unit* with suitable drainage and topography subject to adequate setbacks/buffers from upper reaches of Manjimup Brook. Area is already zoned residential however there is apparently little landowner interest in development.
2	Unused 'industrial' zoned land. Northern portion is Bevan map unit with suitable drainage and topography. Southern portion forms part of the upper reaches of Smiths Brook (Pemberton map unit) where careful control of drainage is required to prevent erosion and stream sedimentation/contamination.
3	Unused 'special rural' zoned land but with possibly 'higher' development potential for industrial purposes (subject to adequate setback or creation of landscape buffer to Muir Highway). Bevan map unit with suitable drainage and topography. Tree plantation to south acts as a buffer to protect upper reaches of Smith Brook from sedimentation/contamination.
4	Vegetation corridor associated with Manjimup Brook serves to protect stream water quality, provide wildlife habitat and enhance landscape values. The corridor should be extended, where possible, through revegetation in association with development of adjacent land and incorporate, or link into areas of existing remnant vegetation. Where Manjimup Brook passes through areas to be subdivided for residential or special residential purposes, there is an opportunity to create a public open space network including pedestrian access-ways. Although severed by the South Western Highway, a vegetated east-west corridor through the town is formed by Manjimup Brook - Ipsen Street reserves.
5	Undeveloped residential land (Blackbutt Drive area) but occurring within Yanmah map unit with limitations associated with poor drainage within valley floor and some portions of flanking slopes. Includes POS reserve 39583 with linkages into vegetation corridor along Manjimup Brook.
6	Area nominated for future residential expansion in draft of TPS 3 but is relatively flat and low-lying (Yornup map unit) and hence subject to drainage problems. It is also visually exposed from the highway and risks detracting from the town's existing 'entry statement'. Better drained (and hence more suitable) undeveloped land occurs within the Bevan map unit further eastwards towards the Golf Course.
7	Extensive area of Yornup map unit that is generally unsuitable for residential, rural-residential and horticultural activities due to drainage limitations.

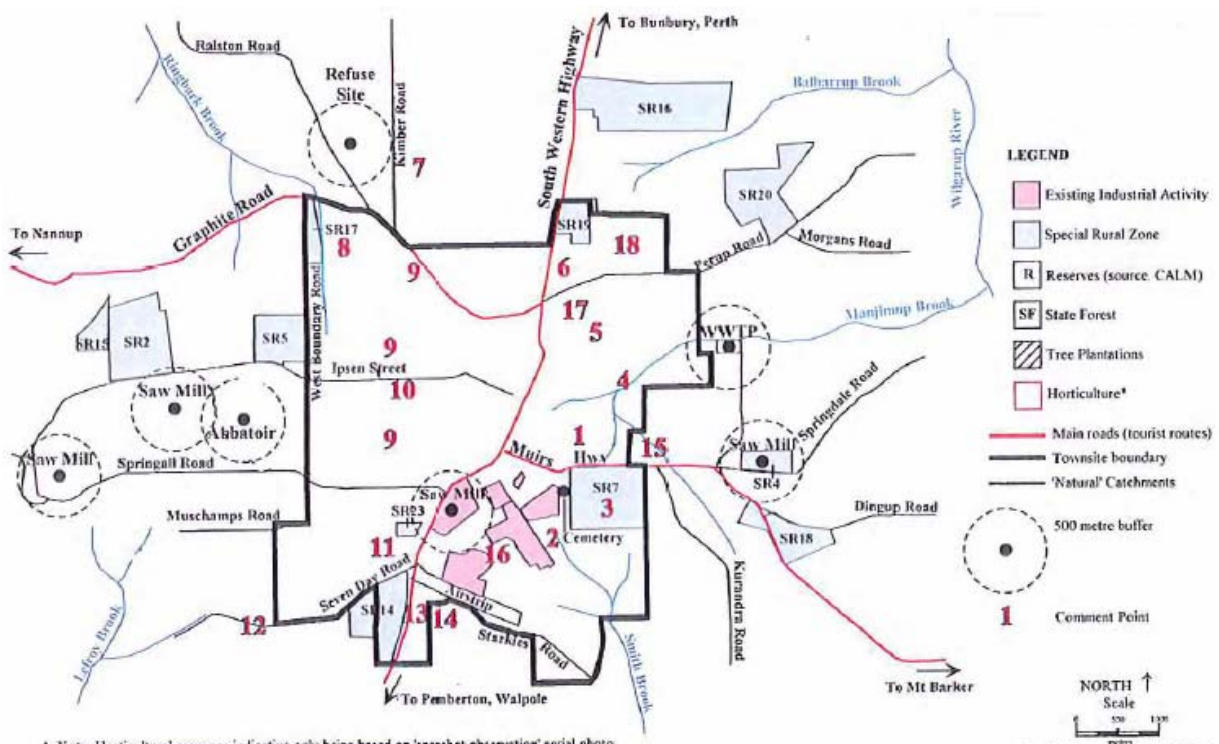
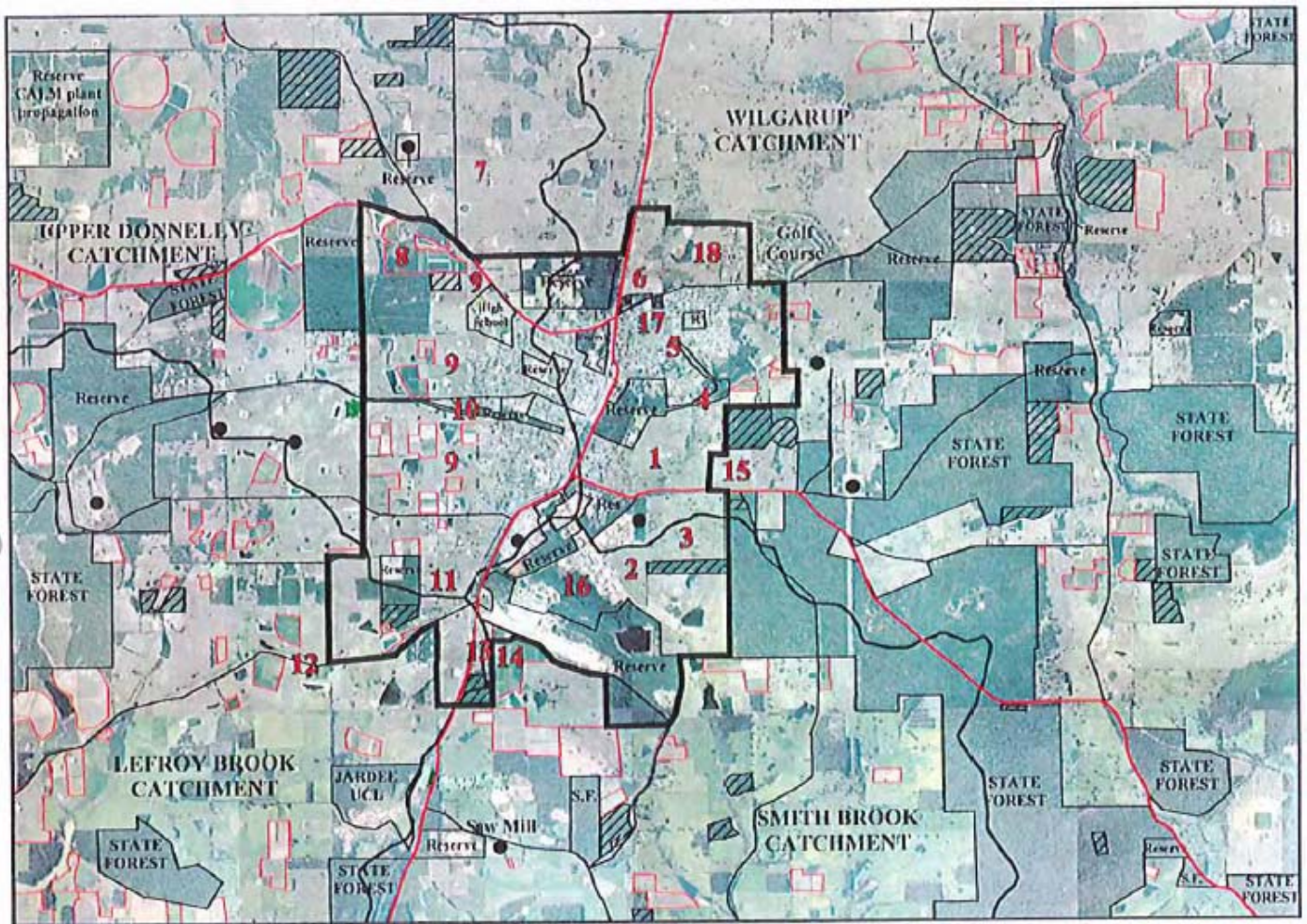
Number	Comment
8	Large commercial orchard and associated dams for irrigation water supply. Residential expansion in this direction could give rise to land use conflicts. Existing Special Rural Zone may already set the scene for such conflict between expectations of residential amenity, and certain orchard management practices.
9	Townsite expansion to the west and north-west is somewhat constrained by encroachment towards the more poorly drained terrain (shallow valley floor within Yanmah map unit, and also parts of the Corbalup map unit) which provide water resources for horticultural operations (although mainly small-scale). Further west, buffer requirements associated with an abattoir site (currently not operating) need to be considered.
10	The narrow reserve adjacent to Ipsen Street, in conjunction with reserves along and near to Manjimup Brook, provide an opportunity for an east-west vegetation corridor of landscape significance. Further extension towards Deanmill has been proposed as a multi-use heritage trail (Deanmill Trail) to highlight the linkage (physically and historically) between the timber industry and development of the town.
11	Residential development (sewered or un-sewered) in this locality may be limited by proximity to the airstrip, sawmill, and the industrial areas. Existing zoning is 'rural' (with a small pocket of 'special rural') although it is already a 'de facto' small holdings area.
12	Townsite expansion (sewered or un-sewered residential development) to the southwest, into the upper reaches of Lefroy Brook catchment risks encroachment on good quality horticultural land (Pemberton map unit), where there are plentiful sites for dams and available water, is not supported.
13	Land with possible industrial development potential, but may be constrained by existing 'special rural zone', visibility from the highway and severance from existing industrial areas caused by the airstrip. Buffer requirements with adjacent orchard and tree plantations also need to be considered.
14	Large commercial orchard and associated dams for irrigation water supply. Townsite expansion to the southeast into the upper reaches of Smith Brook catchment risks encroachment on good quality horticultural land (Pemberton map unit) where there are plentiful sites for dams and available water and is not supported.
15	Townsite expansion (as 'special residential' or 'special rural' lots) to the east of the upper reaches of Manjimup Brook and within Bevan map unit would occur on generally suitable well-drained soil. Consideration would need to be given to buffer requirements associated with tree plantations and any industrial development (see point 3) as well as landscape amenity adjacent to Muir Highway.
16	Area of 'general industry' zoned land with some potential for development but would require clearing of extensive existing native vegetation. DOLA have prepared a subdivision guide plan allowing for two areas of proposed public open space for the conservation of significant stands of karri trees.

Number	Comment
16	Clearing for industry may adversely affect water quality within the dam near the southeastern end of the airstrip, which was used by the former Edgell Cannery and "Simplot", and is currently again being used to process potatoes for chips. There is potential for industrial land uses to create soil erosion / stream sedimentation problems if drainage from extensive hard surfaced areas is not carefully controlled. Localised erosion problems near the airstrip illustrate this.
17	'Residential' zoned land identified in the 1989 Townsite study as one of the areas within the townsite boundary with potential for further subdivision but is limited by poor drainage conditions (Yornup map unit).
18	Area of 'special residential' zoned land (western portion of Caniroglen Estate, sometimes known as "Warren Heights") occurring predominantly within Bevan map unit which is suitably elevated and well-drained. Northwestern portion however is less well drained and is associated with upper reaches of Balbarrup Brook. This could present an opportunity to develop a public open space network along the Brook.

Map units are 'soil-landscape subsystems' as defined by Department of Agriculture - refer to Appendix C Figure 2.



**Figure 11: Manjimup Townsite – Land use and Environmental Considerations**



\* Note. Horticultural areas are indicative only being based on 'snapshot observation' aerial photo interpretation for October 1999 and areas will change due to crop rotation and spelling of land.

### 5.1.5 Land Requirements

#### 5.1.5.1 Residential

An examination of the land supply, together with the findings of the "Warren Blackwood Land Release Plan 2001 to 2005" (WBLRP), concluded that if demand for lots increased there would be additional land available in a relatively short period of time.

Lots are sewered as part of the State Government's *Infill Sewerage Program* and small lot subdivisions and residential infill would contribute further to lot supply.

There are currently 159 vacant residential lots, many for sale and a large number of houses for sale from a total of 1791 lots.

Over 4,000 additional lots could be created from land zoned or identified in the WBLRP for residential purposes and the 1993 Local Rural Strategy for residential, special residential and special rural lots in, and adjacent to, the townsite. This is far too much land to be set aside for urban development under the new Scheme as it will lose the advantage of frontal development and create economic difficulties providing service facilities if land release is not staged carefully and the oversupply of residential land reduced.

Demand for more aged-persons housing can be anticipated and provision of such accommodation should be encouraged to allow the elderly to remain in the area.

#### 5.1.5.2 Town Centre / Commercial

The commercial district provides for higher order services commensurate with Manjimup's regional centre status. There is concern that Manjimup remains unnoticed by tourist and other passing traffic on the South West Highway and that the viability of the commercial area may be enhanced if the visual appearance of land and buildings between the highway and the commercial centre of the town was improved - and passing traffic thereby encouraged to stop.

Rehabilitation of approximately 4.1 hectares of derelict, vacant and / or un-developed WA Government Railways Commission (WAGRC) land and marshalling yards in this 'strip' between SW Highway and Gil: Dien Street would provide an excellent opportunity to achieve these aims.

The "Manjimup Westrail (*now WAGRC*) Land Redevelopment" project is an initiative of Council that has attracted confirmed funding to December 2002 of \$1,920,932 from:

- Shire of Manjimup,
- State Government,
- Commonwealth Government,
- Bunbury Port Authority,
- Main Roads WA,
- Rotary Club of Manjimup.

The project is focused on the development of a new town entry statement, which will link the SW Highway to the townsite's central business district. Major works include expansive parkland incorporating an amphitheatre and market square in which festivals and local cultural events could be staged. New parking areas, walkways and water features will also be introduced.

The tender for major earthworks and landscaping was awarded by Council in November 2002 to "Earthcare Pty Ltd" for \$1,601,008. Council's objective of maximising local content was achieved, as \$1,101,100 of that sum will be directed towards local suppliers and subcontractors.

Three (3) boreholes for ground water monitoring have been installed to ensure DEP requirements in relation to potential contaminated soils are met.

"Earthcare Pty Ltd" commenced site works in late November 2002 and plan to complete the project by the end of May 2003.

Most lots in the 6 hectares of existing commercial zoned land are between 1000m<sup>2</sup> - 2000m<sup>2</sup> and only 5 lots

are currently vacant. A number of existing premises, however, are also are also vacant and many are not developed to their full potential.

The two major shopping centres (Coles and Woolworths), along with most of the other retail I commercial businesses and offices in Manjimup are located in the town centre. Future commercial development of this nature should also be encouraged to the town centre.

The subdivision of part of the WAGRC reserve into freehold titles will ensure security of tenure for some existing businesses operating on that land. Because of issues related to minimum building setbacks and ongoing railway buffer requirements, it is recommended that the zoning applied in TPS 4 over the subject WAGRC reserve be 'overlaid' by a Special Control Area precinct – to allow a sensible and reasonable flexibility to those properties and businesses affected.

Many of the current service industry businesses situated near the current WAGRC reserve (and recommended to be incorporated in a new "Town Centre" zone in TPS 4) could, over time, find it economically desirable to relocate to the "General industry" zone, freeing up land for other commercial uses.

[Manjimup is unlikely to attract significant population growth in the foreseeable future, so any increase in demand for commercial land would predominantly come from within the region. If this occurs, it will increase the value of land in the town centre, so that uses that are anyway more appropriate in the "General industry" zone (or other zones) would tend to move, leaving commercial lots available. This has been the pattern of growth and land use change in other country towns in the south west].

Concentrating on optimising the use of land in the town centre for future demand -and having appropriate businesses relocating to the industrial area - will also prove to be beneficial to the future consolidation and improvement of the industrial area.

#### 5.1.5.3 Industry

The industrial area is currently zoned "General Industry" and provides for a wide range of activities - from light industry through to heavy / noxious industry (such as the saw mill). Together with the 25-hectare site occupied by the Sotico Mill and yards, there is over 170 hectares of industrial zoned land located immediately east of the South West Hwy. Approximately 19 hectares of land adjacent to the railway is zoned Service Industry, some of which is included in the land tenure changes under way to rationalise WAGRC reserve land discussed in the previous section (Town Centre / Commercial).

The most recent industrial subdivision, on Wetherell Street, was approved in 1997 and has had only a few lots developed. It has been argued though that this lack of uptake is due more to the high asking price for the lots rather than any consistent lack of demand.

In all, there are 48 vacant lots in the industrial area of between 2000m<sup>2</sup> - 5000m<sup>2</sup> in size. DOLA is contemplating the release of some land within this zone that would be well-suited for light industrial uses (perhaps as soon as 2003) which could provide competitive alternative sites if valued accordingly.

There are ongoing investigations underway to expand the industrial estate to cater for larger-scale heavy and noxious industry (eg, at Diamond Mill – though this site is constrained by a CALM lease and resistance from the Conservation Commission to any enlargement of that lease due to surrounding State Forest). If successful, such an expansion would reinforce the regional importance of Manjimup providing opportunities for a wide range of industrial activities in the future ensuring no shortage of industrial land occurs.

The present industrial area is constrained with respect to future growth in many respects, however, having community purpose and residential land to the north, the South West Hwy and railway to the west and the airport facility to the south. To the east is an undeveloped "Special Rural" zone, along with "Rural" zoned land used for cropping and grazing, providing the only realistic opportunity for expansion – although demand for more land may yet be some time away.

The DPI has recently commissioned the "Warren Blackwood Industrial Sites Study" (WBISS) to establish a regional structure of industrial sites generally having the following characteristics:

- i) Regional Industrial Estate (eg Kemerton) – to accommodate major heavy industrial processing installations, such as steel mills, aluminium smelters and other major plants of State significance

- (may also include some industrial developments relevant to industrial estates of a lower hierarchical level) for imported or regional produce;
- ii) Sub-regional Industrial Estate — to accommodate heavy industrial installations such as a pulp mill, major timber mills and timber processing plants (may also include industrial developments relevant to industrial estates of a lower hierarchical level) for regional produce;
- iii) District Industrial Estate — to accommodate smaller timber mills, timber processing plants and other food and industrial processing facilities that may not be appropriately located within an urban industrial estate, for district produce;
- iv) Urban Industrial Estate — for urban scale light and general industrial uses.

Within this hierarchy, the Warren-Blackwood site is intended to serve a **sub-regional function** with the study required to recommend a preferred site and address issues associated with site establishment, coordination of transport, infrastructure, waste disposal, environmental constraints and buffer requirements.

The project objective, stated in the tender documentation is:

*"... to identify a suitable site for a sub-regional industrial estate and identify requirements in respect to establishment, planning for infrastructure provision, buffer protection, waste product management, transport coordination and associated issues. The site selection and the valuation shall be under taken within the context of the identified potential users of the estate including heavy industrial installation such as a pulp and paper mill and major timber mills and timber processing plants."*

The sites being examined in this study are Yornup (east of the SW Highway), Yornup Siding, Yornup South, North (and West) Palgarup, Manjimup (townsite industrial area), Diamond Mill, Boyup Brook, Wilga, North Greenbushes and Hester.

The main sub-regional site requirement, besides many other factors, is a *minimum core* area of 100 hectares, with a larger total required area to be determined dependent on the particular industry and associated buffer necessary.

It is highly unlikely that Diamond Mill or Manjimup will be selected (because of constraints already mentioned) and the Palgarup location has factors working against such a site including significant wetlands, high land capability areas and high-value horticultural uses being well established there.

The WBISS has two stages –

Stage 1 (site selection) is anticipated to be finalised by February 2003, and

Stage 2 (detailed planning for preferred / selected location) is likely to be completed by December 2003.

#### 5.1.5.4 Special Rural / Special Residential

Special Rural and Special Residential lots in close proximity to Manjimup, or actually within the townsite, provide an alternative lifestyle to single residential lots in the town. This may have had some impact on the slow up-take rate of residential land in recent times.

Within a 5km radius of the town centre, there are nearly 500 residential lots either subdivided or with current approvals to be subdivided. A potential further 120 lots on the eastern edge of town (on "Rural" - zoned land) are the subject of a current Scheme Amendment (96) to TPS 2. A number of rural areas identified as worthy of future investigation for special rural development in the Local Rural Strategy (that were proposed, inappropriately, to be zoned "Special Rural" in the abandoned TPS 3) have not been considered for further examination to the present time. Many other existing Special Rural lots remain undeveloped.

Local real estate agents have advised that many people buying and developing rural-residential lots are locals seeking a lifestyle change on larger lots. This trend indicates a relocation of local residents rather than a desirable attraction of new residents into the district.

Certain "Special Rural" zones, on Ipsen Road, Southern Street and Springdale Road, are situated within either former or existing buffer areas for saw mills (and the – currently closed – abattoir in one case). At least six (6) Special Rural zones remain undeveloped. Another on Dingup Road has sold only one (1) lot since its release in 1997.



This evidence indicates that there is a limited demand for Special Rural and Special Residential lots (other than through relocation) and there are, accordingly, a large number of undeveloped lots within these existing zones. Therefore, careful consideration should be given to any future proposals that may be received in relation to such zones. This is particularly important where some uses of such land may:

- result in land use conflict with surrounding agriculture;
- constrain agricultural activity;
- be within an existing buffer area;
- limit expansion potential of the townsite urban area; and
- result in inefficient and ineffective use of resources, services and infrastructure.

## **5.2 PEMBERTON**

Pemberton townsite is situated amongst Karri forest on the Darling Plateau, approximately 30 km southwest of the Manjimup townsite.

Pemberton has a warm, temperate, Mediterranean climate receiving over half of its rainfall between May and September during a cool winter season whilst the summer season is characterised by warm, dry weather.

Economic pressure from industry restructuring has seen the local industry diversify from the timber and agricultural sectors to include aquaculture (namely trout hatcheries, which now stock river population throughout the southwest), agroforestry and hard / soft wood species plantations and tourism.

The growing tourism industry is now a key contributor to the local economy and visitors to Pemberton presently double the resident population during the peak Christmas and Easter holiday periods. The main attractions for the area include the native forests, the Gloucester tree "icon" and a range of arts and crafts and rural sight-seeing / leisure activities, such as restaurants and wineries.

The Pemberton townsite is characterised by original weatherboard and corrugated iron "workers' cottages". The main commercial precinct for the town is predominantly positioned along the southern side of Brockman Street and has the function of a service centre for the district.

Expansion of the existing townsite is restricted by surrounding State Forest, major timber mill sites in the southwest and east (the closed "Pempine" Mill is still situated in a "General industry" zone which is inappropriate given the proximity of community facilities - including the high school – residential zoned land which has been unable to be developed because of buffer requirements, and a major tourist route to the Gloucester tree / Gloucester Ridge vineyard et al), a wastewater treatment plant to the southwest and several overhead power transmission lines.

### **5.2.1 Historical Background**

Pemberton was named after Mr Pemberton Walcott, a pioneer who arrived in the area in the 1860's when European settlers were first opening up the area. Aboriginal people from the Bibbulmun Nation occupied this very fertile region and used the Pemberton area as a summer camping area.

Significant European settlement of Pemberton had its beginnings in the timber industry. In 1914, the construction of State Mill No. 2 and the railway line linking Pemberton to Manjimup were completed. The following years saw the construction of State Mill No. 3, the addition of workers' cottages, two boarding houses, a local store and a hail for the working population, all of which facilitated the rapid growth of the Pemberton townsite.

At its peak, there were over 3,000 employees in the Mills and bush-working areas. Many of the original buildings, built with timber from the Mills and roofed with corrugated iron, still survive in the old precinct of Pemberton today.

Originally, felled timber was hauled to the Mills by bullock teams but, as the nearby timber was cut out, light railways were laid. These rail lines were a vital facet in the growth of the timber industry, enabling it to be conducted on a large scale over a period of some 20 years (until motor vehicles took over). As the forest railways were replaced in turn by roadways and trucks, tractors superseded bullock teams. The rail lines were finally abandoned but many of the formations remain in existence today and form the basis of many of the bushwalking trails around the town. The "Pemberton Tramway Co" now operates a tourist tramway service to Northcliffe utilising the historic rail line. The town still has one of the largest operational sawmills in Australia (and the largest *karri* sawmill). Pemberton is also noted for its trout hatchery, which provides stocks of Rainbow and Brown trout for the rivers and

dams of the South West. The Gloucester Tree still continues to regularly attract tourists. Although the timber industry has declined in importance as an employer of town workers, the Pemberton Karri Mill continues to visually dominate the town's southern area. Tourism is increasing in importance as a local industry for the Pemberton sub-region and this complements expanding viticultural and other diverse agricultural industries.

## 5.2.2 Infrastructure

Pemberton contains an adequate level of community infrastructure to service its permanent population and its visitors. It is dependent, however, upon *some* regional and district facilities that are otherwise available in Manjimup.

### 5.2.2.1 Water

#### ☐ ***Scheme Description***

The Pemberton Water Supply Scheme draws water from Lefroy Weir (Lefroy Brook Pipehead Dam) and Big Brook Dam. It is then treated at the nearby water treatment plant, and then stored in a 1,000m<sup>3</sup> ground level storage tank at Johnston Street. Elevated areas of the town are supplied from an elevated tank also located at Johnston Street.

#### ☐ ***Growth in Services***

There were 412 services supplied at the end of the 2001/02 financial year, with average annual growth of 1.3% over the fast four years.

#### ☐ ***Water Source Capacity***

The estimated combined sustainable yield from Lefroy Weir and Big Brook Dam is 1,020 ML/yr. This compares to a total annual water allocation for 470 ML/yr (200 ML/yr from the weir and 270 ML/yr from the dam). This water supplies the Pemberton townsite and the trout hatchery, who estimate their use at about 200 ML/yr, leaving around 270 ML/yr licensed for Pemberton Town Water Supply. Total annual water delivered to Pemberton was about 190 ML in 2000/01.

Based on the rate of growth in services there is sufficient capacity remaining in the licence for more than 20 years.

#### ☐ ***Treated Water Capacity***

The capacity of the water treatment facility is 2,010 kL/d, constrained by the transfer pump station from the holding tank to the ground level tank.

The existing treatment facility is currently operating at approximately 50% of capacity and can support a further 40 year expansion in services based on the current growth rate.

#### ☐ ***Future Planning***

The Water Corporation plans to increase town storage around 2010.

### 5.2.2.2 Sewer

#### ☐ ***Scheme Description***

The Pemberton Wastewater Scheme consists of two reticulation areas, two pumping stations and a treatment plant.

The reticulation area collects the wastewater by gravity flow to the WWPS, which then pump to the WWTP southwest of town. Treated wastewater disposal incorporates an artificial wetland, effluent storage pond and discharge facilities to the Lefroy Brook, downstream of the catchment area.

#### ☐ ***Growth in Services***

There were 197 services connected at February 2003, the majority of which can be attributed to recent infill works.

### ❑ **Treatment Capacity**

WWTP capacity is approximately 100 kL/d, which will double with the addition of a second Intermittent Decantation Extended Aeration (IDEA) unit is commissioned.

Average daily inflow to the WWTP during 2002 was nearing treatment capacity, thus confirming the need to upgrade treatment capacity.

### ❑ **Future Planning**

Wastewater planning is generally in place. A second IDEA module is scheduled to be commissioned at the WWTP in 2003.

Works to sewer 53 lots under the infill sewer program (area 1D, see attached map) are provisionally scheduled for construction during the 2007/08 financial year.

#### 5.2.2.3 Power

Pemberton is supplied with a 22kv radial feed from Manjimup sub-station.

Modest growth in the town can be catered for with the existing supply, although overhead lines may restrict development in some areas. These will require relocating should development on lots less than 4 hectares be proposed in such locations.

#### 5.2.2.4 Communications

Effective communications is an important part of regional businesses being able to perform. It is essential that they have effective data transfer facilities and modern communication facilities to sustain economic growth and promote local employment opportunities.

The Bosch Group communications audit for the South West region (carried out in 1997) found that for the Pemberton town site:

- Telephone and facsimile services were average.
- Mobile telephone services were poor to very poor (Telstra is currently proposing the construction of two new mobile telephone base stations at Quinninup and Woolgalup, along with an extension to an existing facility in Northcliffe, that should double the present CDMA coverage throughout the Shire once in place).
- Reception for national radio broadcasting services:
  - ABC Regional Radio were indicated as poor.
  - ABC National Radio had poor or no reception.
  - ABC Classic FM Radio had no reception.
  - Triple J Radio had no reception. WA
  - FM Radio had no reception.
  - The local community radio had poor reception.
- Television:
  - ABC TV had good reception
  - GWN TV had between good and poor reception,
  - There was a desire to have readily available SBS television services.

#### 5.2.2.5 Roads

The Pemberton townsite has largely developed along a grid road pattern. The townsite currently has high permeability and effective good access to most parts. The majority of the roads are sealed, kerbed and drained. They provide all weather access but their condition is reflected by their age.

The town centre is on Brockman Street, which is part of the Vasse Highway. On-street parking and pedestrian crossings are issues that will become important as activity increases.

#### 5.2.2.6 Railways

A narrow gauge railway is located north of the townsite and caters for occasional tourist use. The tourist tramway leading to Northcliffe runs from the old railway station and follows Lefroy Brook to the south.

#### 5.2.2.7 Drainage

The Pemberton townsite is located on a section of elevated terrain that is characterised by several drainage catchments, including the "East Brook Catchment" to the south and east and the "Lefroy Brook Catchment" to the north west and south west. The majority of the townsite drainage discharges to the Lefroy Brook Catchment.

The majority of the local roads channel water to the north west, towards Brockman Street, which contains stormwater pipes directing the runoff to the south west for discharge into a natural damp-land system adjacent to the Lefroy Brook.

Local open drains characterize the town site drainage system together with sections of piped drains discharging to the upper reaches of the streamlines in the various catchments. The general purpose of the drainage is to conduct isolated internal catchments and street drainage to the natural drainage system as quickly as possible.

The drainage lines need to be adequately protected in existing and future developments. It is imperative that the drainage be acknowledged as a legitimate land use and protected by both easements and / or reservations.

Where the urban runoff discharges into the natural stream system, appropriate controls to remove contaminants and reduce scour are necessary.

It is important in any future urban development that detention facilities be incorporated as part of the local area drainage to ensure that the post-development rate of runoff does not exceed the pre-development rate of runoff. It will be necessary to create detention areas that can serve both a runoff control function and a water quality improvement function.

#### 5.2.3 Community Infrastructure

Although the population has remained stable for a number of years, Pemberton has a recognized potential to grow - on the basis of expanded tourism and intensive agriculture industries. There are no apparent shortages of community facilities that could be anticipated for a town of this size and order (it is not a regional or district centre) and the proposed new recreation centre near the Southerner's football ground will be an added attraction.

The Department of Education has no plans for expansion of its facilities, although it can be anticipated that some demand will be generated if population increases for the District High School to be upgraded to a Senior High School.

A total of 207 students from kindergarten to Year 10 attend the school which are is an increase of 15 since 2002.

St Joseph's is a Catholic primary school with 56 students - 15 fewer than in 2001. There are a limited number of part-time TAFE courses available at the Pemberton Telecentre and students travel to Manjimup for other educational needs.

The Pemberton District Hospital has recently been redeveloped and now provides a wider range of services to support the community. There are also 2 general practitioners, a physiotherapist, a pharmacy, a child health centre and ambulance (volunteer) services. There is also a Police Station (which is permanently occupied) and a Fire Station.

The Community Centre and Country Club provide facilities for a wide range of recreation and sporting activities.

Pemberton has adequate services and facilities to support a larger population and Manjimup is close enough to provide additional district and regional facilities.



## 5.2.4 Summary of land use and environmental planning considerations - Pemberton

Table 10 must be read in conjunction with Figure 12 and it provides a summary of considerations regarding a number of sites in and around the Pemberton townsite that may provide opportunities for consolidation and expansion.

**Table 10: Summary of land use and environmental planning considerations –Pemberton**

Number	Comment
1	Area suitable for development such as residential or rural-residential with north-eastern portion containing well-drained upland terrain (Crowea CRb map unit*) and abutting State Forest. South-western portion forms headwater of tributary of Lefroy Brook where careful control of drainage is required to prevent erosion and stream sedimentation/contamination.
2	Golf Links - Kemp Road is located along a broad crest and serves as a suitable physical boundary to separate the townsite and associated fringing development from the suggested agricultural priority area to the north. The agricultural priority area is also within the catchment to the Pemberton town water supply point on Lefroy Brook. Water and Rivers Commission began to prepare a Water Source Protection Plan (WSPP) for the Lefroy Brook catchment area during 2001 and is progressing this. Given the range of existing land uses, the focus of the WSPP is likely to be on managing risks to water supply quality through best management practices.
3	Area suitable for rural-residential development centred on well-drained upland terrain (Crowea CRb map unit). Western portion extends into Lefroy map unit where steeper slopes are to be avoided and drainage carefully controlled. Consideration also needs to be given however to maintenance of landscape values when viewed from main (tourist) roads. Any development within the Lefroy Brook townsite water supply catchment would be conditional on Water and Rivers Commission approval and subject to best management practices including strict control of surface runoff and location of lots where land capability allows effective on-site soakage disposal of treated wastewater.
4	The Golf Course acts as a buffer between the suggested rural-residential area and the agricultural priority area to the north and north east where existing horticultural and viticultural development is concentrated (see also second part of comment number 2 re: agricultural priority area).
5	Land with potential for rural-residential, or to accommodate residential expansion needs (subject to more detailed site analysis to define and avoid component areas of steeper slopes). Lefroy map unit with well-drained nutrient retentive soils. Structure planning required addressing buffer, landscape and land capability issues at a more detailed relevant scale.
6	Land used by CALM as an arboretum. The long-term requirement for this facility should be investigated since some portions of the area could be used to accommodate possible future residential ("boutique" cottage industries and artisans etc) or light industrial land requirements, or continue to be used for recreation and provide a linkage through to the Browns Road subdivision. Existing vegetation offers potential for use as buffers.
7	Productive vineyard and tourism facility en route to Gloucester Tree.
8	Existing reserves (Widdeson Street) identified by the Pemberton Progress Association (PPA) as having potential for residential development. However, issues of townsite remnant vegetation and susceptibility to erosion (if cleared) may preclude this use.

Number	Comment
9	<p>Existing industrial area around the former "Pempine" Mill contains land which could be used to accommodate other industrial uses — however, proximity to residential areas, community facilities (high school etc) and quality of existing remnant vegetation overrules this option.</p> <p>With the recent closure of the "Pempine" Mill, the site could be vacated and become available for residential uses. There should be stringent rehabilitation requirements on existing leaseholders, including the need to address any soil contamination issues.</p>
10	<p>Area upslope and behind the (former) Sotico Mill site could accommodate light industrial needs but is constrained by visual amenity concerns from both the townsite and major travel routes. Land further upslope is also fully vegetated and of landscape significance. Should this site ever be vacated, and become potentially available for residential uses, there should be stringent rehabilitation requirements on existing leaseholders, including the need to address any soil contamination issues.</p>
11	<p>Land potentially suitable to accommodate residential expansion needs, but constrained by the (former) Sotico Mill buffer and uncertainty over its long-term future.</p>
12	<p>Uncleared area with potential to accommodate further residential development (within well-drained upland Crowea CRb map unit).</p>
13	<p>Valley slopes (Lefroy map unit) with high visibility from townsite and tourist travel routes. Suitable for low key, visually unobtrusive development only. Some portions, towards Stirling Road, are not within view shed from town and may therefore have some potential for rural-residential development.</p>
14	<p>Area with significant potential for rural-residential development given secluded location away from view shed from town and tourist travel routes. Predominantly Lefroy map unit. Avoidance of steeper slopes and careful control of drainage required to prevent erosion. Any subdivision design would need to consider possible view sheds from town after intervening tree plantations are harvested.</p>
15	<p>Area identified in 1993 LRS as having potential for rural residential, however, in view of the proximity to an operating dairy and the potential for the southern area to become industry - and associated buffer requirements - this land could remain General Agriculture.</p> <p>Planning considerations for any long term change of use are:</p> <ul style="list-style-type: none"> <li>• landscape values along Vasse Highway and Pemberton-Northcliffe Road,</li> <li>• fire risk adjacent to State Forest,</li> <li>• buffer requirements for adjacent dairy and proposed industry buffer to refuse site which operates as a waste transfer station to the south.</li> </ul>
16	<p>The Stirling Road - Pump Hill Road junction provides a suitable physical boundary to separate the agricultural priority area to the north, from areas associated with townsite fringe issues to the south. This is effectively a continuation of the Golf Links - Kemp Road boundary discussed in point 2. (See also second part of comment number 2 re. agricultural priority area).</p>

\* Map units are 'soil-landscape subsystems' as defined by Agriculture WA - refer to Appendix C, Figure C3.

## 5.2.5 Land Requirements

### 5.2.5.1 Residential

An examination of the residential lot potential, together with the findings of the WBLRP, indicates that significant constraints exist (eg. existing vegetation, proximity to industry I buffers, surrounding reserves) which, for a long period, have restricted the availability of residential lots.

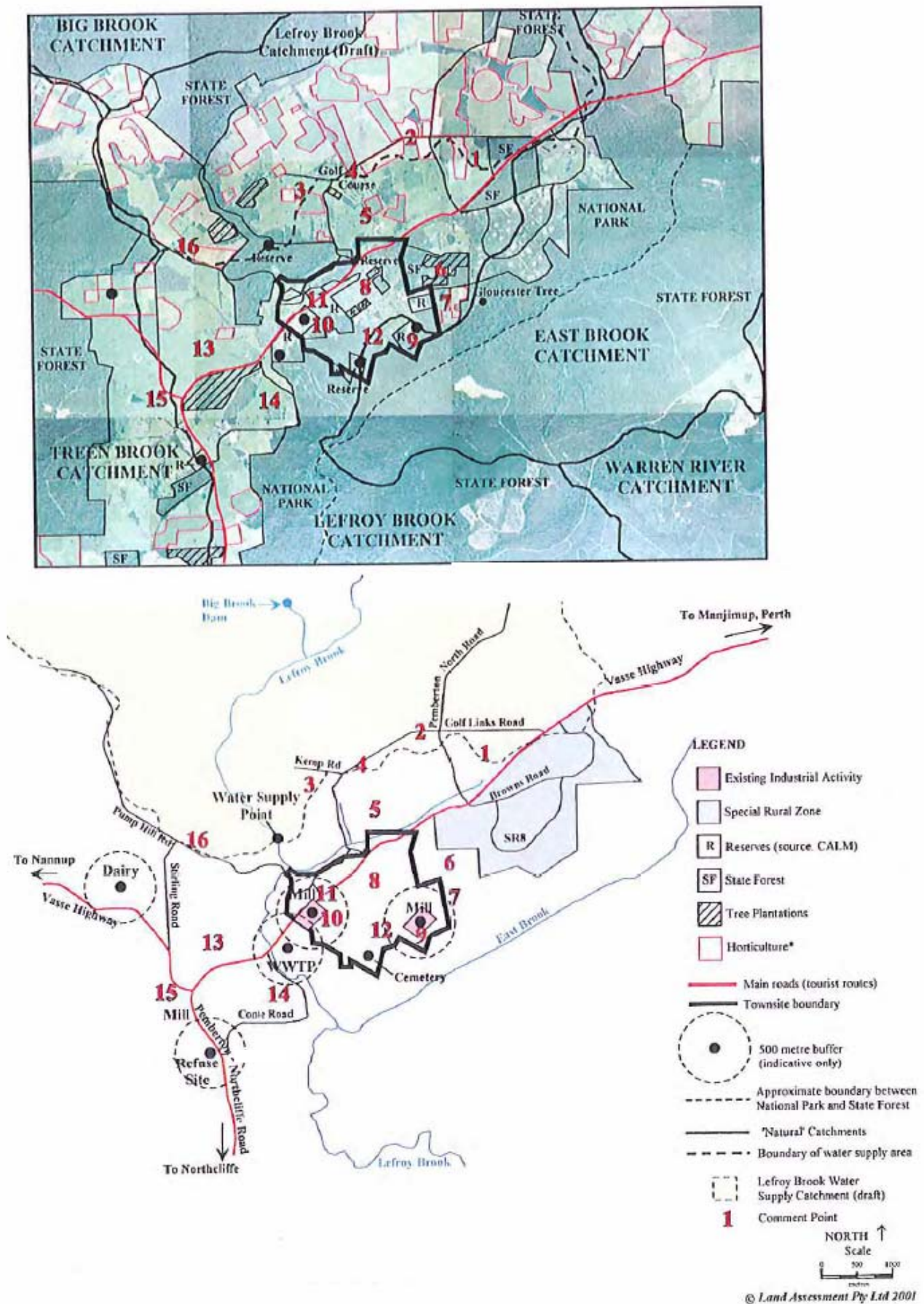
The continued implementation of the sewer infill program and removal of the buffer restrictions around the former "Pempine" Mill would contribute significantly to future lot supply. The lack of a wastewater scheme to service lots with potential to subdivide has, however, also prevented subdivision of existing residential-zoned

land.

Currently, there are 22 vacant residential lots in the townsite. Several large residential-zoned lots cannot be subdivided for closer development due to existing constraints. Land zoned residential in TPS 2, or *earmarked* for residential development, could create as many as 260 lots (WBLRP). Of these, a potential for at least 40 lots in Widdeson Street has been strongly opposed by some members of the local community - due predominantly to environmental concerns – despite general support from the PPA.

This land may not be required if other opportunities become available. The closure of the "Pempine" Mill should allow surrounding land to be developed for residential subdivision once rehabilitation and land tenure issues have been resolved.

**Figure 12: Pemberton Townsite – Land Use and Environmental Considerations**



There is no conclusive evidence to support anecdotal reports of a strong and unmet demand for residential lots and houses in Pemberton - recent inspection (December 2002) of the town showed "For Sale" signs in practically every street.

Development of new lots outside the existing townsite boundaries will be more expensive and problematic than developing land within the townsite if existing constraints can be overcome. Land within the former "Pempine" buffer, and in the general vicinity thereof, has access to all required services and facilities and would represent a logical extension of the townsite *within the existing gazetted townsite boundary*.

Community members appear most concerned about the lack of interesting lifestyle opportunities and variety of choice as far as residential or rural-residential land is concerned, and suitable areas should be identified for these purposes.

#### 5.2.5.2 Town Centre / Commercial

Under the existing TPS 2 only 32 lots (all less than 2,500m<sup>2</sup>) are zoned for commercial usage and the majority are located along Brockman Street. The range of commercial enterprises is reasonable, though limited, with few opportunities for larger scale businesses. District-level commercial operations are located in Manjimup.

The commercial area needs to be planned and developed cohesively. Expansion of the town centre to cater for more than passing traffic (to retain tourists for longer periods) is required.

The *Pemberton Progress Association* (PPA) commissioned the "Pemberton Mainstreet Landscape Masterplan", which was prepared by Arbor Vitae and incorporated the Lefroy Brook swimming area and Forest Park and addressed character, traffic and vehicle circulation matters. This Masterplan was received by Council in 2001 and supported "in principle" on the proviso that public comment be sought at the time of advertising the draft LPS. It has yet to be presented back to Council for final endorsement.

Elements of this Masterplan are incorporated into the future planning for the town centre in the LPS, which also considered commercial opportunities, community facilities, parkland, the oval and sports centre, the Pemberton Discovery Centre, aged-care facilities, the tourist railway, the Pemberton Pool, Forest Park, the caravan park and adjacent areas.

Expansion of the Town Centre to include the above areas will be beneficial to the town's future. The town centre can also be expanded to the south along Guppy Street, subject to other residential land being available to replace that "captured" in such an expanded town centre. This "Town Centre" zone will encourage investment, improving the community, commercial, tourism and residential functions of the town centre.

In supporting the growth of tourism - while providing for residents - it is essential that the centre is dynamic, creating and encouraging a well-defined town centre precinct that is an attractive commercial and administrative centre. It would include sporting, cultural and tourist amenities as well as entertainment and social functions for all residents and visitors.

Above all, Pemberton requires flexibility within the town centre to allow people to be innovative and responsive to development opportunities. With the economic hardship many people are experiencing, particularly due to the changes to the timber industry, it is *not a time when planning should be seen as being restrictive*. Within appropriate guidelines to protect the area's attractiveness and amenity, people must be encouraged to develop a town centre desirable to both locals and tourists. Such a hub should be a concentrated precinct that is pleasant, safe and easily accessible in a naturally attractive environment encouraging the maximum use of a diverse range of facilities. "Town Centre" uses should also permit a mix of residential and office development - and tourist accommodation.

#### 5.2.5.3 Industrial

The current lack of Industrial land is considered to be a major constraint to Pemberton's growth and economic well-being. Although any *major* industry should be required to be located at Manjimup, there is a proven demand for light industrial opportunities to service the Pemberton's needs (along with those of the diversifying rural and tourist economy).

There are two "General Industry" zones in Pemberton - one occupied by the Pemberton Karri (Sotico) saw mill and the other by "Pempine" (which went into receivership in June 2002).

The area within the zone around "Pempine" occupies about 18 hectares, part of which is unallocated crown land and still heavily forested. The "Pempine" buffer has prevented the residential development of surrounding land and the closure of that pine log saw mill could free up significant areas of residential-zoned land. In view of its proximity to existing and potential housing, the area would not be considered appropriate for new industrial uses.

The Pemberton Karri Mill is likely to continue in some operational format for the foreseeable future, especially with the funding grant support proffered by the State Government in December 2002.

A new "Industry" zone - *for light and service industry* - is required and has been identified in the LPS on the Pemberton-Northcliffe Road south west of the townsite.

#### 5.2.5.4 Special Rural

The only existing Special Rural lots are located in a single estate, "Brown's Road" on the eastern edge of the townsite. Over 100 lots have been released since the development commenced in the 1980s. Approximately 30 of the lots currently remain vacant. Demand for additional lots is reported anecdotally as high but cannot be quantified. Due to the lack of industrial land, and the trend to diversify interests and create part time incomes, some commercial type activities have developed in Brown's Road, contrary to the provisions of the current Scheme.

The WBLRP has shown a potential for over 180 lots (varying in size from residential through to special rural) could be created south of Golf Links Road.

### 5.3 NORTHCLIFFE

Northcliffe is a small rural town that has historically been associated with the timber industry but where, in more times, tourism has been gaining importance. The town is situated 31 km south west of Pemberton, at the intersection of the Pemberton-Northcliffe Road and Wheatley Coast Road.

The restructuring of the timber industry resulting in the closure of a number of saw mills and adversely affected the town's economy and contributed to population loss. Potential to value-add to timber production, provide for tourists and to diversify the rural economy are the most likely economic opportunities to provide future support.

Northcliffe can take advantage of its location at an important crossroads, and entry point to the D'Entrecasteaux National Park, and become an attractive base for recreational access to the many natural attractions in the locality out to the coastline. Its relative isolation is also attracting new residents to the townsite and environs who are seeking a particular rural or "wilderness" lifestyle.

Northcliffe has growth limitations due, in the main, to water and sewer constraints, a limited amount of available high quality agricultural land and its increased distance from Perth and other larger centres in comparison to other locations. There are, however, no immediate or medium-term shortages of developable land within the townsite.

#### 5.3.1 Historical Background

Unlike the towns of Manjimup and Pemberton - and other settlements in the Shire fostered around the timber industry - Northcliffe was initiated as part of the "Group Settlement Scheme". A timber mill was opened there, however, in 1924 to provide construction materials for these initial inhabitants. The Group Settlement Scheme saw many poorly equipped and ill-suited people, many of them ex-servicemen from England, placed on the land to clear forest for cattle farming in return for blocks of land at favourable prices.

The Scheme was largely a failure, which foundered during the 1930s Depression, but it did result in the extension of the railway line from Northcliffe to Pemberton, and a significant increase in the district's population. Agriculture, together with the timber industry - which eventually consolidated followed settlement - were the industries mostly responsible for the present Northcliffe economy. However, the closure of the Bunnings (Sotico) timber mill in the mid 90's, the industry buyouts taken by other smaller local millers at Northcliffe in the past two years, and the overall fallout from industry restructuring, has recently cast doubt over any continuation of the timber industry

that was a former main stay of the town's economy.

A small co-operative of local workers has received support from the South West Development Commission and Council in putting together a proposal for a "Timber Cluster" at the old Sotico Mill site. There are places for 6 operators under the proposal with 4 having committed to the project already (3 millers and 1 furniture maker). An application for a third grade log allocation has been made to the Forest Products Commission.

The site is on two separate Crown Leases – Lot 169 (Mill site) and Lot 171 (worker's clubhouse and 33 workers' cottages situated on two streets). Both Leases are required to be purchased from Sotico (\$10,000 for the derelict mill site and \$150,000 for the houses). Commencement capital of \$300,000 is required, but total investment of close to \$800,000 may be needed by the time the mill area has been restored and houses improved. A percentage of the funds will be injected by the co-operative itself, the balance sought from specific funding bodies. The Worker's Club will be excised onto a separate lease.

Of the 33 houses, 11 are currently rented, 6 could be brought up to rental standard relatively quickly and a further 10 houses could be made available for occupancy within 6 – 12 months, at a cost of approximately \$10,000 per house. The "vision" of the co-operative is to:

*"...re-establish a "timber village", preserving similar values to those Mill settlements which historically existed in the lower South west, consisting of a working mill, a worker's club, a mill office and housing for workers, and thus maintaining and enhancing a piece of Northcliffe and State heritage."*

The Timber Cluster will be situated in the "Enterprise Park" proposed in the LPS and will require better definition later, in terms of zoned area (perhaps a new "Enterprise" zone under TPS 4) and specific special provisions. Other important planning and building considerations will also need to be addressed (eg. an environmental audit / noise modelling – as long as the Lease areas are under the one zone and management control, DEWCAP has indicated existing houses could be exempt from noise control and buffer requirements, though this requires further confirmation – fire hydrants and smoke alarms in all building etc).

Site clean up will be commenced by Christmas 2002, with legal formalities aimed for completion by March 2003.

In recent years the town has started to receive the benefits of an 'across the board' growth in tourism and recreation in the south west and this is likely to continue to have positive outcomes for the town's economic future.

### 5.3.2 Infrastructure

#### 5.3.2.1 Water

##### ☐ **Scheme Description**

The Northcliffe Water Supply Scheme draws water from Armstrong Spring and Armstrong Weir. Water is treated before being pumped to the 225m ground level tank and 90m<sup>3</sup> elevated tank on Main Street.

Water is drawn preferably from Armstrong Spring but if insufficient water is available, water is drawn from Armstrong Weir.

##### ☐ **Growth in Services**

There were 97 services supplied at the end of the 2001/02 financial year, with average annual growth of 1.5% over the last six years.

##### ☐ **Water Source Capacity**

The estimated yield from Armstrong Spring is 40 ML/yr, with a further 200 ML/yr from Armstrong Weir, Total annual water delivered to Northcliffe was approximately 27 ML in 2000/01.

Based on the growth rate current services there is apparent long term water source capacity available (>50 years).

##### ☐ **Treated Water Capacity**

The current treated water capacity is about 340 kUd, constrained by the transfer pump station.

The existing treatment facility is currently operating at approximately 60% of capacity and can support a further 20 year expansion in services based on the current growth rate.

#### ❑ ***Future Planning***

A planning study is underway to identify long term source options for the scheme with a view to secure a reliable source with improved water quality. The adjustments to the scheme are likely to be scheduled before 2008. In the meantime, a micro-filtration plant will be installed to improve water quality from both sources.

##### 5.3.2.2 Sewer

Northcliffe has no reticulated sewerage collection or treatment system.

All developments are serviced by small onsite treatment and disposal systems. These are not particularly effective in the lower parts of the town site where ground and drainage conditions are unsuitable. The health issues with such systems constrain more development in the town site.

Northcliffe is noted in the "Country Sewerage Policy" as a priority for sewerage on health grounds but no scheme is proposed as yet.

##### 5.3.2.3 Power

Northcliffe is supplied with a 22kv radial feed from the Quinninup sub-station, which in turn has a 66kv feed. The single feed requires shutdowns to undertake maintenance on the lines. Moderate growth can be catered for with existing feeds, although some areas containing overhead power lines may be restricted development-wise. These overhead lines will require relocating should development on lots of less than 4 hectares in area occur.

##### 5.3.2.4 Communications

Telstra received Council approval to extend its current 40 metre high base station in North Street (by 12 metres) on 12 December 2002. The extension will aid CDMA coverage in the locality and Council intends utilizing the facility to position TV receptors to enable coverage into the townsite. There are visual amenity impacts associated with the current base station site, which has been constructed incrementally since 1972 - prior to the Telecommunications Act being introduced in 1997, Telstra and other communications companies could position infrastructure generally without local government approval. It is suggested that Council actively engage with Telstra to identify a more suitable potential future site for the facility. Should adequate funding become available it would be recommended that the facility then be moved away from the central townsite position it currently occupies.

##### 5.3.2.5 Roads

Northcliffe townsite has a basic grid road pattern running off the two major roads that traverse the townsite – Windy Harbour / Wheatley Coast Road and Pemberton-Northcliffe Road / Zamia Street. The latter divides the townsite north and south.

The town centre facilities are near the intersection of the two major roads but the area lacks definition and has excess areas of bitumen. The roads in the North Street area are all sealed and unkerbed. The roads in the Betsworth Street area are a combination of unsealed, sealed and unkerbed. All roads reflect their advancing age.

##### 5.3.2.6 Railways

The Pemberton to Northcliffe tourist tramway terminates on the eastern edge of the town site but has poor connectivity to the main townsite and facilities.



### 5.3.2.7 Drainage

Existing development has largely worked around the natural drainage system.

Much of the town is low-lying with the majority of urban runoff discharging to the north and southeast.

Short sections of pipe work transfer runoff from road pavements into the natural system – which runs through residential lots and Council Reserves in some places, inhibiting their development. In particular, the Banksia Street and Zamia Street areas are low and require filling and drainage to allow development.

A drainage study of the town site is required along with protection of existing natural drainage lines.

It is important in any future urban development that detention facilities be incorporated as part of the local area drainage, to ensure that the post-development rate of runoff does not exceed the pre-development rate of runoff. It will be necessary to create detention areas that can serve both runoff control and water quality improvement functions.

### 5.3.3 Community Infrastructure

Northcliffe has a District High School that provides education from kindergarten age through to Year 10. The number of enrolled students has declined from 151 in 1998 to 124 in 2003, which may be a reflection of the impact of changes to the timber industry on the local community.

A small Telecentre offers a limited range of TAFE courses.

Community infrastructure includes a Post Office, Red Cross post, Family Centre (incorporating a or-Oche, pre-school amenities etc), a CWA building, the Northcliffe annexe of the "Pemberton I Northcliffe Multi - Purpose Health Service Facility" and a Town Hall. Sporting facilities cater to a range of activities and are concentrated at the recreation reserve. Northcliffe is also the service centre for the Windy Harbour settlement, 35 km away on the coast.

### 5.3.4 Summary of Land Use and Environmental Planning Considerations -Northcliffe Townsite

Table 11 must be read in conjunction with Figure 13 and it provides a summary of considerations regarding a number of sites in and around the townsite that may provide opportunities for consolidation and expansion.

**Table 11: Summary of Land Use and Environmental Planning Considerations -Northcliffe Townsite**

Number	Comment
1	<p>Proposed timber cluster processing centre to consolidate activities of existing small sawmill operators who could relocate into this area. Co-location of existing sawmills and mooted value-adding processing businesses would 'free up' the current service industrial area on the western side of Wheatley Coast Road for alternative (possible residential) uses.</p> <p>Co-location could minimise costs to sawmills by capitalising on shared facilities and create associated tourism opportunities. However, development of any tourist or commercial activities on the site must not prejudice the use of the site for timber processing opportunities. There has been a National Trust proposal for this site and heritage controls are currently exerted over the mill houses.</p> <p>Use of mill houses for other uses is constrained by buffer requirements from existing and possible future operations on the mill site. DEP have, however, indicated there may be a preparedness to examine alternative zoning I management techniques to allow houses to be used by parties other than mill workers provided there is a suitable legal mechanism (such as covenants on title) to protect the interest of all parties (Thompson McRobert Edgeloe 2001).</p> <p>Disposal of residue, in particular sawdust, is an issue of concern to DEP who are opposed to its burning and would prefer the residue utilised in other ways, such as for compost blending or briquette production (TME 2001). Any development of the site will need to include a detailed fire management plan (particularly in relation to management of sawdust residue).</p>

	<p>Depending on the form of proposed future development there may be a requirement by the EPA for a contaminated site assessment that addresses site rehabilitation needs.</p> <p>Contaminated site assessments may also be required at existing small sawmill sites where owners have chosen to relocate to the cluster centre. Some of the existing small timber mills are constraining the expansion of the southern portion of the developed townsite area. They occur within land type Coy, which has well drained, nutrient-retentive soils suitable for residential development (better than much of existing townsite on Angove map unit - see Appendix C, Figure C4).</p>
2	Proposed site for the Northcliffe Interpretive Cultural Centre within Angove map unit which, in common with much of the town, is subject to high water tables. Site-specific investigation was commissioned from Land Assessment Pty Ltd to identify suitability for on-site effluent disposal. The proposed facility is also strategically close to the Bibbulmun Track and mountain bike trails, which are of importance to tourism.
3	<p>Special Rural Zone 22, which is currently undeveloped. Southern portion is constrained by the buffer requirement of a sawmill on an adjacent property. Predominantly Angove (A) map unit with small area in northwestern corner of S1 map unit (see Appendix C, Table C4 for salient features).</p> <p>An endorsed structure plan also exists for adjacent properties bounded by Yubarl, Wheatley Coast and Datchett Roads, the Railway Reserve and CALM land to the south (see Appendix C). Stream protection and buffer requirements of sawmills in these areas need to be considered.</p>
4	Special Rural Zone 21b - undeveloped. Substantial portion under tree plantation with remainder predominantly remnant vegetation. Southern portion is affected by buffer requirement from refuse site.
5	Tree plantation with special rural zones on two sides. Some possibility of land use conflict arising if aerial spraying of pesticides is undertaken.
6	Area of good agricultural land predominantly within Crowea (CRb) map unit and associated minor valleys (S1) map unit. This area, generally bounded to the west by the Gardner River, the north by Middleton Road and the south by Boorara Road, could be defined as an agricultural priority area (mainly used for dairying, but also some horticulture). It should, however, exclude the gazetted water reserve area (see point 7 below).
7	Gazetted Water Reserve for Northcliffe encompasses National Park and some private land. The town water supply is sourced from a spring on private property and WRC advises that there may be potential for a future dam at Boorara Creek (approximately 8.5 km southeast of townsite). The WRC plan to prepare a water source protection plan for Northcliffe in 2002 / 03.
8	Use of much of the land to the west of town, and between Richardson and Double Bridge Roads for purposes other than grazing is constrained by presence of wetlands with low-lying terrain of Blackwater (BWp) and minor valleys (S4) map units (see Appendix C, Figure C4 and Table C4).

### 5.3.5 Land Requirements

#### 5.3.5.1 Residential

There remains some conjecture about the availability of vacant lots in Northcliffe due to the inability to develop many lots because of site drainage problems and a lack of reticulated sewerage possibly deterring potential residents.

An examination of the residential lot potential - together with the findings of the WBLRP - indicates that there are 33 vacant single residential lots (R10) with frontage to North, Richards, Zamia and Bettsworth Streets and Merrup Road.

If sewerage was available, up to 145 additional lots could be created. There is also an area of approximately 33 houses located adjacent to the disused (Sotico) Northcliffe Timber Mill. The future of these houses is uncertain, however, it is likely that some, or all, of these houses will be retained for permanent housing and 1 or tourist accommodation if current initiatives (Northcliffe Timber Cluster co-operative) come to fruition.

#### 5.3.5.2 Town Centre / Commercial

Retail and commercial activity occurs on 16 lots (3 of which were vacant as at Feb. 2003) with frontage to Wheatley Coast Road and Zamia Street. These commercial lots provide for small shops, including a café, service station, hotel, supermarket and general store.

Some of these shops are under-utilised and there has been no strong demand for development identified in the course of this study.

Consolidation of the town centre, together with a flexible approach to the land uses contained within it ("Town Centre" zone) is the preferred planning direction.

#### 5.3.5.3 Industrial

With the (FISAP) industry buy out and subsequent closure of the Thompson, Taylor and Rudd timber mills in 2002, a large area of service and general industrial land is potentially available for new opportunities.

The existing service industry area has frontage to Wheatley Coast Road and Main Road and occupies an area of 13 hectares, which is mostly uncleared and undeveloped aside from the former Thompson mill site (which has been completely rehabilitated) and the (former) Taylor mill site which has residual infrastructure remaining on that Special Crown Lease.

Mr Taylor has been seeking DOLA approval to gain freehold title over the site as surety in tenure before commencing a value-adding furniture business there. Given the positive aspects of the Thompson site over the road for residential (future townsite) expansion – cleared, good gradient, well-drained soils – it is recommended that Mr Taylor be instead encouraged to relocate to the Northcliffe Timber Cluster and that the entire "Service Industry" zone presently defined in TPS 2 be examined for potential "Residential" land uses (taking into account any landscape / environmental features and requirements) in the Scheme review process leading to the gazettal of TPS 4. Years of complaint from townsite residents about noise emanating from the subject area, and the recognised need for better buffers / noise separation between residential areas and such industrial uses, should be considered by Council.

Demand for service industry lots in Northcliffe (apart from Mr Taylor) is presently minor if not non-existent. Industrial land is consolidated around the old (Sotico) Northcliffe Timber Mill, which ceased operations in 1995. Of the total area of 39 hectares at that site, at least 50% is uncleared and contains creeks and other low-lying areas, which would be patently unsuitable for any type of industrial redevelopment.

The historic timber workers' houses are located within this area and their future now appears committed to that of the Northcliffe Timber Cluster co-operative (NTCC). CALM has its headquarters and works depot immediately west of the mill houses.

There is no proven, current demand for industrial lots in Northcliffe (outside the NTCC).

#### 5.3.5.4 Special Rural

There are 6 areas zoned for "Special Rural" purposes within and adjacent to the town. Not all of these areas are developed and, of the 95 existing lots which are 2 hectares or greater in area, only 35 have been noticeably developed.

The existing special rural areas are fragmented and could have potential for some land use conflict with adjacent traditional agricultural practices and activities. Consolidation of these areas could be achieved if demand increases. There may also be opportunities at that time to better protect existing vegetation, low lying areas and wetlands, and streams, through water sensitive planning.

Community opinion also indicates a potential demand for larger rural-residential type smallholdings for home occupations, cottage industries and specialist agricultural activities where part-time and / or full-time incomes could be generated.

Providing such a variety of lot sizes and lifestyle opportunities may assist future economic interest and growth in the area.

#### 5.3.5.5 Roman Catholic Church Land

The Roman Catholic Church in Bunbury owns a reasonably large and strategically well-positioned parcel of freehold [and between Betsworth, Francis and Stewart Streets, and Wheatley Coast Road, south of the town centre. The land is currently zoned for "Private Clubs and Institutions – Private School" in TPS 2.

A Church spokesperson advised that there are no immediate plans for developing the property or expanding its use. Given its central position and well-drained nature, however, it would be potentially suited to a range of land uses compatible with forward planning opportunities outlined in the LPS. These could include: church, school, aged persons accommodation, tourist accommodation, group and / or single residential etc. Development there could readily support townsite expansion when / if required.

Once the Church determines which land uses or development best suits its long-term plans for the subject property, a more appropriate zoning could be introduced (through the TPS preparation process, for example).

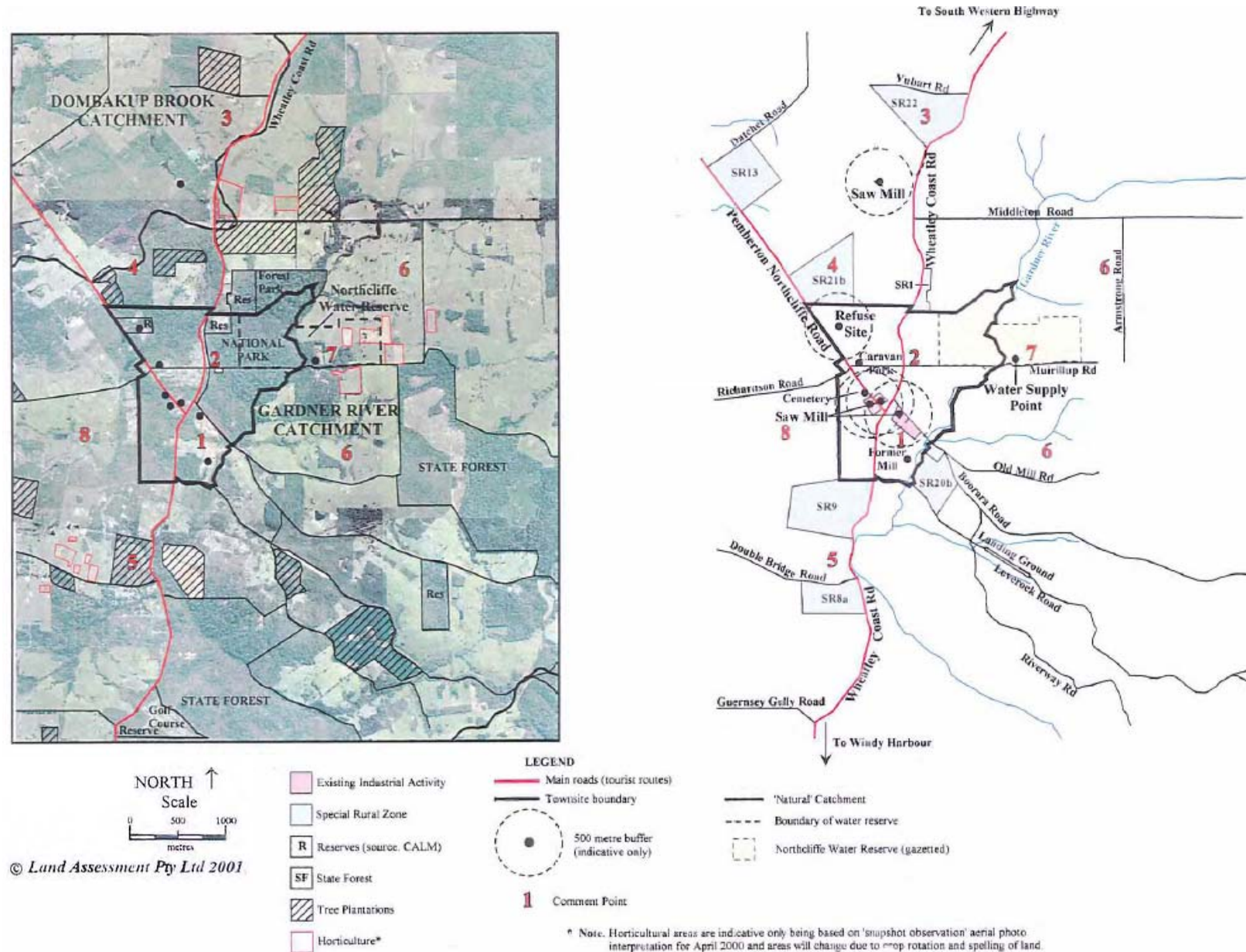
### 5.4 WALPOLE

#### 5.4.1 Historical Background

Pioneering families using the area for coastal grazing in the mid 1800s originally settled Walpole. Three families in particular paved the way for settlement of the Walpole district - the Bellanger family, who settled in Nornalup in 1910, the Thompson family, who settled on the Deep River in the same year and the Swarbrick family, who first settled in Nornalup in approximately 1919.

Walpole and surrounding farmland was more firmly established during the 1930's, when unemployed families were selected to clear bushland for farming. In 1930, a small cluster of tents, and tin and bush pole shanties, were established marking the beginnings of the Nornalup Land Settlement Scheme (NLSS) - which was later to become known as "Walpole".

Those attracted to the NLSS lived in a makeshift camp on the site where "Pioneer Park" now stands, until blocks of 120 acres (approximately 50 hectares) were allocated to them by ballot. Those blocks were heavily timbered and the life of clearing, fencing and building more permanent dwellings, and striving to achieve a living from the land, was extremely hard in those times. The poor economy of the 1930's, infertile soils and the lack of general farming skills by those involved all contributed to such hardships. Nevertheless, the Walpole townsite was eventually gazetted in 1933. The town is surrounded by significant forests, which have been utilised over time by the timber industry. The major Mill formerly operated by Bunnings Forest Products has now closed but some smaller mills remain in the district. Although the timber industry remains important to the town, tourism is becoming a significant means of positive economic development - particularly with the tremendous success of the "Valley of the Giants" and "Treetop Walk" icons (even though these are actually located across the Franklin River in the Shire of Denmark). There has been a recent and encouraging expansion of commercial development within the town, which is considered a reflection of increased tourist activity.

**Figure 13: Northcliffe Townsite – Land use and Environmental Considerations**

Walpole continues to act as a service centre for the adjacent and nearby rural and primary industries of beef, sheep and cattle farming, dairying and fishing. The range of activities in the rural areas is expanding with the introduction of speciality crops and products (along with tourist accommodation).

#### 5.4.2 Infrastructure

##### 5.4.2.1 Water

###### ☐ ***Scheme Description***

The Walpole Water Supply Scheme draws water from a weir on Walpole River, which is treated at the nearby treatment plant and transferred to the service tank above the town. Water from this tank gravitates into the town reticulation.

A project to connect the small dam at Butler Creek to the Water Treatment Plant is underway, to secure the water supply during periods of low flow in the Walpole River.

###### ☐ ***Growth in Services***

There were 289 services supplied at the end of 2001/02 financial year, with average annual growth of 1.6% over the previous six years.

###### ☐ ***Water Source Capacity***

Current water source capacity is 346ML/yr, equivalent to the yield for Walpole Weir. Butler's Creek Dam has a yield of 27ML. As the catchments for these dams have not yet been gazetted no allocation has been assigned to them.

Total annual water delivered to Walpole in 2000/01 was 88ML (25% of capacity) however, during peak summer periods demand is 100% of Walpole Weir daily capacity, and hence the need for the connection of Butler's Creek Dam to provide additional capacity during summer.

###### ☐ ***Treated Water Capacity***

The treated water capacity of the current treatment plant is approximately 950 Hid.

The treatment plant could support the addition of a further 210 residences, assuming source water is available.

###### ☐ ***Future Planning***

Planning for the medium term future has been undertaken, and only minor asset upgrades are required over the next few years.

##### 5.4.2.2 Sewer

###### ☐ ***Scheme Description***

The Walpole Wastewater Scheme consists of two reticulation areas, two pumping stations and a treatment plant.

The reticulation areas collect the wastewater by gravity flow to the wastewater pump stations which then pump to the Walpole WWTP, east of town in the Light Industrial Area.

###### ☐ ***Growth in Services***

There were 129 services connected in November 2002.

###### ☐ ***Treatment Capacity***

The WWTP capacity is 200 kUd, which is capable of serving approximately 335 services.

With respect to treatment capacity, there is ample capacity for growth within the existing WWTP, but it is expected that many properties have not yet connected, following recent infill sewerage works.

With respect to reuse capacity, works are underway to increase the reuse capacity (by treelot irrigation) to match the capacity of the WWTP.

#### ❑ **Future Planning**

Planning is adequate for Walpole Wastewater Scheme. It is expected that the scheme has adequate capacity for the foreseeable future, after the treelot is operational, expected to be 2004.

##### 5.4.2.3 Power

Walpole is supplied via a 22kv transmission line from Denmark on a single radial feed (Denmark has a double feed from Albany). The single feed requires shutdowns for any maintenance. The supply has ample capacity to service moderate growth.

Some areas contain overhead power lines that may restrict development. These will require relocating should development on lots of less than 4 hectares occur in such locations.

##### 5.4.2.4 Communications

No details available

##### 5.4.2.5 Roads

Walpole townsite has a basic grid layout modified by the landform. It has two separate areas, Walpole and Walpole West, separated by part of the Walpole Inlet and connected only by the South West Highway. The roads are largely unkerbed and sealed and provide all-weather access.

All townsite development is to the south of the highway but the highway forms part of the local road system. Speed control on the highway is therefore necessary to ensure a local traffic environment prevails.

Nockolds Street is the main business street but runs parallel to the highway with short access linkages. Clear definition of the various road functions in this location is considered necessary.

The established road network can provide the basis for any future development.

##### 5.4.2.6 Drainage

Both Walpole and Walpole West are elevated areas failing south to the Walpole inlet, resulting in potential contaminants like silt, heavy metals etc reaching the Inlet. To manage such potential impacts, and improve runoff quality into the inlet, a comprehensive drainage study and urban stormwater management plan for the Walpole area was commissioned by the Shire [PPK Environment & Infrastructure Pty Ltd — October, 2000] and is under ongoing review by the local authority.

The town site drainage is characterised by short, local drainage systems transferring runoff from isolated local catchments to the natural drainage system.

The Boronia Ridge Residential Estate (Walpole West) requires improvements in the drainage detention systems to ensure the pre-development rate of runoff is maintained and to improve sediment removal.

It is important that any future urban development has detention facilities incorporated as part of the local area drainage, thereby ensuring that the post-development rate of runoff does not exceed the pre-development rate of runoff. It will be necessary to create detention areas that can serve both a runoff control function and a water quality improvement function.

#### 5.4.3 Community Infrastructure

Enrolments of students at Walpole Primary School and Kindergarten have been steadily decreasing since

1996 from 122 to 95 in 2001 but has risen to 103 in 2003. Students must travel to Denmark or Manjimup for high school education, which may deter some potential new residents.

Denmark and Manjimup also provide the nearest hospital facilities and there is a demand for the CALM airstrip to be upgraded to Royal Flying Doctor standard so as to provide for medical emergencies (the airstrip is to be extended I expanded anyway to allow water bombers safer access during fire season). There is a Silver Chain nursing centre, ambulance facility, Fire Station, Police Station, Community Centre and Library.

Recreation and leisure activities are relatively well catered for with facilities for badminton, basketball, lawn bowls, football, cricket, tennis, yachting, boating and fishing. There is a multi-purpose indoor recreation centre well located in the centre of the residential area and close to the commercial area and school.

A number of walking and cycle trails are within or close to town and the access to natural attractions provides many opportunities for residents and visitors.

#### 5.4.4 Summary of Land Use and Environmental Planning Considerations -Walpole Townsite

Table 12 must be read in conjunction with Figure 14 and it provides a summary of considerations regarding a number of sites in and around the townsite that may provide opportunities for consolidation and expansion.

**Table 12: Summary of Land Use and Environmental Planning Considerations -Walpole Townsite**

Number	Comment
1	<p>Industry area located within Walpole map unit* in common with all of townsite, where soil and drainage conditions are a cause of concern for use of septic tanks. Some room for industry consolidation within existing area subject to assessment of site suitability for foundations in areas where sawdust has been used for landfill. Some potential for future expansion to the west and north within the same land type subject to consideration I avoidance of impacts on nearby seasonally waterlogged flats (palusplain wetland).</p> <p>Although the Walpole map unit (Appendix C, Figure C5) is 'best available' land type within the townsite boundary it is not ideal for industry uses due to poor ability of soils to retain nutrients and pollutants, and also due to drainage conditions. Best management practices therefore required particularly in relation to drainage. These are addressed in the "Urban Stormwater Management Plan for Walpole" (PPK Oct. 2000). Industry expansion possibly constrained by location of a palusmont wetland near Chugg Street (reported by Semeniuk 2001, and exact location yet to be defined).</p>
2	<p>Boronia Ridge Urban Development - This area contains paluslope and palusmont wetland features that have been the subject of debate in terms of their geomorphic classification and their conservation value.</p> <p>"It is appropriate to make reference to the terms 'palusmont' and 'paluslope' given their use and apparent acceptance by the Water and Rivers Commission within the 1997 publication 'Mapping and Classification of Wetlands From Augusta to Walpole in the South West of Western Australia' (Water and Rivers Commission Technical Report No WRT 12).</p> <p>In any scientific discipline, knowledge and use of the terminology progresses. The Directory of Important Wetlands in Australia was published in 1993 and since then there have been advances in both the identification (mapping) and classification of wetlands in Western Australia. It is unrealistic to expect that no additional wetlands or wetland terms would or should arise since that Directory was compiled.</p> <p>In relation to the wetland areas within the Boronia Ridge development, these are considered to be of very high conservation value, according to "Syrinx 2001", a report by Dr Kathy Meney of Syrinx Environmental Pty Ltd and Professor John Pate, former head of Department of Botany, UWA. The Syrinx report along with other information supporting the validity of the original 'individual scientist' interpretation of the Boronia Ridge area, was submitted to the Shire in April 2001.</p>



	<p>Pate, former head of Department of Botany, UWA. The Syrinx report along with other information supporting the validity of the original 'individual scientist' interpretation of the Boronia Ridge area, was submitted to the Shire in April 2001.</p> <p>The Syrinx report is understood to also have been submitted to the Minister for the Environment and to the Secretary of the Wetlands Committee of the South Coast Environment Group (SCEG). The Syrinx report was taken into consideration along with other reports and site examinations by the Senior Officer's Technical Advisory Group (SOTAG) in the government's decisions and determination of planning conditions for the development.</p> <p>Conditions of subdivision have been introduced to Stage 2A of the Boronia Ridge development which the Water and Rivers Commission consider will better address the conservation value of the adjacent Inlet, its fringing vegetation and the paluslope wetland. It is expected that latter stages of the development will also be required to manage stormwater so that the adjacent Reedia population and the paluslope wetland are protected.</p> <p>The effectiveness of drainage management measures within Stage 1 of the development has been questioned. Stage 2 of the development has required greater attenuation of stormwater at source. It is likely that further stages will also be required to manage stormwater and address setback distances to ensure that Reedia vegetation and the paluslope wetland are protected. Development within Boronia Ridge, in conjunction with infill development within townsite (as progressively sewerred) has been expected to cater for demand for urban land around Walpole. Boronia Ridge development is constrained to some degree by wetland protection issues. Should this eventually mean that demand for urban land cannot be met within the current townsite boundary then consideration might need to be given to release of reserve land currently forming part of the golf course. This area (Mattaband and Angove map units in Appendix C, Figure C5) has significantly better drainage and soil conditions than occurs within much of the current townsite.</p> <p>Boronia ridge, in common with existing town area, includes part of the Bibbulmun Track which is a significant tourist feature which needs to be considered in relation to development proposals.</p>
3	<p>Allan Road ('Tingleview Special Rural Estate') established special rural zone 8B contains good mix of land types and cleared versus uncleared land. Larger lots exist around margins that abut State Forest or National Park to minimise number of neighbours and reduce associated fire risk. This needs to be considered in relation to any other developments adjacent to larger areas of remnant vegetation.</p>
4	<p>Area with potential to accommodate further rural-residential development. However, this provides a scenic backdrop to the town when viewed from the South West Highway (near entrance to Coalmine Beach) - and also when viewed from Rest Point. Land type Keystone (Kb) with suitably well drained soils for un-sewered rural-residential development. Steeper slopes and crests need to be avoided and development should preferably not occur within the Butlers Creek Dam catchment area (Priority 2 source protection area).</p>
5	<p>Any townsite expansion into this area is significantly restricted by poor drainage conditions and extent of remnant vegetation cover. Any development along eastern margin of town would need to be subject to detailed site-survey and avoidance of areas of Owingup map unit - 'low' capability land that encompasses the Collier Creek wetlands, which are home to rare floral and fauna species.</p>
6	<p>Area of cleared rural land in close proximity to townsite but with no potential for development for urban density due to the occurrence within the proposed Priority 2 protection area for the town water supply. Lower density rural-residential development might be considered, however, the land type (Kordabup map unit) is generally poorly drained.</p>
7	<p>The Prison Camp on corner of Allan Road and North Walpole Road. It has been suggested that both the Shire depot and CALM depot could be co-located at this site and hence 'free up' land for industrial development within the existing industry area.</p>

8	The Waste Transfer Station (refuse site) has potential land area to accommodate further industry. However, it occurs within the Walpole map unit with attendant drainage and pollutant retention limitations and it is close to a palusplain wetland. Groundwater monitoring indicates an existing contamination plume resulting from previous use of the site for waste burial, and Semeniuk (2001) reports impacts on nearby wetlands.
9	<p>Rural land - predominantly Kordabup and Hazelvale map units (see Figure C5) occurring within the proposed Priority 2 source protection area (see Appendix C, Figure C5) where land use controls are proposed to be implemented to protect the town water supply.</p> <p>Under proposed controls, annual horticulture (market gardening), intensive animal industries (including dairy sheds) and any form of urban development would be considered incompatible land uses, Subdivision creating Rural-Residential zones with lots larger than 2 ha is likely to be conditional upon approval by the Water and Rivers Commission. Perennial horticulture (viticulture and orchards) as well as tree farming and nurseries would also be conditional land uses and subject to the use of best management practices.</p> <p>Areas of Kordabup map unit and Hazelvale map unit are generally of 'low' and 'fair' capability respectively for horticulture. Therefore possible restrictions on use of the land for market gardening is unlikely to adversely affect rural landholders. Horticultural potential, within the more elevated terrain (map units other than Kordabup) is related to perennial horticulture which is unlikely to be considered incompatible if subject to best management practices.</p>
10	<p>Special Rural Zone 21a occurs on part of a small enclave of freehold land within a 2 km radius of the Nornalup townsite within the adjacent Shire of Denmark. According to Denmark's Rural Settlement Strategy (1999) the objective is to encourage the consolidation of the Nornalup townsite as a node of residential and tourist development. Denmark's strategy identifies land within a 2 km radius of Nornalup as having potential for possible future residential and tourist oriented services subject to liaison with the Shire of Manjimup where appropriate.</p> <p>Given the steep topography and adjacent National Park, particular consideration of fire management provisions is required.</p>
11	Areas here are proposed by proponents of development as being suitable for Mixed Use / Cluster Development. The land is predominantly cleared and mainly comprised of narrow sandy plains or gently sloping sandy terrain (1-lazelvale or Angove land types - see <a href="#">Appendix C</a> Figure C5) with some portions susceptible to waterlogging. Department of Agriculture broad-scale capability assessments ( <a href="#">Appendix C</a> Table C6) indicate that more than 50% of land within these areas would be capable of supporting effluent disposal systems associated with rural-residential development. Planning response should require design of any development here to be based on more detailed site assessment and mapping, to avoid problems associated with waterlogging.

\* Map units are 'soil-landscape subsystems' as defined by Agriculture WA - refer to Appendix C, Figure C5.

## 5.4.5 Land Requirements

### 5.4.5.1 Residential

While there is no existing shortage of residential land available, the potential for the town to expand is severely limited, being surrounded as it is by National Park.

There were 89 vacant lots as of December 2001 (of which 65% are in Boronia Ridge) and there is another group of lots on the South West Highway east of the town centre that have not as yet been released.

The WBLRP identified the potential for 221 additional residential lots; however, most of these lots are within the next stages (Stage 2A - currently being developed - and prospective Stage 2b) of Boronia Ridge and the actual lot yield there (Stage 2b) is yet to be determined.

Environmental considerations related to plausible impacts on the identified palusslope and palusmont wetlands will affect the extent of the Stage 2b development (the WAPC has already restricted the western "development line" there). A number of lots in the original Boronia Ridge concept have been amalgamated to accommodate instead a proposed retirement village and the developer, Sunland Pty Ltd, is currently working

on that aspect of the estate design and development. Whilst the total development area at Boronia Ridge may have been reduced by this retirement village proposal, overall density of development is likely to be maintained.

The introduction of reticulated sewerage to the town has increased the development potential of the existing residential lots (currently coded R10). An increase in residential density could provide for additional residential and tourist accommodation opportunities. Sewerage "infill" also allows redevelopment of existing holiday homes and larger homes are likely to be constructed in the future.

Based upon present demand and potential there should be no short to medium-term shortage of residential land.

#### 5.4.5.2 Town Centre / Commercial

The majority of commercial development at Walpole occurs along Nockolds Street in a strip pattern from Inlet Street to the Hotel / Motel on Boronia Avenue. Retail and other businesses must cater to peaks and troughs in population due to the intermittent and seasonal influx of up to 10 times the resident population by tourists and holidaymakers.

There are currently 21 commercial lots in the townsite, of which 3 are vacant and many have potential for additional development or re-development as demand increases.

Expansion of the commercial area is necessary to provide for the anticipated ongoing growth in tourist numbers. The town centre of similar coastal tourist / holiday towns and service centres have been developing with an interesting mix of shops, cafés, entertainment facilities and accommodation. This can be replicated in Walpole and assisted by expansion of the town centre through a flexible zoning approach.

It is suggested that a site is also needed for a roadhouse with direct access to and from South West Highway to cater for steadily increasing passing traffic. Access to the existing fuel outlets in Nockolds Street becomes very congested at peak times and the manoeuvring of caravans, boats and car trailers becomes problematic.

Careful consideration should be given, however, to the potential impacts on the existing service station businesses before such a roadhouse site is made available, and timing of its release should ideally be agreed between all interests.

#### 5.4.5.3 Industrial

The Walpole industrial area is located off the South West Highway, at the corner of Chugg Street, and covers an area of some 19 hectares. The precinct comprises two 8 hectare lots and 13 further lots ranging from 1000m<sup>2</sup> to 5000m<sup>2</sup> (including the Shire Depot, WWTP and the former Bunnings sawmill site). The sawmill site was subjected to years of sawdust filling and possible in-situ disposal of other contaminants and must be further investigated (geotechnical appraisal eg) to determine its full future development potential.

A number of small businesses servicing the farming and building sectors exist, along with motor vehicle repairs. There is clear scope for additional subdivision and development to cater for the medium-term needs of the locality and access to the area would be enhanced by a road connection to Allen Road.

Light and service industries are the most appropriate activities in view of the area's proximity to town and adjacent reserves. Any heavy, noxious or other inappropriate type of industry, which could have unacceptable townsite impacts, should be excluded.

#### 5.4.5.4 Special Rural / Rural Residential

The existing special rural zone on Allen Road contains 52 lots with a minimum area of 2 hectares and also incorporates larger lots adjacent to the National Park.

About half of these lots are vacant with about 10% - 15% currently for sale. Little immediate demand appears to exist although, were more lots to become available, local realtors believe demand would correspondingly increase.

Land further east along Allen Road is currently being considered for the development of an additional 52 lots

- in a range of sizes from 5,000m<sup>2</sup> to 50 hectares - providing for rural-residential clusters, hobby farms and viticultural areas [refer to Table 12 # 11].

Access to these rural-residential enclaves from town could be improved with an alternative road connection via the industrial area, linking Allen Road to South West Highway.

#### 5.4.6 Walpole Wilderness Area

The State Government - as part of its "Protecting Our Old-Growth Forests Policy" and "Eco-tourism Strategy" - plans to create a 335,000 hectare "Walpole Wilderness Area" (WWA). This WWA will comprise three existing National Parks - the Shannon, Walpole-Nornalup and Mt Frankland National Parks and four proposed new National Parks.

The proposed parks will link the D'Entrecasteaux National Park to the west, creating a continuous conservation reserve from Black Point near Augusta through to Denmark in the east.

The creation of the WWA will open up new opportunities for eco-tourism, including the establishment of low-impact visitor attractions such as walk and cycle trails, picnic and camping areas, and a \$1 million "Karri -Tingle Discovery Centre".

Establishment of the WWA is likely to be beneficial to the economic future of both the Shire generally and the Walpole and Northcliffe townsites especially. Issues to be considered which may influence Walpole's future directly are:

- Investigation of land within adjoining State Forest for possible future expansion of Walpole;
- Strategic bushfire safety;
- Upgrading the CALM airstrip to be suitable for access by the Royal Flying Doctor, along with fire-response water bombers;
- Securing water supplies, along with access to gravel and other basic raw materials for municipal works – and access also for local wildflower and apiarist industries, firewood resources, tourist and recreational users / bushwalkers.

When the WWA Management Plan has been finalised it will be necessary to review its impact on the LPS and to initiate any necessary actions.

## 5.5 OTHER SETTLEMENTS

### 5.5.1 Deanmill

The settlement of Deanmill is located approximately 5 kilometres west of Manjimup on a forest lease controlled by "Bunnings Forest Products" (now "Sotico") in conjunction with the Deanmill Timber Mill. It has approximately 70 mill workers' style houses, in addition to a school, sportsmen's club and football oval. The settlement is located next to the timber mill and forms a satellite extension of the Manjimup townsite.

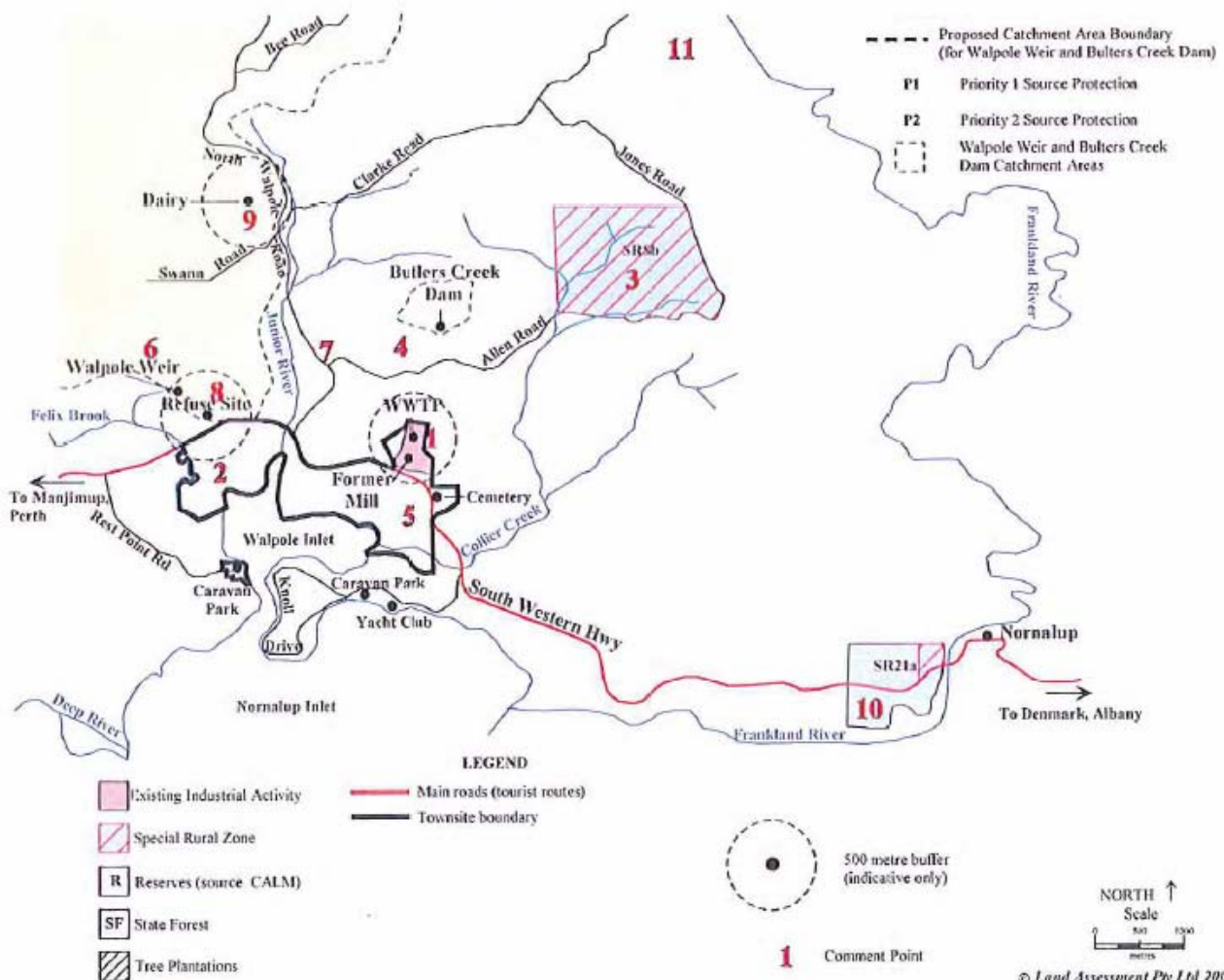
The settlement was named "Deanmill" in 1937 to honour Alf Dean, an early manager and superintendent of State Sawmills. The mill was sold to Hawker Siddeley in 1969 and Bunnings then took control in 1970. The present sawmill, rebuilt in 1976, cuts jarrah and, occasionally, blackbutt timber.

Sotico has invested more than \$6 million installing two state of the art timber pre-driers at Deanmill. The mill employs over 80 people and plays a major role in the subject community.

### 5.5.2 Windy Harbour

Windy Harbour is an "A" Class Reserve vested in Council (for the purposes of "Recreation, Camping, Caravan Park and Holiday Cottages") with the power to lease. There are 223 leases in the reserve (including 7 "professional fishermen's" leases), some 209 of which have been developed with accommodation facilities of some sort. In addition to this there is a "Caretaker's Residence" managed by the Shire and a camping ground / caravan park.

During the summer holiday period there are a substantial number of holidaymakers in residence, or merely visiting, which places extra pressure and demands for a number of special requirements. There is no electricity or water supply at Windy Harbour (except for a Council, non-potable water supply for washing purposes).

**Figure 14: Walpole Townsite – Land Use and Environmental Considerations**

Of the 223 leases, more than 150 are held by people living within the Shire of Manjimup - which somewhat reflects the origins of the settlement as a recreational holiday destination for local timber workers and their families. As the population in the South West grows, and economic opportunities from the diversification of agricultural enterprises and the growth of tourism and other activities develop, it is likely that servicing demands upon Windy Harbour will increase.

The small-scale commercial fishing industry operating out of Windy Harbour contributes to the settlement community through seasonal employment, security (including maintenance and repairs to cottages if storm damage occurs whilst the owners are away), sea-rescue assistance, the purchasing of provisions and mechanical repairs etc from local businesses, use of local transportation for produce shipment to market, and the on-site sale of some fresh seafood.

#### 5.5.3 Quinninup

Quinninup is also a former "timber town" but has been extensively developed in the wake of the closure of that local industry and employer – predominantly through the opening up of a popular Special Residential subdivision known as the "Karri Lake Estate".

The settlement is located approximately 30 kilometres due south of Manjimup and has formed a satellite centre around a number of local services, including a primary school, popular tavern, general store and petrol station - acting as a nodule point for growth. Ongoing subdivision and development uptake of lots within the Karri Lake Estate (and also other nearby special residential zones) should adequately provide for long-term growth. The local primary school has 18 pupils enrolled in 2003.

#### 5.5.4 Palgarup

The Palgarup townsite is located approximately 10 kilometres due north of Manjimup, on the South West Highway. It is also an old timber mill area and has been subdivided into approximately 26 residences on small lots. There is also has a special rural subdivision immediately adjacent to the settlement node, which contains an additional (22) larger lots. Palgarup acts as a residential commuting area for the employment centres of both Manjimup and Bridgetown.

#### 5.5.5 Broke inlet

The small squatters' shack settlement of Broke Inlet is located about 23 kilometres west of Walpole on the landward side of the Inlet. Reserve 19787 is approximately 40 hectares in area and is vested in the Shire of Manjimup for camping. Within this reserve is a lot comprising the Camfield townsite with an area of 4047m<sup>2</sup>. Three nearby freehold lots have a total area of 3.7 hectares. (See Figure 14a)

Commercial fishing stocks have been depleted over time in the Inlet and only limited activity now occurs. The area has been used for the past 45 years as a holiday camping ground.

All-weather vehicular access exists via a gravel road from the South West Highway through the National Park to the Inlet itself and existing shacks. There are no other services and the shack owners have provided basic management of rubbish disposal and vehicular access around the fourteen shacks within the Reserve (there are a further five buildings on the private, freehold lots). The existing shacks are utilised mainly on weekends and holidays.

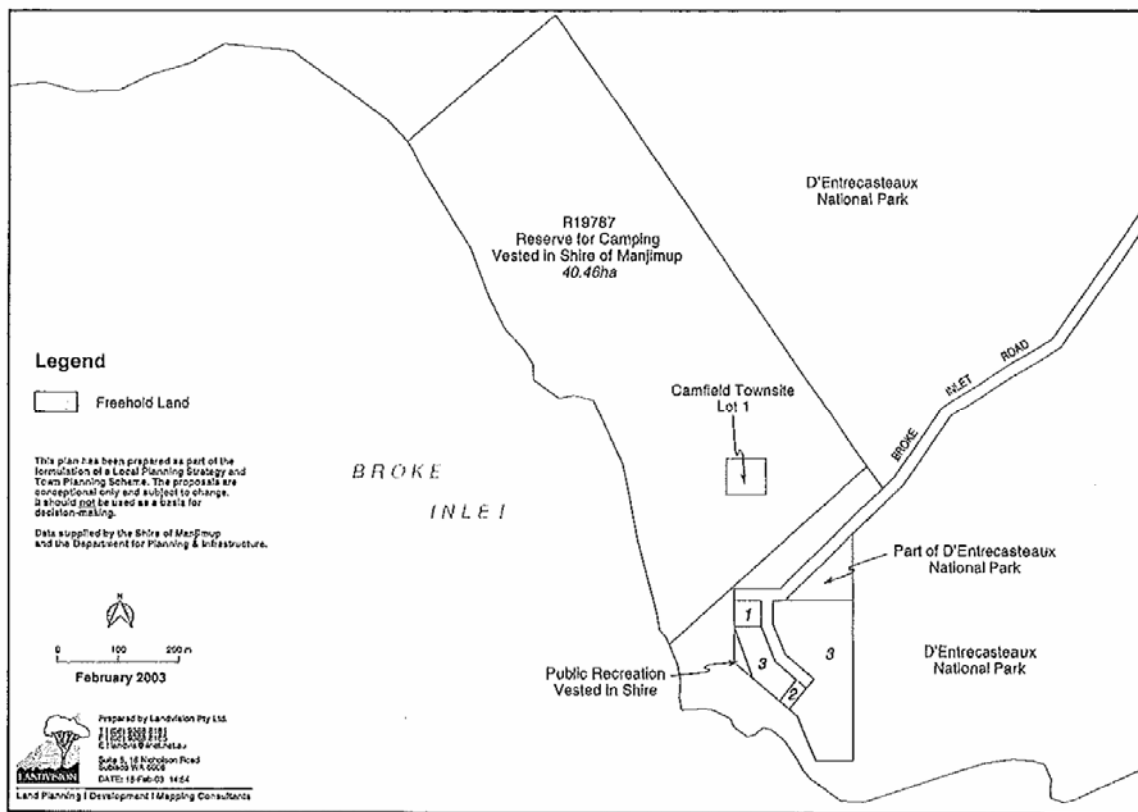
Camping and recreational uses will constitute the main future activities of the area and, if the shacks are removed, such removal should occur in conjunction with the implementation of an agreed management plan to provide for such activities. Future options for the management of the area are for Shire and / or CALM management control.

#### 5.5.6 Other

5.5.7 In addition to the above, there are other even smaller settlements - which have been developed for a variety of purposes - with different levels of services. These include locations such as Jardee, Nyamup, Tone River and the possible (future) expansion of the Nornalup townsite across the Franklin River into the Shire of Manjimup.

The gazetted townsite of Balbarrup, east of the Manjimup townsite (and originally intended to be the regional town centre Manjimup since became) is comprised of special rural-sized allotments in an anomalous "Parks and Recreation" reserve under TPS 2. It is recommended that DOLA be requested to process the de-gazettal of the

**Figure 14a: Broke Inlet**



townsite and a more appropriate zoning put in place there through TPS 4.

Council also recognises that there are a number of establishments, which are particularly focused towards tourist development, which have become the catalyst for small outlying communities. The clearest example of this is the "Karri Valley Resort" and "Hop Garden Retreat" in the Pemberton district, and Council recognises that proposals for large-scale chalet developments can have a similar effect. The proposed "Cascades" tourist village located south of Pemberton has not proceeded since it was rezoned in the early 90's and has reconverted its development potential back to the "Rural" zone.



## 6.0 STRATEGIC PLANS

### 6.1 MANJIMUP

#### 6.1.1 Opportunities and Constraints

The opportunities and constraints that influence the future planning direction for Manjimup are summarised as follows:

##### Constraints

- Existing effluent disposal/treatment plant and associated buffer;
- Land capability and landform with drainage limitations, particularly to the west;
- Potential land use conflicts with intensive agriculture / horticulture and existing uses such as sawmills, abattoirs, the airstrip, the industrial area;
- Need to extend or upgrade services to new subdivision and development;
- Low lying areas to the west and north west of existing urban areas;
- Expansion of the town centre is limited by the railway and highway to the east and residential land to the west;
- Fragmented land ownership can interfere with co-ordinated development;
- The impact of through traffic on the South West Hwy;
- A very old drainage system in some parts of town, often reliant upon natural surface drainage.

##### Opportunities

- Available developed residential lots and undeveloped zoned land;
- Potential for infill subdivision within existing residential land;
- Existing industrial operations and land for further development;
- Some areas of native vegetation including large trees, natural drainage / creek lines and reserves enhancing landscape and character of the town;
- Underdeveloped railway land in the town centre (to be re-developed in 2003);
- Well-established regional level services, facilities (shopping, health, education, etc.)

#### 6.1.2 Future Concept Plan for Manjimup

Manjimup is well placed for the provision of residential and rural-residential lots, with an existing supply of developed and vacant land for the short term. However, there is a potential shortage of commercial land. There are vacant lots in the industrial area but provision should be made for the long-term expansion of this area to ensure future opportunities are not lost.

Manjimup should continue to optimise its role as a regional centre providing for health, education, commerce, administration, community services and industry at a regional level.

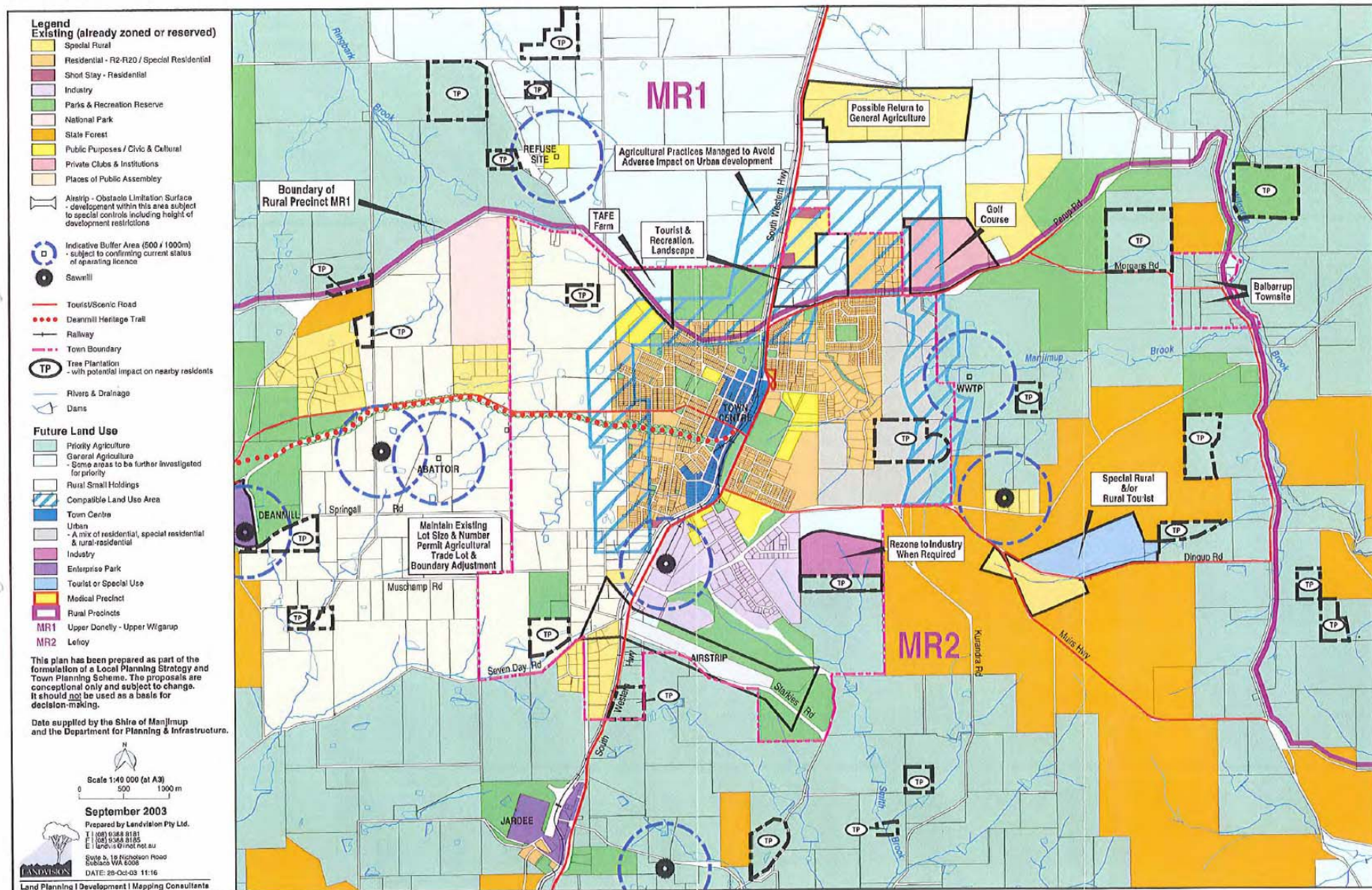
The principles that are considered most important to be incorporated into the Manjimup Local Planning Strategy are:

- Support growth as the servicing and industrial centre;
- Contain townsite growth to avoid encroachment into surrounding rural areas;
- Provide for diversity of residential opportunities, ie, various densities (special residential and special rural);
- Consolidate and define town centre, utilise railway land for town centre uses and townscape enhancement;
- Retain where possible remnant vegetation and riparian vegetation (along creeks, streams, etc.) whether in private or public ownership;
- Encourage growth of town to the east;
- Retain and support the diversity of rural land use to the west of the town; Identify and plan for main transport and tourist routes.

#### 6.1.3 Preferred Land Uses (Generalised)

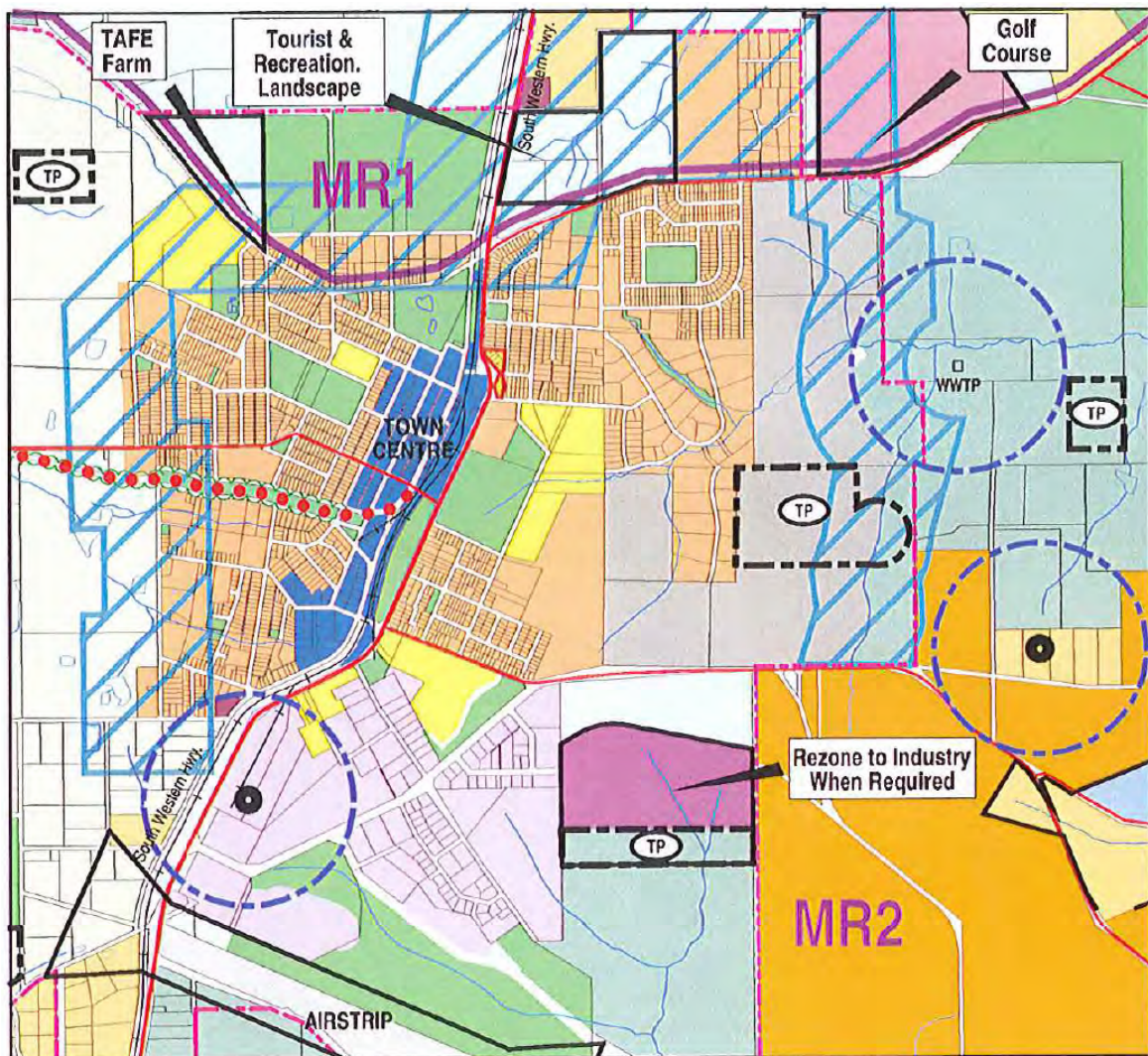
The Future Concept Plans are *not* zoning plans but provide generalised land use categories to illustrate a long-term vision for growth, which would be subject to regular review. The following should be read in conjunction with Figures 15, 16 & 17.



**Figure 15: Local Planning Strategy - Manjimup**



**Figure 16: Local Planning Strategy Manjimup Town Centre**



**Legend**

**Existing (already zoned or reserved)**

- General Agriculture - Some areas to be further investigated for priority
- Special Rural
- Residential - R2-R20 / Special Residential
- Short Stay - Residential
- Industry
- Parks & Recreation Reserve
- National Park
- State Forest
- Public Purposes / Civic & Cultural
- Private Clubs & Institutions
- Places of Public Assembly

Airstrip - Obstacle Limitation Surface - development within this area subject to special controls including height of development restrictions

Indicative Buffer Area (500 / 1000m) - subject to confirming current status of operating licence

Sawmill

Tourist/Scenic Road

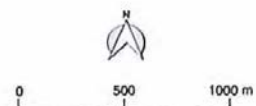
- Dearmill Heritage Trail
- Railway
- Town Boundary
- Tree Plantation - with potential impact on nearby residents
- Rivers & Drainage
- Dams

**Future Land Use**

- Priority Agriculture
- Rural Small Holdings
- Compatible Land Use Area
- Town Centre
- Urban - A mix of residential, special residential & rural-residential
- Industry
- Tourist or Special Use
- Tourist or Special Use
- Rural Precincts
- MR1 Upper Donnelly - Upper Wilgarup
- MR2 Lefroy

This plan has been prepared as part of the formulation of a Local Planning Strategy and Town Planning Scheme. The proposals are conceptual only and subject to change. It should not be used as a basis for decision-making.

Data supplied by the Shire of Manjimup and the Department for Planning & Infrastructure.



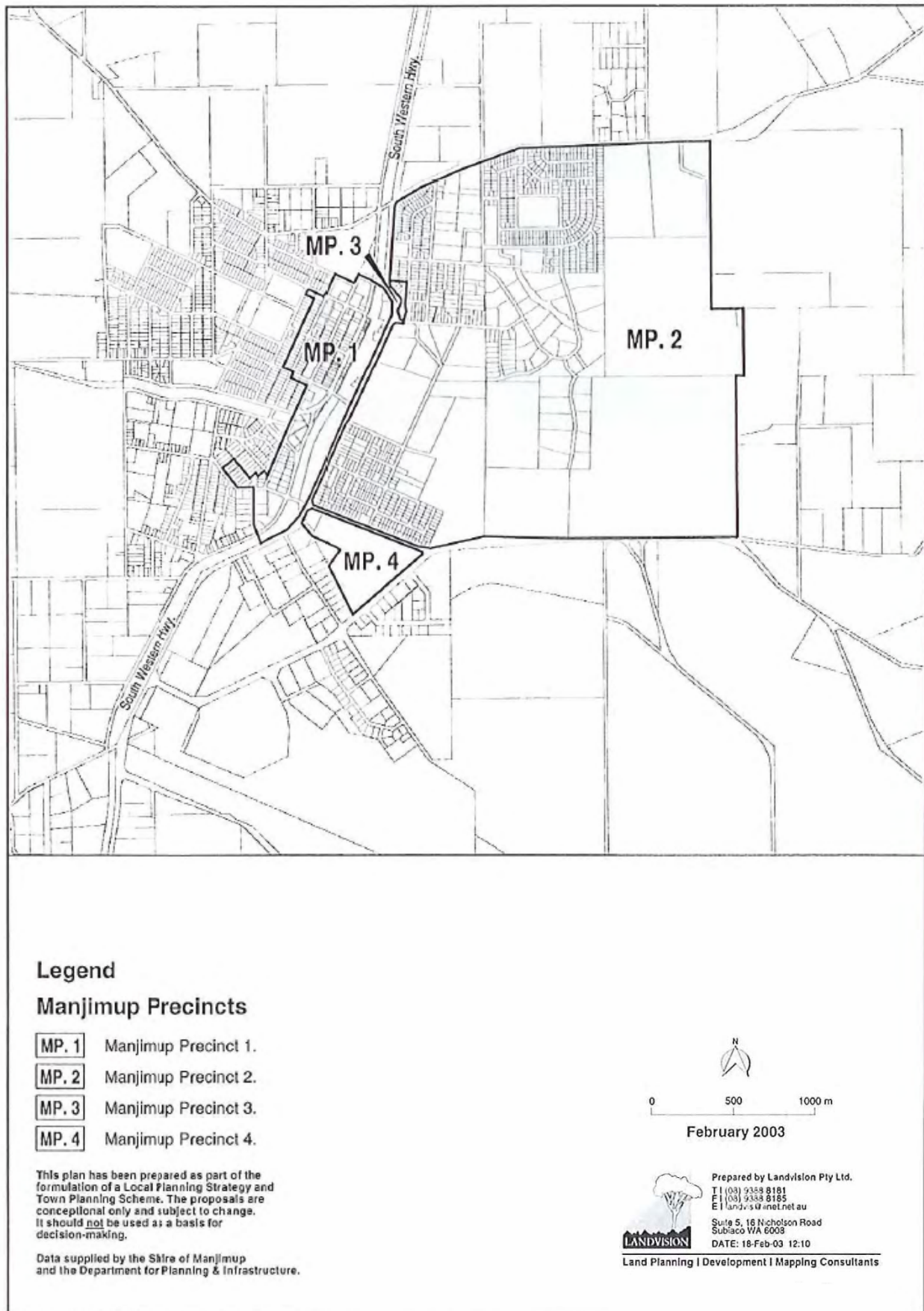
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**Figure 17: Planning Precincts Manjimup Town Centre**





### Manjimup Precinct 1 - Town Centre

This precinct encompasses the existing Commercial and Service Industry in the town centre and southward along Giblett Street and Chopping Road. It provides for the expansion of the town centre land use category to include lots along the railway line that have been leased from the Government for many years.

These lots are occupied by a range of businesses - some of which could be considered light industry – but these have not caused any significant amenity problems.

Leasehold lots along the railway line have been created around existing businesses and, in many cases, existing buildings have zero or odd setbacks which would not comply with current "commercial" standards. Lot sizes range from less than 200e to over 5,000111<sup>2</sup> and the subject businesses thereon contribute significantly to the economy of the town centre.

The precinct also extends through Rose Street to Bath Street and includes the community and medical activities present in the area. Houses fronting some portions of Rose Street have also been included, and would be suitable for office and / or other low-impact businesses and consulting rooms.

The range of uses that would be permitted (subject to Council's discretion) should be appropriately wide to ensure that reasonable proposals in the best interests of proper and orderly planning can be accommodated. Mixed uses, such as a shop or office and residential, should be actively encouraged.

#### Planning should provide for:

- A broad range of uses including retail, commercial offices, service commercial and service industry, tourist-related businesses and accommodation, community and medical facilities and the opportunity to allow innovative proposals;
- Support for the relocation of some uses to the industrial area if land shortages occur in this precinct;
- Redevelopment of vacant railway land to create a visual linkage and pedestrian connection from the South West Highway to the town centre, including a park and facilities for parking vehicles - including caravans and trucks - to encourage people to stop, shop and visit the town;
- Provide discretion in TPS 4 for flexible setbacks to be applied to existing and new buildings on railway leasehold land east of Giblett Street by designating the area as a separate, "special design / control" (eg) precinct;
- Maintain the character and amenity of the South West Highway adjacent to Precinct 1 to retain and enhance the "forest like" streetscape and avoid any development that Council considers detrimental to the streetscape, such as fast-food outlets;
- Develop the townscape in this precinct to avoid following city-oriented trends and retain the open streets, rural service centre character, and individuality of each business. Resist trying to develop a harmonious, "heritage like" town centre;
- Manjimup has a great deal of individuality between adjoining buildings and has buildings representative of most eras. This diversity and the low-key nature of the town centre should be appreciated, reinforced and encouraged as it is this very diversity which is of interest.

#### Engineering Considerations

This area is within the reticulated sewer and water service catchments and electricity is available.

### Manjimup Precinct 2 - Eastern Residential

The Precinct includes residential and potential residential, special residential and special rural lots with significant potential for subdivision. The majority of residential growth, if required will occur within this precinct.

#### Planning should provide for:

Compatible land use and management policies where agricultural production and activity is adjacent to residential and future urban uses;

- A range of residential and lifestyle opportunities ranging from R2 to R12.5 (and higher densities) for grouped housing;
- Investigating the creation of a small neighbourhood shopping centre in the vicinity of the hospital and primary school to serve future residential growth to the east. This centre or land nearby could provide for a small

medical centre;

- Creating a high quality urban environment with pathways, cycle and bridle trails and open space linkages integrating water sensitive design principles and subdivision protecting drainage stream and creek lines, low lying and waterlogged areas and remnant vegetation;
- Adjust townsite boundary;
- Do not allow new housing within Indicative Buffer Areas;
- Require outline development plans / structure plans as required.

#### Engineering Considerations

All development from R10 upwards will require connection to the sewer and the north-eastern and south-eastern sections are outside the sewer catchment area. A new pump station would be likely to discharge to the existing system.

Water would require mains extension only and electricity could be extended.

#### Manjimup Precinct 3 – Medical / Health

A small number of lots either side of the intersection of South Western Highway and Ralston Street have been identified as a node of medical and health related uses reflecting the current and proposed land use activity.

#### Planning should provide for:

- Encouragement of compatible uses and lot amalgamation to enhance development opportunities; and
- Encouragement of the combination of parking, access, landscaping and signage.

#### Manjimup Precinct 4 - Government Purposes

This precinct formerly contained government (GEHA) housing, together with (still remaining) government departments, including CALM. The GEHA housing has predominantly been salvaged and removed and the former housing site is in close proximity to industry and similar activities, which are not generally compatible with residential usage. Residential housing should not be permitted in this precinct and Government offices and departments, particularly the depot and workshops, should be encouraged to locate into this precinct.

#### 6.1.3 Other Preferred Uses

##### General Agriculture

- Occurs to the north and east of the town in the Upper Donnelly and Upper Wilgarup Catchments;
- Manage rural areas adjacent to the townsite to avoid land use conflict.

Refer to Manjimup Rural Precinct 1 and 2 ([Section 6.6.4](#))

##### Priority Agriculture

- Contains land within the Lefroy Brook and Smith Brook Catchment.
- Policies to support horticulture and other intensive agricultural land uses.

Refer to Manjimup Rural Precinct 1 and 2. ([Section 6.6.4](#))

##### Rural Smallholdings

Includes rural land west of the townsite characterised by a diversity of agricultural operations and rural lifestyles; Support subdivision for boundary adjustment and agricultural trade lots, with a minimum lot size of 20 hectares; Manage agricultural activities adjacent to the townsite and special rural zones; Manage buffers around intensive uses to avoid adverse impacts.

Refer to Manjimup Rural Precinct 2.

##### Special Rural

- Shows existing Special Rural Zones.
- Undeveloped Special Rural Zones subject to further assessment - some could be rezoned to General Agriculture or Priority Agriculture to avoid land use conflict or adverse impacts on rural land values, where landowners agree.

#### Residential

- Contains predominantly existing residential development in the western sector of town.
- Utilise underdeveloped land within this land use category.

#### Engineering Considerations

This area has land outside the current sewer area. A new pumping station will be required and is likely to discharge effluent to catchment to the east and south.

Water and electricity will require mains extension only.

#### Scenic / Tourist Routes

- Maintain and enhance design, safety, amenity and landscape character;
- Provide for industrial and agricultural traffic needs in a manner to maintain other values.

#### Railway

- Reflects existing reserve;
- Maintain remnant vegetation.

#### Industry

- Provide for expansion of industry;
- Protect remnant vegetation and natural drainage lines, creeks etc. and ensure no adverse environmental impacts occur;
- Encourage heavy or noxious industry (or value-adding industries) to locate in the Diamond Mill Industry node if it develops.

#### Engineering Considerations

- Eastern section outside both water and sewer areas;
- Water and sewer will be required;
- A new PS to discharge to existing sewer will be necessary;
- Water supply main extension likely;
- Balance of area is within water supply scheme area;
- Area between current subdivision and airstrip outside sewer area. New PS to discharge to existing sewer will be required.

#### Parks and Recreation Reserve

- Reflects existing Reserves.

#### State Forest

- Reflects existing Reserves.

#### Airstrip

- Allow for protection of flight paths and possible runway extensions (and expansion to tarmac aprons / hangar facilities).

#### Indicative Buffer Areas

Council approval has been granted for certain land use activities requiring buffers, such as sawmills and abattoirs. At

the time of consideration of future land use impacts, proposals that may be affected by the nominated buffer areas should be examined by Council and the proponent - to ascertain whether or not the subject land use activities are still occurring and, hence, whether or not particular buffer requirements should remain in effect.

### Compatible Land Use Area

Designates rural land within 250 metres of residential areas requiring management of activities in a compatible manner. This may require landowners to acknowledge lawful land use activities when purchasing land or farmers may need to manage activities (eg. the use of chemicals) to avoid impacts on adjacent (particularly residential) properties.

## **6.2 PEMBERTON**

### **6.2.1 Opportunities and Constraints**

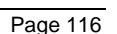
The opportunities and constraints that influence the future planning direction for Pemberton are summarised below:

#### Opportunities

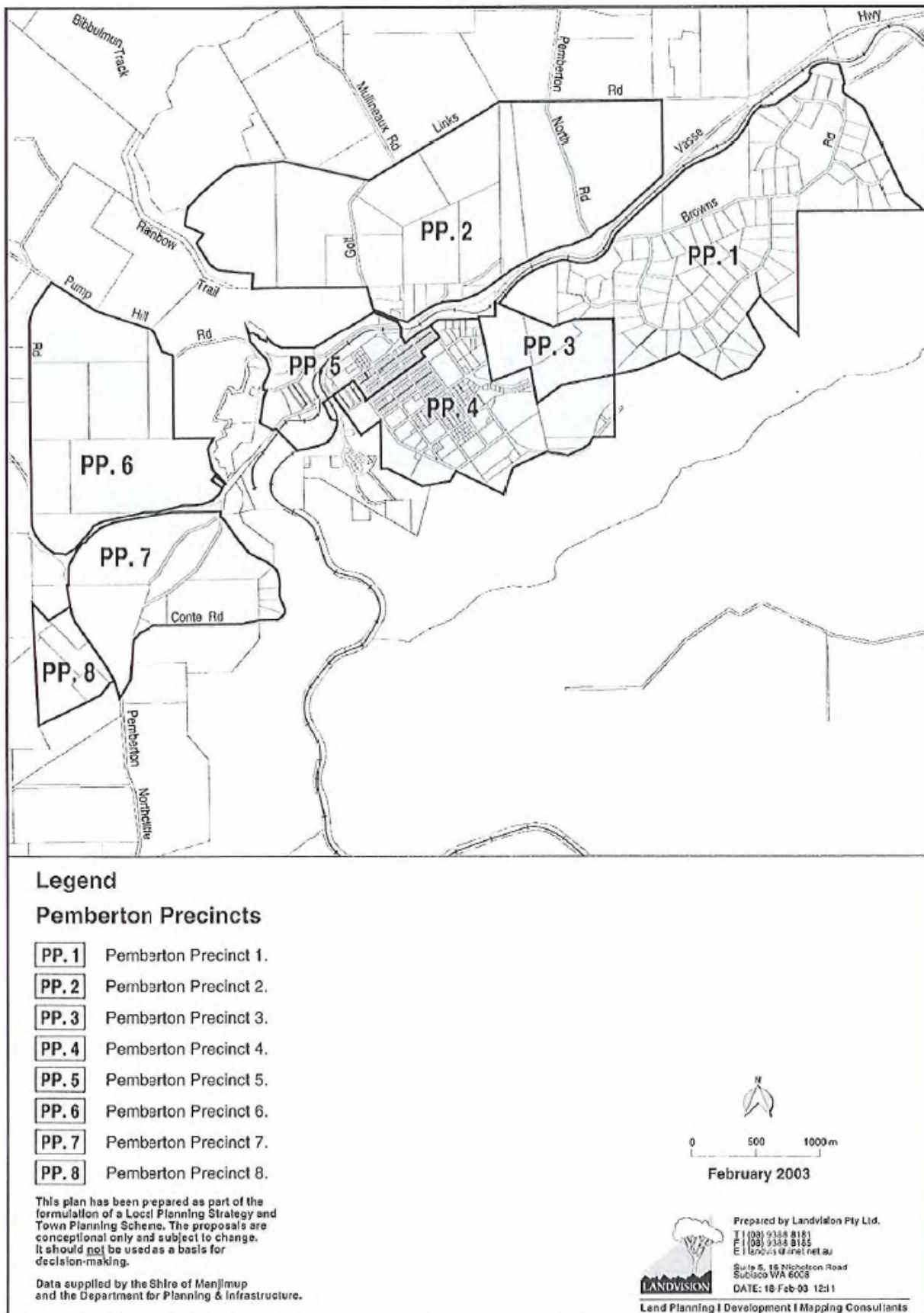
- • Pemberton has a popular image and good name as a tourism destination and increasingly as a lifestyle choice location;
- Landscape character is a major drawcard and advantage in attracting tourists and future residents;
- Current development scale is relatively low key;
- "Spin off benefits" from intensification and diversification of rural activities (eg. aquaculture, viticulture and wine production) in the locality;
- Proximity to high quality natural environs;
- Potential for significant in-fill subdivision subject to availability of services;
- Diversification of income/employment in the surrounding area;
- Nature-based development can take advantage of the natural environmental features and can be of on-going importance to the community, visitors to the area and the tourism industry;
- "Spin- off benefits" from rural-based tourism, eco- and nature-based tourism and recreation;
- Provide for development/opportunities building on the Aboriginal cultural knowledge of the area.

#### Constraints

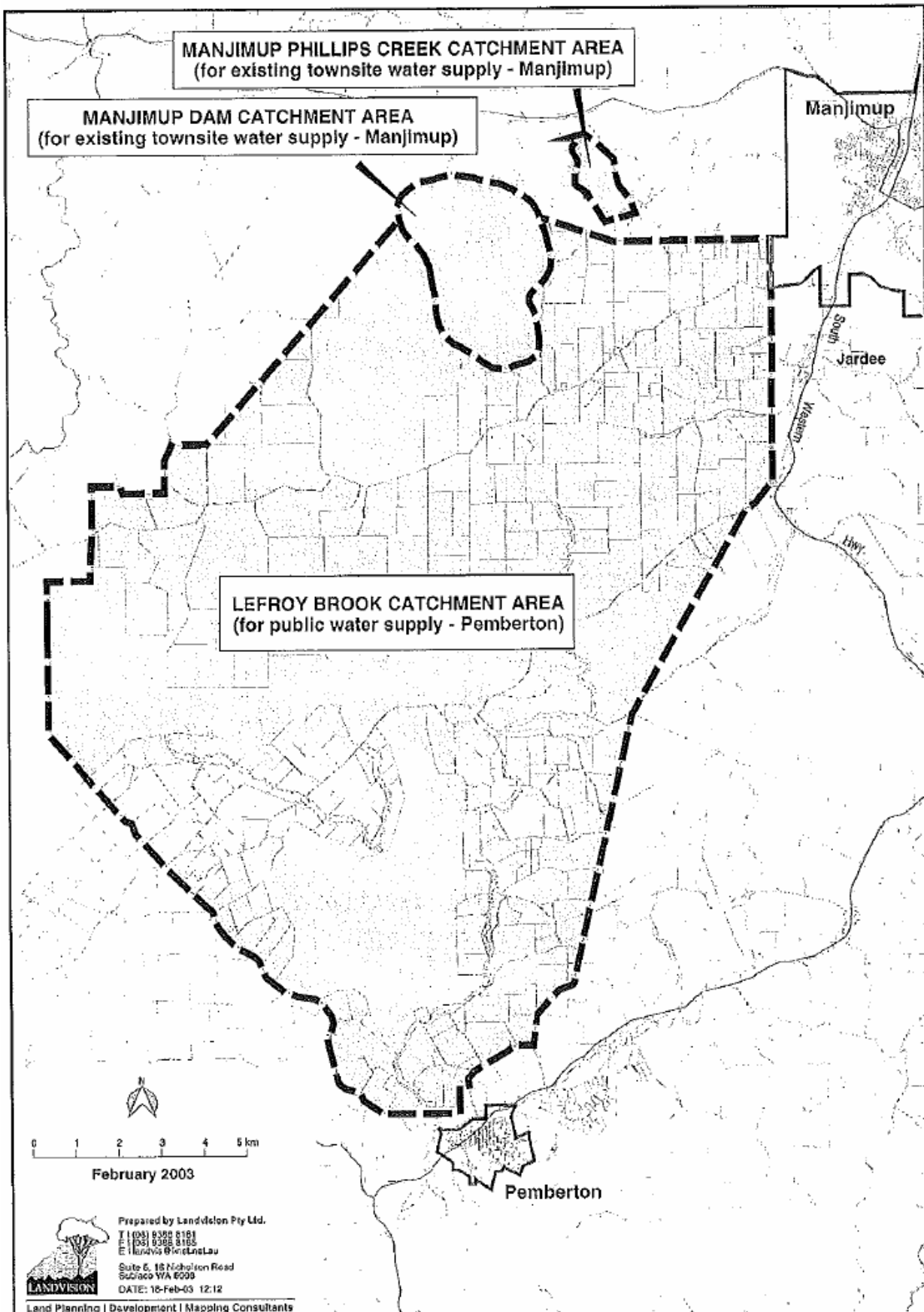
- Town expansion is constrained by surrounding State Forest, major timber mill sites to the south west and east, the wastewater treatment plant to the south west and several overhead power lines;
- Loss of remnant vegetation, as well as introduced plants and animals, contribute to environmental degradation and clearing within the townsite is likely to be strongly opposed within the community;
- Loss of farmland to environmental degradation, conflicting land uses and poor land management practices;
- Restricted access to National Parks;
- Residential land demand is uncertain;
- Bushfire risk and management;
- The relatively low price for vacant lots, particularly having regard to the servicing requirement / standard for residential subdivisions;
- Requirement for an upgrade to the existing power supply to cater for additional urban expansion;
- The existence of a substantial number of Reserves surrounding the townsite, including State forest to the south and east, mill sites to the south west and east and National Park to the west and north west;
- The railway and highway bordering the western side of the existing urban area.
- Effluent disposal for areas not connected to a reticulated sewer system;
- The location of buffer requirements associated with the wastewater treatment plant site;
- The location of buffer requirements associated with the Pemberton Karri Mill and the "Pempine" Mill sites;
- Delays in the Government's backlog sewerage program. The headworks cost associated with the provision of deep sewerage to new residential areas - versus the desire of landowners / developers to subdivide properties into larger sizes in order to continue using septic tanks for effluent disposal. This creates an inefficient use of the available land for residential purposes and constrains the ultimate development of the town for urban purposes;
- Community uncertainty over the ultimate size and character of the town and its relationship to the Manjimup regional centre.





**Figure 20: Planning Precincts Pemberton Town Centre**

**Figure 21: Special Control Area Boundary**



### 6.2.2 Future Concept Plan for Pemberton

Pemberton can develop its role as a centre for tourism, intensive agriculture, viticulture, aquaculture, timber products, arts and crafts and lifestyle opportunities by building upon its historic role as a timber town. While encouraging development it is essential to retain and enhance, where appropriate, the landscape character of the town and its environs based upon the mix of forest, farmland and hills.

The principles that are considered most important for Pemberton and which have guided the Local Planning Strategy (see Figures 18-20) are:

- Consolidate townsite development;
- Conserve and enhance remnant vegetation, riparian corridors, landscape and environmental features;
- Provide a range of lifestyle and economic opportunities;
- Concentrate tourism activities, and accommodation in and around the town;
- Manage agricultural / urban interfaces to avoid land use conflict and use features and Reserves to create a buffer where possible;
- Optimise infill opportunities in existing urban areas for residential use;
- Provide for light industrial activity;
- Protect/conservate the historic character and role of the town as a significant timber town;
- Utilise land that would become available for urban / residential if "Pempine" ceases to occupy its lease.

### 6.2.3 Preferred Land Uses (Generalised)

The townsite strategy illustrates the generalised land use categories illustrating the long-term vision for growth that would be subject to review (see Figures 18-20). The following describes the land uses and where necessary identifies Precincts (see Figure 20) to further clarify the future of the area.

#### Pemberton Precinct 1 (PP1) Brown's Road

This precinct contains the Brown's Road Special Rural zone. Over time, a number of small-scale commercial activities have been introduced in conjunction with a residence.

Commercial activities should be located in appropriate areas (eg. "Town Centre" zone) but there is nevertheless a need to recognise the potential opportunities for part or full-time incomes being generated from these lots by Cottage industries.

Subject to the safety and amenity of the area being protected, and in view of the limited employment opportunities facing Pemberton, the following activities should be permissible in the Brown's Road Special Rural zone:

- some rural pursuits;
- home occupation;
- cottage industry; and
- bed and breakfast / holiday accommodation.

Note: "Duplex" is currently a permitted activity within this Precinct (and some other Special Rural Zones) in TPS No. 2. However, there is also a marked inconsistency in TPS2 as to multiple dwellings in the Special Rural (Rural-Residential) zone. The majority of these zones allow "Duplex" as an "AA" Use in their gazetted Special Provisions. However, Section 7.2.9 (ill) pt 4. states:

"Not more than one dwelling may be constructed or occupied on a lot within a Special Rural zone."

This inconsistency is symptomatic of the problems inherent in TPS2. The contradictory clauses in TPS 2 have already been the subject of a previous Planning Appeal (and legal dispute over interpretation) and should be rectified in TPS4.

The potential problems with multiple dwellings (eg duplexes) in Special Rural zones are reasonably obvious. Apart from their impact on the character and amenity of estates and precincts - where the lifestyle choice on offer is generally accepted as single residential in a larger lot, semi-rural / bushland setting - multiple dwellings inevitably create pressures for separate tenure and give both the perception and fact of increased densities in inappropriate settings."

It is therefore recommended that Duplex be not permitted in Rural-Residential, and Special Rural (existing) zones.

This issue should be re-visited in greater detail in the TPS review process.

Products produced on the property could be sold from that property subject to restricting the hours of operation to protect the amenity of neighbouring properties.

All other uses of a more commercial / light industrial nature should be prevented from operating or expanding and encouraged to relocate to an appropriate area when possible. In the interim, any approved uses could be considered "non-conforming uses" under the new Scheme. An information board and suitable entry to the estate should be developed to provide information to visitors regarding resident businesses - to avoid unnecessary access and resulting increased traffic.

No other advertising signage should be permitted on the Vasse Highway and the natural vegetation buffer along the highway frontage should be retained and enhanced.

#### Pemberton Precinct 2 (PP2) Golf Links Road

The land within PP2 is scenic rural land characterised by pasture, trees, steep slopes, creeks and gullies, farmhouses and outbuildings, a golf course and some limited intensive agriculture (eg. orchard). This land is most attractive, providing a high quality landscape entry to Pemberton from the east.

This precinct is approximately the same size as the Brown' Road estate but it is intended that future development would be required to provide a more innovative development form to enhance, rather than degrade, the landscape features. To achieve this, future development would need to be guided by an Outline Development Plan (ODP). This required ODP plan would provide for innovative responses to the landscape, setting and topography.

#### Planning should provide for the following:

- Rural-residential / Special Residential and Golf Course
  - Develop a range of low density rural-residential uses;
  - Create larger lots adjacent to agriculture to avoid land use conflict;
  - No dwellings should be within 100 metres of Golf Links Road to ensure the buffer from the adjacent agricultural operations is predominantly contained within the land being developed;
  - Avoid lands with slopes exceeding 10%, which should be subject to landscape protection;
  - The need to address conservation needs, landscape buffers, management and tenure of open space, watercourses and remnant vegetation;
  - Development will be encouraged to create nodes / clusters to compensate for the large areas of undeveloped open space;
  - Acceptable uses would be limited to rural pursuits (without stock) and home occupations;
  - Future planning and development could integrate an extension to the golf course if the course needed to be fully located on the south side of Golf Links Road;
  - Tourist accommodation on appropriately zoned land integrated within the ODP would be supported. The smaller blocks along the Lefroy Brook valley visible from Vasse Highway provide a very important landscape feature and this could be retained by allowing tourist opportunities designed to preserve the character of this land).
- Recreation / Conservation
  - Includes steeply sloping land vulnerable to erosion and protects drains, creeks and streams, The ODP would identify the land to be retained as open space to protect the landscape character, steep slopes and riparian corridors;
  - Seeks to conserve and enhance outstanding environmental and scenic features and remnant vegetation;
  - The land tenure could be a combination of private and public ownership and management;
  - May include nature-based, low impact tourist and recreation activities.

#### Engineering Considerations

Development of rural-residential uses north of the town towards Golf Links Road is outside the current water supply and sewerage schemes. Provision of scheme water would require a review of the reticulation scheme, and may need new pumps and elevated tanks (although a sewerage scheme would not be required for rural-residential development).

Further assessment of land capability is required to justify alternatives, including on-site water collection and storage (eg. dams) and on-site wastewater collection, treatment and disposal. Electricity can be extended

to the subject areas.

#### Pemberton Precinct 3 (PP3) Arboretum

CALM does not have an adopted strategy for the future use of this portion of the State Forest, which has been developed in the past as an arboretum. The precinct has both native and exotic trees and is dissected by numerous tracts and clearings.

Creating a vehicle and / or pedestrian link between the Brown's Road estate and the town centre is most desirable and could be integrated into the future development. There are still issues to be addressed to create such a link to connect to Brown's Road, However, there are opportunities to retain the landscape character of this precinct while providing opportunities for some tourism and recreation.

The primary use proposed for the Precinct is to create an enclave for artists, artisans and craftspeople to live and work in a small village / cluster integrated with the landscape / environment.

#### The preferred uses for this precinct are:

- Composite industry providing the opportunity for a combined workshop/studio and residence where door sales would be permitted;
- Recreation and tourism - for walk trails, picnic areas, interpretation, and other tourist-oriented activities.

#### Engineering Considerations

The precinct could have all services extended to facilitate development.

#### Pemberton Precinct 4 (PP4) Urban Centre

All of the 294 existing residential lots are contained within this precinct and there is the potential for up to 150 additional lots within the existing zoned land. The final number of lots created may alter, however, as the open space on Widdeson Street is not included as future residential, although land west of Kelly Street is included.

Most of the existing land suitable for subdivision, when sewered, is ideally located for housing but is within the "Pempine" sawmill buffer. The community considers it very important that, if necessary, assistance should be provided to "Pempine" to relocate to free up the leasehold CALM Reserve it has operated on for many years.

The mill cottages from Dean Street to the Pemberton Karri Mill are typical timber-clad, corrugated iron roofed original cottages, characteristic of the timber industry. This historic node requires detailed planning to determine its future and the most realistic way of retaining some or all of the cottages.

The tourist route along Robinson Street - from Brockman Street to the "Gloucester Ridge Vineyard" (restaurant / café) along Burma Road, and the Gloucester Tree, should be developed to provide for pedestrian and vehicular tourist traffic with appropriate engineering of the road and footpaths, signage and information and landscape treatment.

#### Planning should provide for:

- Residential development to R20 standard subject to the availability of sewerage and the removal of the buffer restrictions around the "Pempine" site;
- Tourist accommodation should be integrated within this precinct where it is compatible with adjacent uses;
- The historic mill cottages west of Dean Street should, where possible, be retained for housing and Council should support options including:
  - retention of a representative block of houses;
  - development at the rear of (and within) the houses to allow them to be brought up to modern standards while retaining the street façade and character;
  - within the historic block the Council could allow development bonuses at the rear of the lot where new development is to occur utilising access from the rear lanes;
  - the relocation / sale of the "Pempine" business through encouragement and incentives if possible;
  - if the "Pempine" mill relocates, the available land will have to be remediated prior to use for housing and / or tourist uses;
  - the minor expansion of tourist opportunities on land around the Gloucester Ridge tourist vineyard.

### Engineering Considerations

Development of the existing undeveloped residential land in the townsite up to and including the "Pempine" Mill site is constrained by delays to the Government's infill sewer program. Electricity could be extended where required and scheme water is available.

#### Pemberton Precinct 5 (PP5) Town Centre

This Precinct identifies and provides for the consolidation of the retail and commercial centre, while allowing for expansion up to, and including, the buildings on the south side of Guppy Street. The character of the current town centre precinct is enhanced by a most desirable aspect overlooking the Forest Park and historic community buildings.

Included in this precinct are the Mill 1-hall, library, St John's Ambulance, child health centre, Anzac and Forest Parks, the "Southerners" football oval and new Recreation Centre, Pemberton Tourist and Discovery Centre (in the old school buildings Reserve No. 19566), Aged Care facilities, School Camp, the railway, Pemberton Pool, caravan park, the hospital and the Pemberton Karri Mill.

The range of uses and opportunities within this precinct are varied and should retain such flexibility into the future. As a service and tourist hub the town centre can integrate old and new buildings within a unique landscape setting reflecting the karri forest character of the area.

Two plans have been produced which can guide the detailed development of this precinct. These are the *Pemberton Mainstreet Landscape Master Plan* (January 2002) and the principles contained in the *Pemberton Forest Park Masterplan Report and Design Guidelines* (November 2000) - both produced by Arbor Vitae. Relevant design principles should be incorporated into an appropriate policy in the future.

#### Planning should provide for:

- Retention of the existing outlook from the businesses at the northern entrance into the town centre over Forest Park;
- Utilise the existing heritage buildings, including the Pemberton Tourist and Discovery Centre on Reserve No. 19566, for community uses and, if appropriate, tourist and commercial uses (where no community use is otherwise proposed and the commercial use will be compatible with other uses);
- Provide for a broad range of commercial, tourist, residential I short-stay residential and other compatible uses;
- Residential opportunities could be encouraged to be integrated with commercial developments;
- Consideration of the *Pemberton Mainstreet Landscape Masterplan* and the *Pemberton Forest Park Masterplan Report and Design Guidelines* is appropriate. [Public comment was sought on these documents at the same time as the LPS was advertised]. Endorsed streetscape proposals for Brockman Street, together with connections to tourist and recreation activities and uses in Forest Park, to be implemented;
- Allow expansion of the town centre into the residential area along Guppy Street when demand requires but encourage retail uses to remain on Brockman Street - and less intensive uses (such as offices) to develop along Guppy Street;
- Retain the historic commercial strip and reinforce the area by concentrating shopping activities within this core, accentuating its function through concentration of Council's fiscal and physical resources.

#### Pemberton Precinct 6 (PP6) Western Hills

The pastured, rolling hills to the west of the town provide a scenic backdrop to the town contrasting with the forest backdrop to the rest of the town.

Portion of the Precinct near the bridge on Vasse Highway is low lying and within the wastewater treatment plant buffer, and is therefore unsuitable for development.

Where the land rises towards Stirling Road, it would be suitable for urban development. However, the community has expressed (through consultation) that it favours retention of the existing landscape character. The northern sector is outside the view shed from Brockman Street and development would have less visual impact.

Opportunities for a range of tourist uses, which are sited and designed to minimise visual impact, will provide an acceptable compromise.

Planning should provide for:

- Rural, tourist and recreational development that can maintain the rural landscape through sensitively and discreetly sited structures;
- Accommodation located to avoid conflict with adjacent agricultural activities;
- Low-impact development benefiting from such a scenic location - such as chalets, adventure camps, wildlife park and other, similar activities;
- Structure planning to ensure the above standards and to plan for the improvement and management of watercourses and remnant vegetation.

Engineering considerations

All services would require extension to service development. Low-density development may be acceptable utilising on site effluent disposal.

Pemberton Precinct 7 (PP7) Conte Road

This precinct is currently used for grazing and a tree plantation; however, the land is ideally located for expansion of the townsite in the longer term. The area is readily accessible via sealed roads to the townsite and close to services. The soil quality is suitable for development and the topography and setting provide an attractive site well concealed from significant viewpoints.

The existing tree plantation does create some constraints to any prospective developments and suitable setbacks for housing must be established as part of the formulation of an Outline Development Plan, which would be a necessary precursor to such development. Landscape buffers will need to be established along the adjacent roads and the proposed Industry Precinct (PP8) west of the Pemberton-Northcliffe Road and south of Vasse Highway.

Development of this Precinct will provide opportunities for a mix of residential, special residential and rural-residential lots. Cluster style development, protecting existing vegetation and establishing riparian corridors, will be encouraged.

Planning should provide for:

- A range of residential and lifestyle opportunities from residential through to rural-residential, incorporating innovative design responses to complement the landscape character of the area;
- Provide interim measures to accommodate any impacts resulting from the management of adjacent farmland (including tree plantations);
- The formulation of structure planning (Outline Development Plan) to guide development and protect and preserve environmental values.

Engineering considerations

The area is outside the scheme water and sewerage scheme and the extension of services, including the upgrading of power, will require further investigation.

Pemberton Precinct 8 (PP8) Vasse Highway Industry

Having no vacant industrial land for light industrial purposes has been a deterrent to future expansion of the town's economic base, with the only zoned areas occupied by sawmills.

Indications are that there is a pent-up demand for light industrial lots, which has resulted in a number of enterprises being established in the rural areas.

Any major industry should be located in or near Manjimup, however, it is necessary and appropriate to provide for a range of light industries necessary to service Pemberton and agricultural areas in the vicinity.

This Precinct would require an extension of services but has been chosen because it:

- has been previously used for saw mill purposes, sand excavation, and (current) refuse disposal site;
- has suitable soils and landform;
- is on the down flow side of the Lefroy Brook water catchment (dams, streams and pools) which forms

part of the character of Pemberton and will therefore be easier to manage with respect to drainage and water quality;

- will not be visible from town and can be screened from main roads;
- has excellent road access and is within 2 km of the town centre.

Planning for the area should:

- Provide for industry - excluding heavy or noxious industry and only allowing general / light industry where potential adverse impacts can be managed and minimised;
- Require structure planning to guide future development and to address landscape, drainage, servicing, development controls/guidelines, the range of uses, access and other planning considerations.

Engineering considerations

The area would require the upgrading and extension of all services and would require further investigation.

#### 6.2.4 Other Preferred Uses

Figures 18 and 19 illustrate strategic planning directions of the townsite and identify a number of other uses not discussed within the Precincts, which are:

General Agriculture

- Includes rural areas west and southwest of the town.
- Manage interface with adjacent uses.

Refer to Manjimup Rural Precinct - MR2.

Priority Agriculture

- includes land in both Big Brook and Treen Brook Catchments.
- Provides for intensive agriculture such as viticulture and market gardening.
- Manage buffer to allow intensive agriculture to occur without adverse impacts on adjacent urban areas, particularly residential uses.

Refer to Manjimup Rural Precinct - MR2.

Indicative Buffer Areas

Council approval has been granted for certain land use activities requiring buffers, such as sawmills and abattoirs. At the time of consideration of future land use impacts, proposals which may be affected by the nominated buffer areas should be examined by Council and the proponent to ascertain whether or not the subject land use activities are still occurring and, hence, whether or not particular buffer requirements should remain in effect.

Compatible Land Use Area

Designates rural land within 250 metres both within and adjacent to residential areas requiring management of activities in a compatible manner. This may require landowners to acknowledge lawful land use activities when purchasing land or farmers may need to manage activities (eg. the use of chemicals) to avoid impacts on adjacent (particularly residential) properties.

### 6.3 NORTHCLIFFE

The opportunities and constraints that could influence the future planning direction for Northcliffe are summarised as follows:

#### 6.3.1 Opportunities and Constraints

- The existing vacant residential lots are suitably located to all available services and facilities and support a compact town;
- The town could expand to the north into land adjacent to the townsite, which is currently zoned rural, or into vacant service industry land if there is a demand for further residential lots;



- Special Rural lots around the town have taken up some demand for residential lots;
- Existing zoned land is within area serviced with reticulated water;
- All residential land has buffers from agricultural activity;
- Some shops remain vacant or under-utilised;
- Existing businesses service town and surrounding special rural areas and farmlands, the timber industry, tourists and the travelling public, reflecting historic roles as a crossroads service centre;
- Development potential would be increased with deep sewerage and improved town drainage;
- The Service Industry area has potential for future residential (if justified) as the land is well drained and better suited to residential use than some existing vacant residential lots;
- Existing mill housing stock should be retained but with consideration to the impacts of adjacent timber milling activities to avoid land use conflict. Houses have heritage value;
- Keep options open for future business and other development opportunities at the vacant Northcliffe Mill, particularly related to timber production, and value added production of:
  - componentry;
  - indoor / outdoor and casual furniture;
  - mouldings;
  - flooring and decking;
  - craft and fine wood;
  - other similar activities.
- Consider proposal for a Technology Cluster as mooted in the THE report titled *Northcliffe Timber Technology Cluster* (January 2001), which was a well-researched response to the Regional Forests Agreement;
- To utilise the existing and shared facilities and co-location prospects to retain the former Northcliffe Mill employees and to maximise future opportunities;
- The Special Rural zoned area on Old Mill and Boorara Roads is affected by a timber mill buffer but is well located for future residential or special rural development if the town ever expands significantly. These lots could be subdivided subject to conserving the landscape attributes by allowing limited special rural lots with larger sizes (eg. 10 hectares and larger) to be created;
- Investigate the possible upgrading of Chesapeake Road to an all weather status in view of the potential benefits this would have to recreation and tourism. (This was highlighted by community members, tourism interests and the Northcliffe Tourist Centre).

#### Constraints:

- In some areas the residential lots, both vacant and developed are poorly drained and subject to seasonal flooding or waterlogging;
- Lots require sewer connection, which would allow them to be more intensively developed. On-site effluent disposal often fails in winter;
- There has been little evidence of demand since 1996 and only four (4) new houses have been constructed;
- The population declined from 1961 figure of 578 people to 225 in 1991 and has remained stable since that time;
- Current Country Sewer Policy limits lots released without deep sewerage or alternative environmentally sustainable systems;
- National Park to the east restricts development in this direction;
- Industry to the south, including associated buffers, restricts residential development opportunities;
- Low-lying waterlogged land to the west makes that area unsuitable for prospective development;
- The existing Special Rural areas are fragmented and have the potential to result in land use conflict where they are adjacent to rural uses, including tree plantations;
- Crown land immediately northwest of existing residential-zoned land fronting Boronia and Banksia Streets is heavily vegetated and, in parts, low-lying or with a high water table and would be unlikely to receive support for residential use. It should be included in "Forest Park".

#### 6.3.2 Future Concept Plan for Northcliffe

The residents of Northcliffe have been particularly affected by the downturn in the availability of timber from State Forest in the area and in recent years a number of local mills have closed.

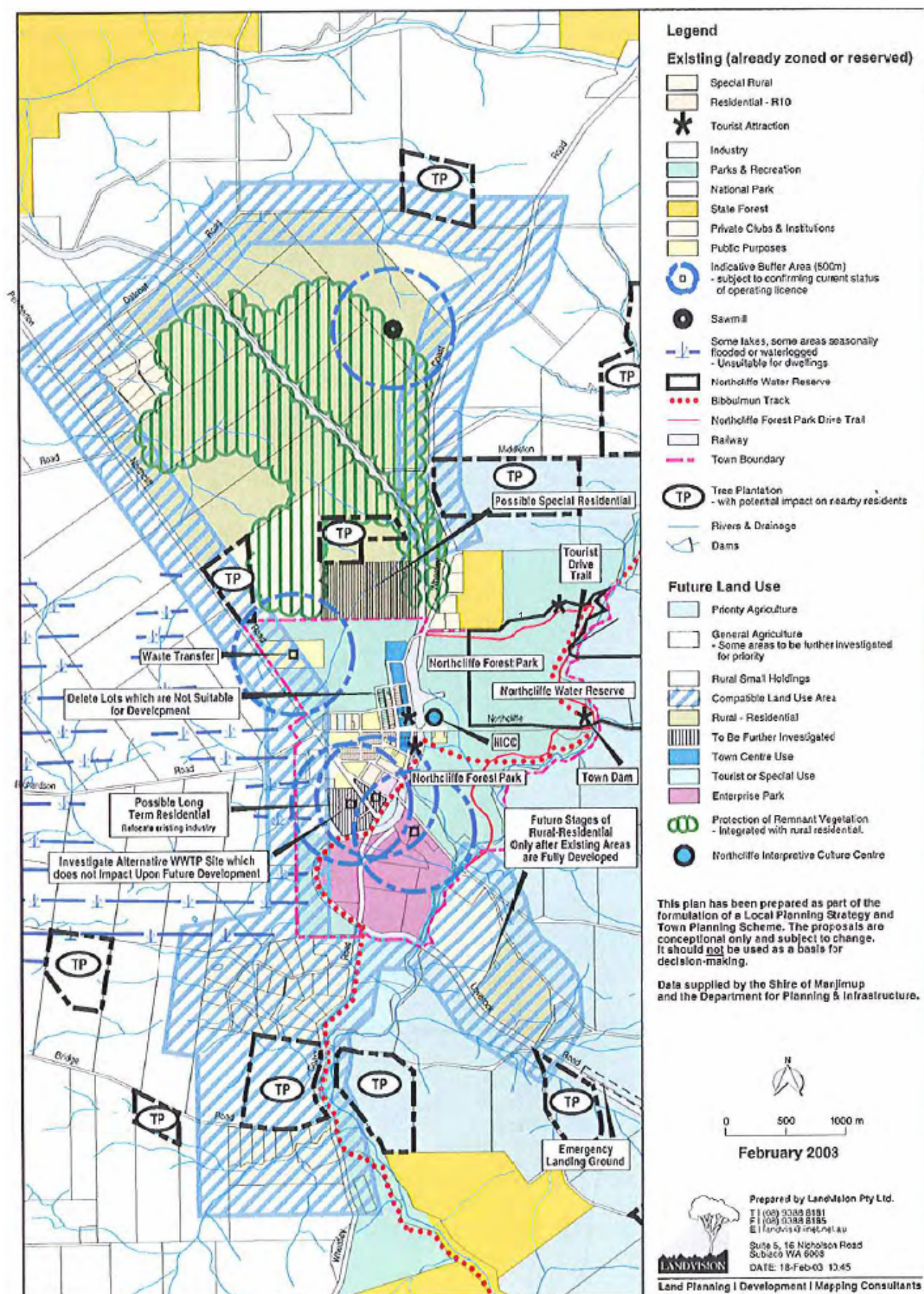
While a Town Planning Scheme cannot directly resolve employment and economic problems that have contributed to a loss of population, the Scheme should not contribute to the problems. It is intended to develop a strategy that provides flexibility for land use and development while ensuring landscape and amenity values remain attractive to new residents and visitors.

The principles that have been considered most important to be included in the Local Planning Strategy (see Figures 22 and 23) are:

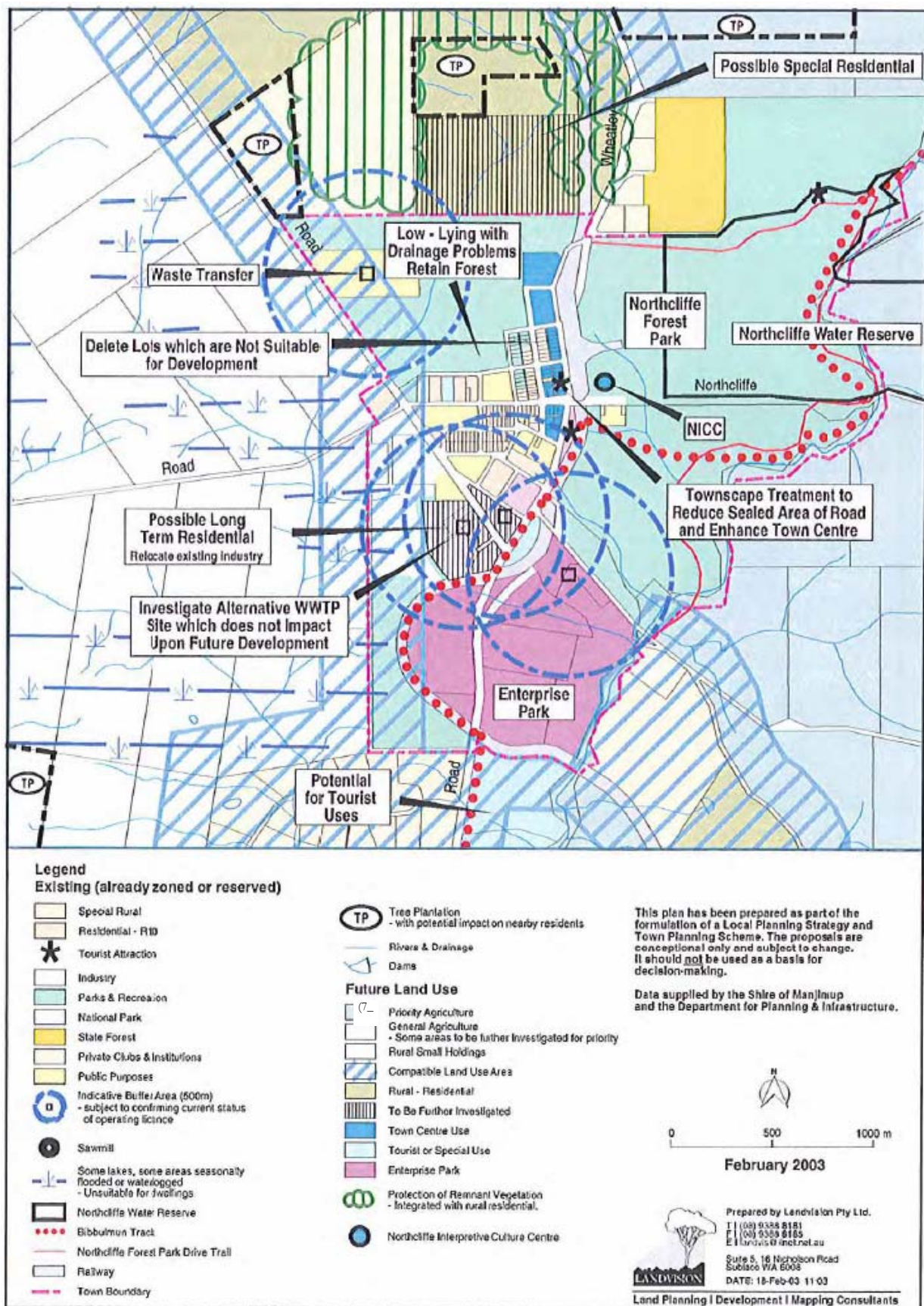
- Preserve townsite amenity but allow flexibility in planning provisions wherever possible to allow for employment and business opportunities and the establishment of new enterprises;
- Manage remaining timber mills to allow them to continue to operate without adverse impacts on the town;
- Retain and promote light and general industry opportunities;
- Consolidate the urban area of the townsite and locate rural-residential development in proximity to town facilities.
- Avoid unnecessary intrusion of urban I rural-residential within areas of agricultural activities;
- Residential lots to be provided within existing zoned land;
- Support role of Northcliffe as a strategic cross road and entry to the National Parks, wilderness areas, forest and coast to the south, providing opportunities for tourism and recreation;
- Manage the agricultural I urban interface to avoid land use conflict and use landscape / environmental features and reserves to create buffers wherever possible.

#### 6.3.3 Preferred Land Uses (Generalised)

The Future Strategy plans are *not* zoning plans but provide generalised land use categories to illustrate a long term vision for growth which would be subject to regular review. The following should be read in conjunction with Figures 22 and 23.

**Figure 22: Local Planning Strategy Northcliffe Townsite**



**Figure 23: Local Planning Strategy Northcliffe Town Centre**

### General Agriculture

A buffer of up to 250 metres covers rural land surrounding the town where activities should be managed to avoid unacceptable impacts occurring between agriculture and urban use;

See Manjimup Rural Precinct MR6.

### Priority Agriculture

- Includes land which has well drained soils with some susceptibility to erosion on lower slopes but suitable for horticulture and other intensive uses, and for dairying and grazing, subject to the availability of water from dam sites;
- Avoid allowing uses which may limit intensive agriculture and horticulture.
- Manage buffers to avoid land use conflict;
- See Manjimup Rural Precinct MR6.

### Special Rural

- Comprises existing land zoned for Special Rural purposes.

### Rural-Residential

- Includes land previously identified for Special Rural in the Local Rural Strategy;
  - The northern area includes a large area of remnant vegetation that is worthy of preservation. Subdivision should be co-ordinated and planned to avoid clearing locating houses around the fringe of the vegetation. This will reduce the lot yield by up to 50%, but may result in innovative development responsive to the features of the land;
  - There is currently no evidence of demand, however, opportunities may stimulate demand;
  - The sawmill sites can limit future development opportunities of some areas;
  - The areas south of town and west of Wheatley Coast Road are largely undeveloped rural-residential providing a range of existing vacant lots;
  - The SRZ along Old Mill and Boorara Road is partly within the buffer of the sawmill and is immediately adjacent to the General Industry. area. General and Priority Agriculture surrounds the balance. The rail reserve passes to the south and an emergency landing ground / airstrip for forestry purposes is nearby in the rail reserve. This area is zoned and has the potential for 10 lots. It could limit the long-term town expansion options (including the potential for the General Industry area) however, it may be unnecessary to sterilise the land for a long period. The land has a number of characteristics that would be best planned for on larger lots with only 2 or 3 lots being created within the existing location.

### Engineering Considerations

The areas are outside the current water supply system and are not sewered. The type of systems to be determined, Electricity can be extended to the area.

### Tourist or Special Use

- An area south of town with frontage to Wheatley Coast Road and isolated by the General Industry to the north and Gardner River, It is opposite an existing Special Rural area and is presently partly cleared/partly vegetated;
- Well located and suitable for a range of uses which may be in demand or to provide for individual innovative tourist attractions (eg. tourist accommodation, school camp, eco-farm, cluster development, display / model agriculture, etc.);
- Keep available for future opportunities that cannot be predicted.

### Engineering Considerations

The areas are outside the current water supply system and are not sewered. The type of systems to be determined. Electricity can be extended to the area.

### Tourist Attraction

- Recognises existing attractions.

#### Enterprise Park

- Existing CALM headquarters, former Northcliffe Sawmill site and timber employee's village;
- Subject to outcome of current plans to develop a Timber Cluster and / or holiday and rental accommodation in mill houses, while keep similar opportunities for timber industry value-adding and similar enterprises;
- Could provide a wide range of other opportunities for small-scale business production;
- Includes remnant vegetation, low-lying and wetland areas, streams and drainage areas which should be conserved;
- Maintain landscape buffer along Wheatley Coast Road;
- Provide for a range of light industrial / cottage craft type activities and boutique sawmills with value-adding but with management guidelines to avoid adverse impacts on the mill houses to allow the use of these houses for residential and/or holiday accommodation.

#### Engineering Considerations

- Largely within current water supply area (section west of Wheatley Coast Road is outside).
- Water mains extension required.
- Electricity could be extended.
- Special effluent, collection treatment and disposal system likely if sewerage not available. If sewer inflow eventuates ultimate sewerage of area likely but possibly a staged implementation.

#### Residential

- Existing areas contain vacant lots and potential for further subdivision in some areas;
- Requires drainage improvements;
- Sewerage would increase development potential but is currently a low priority of State agencies;
- It may be more appropriate to drain and fill lots but not to reduce lot sizes, which characterise the town. Explore other options for effluent disposal particularly as land prices are low and sewerage may be uneconomical.

#### Town Centre

- Provides flexibility to accommodate a range of uses that could assist the future development of the town;
- Includes existing facilities and vacant land and premises;
- Townscape improvements are required but should not take away the "casual" transition between private and public land (eg, lack of kerbs);
- Reduce amount of roadway on main intersection;
- Lots adjacent to the town centre lots could become commercial if demand and value justify the transition in land use;
- This zone will include the short-stay residential (for tourism) site to the north of the existing commercial area, "The Traveller's Rest".

#### Northcliffe Forest Park

- Tourist and recreational opportunity managed for conservation, interpretation and education.

#### Indicative Buffer Areas

- Council approval has been granted for certain land use activities requiring buffers, such as sawmills and abattoirs. At the time of consideration of future land use impacts, proposals which may be affected by the nominated buffer areas should be examined by Council and the proponent to ascertain whether or not the subject land use activities are still occurring and, hence, whether or not particular buffer requirements should remain in effect.

#### Compatible Land Use Area

- Designates rural land within 250 metres both within and adjacent to residential areas requiring management of activities in a compatible manner. This may require landowners to acknowledge lawful land use activities

when purchasing land or farmers may need to manage activities (eg. the use of chemicals) to avoid impacts on adjacent (particularly residential) properties.

#### 6.3.4 Areas to be Further Investigated

- Designates areas where options exist and should be further assessed for preferred use;
- The Crown Reserve northwest of Boronia and Banksia Streets should be included in the conservation estate in town (ie the "Northcliffe Forest Park");
- The Service Industry area west of the town centre and south of Richardson St could be an option in the long term for residential uses if ever required. There is potential for some of the existing uses to relocate. (Refer to 5.3.5.3);
- Cleared areas immediately north of the townsite boundary surrounded by vegetation, including a tree plantation, on the northern side, The area is included as potential Rural-Residential, however, it is located suitably as an extension to the town lots or connected to them by road and path. It may also be suitable for Special Residential to optimise its proximity to services and facilities. Development currently limited by existing tree plantation.

#### Engineering Considerations

##### Possible Long Term Residential Area - west of Town Centre and south of Richardson Street.

- Outside current water supply system.
- Water main extension required.
- Electricity could be extended.
- Sewerage likely as a development condition, Country infill sewer program would have to be advanced.
- Possible site contamination assessment to confirm no adverse impacts of current landuse.

##### Possible Residential Area - west of Wheatley Coast Road and immediately north of townsite.

- Outside current water supply system.
- Will require scheme assessment.
- Electricity could be extended.
- Sewerage likely as a development condition. Country infill sewer programme would have to be advanced.

## 6.4 WALPOLE

### 6.4.1 Opportunities and Constraints

The opportunities and constraints that influence the future planning direction for Walpole are summarised as follows:

#### Opportunities

- Improved development and environmental potential would result in completing the sewerage infill program;
- Attractive scenic landscape and setting for the town;
- Limitations to the town's growth provides an opportunity to develop a unique and highly desirable "small town";
- Access to natural features, tourist attractions and recreational opportunities;
- Growth in the attraction of the area to tourists;
- Undeveloped land is still available;
- Additional residential opportunities through the release of rural-residential and small holdings;
- Improvements to traffic management in the Nockolds Street commercial strip and its relationship to South Western Highway.

#### Constraints

- The town is enclosed by National Park, preventing expansion of the urban area;
- Limited areas of potential residential expansion due to poor drainage conditions and the extent of remnant vegetation cover;
- The protection of the public water supply catchments north of the town limits land use opportunities, including urban development. To remove constraints from land used for agriculture, the WC should investigate moving

- the point of catchment upstream, within State Forest area;
- Limited potential to expand the industrial area;
- Limited range of services and facilities;
- Seasonal nature of the economy affects business opportunities;
- Distance from regional centres (Perth and other markets) and potential visitors; Extension of all services required for any new development;
- Adverse impacts of through traffic on South Coast Highway;
- Waste disposal costs are high as refuse transferred to Manjimup;
- Higher cost of fire management (and land management generally) to protect the high value of surrounding environmental attributes.

#### 6.4.2 Future Concept Plan for Walpole

Walpole is surrounded by the "Walpole-Nornalup National Park" - nestled on the Walpole Inlet close to the scenic southern coastline. It is an idyllic setting for a town appropriate to its strong future as a centre for tourists and residents alike to access and enjoy the surrounding attractions.

The area already offers a wide range of tourist accommodation and facilities and the town should focus its resources to preserve its present character while allowing sustainable development opportunities.

The agricultural production in the area is becoming more diverse and timber continues to contribute to the local economy requiring Walpole to continue its role to provide a reasonable level of service to these industries.

The principles that are considered most important to be incorporated in the Local Planning Strategy (see Figures 24-26) are:

- Preserve the character and role of Walpole as a small service centre for agriculture, timber and fishing activities, as well as a coastal holiday and retirement town;
- Optimise opportunities for Walpole as a base for access to the tourist and recreation attractions in the area;
- Retain the enclosure formed by the surrounding National Park;
- Future residential demand to be satisfied through the Boronia Ridge estate, townsite infill and rural-residential development;
- Retain the general scenic integrity and landscape character in considering any rezoning, subdivision or development proposal;
- Provide for tourist accommodation and other tourist and recreation needs within and near the town;
- Provide for future demand for light and service industry within the existing zoned land;
- Retain existing Reserves that buffer the town from rural activities;
- Avoid increasing housing potential in Priority 2 Water Source Protection Areas;
- Any development will have to justify the demand for the proposed use and must be developed in a proper and orderly manner in relation to the utilisation of services, Structure planning will be required in some cases (eg, Mixed Use/Cluster).

#### 6.4.3 Preferred Land Uses (Generalised)

##### General Agriculture

- The rural area is not of suitable capability to be classed as a Priority Agricultural area but does support a range of agricultural activities;
- Manage uses appropriately in Priority 2 Water Source Protection Area;
- Manage security for agriculture by ensuring the introduction of tourist and other non-agricultural activities does not constrain agriculture;
- The area identified includes a number of features including the hills behind Walpole (to the north) which includes the Butlers Creek Catchment Area, some tourist accommodation and facilities, communications towers and the significant landscape feature created by the hills, and should be subject to future planning to protect and integrate these features into any development planned for the area;
- Refer to Manjimup Rural Precinct MR7 - Frankland Deep.

##### Mixed Use Cluster Development

- This area should provide for a mix of rural-residential, rural smallholdings, tourist accommodation and



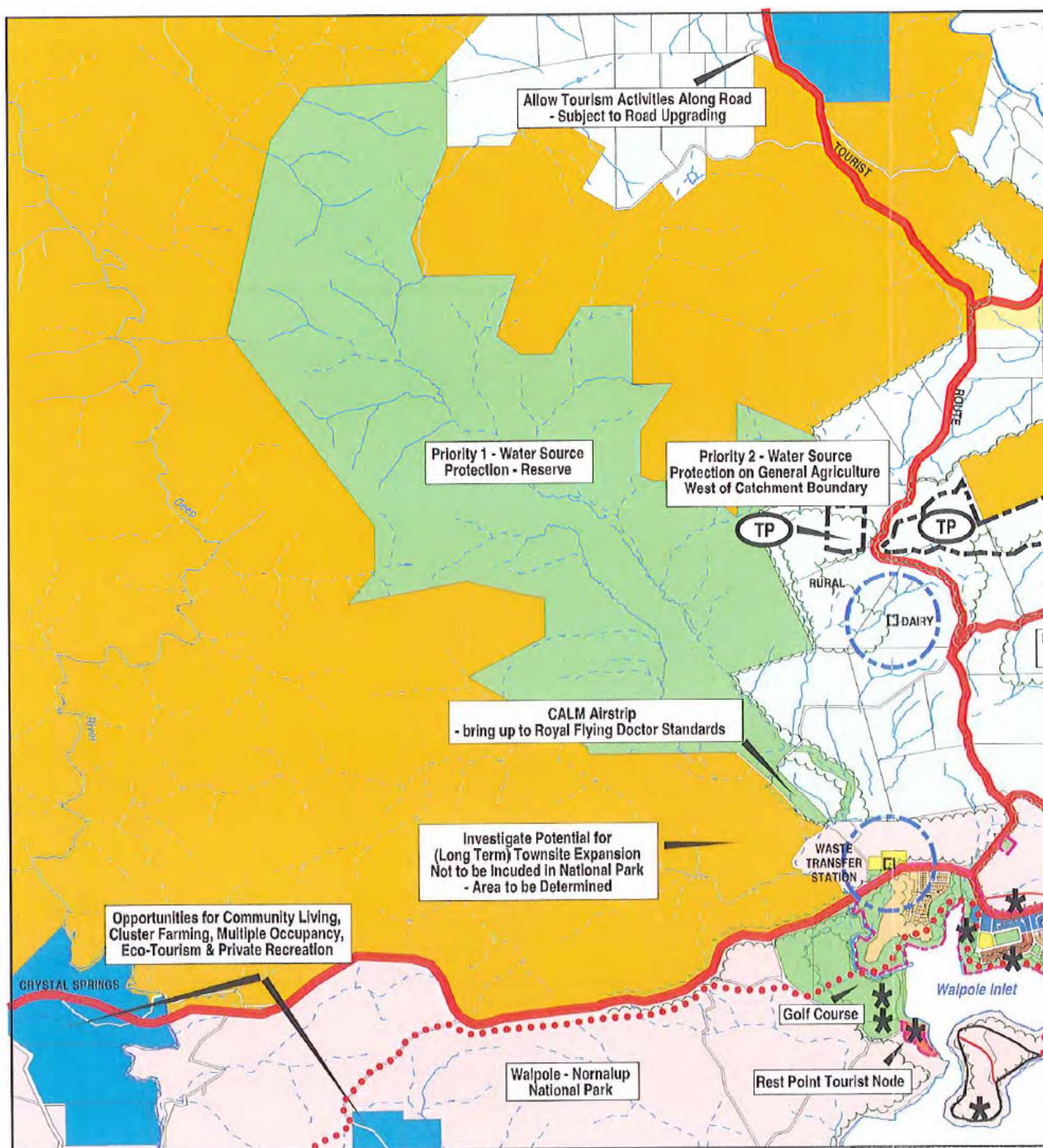
facilities, small scale arts and crafts production and sale. Consolidates rural-residential subdivision and provides for long-term demand;

- Protect visual backdrop to town and remnant vegetation;
- Encourage innovative design responses such as rural clusters to protect sensitive areas (ie, forest and visually significant areas) while providing for rural-residential and smallholdings where agriculture may occur and supplementary income be generated;
- Allow opportunities for tourism, particularly tourist accommodation, provided compatible with other established uses;
- Best management practices for drainage, land management, fire management (to reduce landscape impacts) should be required.

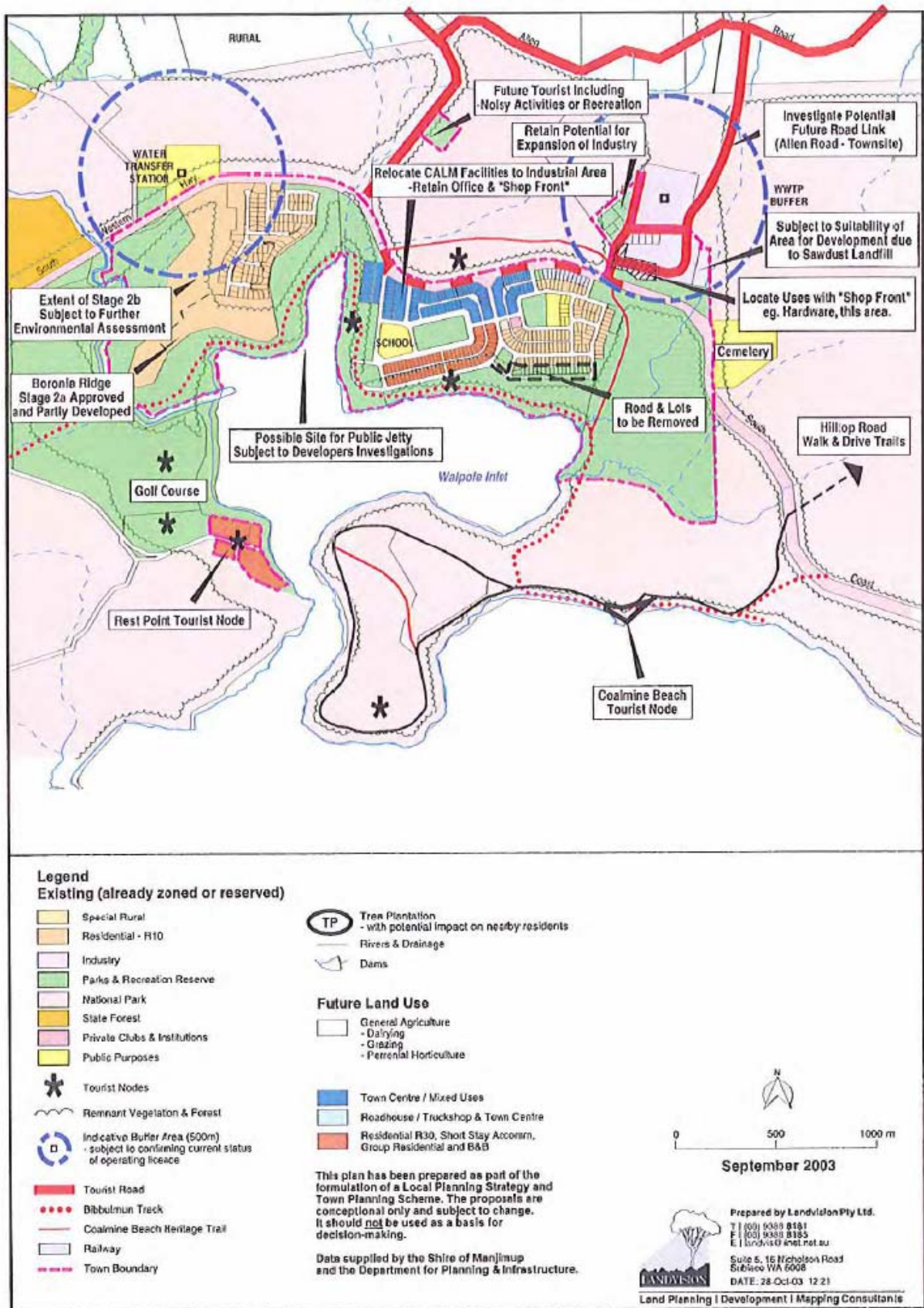
#### Engineering Considerations

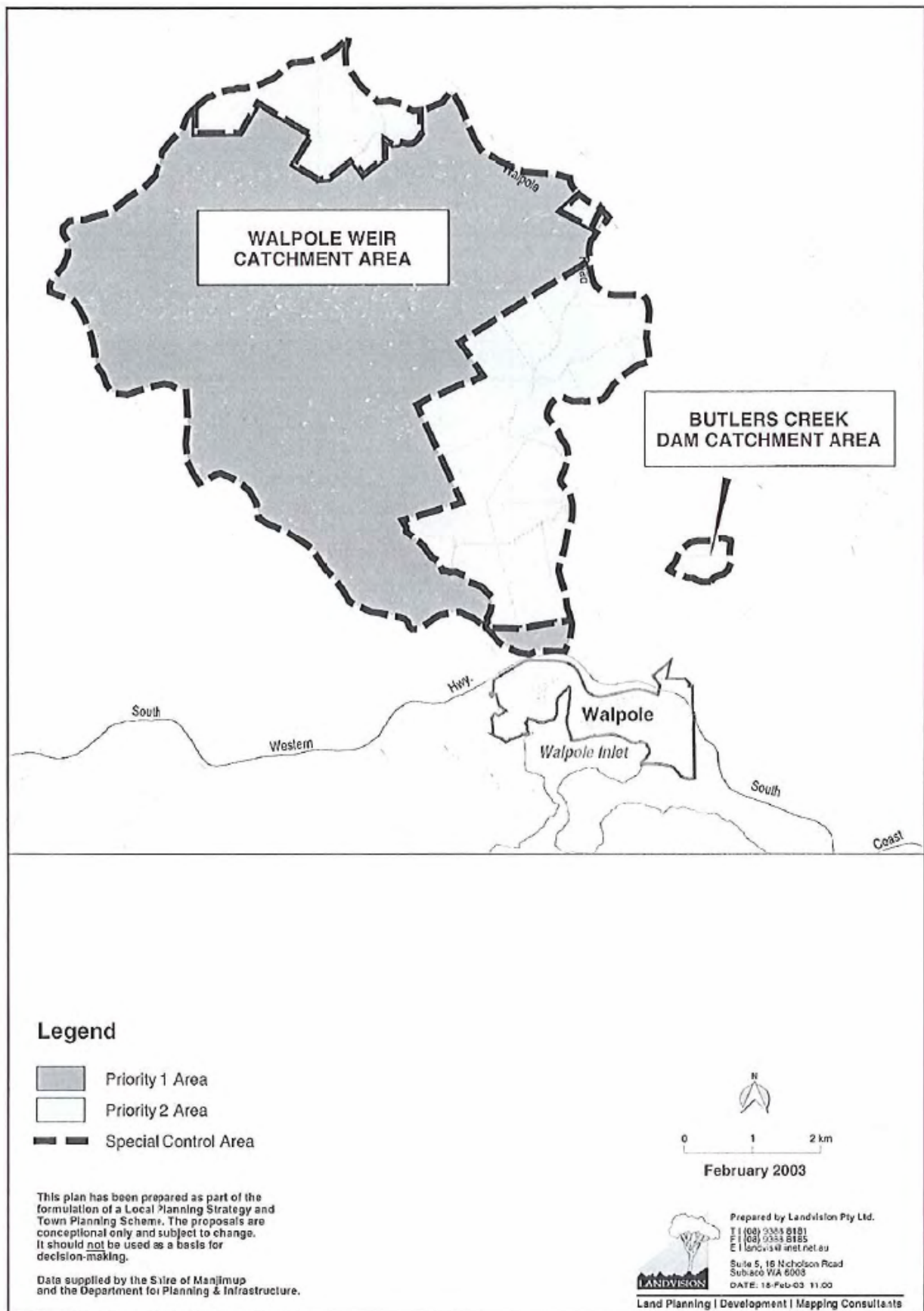
The area is outside the water and sewer system catchments and electricity could be extended. Onsite water collection and location and effluent collection, treatment and disposal systems will be determined through detailed capability assessment.

**Figure 24: Local Planning Strategy – Walpole Townsite**





**Figure 25: Local Planning Strategy Walpole Town Centre**

**Figure 26: Special control Area Boundary**

### Residential

- includes the old townsite and Boronia Ridge estate;
- Residential infill and increased density can provide for medium term growth subject to the provision of a sewerage scheme and community support;
- Provide for tourist accommodation opportunities within old townsite in a form that is compatible with the residential character of the area. This could take the form of units, apartments, chalets, bed and breakfasts, rather than large scale resorts. Part of the residential land (Walpole Street) is proposed as R20 - R30, which is considered the most suitable for this purpose;
- Developing access through upgraded rear lanes will improve development potential and options;
- Work with Main Roads WA to develop a traffic management and landscape plan for South Coast Highway and Nockolds Street that enhances the town centre and its connectivity to Pioneer Park;
- Support lot amalgamation where it improves development opportunities and combine parking areas where possible.

Note: "TPS 2 shows a road reserve and 19 residential-sized (1,000m<sup>2</sup>) allotments (Crown lots 184-202) - in front of the existing R10 lots along Walpole Street (East) -as part of the "Parks and Recreation" reserve. Despite the apparent anomaly in such lots being so reserved, they have nevertheless been so reserved since 1987 (when TPS 2 was gazetted).

There was strong community opinion directed at retaining the subject lots within the Reserve, rather than opening them up for residential uses, at the Walpole public meeting held in December 2001.

Inspection of the area shows that it could be capable of development, although it drops away relatively steeply towards the Inlet and is currently thickly vegetated. From some lookouts any development there would be visually prominent.

It is expected that owners of the existing residential homes overlooking the subject lots would have considered it likely that the subject land was, and would remain, "Parks and Recreation" reserve. In fact, many may have purchased their homes knowing that the lots were reserved under TPS2 and would probably have legitimate concerns were the land to be opened up for residential.

In view of the above considerations, and the fact that the current Reserve is a natural extension of the foreshore area to the Inlet, it is recommended that the subject Crown lots remain within the subject Reserve and that they (and the depicted road reserve) be absorbed into the adjoining parkland".

### Engineering Considerations

Increasing the residential and town centre density of development could be achieved with existing services. The sewer would be subject to the progress of the infill sewer programme. Upgrading of the main raw water capacity and treatment facility will be required within 10 years - possibly even well before this -dependent on the rate of new lot production and connection uptakes.

### Town Centre

The Commercial area to be consolidated with an emphasis on improving the townscape elements and attributes of the town.

Provide for a mix of commercial, semi-commercial, office, tourist and entertainment uses where residential, group residential and tourist accommodation may be integrated with the development.

### Engineering Considerations

Increasing the residential and town centre density of development could be achieved with existing services. The sewer would be subject to the progress of the infill sewer programme.

### Rest Point

- Rest Point is leased from the Crown by the Hughes family (until 2014) and provides an outstanding family-oriented, low-key tourist focal point with potential for expansion, while protecting the site's attributes;
- This area is shown as a tourist node in association with the golf course and bowling club;
- Some of the existing short-stay residential zone is undeveloped and it appears the golf course may

encroach on this node;

- Encourage tourist and recreation uses in this node;
- The golf course is a significant attraction for tourists and residents, which will become increasingly important to the town's tourist economy. Ensure other tourist and recreation opportunities in this area are considered.

#### Engineering Considerations

The Rest Point Tourist Node is within the current scheme water area but outside the sewer catchment. Reticulation and a pump station may be necessary to transfer effluent to Boronia Ridge subject to issues regarding the river crossing.

If tourist developments are low-key, a high level of on-site treatment and disposal may be acceptable.

#### Industry

- Consolidate existing industry by utilising all available land rather than seeking to expand into unsuitable areas subject to environmental constraints;
- Investigate potential to create a road connection from the Industrial area to Allen Road through the National Park along an old formed alignment;
- Protect buffer requirements for the WWTP.

#### Tourist/Tourist Attractions

- Recognises existing uses.

#### Reserves

- Purposes shown as Parks and Recreation Reserve, National Park, State Forest, Private Clubs, and Institutions and Public Purposes;
- Walpole - Nornalup National Park provides significant tourist and recreation opportunities.

#### Special Control Area

Figures 26 and 27 show the proposed "Special Control Area" boundary that should be imposed when a Water Source Protection Plan has been adopted for the Walpole Weir Catchment Area and the Butlers Creek Dam Catchment Area. Private farming land will be affected by the protection plan and it has been suggested that the protected catchment area could be proclaimed over land in the State Forest rather than on private land. This would avoid placing constraints upon long-established farming areas.

### **6.5 RURAL SETTLEMENTS**

In recent years many of the smaller communities in the South West have been revived by tourism, rural diversification and intensification, the movement of people from the city and for people seeking lower cost housing. The LRS (1993) does not support the large-scale expansion of un-serviced townsites due to high servicing costs and apparent lack of demand – however, this may be changing due to the recent trends reported of people attracted to such communities.

#### Settlement Strategy

When planning the future of settlement throughout the municipality a key consideration is to identify the pattern, scale and hierarchy of services and facilities provided for urban settlements. Developing what is called a "settlement strategy" will determine:

- the role and function of each settlement;
- the distances residents must travel to facilities;
- the proximity of employment to residents in towns;
- the provision of services and infrastructure; and
- where to encourage population growth.

Rural-residential and new residential development can be directed to support the growth or consolidation of Pemberton, Northcliffe, Walpole and in some cases to the other small "rural villages" (small rural townsites). Rural

villages can be promoted to support existing communities and to contribute to a thriving rural economy, It may assist in retaining rural populations providing both existing and new landowners a wider choice of lifestyle in rural areas.

Manjimup will always be the centre of regional level health, education, retail, industrial and other services and facilities. Other towns and rural villages will vary in size and potential for growth. Retaining and developing these villages will allow some services and facilities to be available in the outlying rural areas improving the quality of life for residents and visitors.

### The Future of Rural Townsites

With the increase in transportation costs, the re-emergence of demand from people choosing to live in smaller, more "friendly" communities and changes in technology allowing home-based businesses to operate (eg. telecentres and information technology), the impact of isolation is greatly diminished and it is anticipated the growth of rural townsites is inevitable and desirable.

The existing rural settlements vary in size and facilities generally include a community focal point with a hall, recreation area, shop/general store and fuel outlet, or the remnants of these facilities, and should be retained wherever possible for future opportunities.

### Rural-Residential

Rural-residential subdivision creates a form of low-density settlement providing for:

- increased capital equity for farming landowners;
- full-time or holiday and weekend residents seeking a rural or natural environment where no agricultural pursuits are carried out;
- hobby farming, specialty and boutique products, arts and crafts, other small-scale home occupation or cottage industries;
- part-time farming;
- tourist and recreation uses;
- housing for farmers in their retirement.

Experience has shown that rural-residential subdivision is often targeted by farmers and property speculators as a future capital wind-fall for their retirement fund. Where there is inadequate strategic planning such speculation can impact on agricultural land values and increase rates to the detriment of continuing agriculture.

Opportunities for rural-residential and rural smallholdings have been provided in and adjacent to existing towns and settlements to contain their impact and so residents have suitable access to facilities.

With respect to multiple dwellings/duplex please refer to 6.2.3 Precinct 1.

### Rural Clusters

Clustered rural settlement is the practice of establishing intensive rural developments where buildings are clustered in one location within a defined area, rather than scattered evenly over the same area. This form of development is usually accompanied by a shared ownership and/or coordinated approach to the management of land surrounding the cluster. Ownership and management of common areas has the potential to create long-term problems but with positive support and direction from Council could provide very positive and acceptable subdivisions and development associated with the expansion of existing settlements.

#### Clustered rural settlement may:

- provide more intimate, community-oriented design outcomes;
- lessen visual impact;
- provide for efficient use of services and infrastructure;
- protect a greater amount of remnant vegetation;
- help agricultural potential be more fully realised.

Cluster farming provides rural-residential opportunities as an alternative approach to conventional broad acre or intensive agriculture. It is different from clustered rural -residential development because it is based on the preservation of agriculture and the continuation of agricultural production should be encouraged wherever possible.

### Cluster Farm Zone

The new "Cluster Farm" zone was introduced into TPS 2 through Amendment 85 to that Scheme (Nelson Locations 10935 and 4204 Vasse Highway, Pemberton), gazetted on 11 October 2002. The objective of the zone was stated as being:

*"Council's objective is to provide opportunities for limited residential / tourism cluster development in designated rural areas to be integrated with, and directly linked to, intensive agricultural / horticultural land uses. Such "Cluster Farm" development must ensure both the primacy of intensive agricultural / horticultural land uses and the preservation and protection of existing environmental and landscape values on the subject land."*

Detailed criteria for site selection were also included in a new clause (5.2.13) to be inserted in TPS 2 and Special Provisions inserted into Appendix 6 of that Scheme.

#### 6.5.1 Windy Harbour

The *Windy Harbour Management Plan, May 1999* (Thompson McRobert) has been adopted by Council to guide the development of the settlement. The objective for the settlement as stated in the WHMP is; *"to maintain the unique lifestyle and amenity of Windy Harbour as a largely self contained seaside holiday destination characterised by secure lease hold tenure, limited servicing and strong community ties, while providing for the legitimate regional and district recreational needs of the wider community"*.

Windy Harbour is one of the few locations along the coast – from Augusta to Albany where both land and sea coastal access is possible and where an urban node exists. Consequently, the future strategic role of Windy Harbour is being addressed in the preparation of the Warren Blackwood Regional Strategy and the Augusta – Walpole Coastal Strategy.

The proposed TPS 4 will reflect the planning directions(s) and policies within the Windy Harbour Management Plan whilst recognising and noting the need for it to be reviewed. Such a review of the Windy Harbour Management Plan (1999) should consider the following matters:

- The creation of a new entry road to the settlement to avoid Chinatown;
- Maintaining the use of Windy Harbour predominantly for holiday makers;
- The identification and development of a possible service area I depot;
- The identification and development of an appropriate area for small scale commercial facilities;
- The identification of appropriate locations for tourist activities;
- The active involvement of the Windy Harbour Advisory Committee, the Windy Harbour Development Group and the residents those community associations represent;
- The preservation and retention of those buffer areas between the existing PF lease areas and the balance of the WH settlement development, to reduce any potential for inappropriate encroachment and / or land use conflicts.

It is recommended that:

- Council encourage the continuing use of Windy Harbour predominantly for holidaymakers, rather than for permanent residents, in accordance with the objective of the current WH Management Plan;
- Council support 20 year leases for all leaseholders;
- That, pending the completion of the WBR and A-WC Strategies, and the review of the Windy Harbour Management Plan (1999), the creation of any additional leases should be directed towards low-key tourist accommodation rather than for single holiday homes;
- Council seek a change to the vesting and purpose of Reserve NL13304 as an additional option for future land requirements for the WH settlement".
- In the new Scheme Council will present an appropriate zone, such as a "Development" zone to facilitate future development.

#### **6.5.2 Quinninup**

Quinninup is a picturesque settlement situated between Manjimup, Pemberton and Northcliffe, just off the South West Highway, providing an ideal location for residential, rural-residential and tourist development. Additional development in and around Quinninup will assist in supporting the existing services and facilities necessary to both residents and tourists.



The new TPS 4 should investigate and address the following issues:

- Gazetted as a townsite, with the creation of individual titles for houses, as it may assist the future development of the town;
- The homes in the former timber mill town are contained within two strata lots;
- The land should be zoned to recognise existing uses and development;
- Retain a compact town but support proposals for rural-residential, special residential, and rural smallholdings development on the existing farmland between the town and the South-West Highway. This land is an enclave surrounded by forest and is well drained and undulating, with some remnant vegetation - particularly along the creeks, which should be protected. This landform would be suitable for rural or farm clusters, tourism opportunities and other innovative planning responses to allow productive agricultural activities to continue;
- The Karri Lake Estate has resulted in houses set amongst thick forest creating a potential fire hazard requiring on-going management, which is being addressed by the local fire brigade;
- The settlement's water supply comes from Karri Lake, which is surrounded by low density, unsewered lots. Recently, there has been increasing concern for the quality and protection of the water supply. The Water and Rivers Commission (now DEWCAP) has been working with the community to address these concerns and it has been proposed that recreation activities should cease in and around the lake to minimise risk to the town's water supply and the health of the local community. DEWCAP prepared a Quinninup Dam Catchment Area Water Source Protection Plan in 2002 and is considering a new water source as part of this Plan;
- As it is unlikely the settlement will be seweraged, development on adjacent farmland should be downstream of the lake on soils that are suitable for on-site effluent disposal. Some development could also occur within the existing town, subject to effluent disposal being managed to avoid any adverse impact on the water supply.

### 6.5.3 Deanmill

Deanmill is a 115-hectare mill settlement on Reserve 16355. Currently contained within the reserve area are the mill operations, mill houses, the Deanmill Workers' Club, the Deanmill Football Oval and part of the disused Deanmill Tramway.

Council resolved, at its meeting of 12 September 2002 to:

*"... advise the Department of Land Administration that it consents to the land rationalisation [at Deanmill] being:*

1. *The excise of the Deanmill Workers Club and grounds from Reserve 16355 and leasing to the Deanmill Workers Club.*
2. *The excise of the Deanmill Football oval, clubrooms and dam from Reserve 16355 and leasing to the Deanmill Football Club,*
3. *The excise of the SOT/CO mill house from Reserve 31254 and leasing to SOT/CO.*
4. *The granting of an easement over Reserve 34161 to the Deanmill Football Club for the purpose of access.*
5. *The granting of an easement over Reserve 34161 to SOT/CO for the purpose of access.*
6. *The inclusion within Reserve 34161 of a portion of the Deanmill Tramway and Heritage Trail currently located on unallocated crown land within Reserve 16355.*
7. *The excise from Reserve 16355 of an area not allocated for any specific purpose to be left as unallocated crown land.*
8. *The inclusion within Reserve 16355 of a portion of the "Timber Tramway" currently located on unallocated crown land located within Reserve 16355.*
9. *The inclusion within Reserve 16355 of a portion of the Deanmill Tramway currently located on unallocated crown land located within Reserve 16355.*
10. *The inclusion within Reserve 33217 of a portion of the Deanmill Tramway currently located on unallocated crown land located within Reserve 33217.*
11. *The inclusion within Reserve 31255 of a portion of the Deanmill Tramway currently located on unallocated crown land located within Reserve 31255."*

Deanmill is only 5 kilometres from Manjimup and, although some facilities (such as the primary school) are no longer operating, the town still houses a large number of timber workers. The future of Deanmill will be strongly affected by the changes occurring in the industry and should be reviewed as soon as practicable.

On a visit to Manjimup in December 2002, the Premier announced that the Government would be entering

negotiations with Sotico to provide a guaranteed volume of jarrah sawlogs for Deanmill (inter alia). Such an agreement would ensure continuing operations at Deanmill over the life of the 10-year Forest Management Plan, which starts in 2004.

Recent research has been undertaken to consider the future of settlements affected by the restructuring of the timber industry and regional disadvantages generally which can form the basis for further assessment of ways to support communities such as Deanmill (eg. "Rural Housing, Regional Development and Policy Integration" Hillier and Fisher - April 2001)

#### 6.5.4 Palgarup

Palgarup is only 10km north of Manjimup and provides residential opportunities for people commuting to Manjimup, and even Bridgetown, or working in the agricultural activities in the area.

If demand warranted, some limited rural-residential development could occur in close proximity to the town in the future, subject to land suitability and avoiding land use conflict with agriculture.

The DPI has recently commissioned the "Warren Blackwood Industrial Sites Study" (WBISS) and will be investigating an appropriate location to situate a sub-regional industrial estate to accommodate heavy industrial installations such as a pulp mill, major timber mills and timber processing plants (and may also include industrial developments relevant to industrial estates of a lower hierarchical level) for regional produce.

The "Yornup Palgarup Corridor" between the Shires of Manjimup and BridgetownGreenbushes has been earmarked for examination but initial feedback from the study group suggests that it is unlikely that the Palgarup location will be suitable. This is due, in the main, to there being significant wetlands, high land capability areas and high-value horticultural uses in evidence there.

#### 6.5.5 Other Settlements

Community infrastructure, housing and some tourism development occurs in varying levels at the former mill towns and settlement centres of Jardee, Nyamup, Tone River, Balbarrup and Yanmah.

Where possible, this infrastructure should be maintained until opportunities arise to better develop these settlements. Such development could include:

- residential, in a small rural village setting;
- theme and special purpose residential for groups such as disabled, handicapped, socially challenged, youth training, etc.;
- theme tourist activities - including for community groups and family recreation camps (eg. Tone River);
- artists and crafts villages;
- other innovative proposals to utilise and maintain these small settlements.

#### 6.5.6 Broke Inlet - Reserve 19787

A number of illegal shacks have been developed on the above Reserve and Council has been unsuccessful in gaining State Government approval to lease the area, which could have allowed recognition and tenure for these shacks.

The future of the Reserve is currently being considered as part of the process associated with the Regional Forests Agreement and it may be amalgamated with "A" Class Reserve 36996 (to be managed by CALM). No action is likely until an outcome to these ongoing negotiations has been determined. The issue of the squatters' shacks needs to be resolved before these negotiations can fruitfully progress, however. The squatters' shacks have been built in the past without Council approval and would not satisfy current building and health regulations. Although a detailed land capability assessment has not been carried out, the shacks are likely to encourage adverse environmental impacts as:

- they are on low-lying land close to the high water mark of the inlet and could be affected by sea level rise and major climatic events;
- the shacks are unserviced - with no power, water or sewer;
- there is no protection for vegetation or soil from random parking and movement of cars, boats, vans, trucks, etc. and no management to reduce the number of tracks and the tendency for them to become progressively wider; and

- the potential for wildfire is increased.

Although the shacks provide holiday opportunities for a small number of people, and have their own unique character, there has been no fairness or equity in how they were developed and who has access to them.

Should the shacks be removed, future planning for the area should investigate an appropriate level of access to the inlet and possibly provide for day use recreation (eg. paths, parking, roads, picnic areas) and a site assessment for suitable tourist accommodation facilities.

The most equitable method of removing the shacks would be to implement the State Government's "Squatters' Shack Policy", which has been successfully implemented elsewhere in the State. This Policy, once implemented, allows shack owners to use their shacks for up to 6 years - for an annual fee, which is subsequently used to remove buildings and rehabilitate subject areas at the termination of that period of time.

Owners may choose to remove their shacks immediately, or at any time during the 6 year period, and would cease paying the annual fee once the subject buildings have been removed.

The State Squatters Shack Policy makes provision for the needs of PF operating with a current licence - where it can be shown that the need for accommodation I storage at Broke Inlet is essential to their bona fide operation(s). This may include a leasehold "fishers camp" sited in the context of an overall plan for the area, and could allow an existing shack to remain in some instances - subject to upgrading where necessary for health, safety and environmental requirements. Further investigation of this issue at Broke Inlet is required in forward planning and management.

Implementation of the Policy has been opposed and legally challenged (unsuccessfully) in other coastal areas and the process is not a popular one, obviously enough, with shack owners. It is considered that in the long term, however, the process arrives at the fairest solution for the wider community and is in the best interests of environmental sustainability.

Management of the Broke Inlet squatters' shack area should be undertaken in conjunction with the eventual removal of shacks to avoid any environmental damage from ongoing and unsupervised use. It should be acknowledged, nevertheless, that the historical presence of the shack owners has contributed to some form of de facto management and supervision to date.

The three freehold allotments are recommended to be rezoned (through TPS 4) to a "rural conservation" type zone – to provide opportunities for environmentally sustainable and low-key tourist and recreational development.

#### 6.5.7 Rural Tourism

Tourism in rural areas can broaden the economic base and employment opportunities in areas where traditional rural economies may be in decline. It is argued that tourism development should be managed, located, designed and sited in a manner that protects and enhances, wherever possible, the outstanding scenic and environmental attributes of the area.

On the other hand, where agriculture is the dominant and priority use, others believe tourism must only be permitted where it will not be in conflict with established or potential agricultural activity and should not overtake or replace agriculture. It can be argued that agriculture is dependent on suitable soil and water conditions while tourism has much greater flexibility and opportunity to locate in other areas and not impact on significant agricultural operations. Therefore, protecting agriculture should not place an unacceptable constraint on tourism.

Planning to avoid any adverse impacts on agriculture could concentrate rural tourism, particularly where it includes overnight accommodation, in and around rural towns. Areas could also be suitable where they are some distance from agriculture or separated by a physical feature such as a hill that minimises the risk of adverse impacts.

Rural chalets have become a very popular activity and as such could create some conflict with agricultural uses. Chalets were first introduced to provide additional income for farming operations and therefore support the agricultural economy however, in some areas, they are becoming the (undesirable) predominant use. Noise, dust and smells are said to be the most common concerns of chalet operators.

Current Council policy permits the construction and operation of up to 4 chalets on any "Rural" — zoned property

without rezoning. Although this initiative has provided tourist opportunities and supplementary farm incomes up to now, it is appropriate that *all such developments* in the future be required to be rezoned to allow all potential impacts to be thoroughly and properly addressed.

The following table puts forward (for more detailed consideration in the TPS2 review) a suggested planning process for selected rural tourism development proposals in the future "Priority Agriculture" and "General Agriculture" zones:

**Table 13: Rural Tourism Uses in the Priority and General Agriculture Zones**

Proposed Use	Description	Planning Process	
		General Agriculture	Priority Agriculture
Farm Stay / Bed & Breakfast	Using an existing dwelling, or addition to an existing dwelling, where up to 16 people may be accommodated for short stay accommodation.	Requires Special Approval of Council, subject to referral and advertising. If proposing to accommodate more than 16 people shall require rezoning.	Requires rezoning.
Chalets Country Kitchen / Restaurant	(Includes cabins etc.) designed to accommodate up to a maximum 4 adults per chalet for short stay holiday accommodation. Where tourists are served meals for consumption within the establishment, or light snacks and refreshments which can then be taken away.	Requires Special Approval of Council subject to referral and advertising - up to a maximum of 4 chalets with a required ratio of 1 chalet per 10 ha. More than 4 chalets will require rezoning. Requires Special Approval of Council, subject to referral and advertising (if determined as necessary by Council). If proposed to be open at night should require rezoning.	Requires rezoning, Requires Special Approval of Council, subject to advertising and referral. If proposed to be open at night should require rezoning.
Arts and Craft Studio / Sales	Facility where arts and crafts, predominantly produced on the same site (but could include similar materials produced elsewhere) are displayed and sold to the general public.	Requires Special Approval of Council, subject to referral and advertising (if determined as necessary by Council).	Requires Special Approval of Council, subject to referral and advertising (If determined as necessary by Council).
Guest House / Lodge	A building, or buildings, designed for short stay holiday accommodation for up to 16 people and offering facilities for patrons only,	Requires Special Approval of Council, subject to referral and advertising (if determined as necessary by Council).	Requires rezoning.

Wine sales and tastings ("cellar door") or sale and tastings of other produce from property, eg. olives, fruit drinks, etc.	An establishment associated with a winery (or other processing facility) on the same property – or offering "finally processed" goods from produce grown on the same property - at which wines, olive oils etc are offered for tasting and sales.	Council to determine planning process and requirements on individual merits after considering all potential impacts.	Council to determine planning process and requirements on individual merits after considering all potential impacts.
Tourist Park / Attraction	An establishment providing day use attractions for tourists (eg. Animal parks, botanical gardens, etc.), along with possible ancillary uses.	Requires rezoning.	Requires rezoning.
Mobilo Home Park / Caravan Park	A facility for permanent and semi-permanent and short-stay holiday accommodation.	Requires rezoning.	Requires rezoning.
Hotel / Motel	Buildings designed predominantly for short-stay accommodation and offering concomitant facilities (eg restaurant, function rooms, café) for both patrons and the general public.	Requires rezoning.	Requires rezoning.
Other Proposed Uses Not Yet Listed	Other proposed Uses requiring a separate / distinctive categorization.	To be assessed by Council on site specific merits.	To be assessed by Council on site specific merits.

NOTE: This Table is an initial guide only – further examination of the Uses mentioned and planning processes suggested shall be undertaken in greater detail at the time of the formal review of Council's Town Planning Scheme (and preparation of TPS4)."

Tourism opportunities within the rural areas will generally:

- Not be permitted in Priority Agriculture areas, where overnight accommodation is proposed, and must (in all cases) be subject to an Agricultural Impact Assessment;
- Be permitted in General Agricultural areas when impacts are totally contained onsite (noise buffers etc);
- Be permitted when developed as a day use attraction, particularly when associated with the agricultural use of the property;
- Be encouraged in the General Agricultural areas immediately south of Pemberton along the Pemberton-Northcliffe Road to the tourist node at the King Trout/Cascade Village complex and in the node of General Agricultural land west of Quinninup to the South West Highway.
- Tourism opportunities will be assessed on their merits in the General Agriculture area north of Walpole (and the road north to Beardmore Road and the South-West Highway developed as a tourist route);
- The isolated properties within "Manjimup Rural Precinct 8 - D'Entrecasteaux" provide opportunities for wilderness, nature-based and eco-tourism projects subject to access issues and compatibility (minimum disruption) with adjacent National Parks;
- Any other tourist developments outside the townsites where opportunities are identified will be assessed on their merits;
- The former mill sites and settlements provide opportunities for innovative tourist responses, which will be encouraged.

## 6.6 PROPOSED RESERVES, ZONES AND PRECINCTS

### 6.6.1 Reserves

The new Town Planning Scheme 4 will contain the required Model Scheme Text provisions relating to the reserving of land and compensation.

### 6.6.2 Zones

The LPS shows future concept plans for the main towns and the rural areas, designating preferred land use categories. These land uses will be shown as zones in the Town Planning Scheme, reflecting the preferred land use but in some instances drawing the distinction between uses,

The Scheme will contain zones with the purpose clearly identified to present Council's intentions for future development.

Planning Precincts have also been identified to further explain the intentions of the zones and development requirements in specific areas.

Objectives for the proposed zones are summarised as follows:

- Town Centre Zone

The "Town Centre" zone can be considered to be a general zone, which has an objective to ensure that there is adequate provision for the development of commercial and community uses. It recognises that town centres do not simply refer to commercial zones but are, in fact, a mixture of different uses. The zone needs to respond to change by accommodating new ideas, proposals and other uses that are considered appropriate. These may include residential and grouped residential, tourist accommodation and activities, offices and, in some cases, service commercial and even service industry type uses (eg. stock and station supplies).

- Residential Zone

The objective for the "Residential" zone is to provide for the adequate supply of suitably located land to meet the ongoing residential needs of the community. The residential zone performs in a complementary manner to the "Urban" zone. The residential zone is also governed by the Residential Design Codes.

- Urban Zone

The purpose of the "Urban" zone is to set aside land that has been identified and considered suitable for future extensions to the residential areas surrounding Manjimup and Pemberton. Development in this area will be subject to the preparation of a detailed Structure Plan and rezoning to an appropriate "Residential", "Special Residential", "Rural-Residential" or other zone.

- Industry

The Scheme only contains one "Industry" zone, which specifically promotes the development of industrial activities. The zone primarily reflects the existing industrial estates and identified potential new or expansion areas within the Shire.

- Community Purposes

This zone will identify land for public works that is not required to be reserved under Part 3 of the TPS.

- Tourist Zone

This zone will promote the development of facilities for the accommodation, activities and facilities for visitors at appropriate locations within the rural areas and townsites of the Shire. The development of short stay residential is to be considered in conjunction with Council's overall requirements for holiday accommodation.

It is not unusual for land within this zone to be subject to strata subdivision or to be subject to shared title arrangements. The specific requirements of the zone will also include the need to prepare a Development / Management Plan in order to ensure that all appropriate servicing and development issues can be correctly addressed.

- Special Development Zone

The "Special Development" zone is proposed for those developments, which, because of their special nature or complexity, cannot be appropriately located in other Scheme zones. The most likely developments to be included in this zone are larger "resort" complexes for tourist accommodation.

- Special Control Precincts

A "Special Control Precinct" will provide an "overlay control" that will be introduced to recognise special characteristics, common elements and planning and development considerations for identified areas.

### 6.6.3 Zones in the Rural Area

Consistent with the requirements of the State Government's "SPP 11 - Agricultural and Rural Land Use Planning", the new Scheme will also include the following zones:

- Priority Agriculture;
- General Agriculture;
- Rural-residential;
- Rural Small Holding;

and introduce the additional zones:

- Rural Conservation
- Cluster Farm (Amt 85 to TPS2 GG 11110/02).

The LPS has identified "Planning Precincts" and land has been shown within land use categories that generally reflect the intended zoning for that land to be designated in TPS 4.

#### 6.6.3.1 Priority Agriculture

##### Purpose

To provide for the sustainable use of high quality agricultural land, particularly where water resources exist, preserving existing agricultural production and allowing for new agricultural production by securing suitable land and water resources.

To provide for intensive agricultural and horticultural production; including market gardens, orchards and vineyard enterprises.

##### To encourage:

- the protection of the current rural infrastructure and land resource;
- planning to avoid the introduction of land uses not related to agriculture;
- the improvement of resource and investment security for agricultural and allied industry production;
- protection and enhancement of bio-diversity of these areas;
- value-adding opportunities to agricultural products at source; and
- subdivision; where it provides for boundary adjustments, realignments, farm restructuring and new lot creation which promotes effective land management practices, environmental and landscape enhancement and infrastructure provision.

#### 6.6.3.2 General Agriculture Purpose

To provide for the sustainable use of rural land which primarily accommodates a range of rural pursuits compatible with the capability of the land and which retains the rural character and amenity of the locality.

##### To encourage:

- the protection of the current rural infrastructure and land resource;
- the use of rural land for commercial agricultural production including grazing, cropping, agro forestry, tree plantations, intensive agricultural products at source; and



- subdivision; where it provides for boundary adjustments, realignments and farm restructuring and new lot creation which promotes effective land management practices, environmental and landscape enhancement and infrastructure provision.

#### 6.6.3.3 Rural - Residential Purpose

To provide for low density residential development in a rural setting consistent and compatible with adjacent land use activity, landscape and environmental attributes of the land.

To encourage:

- a variety of lot sizes and appropriate designs which accommodate environmental opportunities and constraints and landscape protection requirements;
- the introduction of clearing and land management controls and restrictions, and environmental repair where appropriate;
- the opportunity for subdivision where identified in a relevant Precinct, in order to provide for the more efficient use of existing special rural/rural-residential areas in close proximity to existing townsites (where essential services are available and
- where the existing landscape and conservation values of the locality will not be compromised);
- to facilitate the conservation of native vegetation, water courses and water bodies and, where appropriate, to provide for environmental repair;
- opportunities for innovative design and clustering of houses and other structures to minimise the impact on adjacent land uses, protect landscape and remnant vegetation and to utilise the more efficient use of services.

#### 6.6.3.4 Rural Smallholdings Purpose

To provide for rural lifestyle opportunities in strategic locations consistent and compatible with adjacent land use activity, landscape and environmental attributes of the land.

To encourage:

- the opportunity for a range of rural and semi-rural pursuits on cleared land where part-time or full time income may be generated;
- to allow the opportunity for subdivision where identified in a Planning Precinct where the existing land use, landscape and conservation values will not be compromised;
- to encourage small rural holdings with a variety of lot sizes consistent with the physical, environmental and landscape characteristics of the land;
- to facilitate the conservation of native vegetation; and
- in appropriate circumstances, the use of innovative design and clustering of
- houses and other structures to minimise the impacts on adjacent land (including
- agriculture) and provide for on-going use of land for rural pursuits, whilst
- protecting landscape and environmental values and utilising services efficiently.

#### 6.6.3.5 Rural Conservation Purpose

To protect and enhance the conservation and landscape values of areas identified as requiring special protection where it is required to conserve and permanently maintain:

- remnant vegetation and indigenous flora and fauna;
- soil quality;
- water quality;
- areas of historic, archaeological and scientific interest.

To encourage:

- the management of development and land use change so that the visual and environmental qualities of areas are maintained and enhanced;

- suitable development through the control of the location, form, character and density of any development and associated services - to minimise visual and environmental impacts and to complement the natural environment;
- in appropriate circumstances, the use of innovative design and clustering of houses and other structures to achieve the above.

#### 6.6.3.6 Cluster Farm

##### Purpose

Cluster farming provides rural residential opportunities as an alternative approach to conventional broad acre or intensive agriculture. It is different from clustered rural -residential development because it is based on the preservation of agriculture and the continuation of agricultural production should be encouraged wherever possible.

The new "Cluster Farm" zone was introduced into TPS 2 through Amendment 85 to that Scheme (Nelson Locations 10935 and 4204 Vasse Highway, Pemberton), gazetted on 11 October 2002. Detailed criteria for site selection were also included in a new clause (5.2.13) to be inserted in TPS 2 and Special Provisions inserted into Appendix 6 of that Scheme.

##### To encourage:

- opportunities for limited residential I tourism cluster development in designated rural areas - to be integrated with, and directly linked to, intensive agricultural I horticultural land uses;
- both the primacy of intensive agricultural / horticultural land uses and the preservation and protection of existing environmental and landscape values on the subject land.

#### 6.6.4 Planning Precincts in the Rural Area

Figure 27: "Rural Planning Precincts and Generalised Land Use Categories" shows the rural planning precincts for the rural land and reserved lands outside the townsites strategies. The Precinct boundaries have been based upon a combination of catchment boundaries, roads and physical features.

Within the Precincts, the preferred use of rural lands has been shown to reflect the identification of Priority Agriculture areas consistent with the requirements of SPP 11.

Some areas of unallocated crown land have been identified where it is in the process of being reserved. Land owned by Commonwealth, State and Local governments has also been shown where the purpose and future of the land has not been identified.

Land owned by the Executive Director of CALM and currently used for plantations has not been designated with a future rural land use category, as it is most likely to continue to be used for agriculture even if the plantation use ceases.

#### 6.6.5 Rural Subdivision

The following subdivision criteria, consistent with the Warren Blackwood Rural Strategy, will be used as the basis for assessment of applications for subdivision. Council will support applications consistent with these criteria and more detailed criteria listed in the Planning Precincts outside the townsites.

##### 6.6.5.1 Priority Agriculture and General Agriculture

In order to protect the productive capacity of agricultural land and the basis of State, regional and local economies, there is a general presumption against the further subdivision of land in the General Agriculture and Priority Agriculture Zones, except where it can be clearly demonstrated that the subdivision will be beneficial to viable and sustainable agricultural production and land management on the subject land and will not be prejudicial to similar production and management on adjoining lands. Subdivision supported by Council under this criteria shall have a minimum lot size of 80 ha.

In addition, in the case of subdivisions creating new or additional lots in the General Agriculture or Priority Agriculture Zones, new lots of less than 80ha will not be supported, except where the lot is a minimum of 40 ha and all of the following criteria are met:

- An agronomist's report or similar demonstrates that each new lot will contain a minimum of 30 ha of land with a high-capability rating (class 1 or 2) for annual or perennial horticultural production.
- An hydrologist's report or similar demonstrates that each new lot has the capacity to capture and store water of a sufficient quantity and quality as applicable to the potential agricultural production on that lot and the State water management agency is prepared to agree that the capture of that water is within the limits of an endorsed Water Allocation Management Plan or is within the sustainable yield for that sub-catchment.
- The total lot area incorporates the minimum area of 30 ha of high-capability land, plus the water capture and storage area, plus an area for farm infrastructure and buildings with sufficient setback from adjoining properties so as not to restrict potential agricultural productivity on those properties, setbacks from watercourses and wetlands, plus the retention of any remnant vegetation that should be protected from clearing.

#### 6.6.5.2 Agricultural Trade Lots

In providing for farm build up, the creation of an Agricultural Trade Lot will be supported in the General Agriculture zone where:

- a) The lot is a minimum of 40ha;
- b) There is a statutory restriction imposed that prohibits the development of a dwelling on the lot and the lot does not contain an existing dwelling; and
- c) The lot is "tied" by title as an Agricultural Trade Lot.

#### 6.6.5.3 Farm Restructuring

In the case of farm restructuring or boundary adjustment, the principal issue of consideration in assessment will be improving the sustainability and viability of the farming operation and observing the primary principle of protecting and enhancing the productive capacity of agricultural land. Where a farm consists of multiple titles and the proposal is to consolidate the main operation into a single title, consideration will be given to the creation of lots smaller than the outlined criteria, provided that:

- The smaller lots have sufficient size to allow for the construction of a dwelling and other small farm infrastructure and buildings with sufficient setback from adjoining properties so as not to restrict potential agricultural productivity on those properties.
- The smaller lots are located so as to have minimal adverse impact on the viability and sustainability of the main farming property.
- The total number of resulting lots is not greater than the original number of lots.
- In the case of lifestyle lots, the land is located within 10km of a major townsite.

For the purpose of this clause a "lifestyle" lot is a lot that does not comply with the criteria outlined for subdivision of land designated General Agriculture or Priority Agriculture in 6.6.5.1.

Variations to this theme may be considered on their individual merits in line with these basic principles.

In the case of farm rationalisations, where boundaries are realigned along existing fence lines, contours, creek lines, ridge lines, other topographic features or similar, rather than along rigid survey alignments, subdivision is and will be supported where it can be clearly demonstrated that the changes will be beneficial to viable and sustainable agricultural production and land management on the subject land and will not be prejudicial to similar production and management on adjoining lands.

Special variations to these criteria may be stated for each planning precinct according to the specific circumstances that apply within that planning precinct. Rural residential or rural small holdings subdivisions will not be supported unless and until the land has been rezoned for that purpose.

### Planning Precinct – MR 1 Upper Donnelly – Upper Wilgarup

#### Description: representing

- The north western, 850 – 115 mm rainfall, sector of the Shire within the Donnelly and Warren river water reserves where water quality of streams is currently marginal (encompassing the sub-catchments of Manjimup Brook, and the upper portion of the Wilgarup River).
- A lateritic plateau surface with some broad swampy depressions (Manjimup Plateau soil landscape system) and undulating valley and gravelly ridge terrain (Pimelia Valleys system).
- Areas with a variety of current uses and agricultural significance but where the potential for any significant expansion of irrigated horticulture is restricted due to either susceptibility to waterlogging (flats and depressions within plateau surface in Manjimup Brook sub-catchment), or limited availability of water for future allocations. (Wilgarup sub catchment).

#### Planning and land Management Considerations

- Long term sustainability of any land use proposals.
- Rural/Intensive land use and management.
- Provisions of services and infrastructure.
- Requires Agricultural Impact Assessment for rezoning, subdivision or development for beneficial non-agricultural uses in Priority Agriculture.
- Improvements in catchment management within Donnelly and Warren water reserves are aimed at controlling salinity and restoring water quality, which may in turn enhance agricultural potential. Better control of surface runoff and reducing groundwater recharge will be of benefit. Tree plantations and agro-forestry can play an important role.
- Not all areas within Priority Agriculture have a high capability for intensive agriculture.
- In Priority Agriculture Areas advise existing and prospective landowners that lawful agricultural practices occur in the areas which may produce impacts such as noise, dust, odour, etc. associated with agricultural activity. Methods of advice to be considered include:
  - Advisory roadside signs
  - Notice with Rates advice
  - Notice with Planning Approval and/or Building Licence
- Settlement expansions issues near Manjimup townsite – such as poor drainage to the north, and potential conflict with intensive agricultural land uses to the north east and west.
- Resource protection and management.
- Urban growth demands and impacts.
- Conserve remnant vegetation.
- Protect and enhance water quality.
- Manage on-site impacts and off-site impacts to avoid land use conflicts, ie. All adverse impacts to be contained on-site.

<b>Priority Agriculture</b>	<p>Protect agricultural areas of State/Regional/Local significance by retaining agricultural potential.</p> <p>Prevent the development of uses which are incompatible with the primary use of Agriculture - both intensive and extensive.</p> <p>Maintain and enhance the environmental attributes of the locality including landscape,</p>	<p><u>Uses generally permitted:</u></p> <ul style="list-style-type: none"> <li>• Agriculture Intensive</li> <li>• Agriculture Extensive</li> <li>• Rural Pursuit</li> <li>• Single Dwelling</li> </ul> <p><u>Uses generally requiring some planning discretion:</u></p> <ul style="list-style-type: none"> <li>• Animal husbandry - Intensive</li> <li>• Industry - Rural</li> <li>• Industry - Extensive</li> <li>• Farm workers accommodation/second dwelling</li> <li>• Small scale tourist</li> <li>• activities and accommodation.</li> </ul>	<ul style="list-style-type: none"> <li>• Generally support a minimum lot size of 80 ha.           <ul style="list-style-type: none"> <li>○ lots should have access to a constructed road;</li> <li>○ lots should have access to power;</li> <li>○ areas of remnant vegetation should not need to be cleared to facilitate the subdivision.</li> </ul> </li> <li>• Subdivision boundaries must be located to avoid any adverse impacts on existing or potential water sources.</li> <li>• New lots of less than 80ha will not be supported, except where the lot is a minimum of 40ha and it complies with the above requirements for an</li> <li>• 80ha lot and all the criteria listed in Clause 6.6.5.1.</li> <li>• Support boundary adjustments</li> </ul>
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	vegetation, soils and water resources and water course and wetland systems.		<p>where it is consistent with Clause 6.6.5.3.</p> <ul style="list-style-type: none"> <li>• Potential impacts of non-agricultural uses to be contained on site and separated from adjacent land use/activities.</li> <li>• Day-visit attractions and activities for tourists will generally be supported.</li> <li>• Overnight tourist accommodation will generally be discouraged and in most cases will not be permitted.</li> <li>• Single dwellings to be permitted but require Planning Approval to determine location, access, proximity to surrounding activity and any other matter determined by Council.</li> </ul>
<b>General Agriculture</b>	Maintian agricultural land use and activity while providing for environmental repair, diversification of economic opportunities and the community's land use requirements.	<p><u>Uses generally permitted:</u></p> <ul style="list-style-type: none"> <li>• Agriculture Extensive</li> <li>• Rural Pursuit</li> <li>• Single Dwelling</li> </ul> <p><u>Uses generally requiring some planning discretion:</u></p> <ul style="list-style-type: none"> <li>• Agriculture Intensive</li> <li>• Industry – rural</li> <li>• Industry – Extensive</li> <li>• Animal husbandry – Intensive</li> <li>• Farm workers accommodation/second dwelling</li> <li>• Tourist activities</li> <li>• Tourist accommodation <ul style="list-style-type: none"> <li>○ Farm stay</li> <li>○ Chalets</li> <li>○ Bed and breakfast</li> <li>○ Etc.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Generally support a minmum lot size of 80ha. <ul style="list-style-type: none"> <li>○ Lots should have access to a constructed road;</li> <li>○ Lots should have access to power;</li> <li>○ Areas of remnant vegetation should not need to be cleared as to facilitate the subdivision.</li> </ul> </li> <li>• Subdivision boundaries must be located avoid any adverse impacts on existing or potential water sources.</li> <li>• New lots of less than 80ha will not be supported, except where the lot is a minimum of 40ha and it complies with the above requirements for an 80ha lot and all the criteria listed in Clause 6.6.5.1.</li> <li>• Single dwellings to be permitted but require Planning Approval to determine location, access, proximity to surrounding activity and any other matter determined by Council.</li> <li>• Support boundary adjustments where it is consistent with Clause 6.6.5.3.</li> <li>• Support the creation of agricultural trade lots of less than 40ha where dwellings are not permitted and it is consistent with Clause 6.6.5.2.</li> <li>• Day-visit attractions and activities for tourists will generally be supported where appropriate, beneficial and having no adverse off-site impacts.</li> <li>• Overnight tourist accommodation will generally be discouraged and</li> </ul>

			<p>in most cases will not be permitted.</p> <ul style="list-style-type: none"> <li>• Single dwellings to be permitted but require Planning Approval to determine location, access, proximity to surrounding activity and any other matter determined by Council.</li> <li>• Generally support a minimum lot size of 80ha. <ul style="list-style-type: none"> <li>○ Lots should have access to a constructed road;</li> <li>○ Lots should have access to power;</li> <li>○ Areas of remnant vegetation should not need to be cleared as to facilitate the subdivision.</li> </ul> </li> <li>• Subdivision boundaries must be located to avoid any adverse impacts on existing or potential water sources.</li> <li>• New lots of less than 80ha will not be supported, except where the lot is a minimum of 40ha and it complies with the above requirements for an 80ha lot and all the criteria listed in Clause 6.6.5.1.</li> <li>• Single dwellings to be permitted but require Planning Approval to determine location, access, proximity to surrounding activity and any other matter determined by Council.</li> <li>• Support boundary adjustments where it is consistent with Clause 6.6.5.3.</li> <li>• Support the creation of agricultural trade lots of less than 40ha where dwellings are not permitted and it is consistent with Clause 6.6.5.2.</li> <li>• Day-visit attractions and activities for tourists will generally be supported where appropriate, beneficial and having no adverse off-site impacts.</li> <li>• Overnight tourist accommodation will generally be discouraged unless all potential for land use conflict is eliminated through location, topography, design and distance for surrounding lots.</li> </ul>
<b>Rural Small Holdings</b>	Provide for limited subdivision opportunities which are consistent with the existing variety of lot sizes and land use activities where full-time or part-time income may be	<p><u>Uses generally permitted:</u></p> <ul style="list-style-type: none"> <li>• Agriculture – Intensive</li> <li>• Agriculture – Extensive</li> <li>• Rural Pursuit</li> <li>• Single Dwelling</li> </ul> <p><u>Uses generally requiring some planning discretion:</u></p> <ul style="list-style-type: none"> <li>• Animal husbandry – Intensive</li> </ul>	<ul style="list-style-type: none"> <li>• Support subdivision where: <ul style="list-style-type: none"> <li>○ 20ha of land is available for agriculture</li> <li>○ Surface water or an alternative water supply can be created</li> <li>○ No clearing of remnant vegetation is required</li> <li>○ The new lot has legal frontage/connection to a constructed road and power.</li> </ul> </li> </ul>

	generated from agriculture and rural pursuits.	<ul style="list-style-type: none"><li>• Industry – Rural</li><li>• Industry – Extensive</li><li>• Farm workers accommodation/second dwelling</li><li>• Tourist activities</li><li>• Tourist accommodation</li></ul>	<ul style="list-style-type: none"><li>• Support boundary adjustments where lot sizes may be reduced to a minimum of 10ha but where the number of lots is unchanged.</li><li>• Support the creation of agricultural trade lots where dwellings are not permitted.</li><li>• Single dwellings to be permitted but require Planning Approval to determine location, access, proximity to surrounding activity and any other matter determined by Council.</li></ul>
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### Planning Precinct – MR2 Lefroy

#### Description: representing

- The central western, 950 – 1200 mm rainfall, sector of the Shire within the Warren and Donnelly water reserves where water quality of streams remains fresh. (encompassing freehold areas of the Lefroy, Smiths, East, Treen and Big Brook catchments within the Manjimup – Pemberton axis of the Warren basin, and of the Fly and Carey Brook catchments in the Channybearup road locality within the Donnelly basin).
- The core areas of versatile prime agricultural land where existing horticultural land uses are concentrated within undulating valley and gravelly ridge terrain (Pimelia Valleys soil landscape system)

#### Planning and land Management Considerations

- Protection of two water supply sources within the Lefroy Brook catchment (for Pemberton) and the Manjimup Dam and Phillips Creek / Scabby Gully catchments (for Manjimup).
- A Water Source protection plan is being developed for the gazetted Lefroy Brook Catchment which may limit further expansion of horticulture in some areas and generally require adoption of the best management practices to protect the water resource. A Special Control Area is needed here to address the dual objectives of agricultural and water resource protection.
- Although within an area of State/regional agricultural significance, the potential for any significant expansion of irrigated horticulture within the Upper Lefroy catchment is restricted due to limited availability of water for future allocations.
- Precinct contains core areas of tourism interest due in part to the visually attractive landscape formed by having a diverse range of agricultural land uses within a predominantly forest setting.
- Opportunities for mutually beneficial development of tourism and intensive agriculture need to be considered, particularly in light of decreased employment opportunities resulting from structural changes to the timber industry.
- Settlement expansion south of Manjimup and around Pemberton has the potential to result in conflict with intensive agricultural land uses.
- Long term sustainability of any land use proposals.
- Provision of services and infrastructure.
- Environmental repair.
- Resource protection and management.
- Pemberton growth and townscape impacts.
- Long term sustainability of any land use proposals.
- Maximising economic opportunities for tourism in a rural setting (in the area south of Pemberton).
- Requires Agricultural Impact Assessment for rezoning, subdivision or development for beneficial non-agricultural uses in Priority Agriculture.
- Not all areas within Priority Agriculture have a high capability for intensive agriculture.
- In Priority Agricultural areas advise existing and prospective landowners that lawful agricultural practices occur in the area which may produce impacts such as noise, dust, odour, etc. associated with agricultural activity. Methods of advice to be considered include:
  - Advisory roadside signs
  - Notice with Rates advice
  - Notice with Planning Approval and/or Building Licence
- Resource protection and management.
- Urban growth demands and impacts.
- Conserve remnant vegetation.
- Protection and enhance water quality.
- Potential impacts of non-agricultural uses to be contained on-site and separated from adjacent land use/activities.
- Manage on-site impacts and off-site impacts to avoid land use conflicts, ie. All adverse impacts to be contained on-site.

<b>Priority Agriculture</b>	Protect egricultural areas of State/Regional/Local significance by retaining agricultural potential.	<u>Uses generally permitted:</u> <ul style="list-style-type: none"> <li>• Agriculture – Intensive</li> <li>• Agriculture – Extensive</li> <li>• Rural Pursuit</li> <li>• Single Dwelling</li> </ul>	<ul style="list-style-type: none"> <li>• Generally support a minimum lot size of 80ha.               <ul style="list-style-type: none"> <li>○ lots should have access to a constructed road;</li> <li>○ lots should have access to power;</li> </ul> </li> </ul>
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	<p>Prevent the development of uses which are incompatible with the primary use of Agriculture – both intensive and extensive.</p> <p>Maintain and enhance the environmental attributes of the locality including landscape, vegetation, soils and water resources and water course and wetland systems.</p>	<p><u>Uses generally requiring some planning discretion:</u></p> <ul style="list-style-type: none"> <li>• Animal husbandry – Intensive</li> <li>• Industry – Rural</li> <li>• Industry – Extensive</li> <li>• Farm workers accommodation/second dwelling</li> <li>• Small scale tourist activities and accommodation major development subject to an Agricultural impact Assessment.</li> </ul>	<ul style="list-style-type: none"> <li>○ Areas of remnant vegetation should not need to be cleared as to facilitate the subdivision.</li> <li>• Subdivision boundaries must be located to avoid any adverse impacts on existing or potential water sources.</li> <li>• New lots less than 80ha will not be supported, except where the lot is a minimum of 40ha and it complies with the above requirements for an 80ha lot and all the criteria listed in Clause 6.6.5.1.</li> <li>• Day-visit attractions and activities for tourists will generally be supported.</li> <li>• Overnight tourist accommodation will generally be discouraged and in most cases will not be permitted.</li> <li>• Single dwellings to be permitted but require Planning Approval to determine location, access, proximity to surrounding activity and any other matter determined by Council.</li> <li>• Support boundary adjustments where it is consistent with Clause 6.6.5.3.</li> <li>• Potential impacts of non-agricultural uses to be contained on site and separated from adjacent land use/activities.</li> </ul>
<b>General Agriculture</b>	<p>Maintain agricultural land use and activity while providing for environmental repair, diversification and economic opportunities and the community's land use requirements.</p> <p>The area south of Pemberton along the Pemberton-Northcliffe Road is considered suitable for mix of tourism and agriculture.</p>	<p><u>Uses generally permitted:</u></p> <ul style="list-style-type: none"> <li>• Agriculture Extensive</li> <li>• Rural Pursuit</li> <li>• Single Dwelling</li> </ul> <p><u>Uses generally requiring some planning discretion:</u></p> <ul style="list-style-type: none"> <li>• Agriculture intensive</li> <li>• Industry – Rural</li> <li>• Industry – Extensive</li> <li>• Animal husbandry – intensive</li> <li>• Farm workers accommodation/second dwelling</li> <li>• Tourist activities</li> <li>• Tourist accommodation <ul style="list-style-type: none"> <li>○ Farm stay</li> <li>○ Chalets</li> <li>○ Bed &amp; breakfast</li> <li>○ Etc.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Generally support a minimum lot size of 80ha. <ul style="list-style-type: none"> <li>○ Lots should have access to a constructed road;</li> <li>○ Lots should have access to power;</li> <li>○ Area of remnant vegetation should not need to be cleared as to facilitate the subdivision.</li> </ul> </li> <li>• Subdivision boundaries must be located to avoid any adverse impacts on existing or potential water sources.</li> <li>• New lots less than 80ha will not be supported, except where the lot is a minimum of 40ha and it complies with the above requirements for an 80ha lot and all criteria listed in Clause 6.6.5.1.</li> <li>• Single dwellings to be permitted but require Planning Approval to determine location, access, proximity to surrounding activity and any other matter determined by Council.</li> </ul>

			<ul style="list-style-type: none"> <li>Support boundary adjustments where it is consistent with Clause 6.6.5.3.</li> <li>Support the creation of agricultural trade lots of <u>not</u> less than 40ha where dwellings are not permitted, and where it is consistent with Clause 6.6.5.2.</li> </ul>
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### Planning Precinct – MR3 - Perup

#### Planning and land Management Considerations

- Improvements in catchment management within the Warren water reserve are aimed at controlling salinity and restoring water quality, which may in turn enhance agricultural potential. Better control of surface runoff and reducing groundwater recharge will be of the benefit. Tree plantations and agro-forestry can play an important role.
- Precinct contains parts of the lower Yerraminnup floodplain and Perup Swamps wetland areas that are of environmental value. Land use activities in adjacent areas need to be considered in terms of their potential to affect water quality or habitat value.
- Prior of services and infrastructure.
- Environmental repair.
- Resource protection and management.
- Long term sustainability of any land use proposals.
- Rural/Intensive land use and amangement.
- Need to advise existing and prospective landowners that lawful agricultural practices occur in the area which may produce impacts such as noise, dust, odour, etc. associated with agricultural activity. Methods of advice to be considered include:
  - Advisory roadside signs
  - Notice with Rates advice
  - Notice with Planning Approval and/or building Licence
- Conserve remnant vegetation.
- Protect and enhance water quality.
- Manage on-site impacts and off-site impacts to avoid land use conflicts, ie. All adverse impacts to be contained on-site.

Land Use Category	Policy Statement	Land Uses	Subdivision and Development Guidelines
General Agriculture	Maintain agricultural land use and activity while providing for environmental repair, diversification of economic opportunities and the community's land use requirements.	<p><u>Use generally permitted:</u></p> <ul style="list-style-type: none"> <li>Agriculture – Extensive</li> <li>Rural Pursuit</li> <li>Single Dwelling</li> </ul> <p><u>Uses generally requiring some planning discretion:</u></p> <ul style="list-style-type: none"> <li>Agriculture – Intensive</li> <li>Industry – Rural</li> <li>Industry – Extensive</li> <li>Animal husbandry – Intensive</li> <li>Farm workers accommodation/second dwelling</li> <li>Tourist activities</li> <li>Tourist accommodation               <ul style="list-style-type: none"> <li>Farm stay</li> <li>Chalets</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Generally support a minimum lot size of 80ha.               <ul style="list-style-type: none"> <li>Lots should have access to a constructed road;</li> <li>Lots should have access to power;</li> <li>Areas of remnant vegetation should not need to be cleared as to facilitate the subdivision.</li> </ul> </li> <li>Subdivision boundaries must be located to avoid any adverse impacts on existing or potential water sources.</li> <li>New lots of less than 80ha will not be supported, except where the lot is a minimum of 40ha and it complies with the above requirements for an 80ha lot and all the criteria listed in Clause 6.6.5.1.</li> </ul>

		<ul style="list-style-type: none"> <li>○ Bed and Breakfast</li> <li>○ Etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Single dwellings to be permitted but require Planning Approval to determine location, access, proximity to surrounding activity and any other matter determined by Council.</li> <li>• Support boundary adjustments where it is consistent with Clause 6.6.5.3.</li> <li>• Support the creation of agricultural trade lots of not <u>less</u> than 40ha where dwellings are not permitted, and where it is consistent with Clause 6.6.5.2.</li> </ul>
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### Planning Precinct – MR 4 – Tone

#### Description: representing

- The north-eastern, less than 700mm rainfall, sector of the Shire within the Warren water reserve where water quality of streams is brackish (encompassing the lower part of the Tone River catchment).
- A lateritic plateau surface with some broad swampy depressions (Perup Plateau soil landscape system) grading eastwards into undulating low hills and rises (Frankland Hills system) and, to the south, poorly drained flats and low dunes (Unicup system).
- Predominantly State Forest with scattered areas of freehold land with some agricultural versatility but not of State or regional significance.

#### Planning and Land Management Considerations

- Improvements in catchment management within the Warren water reserve are aimed at controlling salinity and restoring water quality, which may in turn enhance agricultural potential. Better control of surface runoff and reducing groundwater recharge will be of benefit. Tree plantations and agro-forestry can play an important role.
- Precinct contains parts of the lower perup Swamps and Unicup wetland areas that are of environmental value. Land use activities in adjacent areas need to be considered in terms of their potential to affect water quality or habitat value.
- Long term sustainability of any land use proposals.
- Rural/Intensive land use and management.
- Provision of services and infrastructure.
- Need to advise existing and prospective landowners that lawful agricultural practices occur in the area which may produce impacts such as noise, dust, odour, etc. associated with agricultural activity. Methods of advice to be considered include:
  - Advisory roadside signs
  - Notice with Rates advice
  - Notice with Planning Approval and/or Building Licence
- Resource protection and management.
- Conserve remnant vegetation.
- Protect and enhance water quality.
- Manage on-site impacts and off-site impacts to avoid land use conflicts, ie. All adverse impacts to be contained on-site.

Land Use Category	Policy Statement	Land Uses	Subdivision and Development Guidelines
<b>General Agriculture</b>	Maintain agricultural land use and activity while providing for environmental repair, diversification of economic opportunities and the community's land use requirements.	<u>Uses generally permitted:</u> <ul style="list-style-type: none"> <li>• Agriculture Extensive</li> <li>• Rural Pursuit</li> <li>• Single Dwelling</li> </ul> <u>Uses generally requiring some planning discretion:</u> <ul style="list-style-type: none"> <li>• Agriculture Intensive</li> <li>• Industry – Rural</li> <li>• Industry – Extensive</li> </ul>	<ul style="list-style-type: none"> <li>• Generally support a minimum lot size of 80ha.               <ul style="list-style-type: none"> <li>○ Lots should have access to a constructed road;</li> <li>○ Lots should have access to power;</li> <li>○ Areas of remnant vegetation should not need to be cleared as to facilitate the subdivision.</li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>• Animal husbandry – Intensive</li> <li>• Farm workers accommodation/second dwelling</li> <li>• Tourist activities</li> <li>• Tourist Accommodation               <ul style="list-style-type: none"> <li>○ Farm stay</li> <li>○ Chalets</li> <li>○ Bed and breakfast</li> <li>○ Etc.</li> </ul> </li> </ul> <p><u>Uses associated with urban/town growth would be assessed on their merits and may require rezoning including:</u></p> <ul style="list-style-type: none"> <li>• Cemeteries;</li> <li>• Rubbish tips;</li> <li>• Effluent treatment systems;</li> <li>• Airports/airstrips;</li> <li>• Recreation areas such as speedway, rifle range;</li> <li>• Prisons and institutions;</li> <li>• Certain noxious and heavy industries; and</li> <li>• Urban growth corridors.</li> </ul>	<ul style="list-style-type: none"> <li>• Subdivision boundaries must be located to avoid any adverse impacts on existing or potential water sources.</li> <li>• New lots of less than 80ha will not be supported, except where the lot is a minimum of 40ha and it complies with the above requirements for an 80ha lot and all the criteria listed in Clause 6.6.5.1.</li> <li>• Single dwellings to be permitted but require Planning Approval to determine location, access, proximity to surrounding activity and any other matter determined by Council.</li> <li>• Support boundary adjustments where it is consistent with Clause 6.6.5.3.</li> <li>• Support the creation of agricultural trade lots of <u>not</u> less than 40ha where dwellings are not permitted, and where it is consistent with Clause 6.6.5.2.</li> </ul>
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#### Planning Precinct – MR5 – Lake Muir

##### Description: representing

- The far eastern, 750 – 850mm rainfall, sector of the Shire within the Shannon Basin with low-lying, predominantly internally draining, land surrounding the Muir / Unicup lake system (part of the gazetted Deep River water reserve).
- Areas of predominantly poorly drained flats and low dunes (Unicup soil landscape system) which although capable of supporting productive grazing and plantation uses, are not of State or regional agricultural significance.

##### Planning and Land Management Considerations

- Improvements in catchment management within the Deep River water reserve are aimed at controlling salinity and restoring water quality, which may in turn enhance agricultural potential. Better control of surface runoff to wetlands and reducing groundwater recharge will be of benefit. Tree plantations and agro-frestry can play an important role.
- Precinct is centred around the Unicup and Lake Muir-Byenup lagoon wetland systems that are of significant conservation value. Land use activities in adjacent areas need to be considered in terms of their potential to affect water quality or habitat value.
- Manage development and land use change to conserve the environmental and landscape values.
- Protecting indigenous flora and fauna soil and water quality.
- Long term sustainability of any land use proposals.
- Rural/intensive land use and management.
- Provisions of services and infrastructure.
- Resource protection and management.
- Conserve remnant vegetation.
- Protect and enhance water quality.
- Management on-site impacts and off-site impacts to avoid land use conflicts, ie. All adverse impacts to be contained on-site.

Land Use Categories	Policy Statement	Land Uses	Subdivision and Development Guidelines
<b>Rural Conservation</b>	Protect and enhance the environmental and landscape	<u>Uses generally permitted:</u> <ul style="list-style-type: none"> <li>• Agriculture Extensive</li> <li>• Rural Pursuit</li> </ul>	<ul style="list-style-type: none"> <li>• Generally support a minimum lot size of 40ha.               <ul style="list-style-type: none"> <li>○ Lots should have access to a</li> </ul> </li> </ul>

	<p>values and features of the precinct while allowing agriculture on existing cleared land.</p> <p>Encourage development and use of land in accordance with the environmental sensitivity and bio-diversity of the locality.</p>	<ul style="list-style-type: none"> <li>• Single Dwelling</li> </ul> <p><u>Uses generally requiring some planning discretion:</u></p> <ul style="list-style-type: none"> <li>• Agriculture Intensive</li> <li>• Industry – Rural</li> <li>• Industry – Extensive</li> <li>• Animal husbandry – intensive</li> <li>• Farm workers accommodation/second dwelling</li> <li>• Tourist activities</li> <li>• Tourist accommodation               <ul style="list-style-type: none"> <li>○ Farm stay</li> <li>○ Chalets</li> <li>○ Bed and breakfast</li> <li>○ Etc.</li> </ul> </li> </ul> <p><u>Uses associated with urban/town growth would be assessed on their merits and may require rezoning including:</u></p> <ul style="list-style-type: none"> <li>• Cemeteries;</li> <li>• Rubbish tips</li> <li>• Effluent treatment systems;</li> <li>• Airports/airstrips;</li> <li>• Recreation areas such as speedway, rifle range;</li> <li>• Prisons and institutions;</li> <li>• Certain noxious and heavy industries; and</li> <li>• Urban growth corridors.</li> </ul>	<p>constructed road;</p> <ul style="list-style-type: none"> <li>○ Lots should have access to power;</li> <li>○ Areas of remnant vegetation should not need to be cleared as to facilitate that subdivision.</li> </ul> <ul style="list-style-type: none"> <li>• Subdivision boundaries must be located to avoid any adverse impacts on existing or potential water sources.</li> <li>• Single dwellings to be permitted but require Planning Approval to determine location, access, proximity to surrounding activity and any other matter determined by Council.</li> <li>• Support boundary adjustments where it is consistent with Clause 6.6.5.3.</li> <li>• Support the creation of agricultural trade lots of <u>not</u> less than 40ha where dwelling are not permitted and it is consistent with Clause 6.6.5.2.</li> </ul>
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### Planning Precinct – MR6 – Lower Warren – Shannon

#### Description: representing

- The lower central, 1050 – 1250 mm rainfall, sector of the Shire within the lower portions of the Warren and Shannon River basins around Northcliffe.
- Areas predominantly outside of gazetted water reserves and where water quality of streams remains fresh. (encompassing freehold areas of the Dombakup River Catchment within the Warren Basin, and the Boorara Creek, and the Gardner, Canterbury, and Meerup River catchments within the Shannon Basin).
- Varying areas of undulating terrain with low rises and swampy plains (Northcliffe soil landscape system) interspersed with undulating valley and gravelly ridge terrain (Pimelia Valleys system) supporting mixed agricultural uses, including dairy and beef cattle grazing, horticulture, and hardwood plantations.

#### Planning and Land Management Considerations

- Contains areas of versatile prime agricultural land in a high rainfall zone with some existing horticultural enterprises, as well as areas of lesser capability land where drainage is limited.
- Higher rainfall areas are the location of choice for tree plantation companies for productivity reasons, although the environmental benefits are lesser than in medium and lower rainfall areas.
- Opportunities for mutually beneficial development of tourism and smaller scale intensive agricultural activities need to be considered, particularly in light of decreased employment opportunities resulting from structural changes to the timber industry.
- Contains various important wetland systems including the upper Gardner River wetlands. Land use activities in adjacent areas need to be considered in terms of their potential to affect water quality or habitat value.
- Conserve remnant vegetation.
- Long term sustainability of any land use proposals.
- Rural/intensive land use and management.
- Provision of services and infrastructure.
- Requires Agricultural Impact assessment for rezoning, subdivision or development for beneficial non-agricultural uses in Priority Agriculture.

- Not all areas within Priority Agriculture have a high capability for intensive agriculture.
- In Priority Agriculture areas advise existing and prospective landowners that lawful agricultural practices occur in the area which may produce impacts such as noise, dust, odour, etc. associated with agricultural activity. Methods of advice to be considered include:
  - Advisory roadside signs
  - Notice with Rates advice
  - Notice with Planning Apporval and/or Building Licence
- Resource protection and management.
- Urban growth demands and impacts.
- Conserve remnant vegetation.
- Protect and enhance water quality.
- Manage on-site impacts and off-site impacts to avoid land use conflicts, ie. All adverse impacts to be contained on-site.

Land Use Category	Policy Statement	Land Uses	Subdivision and Development Guidelines
<b>Priority Agriculture</b>	<p>Protect agricultural areas of State/Regional/Local significance by retaining agricultural potential.</p> <p>Prevent the development of uses which are incompatible with the primary use of Agriculture – both intensive and extensive.</p> <p>Maintain and enhance the environmental attributes of the locality including landscape, vegetation, soils and water resources and water course and wetland systems.</p>	<p><u>Uses generally permitted:</u></p> <ul style="list-style-type: none"> <li>• Agriculture Intensive</li> <li>• Agriculture Extensive</li> <li>• Rural Pursuit</li> <li>• Single dwelling</li> </ul> <p><u>Uses generally requiring some planning discretion:</u></p> <ul style="list-style-type: none"> <li>• Animal husbandry – Intensive</li> <li>• Industry – Rural</li> <li>• Industry – Extensive</li> <li>• Farm workers accommodation/second dwelling</li> <li>• Small scale tourist activities and accommodation.</li> </ul>	<ul style="list-style-type: none"> <li>• Generally support a minimum lot size of 80 ha.           <ul style="list-style-type: none"> <li>○ lots should have access to a constructed road;</li> <li>○ lots should have access to power;</li> <li>○ areas of remnant vegetation should not need to be cleared as to facilitate the subdivision.</li> </ul> </li> <li>• Subdivision boundaries must be located to avoid any adverse impacts on existing or potential water sources.</li> <li>• New lots of less than 80ha will not be supported, except where the lot is a minimum of 40ha and it complies with the above requirements for an 80ha lot and all the criteria listed in Clause 6.6.5.1.</li> <li>• Day-visit attractions and activities for tourists will generally be supported.</li> <li>• Overnight tourism accommodation will generally be discouraged and in most cases will not be permitted.</li> <li>• Single dwellings to be permitted but require Planning Approval to determine location, access, proximity to surrounding activity and any other matter determined by Council.</li> <li>• Support boundary adjustments where it is consistent with Clause 6.6.5.3.</li> <li>• Potential impacts of non-agricultural uses to be contained on site and separated from adjacent land use/activities.</li> </ul>
<b>General Agriculture</b>	Maintain agricultural land use and activity while providing for environmental	<p><u>Uses generally permitted:</u></p> <ul style="list-style-type: none"> <li>• Agriculture Extensive</li> <li>• Rural Pursuit</li> <li>• Single Dwelling</li> </ul>	<ul style="list-style-type: none"> <li>• Generally support a minimum lot size of 80ha.           <ul style="list-style-type: none"> <li>○ Lots should have access to a constructed road;</li> </ul> </li> </ul>



	repair, diversification of economic opportunities and the community's land use requirements.	<p><u>Uses generally requiring some planning discretion:</u></p> <ul style="list-style-type: none"> <li>• Agriculture Intensive</li> <li>• Industry – Rural</li> <li>• Industry Extensive</li> <li>• Animal husbandry – Intensive</li> <li>• Farm workers accommodation/second dwelling</li> <li>• Tourist activities</li> <li>• Tourist accommodation               <ul style="list-style-type: none"> <li>○ Farm stay</li> <li>○ Chalets</li> <li>○ Bed and breakfast</li> <li>○ Etc.</li> </ul> </li> </ul> <p><u>Uses associated with urban/town growth would be assessed on their merits and may require rezoning including:</u></p> <ul style="list-style-type: none"> <li>• Cemeteries;</li> <li>• Rubbish tips;</li> <li>• Effluent treatment systems;</li> <li>• Airports/airstrips;</li> <li>• Recreation areas such as speedway, rifle range;</li> <li>• Prisons and institutions;</li> <li>• Certain noxious and heavy industries; and</li> <li>• Urban growth corridors.</li> </ul>	<ul style="list-style-type: none"> <li>○ Lots should have access to power;</li> <li>○ Areas of remnant vegetation should not need to be cleared as to facilitate the subdivision.</li> <li>• Subdivision boundaries must be located to avoid any adverse impacts on existing or potential water sources.</li> <li>• New lots of less than 80ha will not be supported, except where the lot is a minimum of 40ha and it complies with the above requirements for an 80ha lot and all the criteria listed in Clause 6.6.5.1.</li> <li>• Single dwellings to be permitted but require Planning Approval to determine location, access, proximity to surrounding activity and any other matter determined by Council.</li> <li>• Support boundary adjustments where it is consistent with Clause 6.6.5.3.</li> <li>• Support the creation of agricultural trade lots of <u>not</u> less than 40ha where dwellings are not permitted, and where it is consistent with Clause 6.6.5.2.</li> </ul>
<b>Rural Small-holdings</b>	Provide for limited subdivision opportunities which are consistent with the existing variety of lot sizes and land use activities where full-time or part-time income may be generated from agriculture and rural pursuits.	<p><u>Uses generally permitted:</u></p> <ul style="list-style-type: none"> <li>• Agriculture – Intensive</li> <li>• Agriculture – Extensive</li> <li>• Rural Pursuit</li> <li>• Single Dwelling</li> </ul> <p><u>Uses generally requiring some planning discretion:</u></p> <ul style="list-style-type: none"> <li>• Animal husbandry – intensive</li> <li>• Industry – Rural</li> <li>• Industry – Extensive</li> <li>• Farm workers accommodation/second dwelling</li> <li>• Tourist activity</li> <li>• Tourist Accommodation.</li> </ul>	<p>Support a subdivision where:</p> <ul style="list-style-type: none"> <li>• A minimum of 20ha of land is available for agriculture.</li> <li>• Surface water or an alternative water supply exists or can be created.</li> <li>• No clearing of remnant vegetation is required.</li> <li>• The new lot has legal frontage/connection to a constructed road and power.</li> </ul>

### Planning Precinct – MR7 – Frankland Deep

#### Description: representing

- The south-western, 115 – 1250 mm rainfall, sector of the Shire within the lower portions of the Shannon and Frankland River basins around Walpole.
- Areas of hilly terrain and swampy flats (Walpole Hills soil landscape system) and undulating terrain with low rises and swampy plains (Northcliffe system) which although capable of supporting productive grazing and plantation uses, are not of State or regional agricultural significance. Also small portions of poorly drained coastal plain with scattered rocky rises (Broke system).

#### Planning and Land Management Considerations

- Precinct contains areas of tourism interest due in part to the proximity to coastal and inlet environments, national parks, and the visually attractive landscape formed by a predominantly forest setting.
- Opportunities for mutually beneficial development of tourism and agriculture need to be considered, particularly in

light of decreased employment opportunities resulting from structural changes to the timber industry.

- A Water Source Protection plan is being developed for the Walpole River Catchment which may limit intensive agricultural land uses in some areas and generally require adoption of best management practices to protect the water resource. A Special Control Area is needed here to address water resource protection. (See Figure 26)
- Higher rainfall areas are the location of choice for tree plantation companies for productivity reasons, although the environmental benefits are lesser than in medium and lower rainfall areas.
- Contains various important wetland systems including the Collier Creek wetlands, Walpole River floodplain and Walpole Inlet. Land use activities in adjacent areas need to be considered in terms of their potential to affect water quality or habitat value.
- Long term sustainability of any land use proposals.
- Rural/intensive land use and management.
- Provision of services and infrastructure.
- Not all areas within Priority Agriculture have a high capability for intensive agriculture.
- Need to advise existing and prospective landowners that lawful agricultural practices occur in the area which may produce impacts such as noise, dust, odour, etc. associated with agricultural activity. Methods of advice to be considered include:
  - Advisory roadside signs
  - Notice with Rates advice
  - Notice with Planning Approval and/or Building Licence
- Resource protection and management.
- Conserve remnant vegetation.
- Protect and enhance water quality.
- Manage on-site impacts and off-site impacts to avoid land use conflicts, e. all adverse impacts to be contained on-site.

Land use category	Policy Statement	Land Uses	Subdivision and Development Guidelines
<b>General Agriculture</b>	Maintain agricultural land use and activity while providing for environmental repair, diversification of economic opportunities and the community's land use requirements.	<p><u>Uses generally permitted:</u></p> <ul style="list-style-type: none"> <li>• Agriculture – Extensive</li> <li>• Rural Pursuit</li> <li>• Single Dwelling</li> </ul> <p><u>Uses generally requiring some planning discretion:</u></p> <ul style="list-style-type: none"> <li>• Agriculture – intensive</li> <li>• Industry – Rural</li> <li>• Industry – Extensive</li> <li>• Animal husbandry – intensive</li> <li>• Farm workers accommodation/second dwelling</li> <li>• Tourist activities</li> <li>• Tourist accommodation               <ul style="list-style-type: none"> <li>○ Farm stay</li> <li>○ Chalets</li> <li>○ Bed and breakfast</li> <li>○ Etc.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Generally support a minimum lot size of 80ha.               <ul style="list-style-type: none"> <li>○ lots should have access to a constructed road;</li> <li>○ lots should have access to power;</li> <li>○ areas of remnant vegetation should not need to be cleared as to facilitate the subdivision.</li> </ul> </li> <li>• Subdivision boundaries must be located to avoid any adverse impacts on existing or potential water sources.</li> <li>• New lots of less than 80ha will not be supported, except where the lot is a minimum of 40ha and it complies with the above requirements for an 80ha lot and all the criteria listed in Clause 6.6.5.1.</li> <li>• Single dwellings to be permitted but require Planning Approval to determine location, access, proximity to surrounding activity and any other matter determined by Council.</li> <li>• Support boundary adjustments where it is consistent with Clause 6.6.5.3.</li> <li>• Support the creation of agricultural trade lots of <u>not</u> less than 40ha where dwellings are not permitted, and where it is consistent with Clause 6.6.5.2.</li> <li>• Compatibility with Priority 2 Water</li> </ul>

### Planning Precinct – MR8 D'Entrecasteaux

**Description:** representing

- The southern coastal fringe and immediate hinterlands encompassed within the D'Entrecasteaux National park and within the greater than 1200 mm rainfall sector of the Shire.
- Areas of coastal dunes and rocky headlands (Nullakai soil landscape system) and poorly drained coastal plain with scattered rocky rises (Broke system).
- Only small enclaves of freehold or leasehold land within National Park.

**Planning and Land Management Considerations**

- Precinct contains minimal areas of freehold land and planning considerations are necessarily dominated by the conservation management objectives of the surrounding National Park with fore control and prevention being a key issue.
- Windy Harbour represents the sole point of sealed road access to the coast within the precinct and one of a very limited number between Augusta and Denmark. It is therefore of significant importance to fishing, tourism and recreation interests.
- Precinct contains numerous wetland systems of conservation significance which require consideration and environmental impacts, even from recreational uses. These include Nornalup and Broke Inlets, the Gardner and Donnelly River Estuaries, the lower Shannon River wetlands, and the Nornalup-lwer Deep wetlands.
- Large scale tourist proposals, multiple occupancy, cluster farming, etc. would usually require rezoning.
- Condition and suitability of access.
- Compatibility with adjacent National parks.
- Fire Management.
- Visual impact.
- Servicing.
- Impact on and access to the coast.
- Environmental; impact and management.
- Land capability.

Land Use Category	Policy Statement	Land Uses	Subdivision and Development Guidelines
<b>Rural Conservation</b>	<p>Protect and enhance the environmental and landscape values and features of the precinct while allowing agriculture on existing cleared land.</p> <p>Encourage development and use of land in accordance with the environmental sensitivity and bio-diversity of the locality.</p>	<p><u>Uses generally permitted:</u></p> <ul style="list-style-type: none"> <li>• Single Dwelling</li> </ul> <p><u>Uses generally requiring some planning discretion:</u></p> <ul style="list-style-type: none"> <li>• Agriculture – Extensive</li> <li>• Agriculture – Intensive</li> <li>• Rural Pursuit</li> <li>• Small-scale tourist activities and accommodation</li> <li>• Additional Dwellings</li> </ul>	<ul style="list-style-type: none"> <li>• No minimum lot size</li> <li>• Subdivision would be assessed on its merits with respect to its consistency with the planning and land management considerations and purpose of this precinct.</li> </ul>

### Planning Precinct – MR9 Calm Estate

**Description:** representing

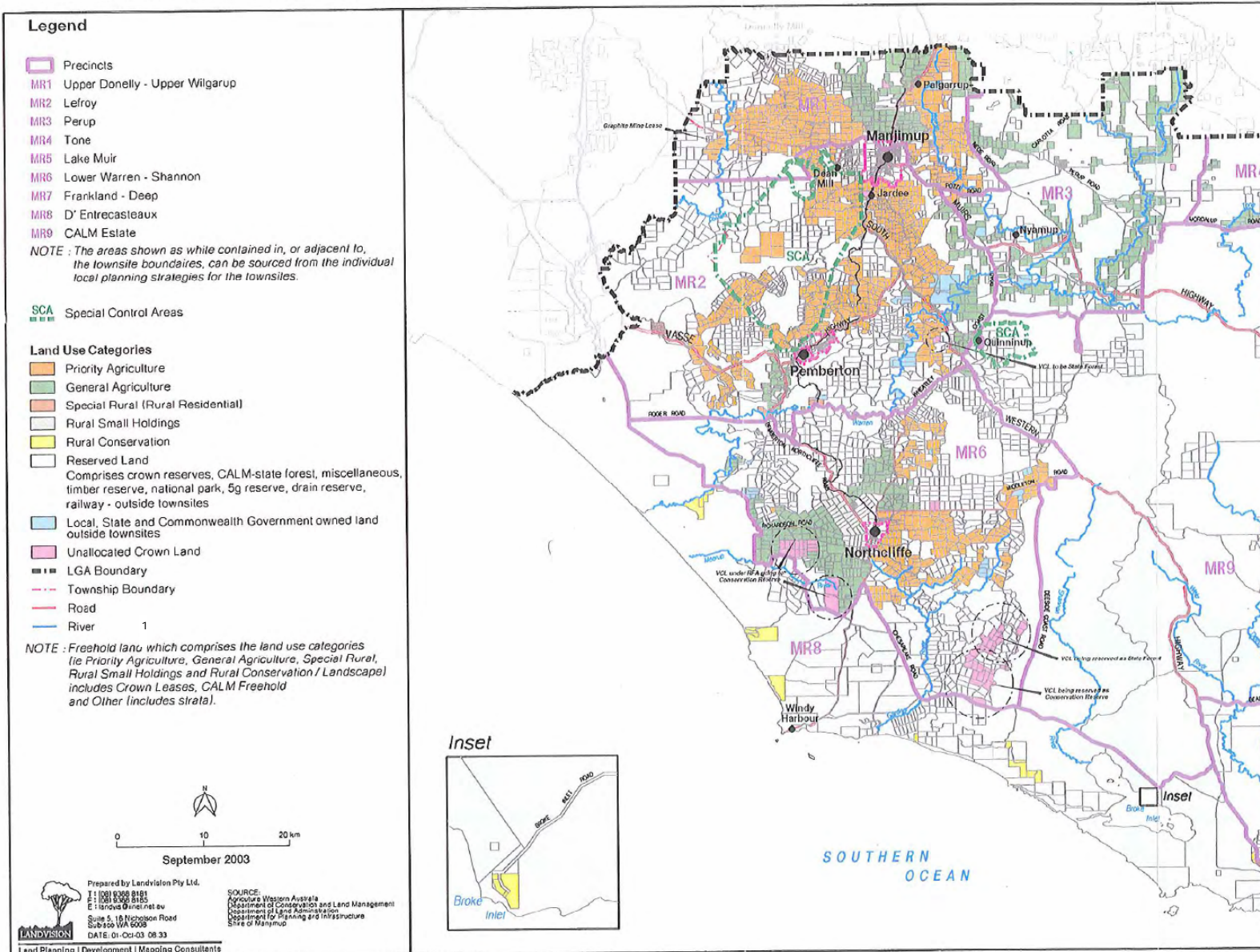
- The forested central and eastern portions of the Shire that are managed as part of the CALM estate and contains no areas of freehold land.

The major part of the Shannon River basin (including the gazetted Deep River water reserve) but also forested portions of the Warren and Frankland River basins encompassing a variety of soil landscape and natural vegetation systems.

**Planning and Land Management Considerations**

- None directly applicable to the Local Planning Strategy

<b>Land Use Category</b>	<b>Policy Statement</b>	<b>Land Uses</b>	<b>Subdivision and Development Guidelines</b>
<b>Reserves</b> – may include: <ul style="list-style-type: none"> <li>• State Forest</li> <li>• National Parks</li> <li>• Nature Reserves and some minor reserve categories</li> </ul>		<u>Uses generally permitted:</u>  N/A  <u>Uses generally requiring some planning discretion:</u>  N/A	N/A

**Figure 27: Rural Planning Precincts and Generalised Land Use Categories**

## 6.6.6 Additional Requirements

### 6.6.6.1 To achieve better integration of local government planning and natural resource management

#### Co-operation with Community NRM groups

It is recognised that the use of Council's regulatory powers in controlling certain land management activities or farming practices is constrained by a combination of public expectations, lack of resources and / or lack of expertise. It is recommended, therefore, that Council establish a formal process of consultation with representatives of community-based NRM groups with the objective of developing a co-operative, non-regulatory approach towards achieving better land management within the Shire.

This could take the initial form of a series of professionally facilitated workshops to explore ways in which Council and community groups can contribute towards common objectives. It could for example lead to the increased use of Council resources and equipment to plan and implement land care works, and to the development and promulgation of appropriate 'codes of practice' or 'best management guidelines' for specific local issues.

#### Using Soil Landscape Mapping

The Department of Agriculture's mapping of soil landscape subsystems provides important information on the nature of the land and its land use capability across the Shire. Information summarised in the Local Planning Strategy helps identify areas with potential for various land uses and also serves to highlight areas that may be susceptible to various forms of land degradation.

At a subsystems level however, with mapping commonly at 1:100,000 scale, the soil and landform conditions, and hence the capability interpretations, are still quite variable within any map unit. In order to provide a more appropriately detailed base upon which plan or assess a development proposal in an existing rural area, it is recommended that Council require/encourage the proponents to use, and then build upon, the existing level of soils/land capability information by identifying and mapping land units on the subject property.

As a minimum, the proponent should be required to identify where the Department's subsystems occur on the subject land and advise Council on how any previously identified land use limitations (such as erosion risk, poor drainage etc) will be addressed in relation to the specific development proposal. In most cases, however, it is expected that mitigation or prevention of land degradation will occur through the design of a development being responsive to the site's soil and landform conditions. This would be assisted through the identification and mapping of land units at an appropriately detailed scale.

### 6.6.6.2 Aboriginal Heritage

There is no definitive position on whether the creation of a Town Planning Scheme affects Native Title. However, it is clear that planning approval / development approval should include a reference to the potential impact on areas or sites of Aboriginal significance. To this effect it is proposed that such approvals should incorporate the following:

*"The proponent is advised that, in addition to this Planning Approval, the consent of the Minister for Indigenous Affairs under the 'Aboriginal Heritage Act 1972' may be required. This Planning Approval therefore does not constitute consent under that Act. The Shire of Manjimup does not take responsibility for the assessment of the subject site of the development in terms of compliance with that Act, and thus the proponent is advised to pursue independent enquiries with the Department of Indigenous Affairs in order to ensure compliance with the 'Aboriginal Heritage Act 1972'."*

An examination of the Register of Aboriginal Sites indicates areas of significance exist within the Shire and include "Artefact", "Burial" and "Restricted" Sites, manmade structures, quarries and "Mythological" sites, mostly in coastal dunes and coastal areas along creeks and near wetlands, springs and lakes.

It will be the applicant's responsibility to determine potential impacts on these sites and areas.

## 7.0 POLICY DIRECTIONS

Council utilises a Policy Manual (currently under review and containing upwards of 40 Local Planning Policies), which supports TPS 2 and provides development guidance for proponents, Council officers and Councillors themselves in the process of application and decision-making.

The Policy Manual will be referred to in the new TPS 4 and will be subject to a planning review process involving local consultation whenever changes / additions may be required. All and any amendments to existing Local Planning Policies - or newly proposed LPPs - whether as a direct result of the "gazetted" of this LPS or not, will require public advertisement and opportunity for comment prior to adoption by Council.

The current Local Planning Policies (with suggested bases for review) are:

- LPP 1 Planning Approval - zones to be updated to reflect new and renamed zones;
- LPP2 Application for Planning Approval;
- LPP3 Advertising for Public Comment - zones to be updated to reflect new and renamed zones;
- LPP4 Determination of Applications;
- LPP5 In Principle Decisions;
- LPP6 Time Limited Conditions;
- LPP7 Delegated Authority Approvals;
- LPP8 Setbacks and Plot Ratio - change only where zones change and include new zones (eg. Town Centre);
- LPP9 Landscaping - as above;
- LPP10 Loading and Unloading Vehicles - as above;
- LPP11 Outdoor Storage of Materials - as above;
- LPP12 Factory Unit Buildings;
- LPP13 Off Street Parking;
- LPP14 Cash-in-lieu of Parking;
- LPP15 Tourism Development - change rezoning requirements in the Rural zone so that all holiday accommodation would be subject to rezoning;
- LPP16 Mining;
- LPP17 Feedlots;
- LPP18 Outbuildings;
- LPP19 Fire Protection - update to reflect the latest State government policy Requirements and to require introduction of minimum building standards to include the Australian Standards for housing in bush fire prone areas to be applied in areas designated by the local government;
- LPP20 Additional Dwellings on Rural Zoned Lots - update to reflect new and renamed zones;
- LPP21 Ancillary Accommodation for Aged/Dependent Persons - no change other than to change zone names to reflect new or renamed zones;
- LPP22 Townscape Studies - list studies and their area of relevance;
- LPP23 Building materials in Special Rural/Special Residential zones - change to reflect new or renamed zones and review areas to which the policy applies;
- LPP24 Home Occupation - change to reflect new scheme title and the zones to which it applies as it could apply to Special Residential, Rural-Residential and Rural Small Holdings zones;
- LPP25 Sawmills - consider buffer requirements and update name of potential referral agencies;
- LPP26 Clearing Controls - rename zones to which the policy applies and make reference to the need to apply any special controls included in development and management controls in individual zones/estates;
- LPP27 Fencing Materials;
- LPP28 Paper Pulp Mills;
- LPP29 Local Road Upgrading Requirements - Rural-Residential Policy Areas - include Rural Small-Holdings;
- LPP30 Entry to Premises - No change other than refer to appropriate clause in new TPS;
- LPP31 Submissions on Development Applications and Scheme Amendments;
- LPP32 Subdivisions;
- LPP33 Rural Subdivision - change to reflect new and renamed zones and the amended subdivision criteria and incorporate Principle Issues and Strategies of the "Warren-Blackwood Rural Strategy";
- LPP34 Viticultural Industry - update all figures and background information and bring into line with zoning and development requirements in LPS.



- LPP35 Industrial Buffers - amend to be consistent with draft State Industry Buffers policy;
- LPP36 Aquaculture - Marron Licenses - amend to reflect new or re-named zones;
- LPP37 Town Planning Scheme Enforcement;
- LPP38 Extractive Industry - change to reflect new Scheme title;
- LPP39 Alfresco Dining; and
- LPP40 Tree Plantations - amend to reflect new interim policy in the draft LPS.

## 8.0 IMPLEMENTATION MONITORING AND REVIEW

The *draft* LPS, after endorsement by the Western Australian Planning Commission, was made available for comment from the community, interest groups and government agencies. A *final* LPS was modified where necessary (after consideration of all public submissions and presented for adoption to Council as recommendations) and adopted in toto as a Council policy once endorsed by the WAPC. Council will then prepare Town Planning Scheme No. 4 (TPS 4) to reflect the strategic direction and community vision detailed in the final LPS documentation.

TPS 4 will be required to be consistent with the Model Scheme Text and contain provisions and zones which represent the preferred land use categories and townsite strategies, land management and development considerations detailed in the LPS.

The LPS should be reviewed at least every 5 - 7 years to ensure it responds to:

- experience gained through the application of the LPS and operation of the TPS;
- changing social, economic and environmental needs and aspirations;
- new directions and opportunities in such areas as technology, agriculture, forestry, tourism and recreation.

The LPS must remain relevant as it should assist local and State government, and the community, in decision-making by providing certainty and understanding of the planning context which influences decisions.

Any changes or additions to the LPS should be subject to community consultation and WAPC endorsement.

## 9.0 DEFINITIONS

**Agriculture:** means the use of land, for agriculture-extensive, agriculture-intensive and animal husbandry-intensive.

"**agriculture - extensive**" means premises used for the raising of stock or crops but does not include agriculture -intensive or animal husbandry -intensive;

"**agriculture - intensive**" means premises used for trade or commercial purposes, including outbuildings and earthworks, associated with the following:

- a) the production of grapes, vegetables, flowers, exotic or native plants, or fruit or nuts;
- b) the establishment and operation of plant or fruit nurseries;
- c) the development of land for irrigated fodder production or irrigated pasture (including turf farms); or
- d) aquaculture

"**animal husbandry - intensive**" means premises used for keeping, rearing or fattening of pigs, poultry (for either egg or meat production), rabbits (for either meat or fur production) and other livestock in feedlots.

**Agricultural Trade Lot:** means a rural lot created for the purpose of agricultural production or for trade and amalgamation with other rural lots. Dwellings and other residential uses are generally not permitted on these lots.

**Agroforestry:** means land used commercially for tree production and agriculture where trees are planted in blocks of more than one hectare.

**Amenity:** means all those factors which combine to form the character of an area and shall include the present and likely future amenity.

**Basic raw materials:** means naturally occurring materials suitable for construction and agriculture purposes, including but not necessarily restricted to sand, limesand, limestone, clay, gravel, basalt and hard rock.

**Biodiversity:** means the variety of all, life forms, that is all plants, animals, and micro organisms in the environment, the genes they contain and the ecosystem of which they are a part.

**Buffer area:** means a buffer is established to separate one use from other uses which may be incompatible (ie. the impacts may be unacceptable). The distance from the use creating the impacts to achieve acceptable standards to other uses is the buffer distance. The area within that buffer distance is called the buffer area.

**Clustered Rural-Residential Development:** Means a rural-residential subdivision and development that encourages a clustering or grouping of dwellings into enclaves, surrounded by larger lots, sometimes managed as common property. This approach offers an alternative to traditional dispersed rural-residential subdivision, is more efficient in use of rural land resources, has a design and focus more responsive to the natural environment and is within easy walking or cycling distance of a "consolidated urban settlement" for provision of community facilities. Although there may be linkages between clusters, they should be discreet identifiable enclaves separated by rural or conservation uses. Common land may be utilised for agriculture while rural-residential remains the main focus; and such development should generally be located near towns where social, community and economic facilities are available.

**Conservation:** means, in relation to any place, the management of that place in a manner that will

- a) enable the cultural heritage significance of that place to be retained;
- b) yield the greatest sustainable benefit for the present community without diminishing the cultural significance of that place, and may include the preservation, stabilisation, protection, restoration, reconstruction, adaptation, and maintenance of that place in accordance with relevant professional standards, and the provision of an appropriate visual setting.

**Conservation Covenant:** means an agreement between a landowner and a government authority which seeks to protect and enhance the natural, cultural and/or scientific values of the land. The covenants are designed to be permanent although they can, if desired, be specified for a particular period and may also be extinguished under some circumstances.

**Cottage Industry:** means a business, professional service, trade or light industry producing arts and craft goods which cannot be carried out under the provisions relating to a home occupation. (This conflicts with some current Council guidelines).

**Degradation:** means any decline in the quality of natural resources: commonly caused by human activity.

**Development:** means any change to land use, including housing, any demolition, erection, construction, alteration of or addition to any building or structure on the land and any modifications to landform, clearing of vegetation, including the felling of trees, excavation or other works.

**Extractive Industry:** means an industry which involves the extraction, quarrying or removal of sand, gravel, clay, hard rock, stone or similar materials from the land and includes the treatment and storage of those materials, or the manufacture of products from those materials on, or adjacent to, the land from- which the materials are extracted, but does not include mining.

**Land capability:** means the ability of land to accept a type and intensity of use permanently, or for specified periods under specific management, without permanent damage. It will be based on an assessment of biophysical land resources information as currently available.

**Land suitability:** means the potential uses of the land based upon the consideration of physical, technical, social and economic factors. Full suitability evaluation involves a multi disciplinary approach to land evaluation.

**Landscape:** means the appearance and visual expression of an area of land referring to the combination of elements such as landform, vegetation, waterform and all types of human land use.

**Landscape character:** means a distinct pattern or combination of elements in an area, based on an amalgamation of landform, vegetation, waterform and land use which makes it identifiable or unique.

**Landscape feature:** means a dominant, easily defined or significant characteristic within a landscape.

**Landscape significance:** refers to the amenity and quality of an area in relation to its ecological aesthetic, social or historic features which is highly valued by the community for present and future generations.

**Landscape value:** derived from a process of valuation, landscape value means the particular point of view of an individual or the common point of view of the community in regard to inherent qualities evident in a landscape.

**Low-impact Development:** means the use and development of land in such a manner that does not detract from the rural and natural amenity of the locality, and includes the following criteria:

- a) development being located so as to avoid ridge lines, escarpments or visually exposed sites and situated where screening vegetation or land form can be utilised;
- b) use and development being sensitively located and designed to minimise impact on vegetation, water courses, soil quality and existing land uses;
- c) development being of a scale and nature so as to be self-sustaining on the lot, or demonstrating the ability to provide servicing without significant modifications to existing infrastructure;
- d) development that by the nature of its scale, design, colours, materials, landscaping and use, has minimal impact on its site and surrounding areas; and
- e) where the land use and any development has a minimal off-site consequence.

**Nature-based tourism (or eco tourism):** is a broad term that includes a range of tourism experiences, including adventure tourism, ecotourism, and aspects of cultural and rural tourism e.g. farm stay. Aboriginal culture is included as part of nature-based tourism because of its inextricable link with the natural environment.

**Remnant vegetation:** most closely resembles the natural state of vegetation for a given area; most similar to identifiably remnant areas of similar vegetation types; understorey intact; of the greatest structural diversity/complexity in comparison to disturbed vegetation in the region; minimal disturbance by agents of human activity.

**Reserve:** may be used in two distinct ways:

- a) Land classified in Town Planning Schemes for public purposes;
- b) Areas of Crown Land reserved for public purposes as determined by the Land Act, 1933 and the Land Administration Act, 1997.

**Rural industry:** means an industry handling treating, processing or packing primary products grown, reared or produced in the locality and a workshop servicing plant of equipment used for rural purposes.

**Rural living:** means land used for residential and rural purposes, either rural residential or rural smallholdings, which

provides an alternative to conventional residential development.

**Rural pursuit:** means any premises used for:

- a) the rearing or agistment of animals;
- b) the stabling, agistment or training of horses;
- c) the growing of trees, plants, shrubs or flowers for replanting in domestic, commercial or industrial gardens; or
- d) the sale of produce grown solely on the lot, but does not include agriculture - extensive or agriculture - intensive.

**Rural-Residential:** is a general term, which may include rural living and rural smallholdings, for 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.

**Rural smallholdings:** means land used for minor rural pursuits, hobby farm and alternative residential lifestyle purposes where part-time income from cottage industries, home occupation and use of the land for agriculture may be derived and which seeks to preserve and enhance landscape quality environmental and conservation attributes. Generally lot sizes range between 2 ha and 20 ha.

**Settlement:** refers to all forms of human habitation - either rural or urban:

- Urban settlement occurs in central places where goods and services are exchanged.
- Rural settlement occurs where the predominant activity of most inhabitants is directly related to the use and management of natural resources and may be either dispersed or nodal.

**Strategic Planning:** means the provision and coordination of long-term land use planning and development.

Subdivision – means division of a legal lot into two or more lots, which can be disposed of separately.

**Sustainable:** means able to be carried out without damaging the long-term health and integrity of natural and cultural environments (National Ecotourism Strategy).

**Sustainable Agriculture:** means the use of farming practices and systems which maintain or enhance:

- the economic viability of agricultural production;
- the natural resource base; and
- natural ecosystems which are influenced by agricultural activities.

Farming practices and systems may include the use of "best practice" (where available), and may also involve a diversification of agricultural pursuits. Standard farming practice and agricultural land use which may be components of "sustainable agriculture" can include one or more of the following:

- grazing for beef and sheep production;
- dairy farming;
- horticulture;
- viticulture;
- floriculture;
- aquaculture;
- agro-forestry and farm forestry including tree plantings for wind breaks and shelter belts and tree plantations.

**Town Planning Scheme:** means a set of provisions which identifies the way land in the Scheme Area is to be used and developed. It usually comprises Map(s), Text and an explanatory Report.

**Zone:** means a portion of the Scheme Area shown on the map by distinctive colouring patterns, symbols, hatching or edging for the purpose of indicating the restrictions imposed by the Scheme on the use and development of land, but *does not include* a reserve or special control area.

Note: These definitions of terms used in the issues paper have been adapted from:

- "Avon Arc Sub-Regional Strategy" WAPC, January 2001.
- "Leeuwin-Naturaliste Ridge Statement of Planning Policy" WAPC, September 1998.
- "Planning Schemes Manual", Ministry for Planning, August 2000.
- "Town Planning Scheme No. 2" Shire of Manjimup.

**Acronyms (Abbreviations)**

DAFF	Department of Agriculture, Forests and Fisheries
DPI	Department for Planning and Infrastructure
CALM	Department of Conservation and Land Management
DEP	Department of Environmental Protection
EPA	Environmental Protection Authority
WRC	Water and Rivers Commission
LPS	Local Planning Strategy
LRS	Local Rural Strategy
WAPC	Western Australian Planning Commission
WC	Water Corporation
DEWCAP	Department of Environmental and Water Catchment Protection

**APPENDIX A  
KEY 'CODES OF PRACTICE' AND  
ENVIRONMENTAL PLANNING DOCUMENTS**

**Environmental Planning – General**

*Policies, Guidelines and Criteria for EIA Guidelines for Environment and Planning Preliminary Policy No 33*  
Environmental Protection Authority. August 1997

**Water Resource Protection (Public Drinking Water) –General**

*Land Use Compatibility in Public Drinking Water Source Areas* (Water and Rivers Commission 2000 Water Quality Protection Note).

**Horticulture**

*Code of Practice for Environmental Sustainable Vegetable and Potato Production* -Water and Rivers Commission (in production).

*Preventing Erosion and Soil Structure Decline - a soil management practices guide for horticultural farmers in the South West high rainfall hills* - Agriculture Western Australia (Miscellaneous Publication 23/97 - Rose 1998).

*Planning To Grow Vegetables Commercially*. Agriculture Western Australia. (Bulletin 4350 - Burt and Gartrell 1998).

*Environmental Guidelines for Horticulturalists in the Lower Great Southern* -Agriculture Western Australia (Miscellaneous Publication No. 11/96 - Prout and McFarlane, 1996).

*Code of Practice for Vegetable Production on the Swan Coastal Plain* - Agriculture Western Australia (Lantzke and Galati 1996).

*Environmental Code of Practice for Market Gardens on the Swan Coastal Plain* Department of Environmental Protection (undated draft).

*Environmental Code of Practice for Vineyards* Department of Environmental Protection (draft 1996).

*Environmental Management Guidelines for Vineyards* - Water and Rivers Commission Draft (2001).

*Wineries in Public Drinking Water Source Areas* (Water and Rivers Commission 2001 Water Quality Protection Note).

*Pesticide Use in Public Drinking Water Source Areas* - Statewide Policy Number 2 (Water and Rivers Commission 2000).

**Animal Industries**

*Guidelines for the Environmental Management of Beef Cattle Feedlots in Western Australia - Draft* (Agriculture Western Australia, Department of Environmental Protection, Water and Rivers Commission, Health Department of Western Australia and the Western Australian Lot Feeder's Association 2000).

*Environmental Management for Animal-based Industries - Dairy Farm Effluent* -Agriculture Western Australia (1998) (Bulletin 4336).

*Environmental Guidelines for New and Existing Piggeries*. - Agriculture Western Australia 2000 (Bulletin 4416).

*Environmental Management Guidelines for Animal Based Industries - Piggeries*. Agriculture Western Australia (Ryan and Payne 1989)

*Animal Industry Wastewater Disposal Ponds* (Water and Rivers Commission 1998 Water Quality Protection Note).

*Draft Environmental Code of Practice for the Poultry Industry* (Department of Environmental Protection 1998).



**Aquaculture**

*Aquaculture Projects* (Water and Rivers Commission 1998 Water Quality Protection Note).

**Tree Plantations**

*Codes of Practice for Timber Plantations in Western Australia* - Draft (December 2000).