PART 1

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LOCAL PLANNING STRATEGY

FOR THE
NARROGIN, PINGELLY AND WICKEPIN AREA

PREPARED FOR THE
SHIRE OF PINGELLY

MAY 2004
(AMENDED JUNE 2007)

Endorsed by the Western Australian Planning Commission
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INTRODUCTION

BACKGROUND

1. The Strategy Area comprises the Town of Narrogin and the Shires of Narrogin, Wickepin, Pingelly and Cuballing. It is within the Central South Sub Region of the Wheatbelt Region. Statistically there has been no comprehensive review or analysis of the sub region since 1988. Although the Shire of Cuballing forms part of the strategy area as they have prepared their own Local Planning Strategy, this local planning strategy applies to the remaining local authorities only.

2. Physically the Strategy Area is at the divide between the Avon, Murray and Blackwood catchments. This has resulted in the creation of statistical divisions by AGWA, the ABS and others, which need to be disaggregated, to enable the background data for the Strategy Area to be assessed and monitored.

3. The Strategy Area is at the crossroads between the South West, Great Southern and the Central Wheatbelt and between Perth and the South West. Though Narrogin is only 100 km from Armadale or 150 km to the coast in a direct line, public perception is that the area is remote and "off the beaten track". The regions accessibility and proximity to urban centres needs to be promoted and better links to the Peel Region needs to be investigated. A regional identity needs to be established.

4. In 2000 there was an estimated 72,596 people living in the Wheatbelt Region which was 3.9% of the State's population and 14.1% of regional Western Australia's population. The Central South Sub Region comprises 28% of the Wheatbelt Region and contains approximately 25% of the Wheatbelt population. The 2001 population for the Central South Sub Region was 18 737 compared to 19 829 in 1996 and 22 870 in 1981. The population is spread across 21 towns and several smaller localities. (See Table 4).

   The western portion of the Central South Region forms the Hotham Statistical Subdivision. It has approximately three times the population of the eastern portion or Lakes Statistical Division.

   The 2001 population for the Strategy Area totals 8165 compared to 8287 in 1996 and 9070 in 1981. 83% of the population lives in the towns of the Strategy Area.

5. In assessing future population growth for the Strategy Area, the WAPC forecasts indicate that the rural areas are likely to remain at a constant and static level of population while the Towns of Narrogin, Pingelly, Wickepin and Cuballing have the potential to increase at a gradual rate. (See Table 4)

   The current population projections prepared by the WAPC show a steady increase in the Wheatbelt's population over the next 30 years which is estimated to reach 118,000 with the major growth areas being the local authority areas adjoining the Perth Metropolitan Region. If the Central South Sub-Region were to maintain its proportion of population growth, then the sub region population would grow to 29,000 over the 30 year period with the proportion which comprises the Strategy Area growing to 13,300, an increase of just over 5000 persons.

6. Agricultural production in the Strategy Area has increased from $77.5 million in 1983 to $115.3 million in 1999. The major contributors in 1999 were wheat ($37m), wool ($23m), sheep sales ($12m), hay and pasture ($7.7m), hay crops ($6.6m), pig sales ($6.4m), oats ($6.1m) and barley ($5.3m). New crops introduced since 1983 or minor products in 1983 where there are significant increases include lupins (all LGA's), canola (all LGA's), chick peas (Pingelly), triticale (Pingelly) and nurseries (Narrogin and Wickepin). While there has been steady, and in some cases, significant increases in the major produce of wheat, sheep sales, hay and pasture, hay crops and pig sales and more modest increases in wool, cattle sales and barley, there have been decreases in oats, poultry, eggs and milk (see Tables 6 & 7).

   Employment in the agriculture sector comprises 27% of the rural population in the Strategy Area.

7. In the Central South Sub Region in 1986 there were 58 manufacturing establishments employing 235 people (WDC, 1989). This represented 2.4% of the workforce significantly lower than the States' then manufacturing employment of 11.3%.

   In Narrogin in 1986 there were 16 manufacturing establishments employing 104 persons, 2 in Pingelly, 5 in Cuballing and 1 in Wickepin. Those firms manufacturing wood products are located in proximity to the Dryandra Forest.

8. The majority of dwelling approvals in the Wheatbelt Region are in the local authorities adjoining the metropolitan region. Building activity in the Strategy Area for 1997-2001 is predominantly in the Town of Narrogin. (See Table 9)

9. In 1987 there were 149 wholesale trade establishments and 371 trade outlets in the Central South Sub Region. This sector employed 1,205 persons making it the second largest employer in the region. Retail establishments in the Town of Narrogin numbered 85 with a further 3 in the Shire of Narrogin, 13 in the Shire of Wickepin and 21 in the Shire of Pingelly.

   In 2002, commercial establishments in the Town of Narrogin had increased to 192 including retail, service industry, other commercial and general industry.

10. The Dryandra Woodlands is one of the Central South's three major tourist attractions, attracting 30,000 visitors/year compared with 66,000/year to Wave Rock at Hyden.

    There are few other physical tourist attractions in the Strategy Area. However there is the potential for the area to attract visitors through special events utilising its magnificent sporting facilities and taking advantage of the climatic and seasonal factors.

    The Greater Dryandra and Central South Tourism State of the Industry report, January 2003 (WDC, 2003) proposes a restructuring of tourist services with a parent Dryandra Visitor Centre in Narrogin with satellite information centres at Cuballing, Pingelly, Wandering and Wickepin.

11. All the Shires and major towns within the Strategy Area are serviced with potable water from the Great Southern Towns Water Supply Scheme.

12. The Towns of Narrogin and Pingelly each have a wastewater scheme operated by the Water Corporation. Wickepin has a Council operated waste water scheme.

13. The Strategy Area is supplied with power from a substation at Narrogin. The network consists of a 22kv main line from which 12.7kv single phase spurs tee off to supply the rural community. The supply to the Shire of Pingelly comes from Western Power's Narrogin substation. Typically rural distribution networks are characterised by having limited ability for provision of bulk loads and are not as reliable when compared to urban distribution systems.

    The load growth for the Shires of Narrogin, Pingelly and Wickepin is small. There will be significant work required to provide for any bulk load in the Shires of Pingelly or Wickepin. In general it will be easier to supply a large load the closer it is located to the Narrogin substation. The imposition of commercial loads on the 12.7kv systems will in most cases require the installation of 22kv three phase. The planning horizon for the identification of distribution system requirements is 5 years.

THE STRATEGY

REGIONAL

14. A Local Planning Strategy provides the physical basis to implement or to allow the implementation of a local authority's strategic objectives through its Local Planning Scheme.

    In this instance where the Strategy Area comprises five local authorities we have reviewed relevant regional as well as local authority reports. These have included previous studies primarily focusing on economic issues prepared by the Wheatbelt Development Commission, in particular the findings of the recent report of the Central South Action Group as well as consideration of the objectives of Strategic Plans prepared by the Town of Narrogin and the Shire of Wickepin which themselves have resulted from input from their respective communities. These have been supplemented by workshops and investigations with Council representatives and officers and Government Agencies.

15. This has enabled the identification of planning issues to be addressed in this Local Planning Strategy and in response, the establishment of the following strategic objectives:

- the maintenance and enhancement of the attractive features of a country lifestyle;
- the establishment of an identity for the region which promotes the above values and is attractive to new industry and existing and new residents;
- the management of population growth/decline;
- the facilitation of economic development in accordance with the above objectives;
- the protection of prime agricultural land;

- the facilitation of new agricultural uses in rural areas subject to proposals meeting acceptable performance criteria;
- the incorporation of natural resource land management practices in development and subdivision proposals;

16. The Strategy promotes the concept of the Strategy Area as a single planning unit to take advantage of economies of scale and to justify higher order facilities and services through an enlarged catchment. This requires individual local authorities to ignore local boundaries and to adopt a regional/sub regional approach to planning.

Specifically the LGA's of the Strategy Area can through this LPS:

- Formulate common regional goals independent of local government boundaries.
- Support regional tourism strategies/recommendations where possible.
- Support regional marketing strategies/recommendations where possible.
- Ensure individual local government strategy plans are supported by this Strategy and the Local Planning Scheme.
- Ensure that strategic major links required outside the region are developed.

Importantly it needs to be recognised that the most effective means to create this identity is to promote and enhance Narrogin as the regional centre.

17. For planning purposes, this approach has extended beyond the participating local authority boundaries to incorporate local authority areas within 50 km of Narrogin to the west, north and south, and 100 km to the east. (See Figure 17) This equates to 30 minutes and 60 minutes of travelling time to the Regional Centre of Narrogin similar to metropolitan access to higher order facilities and services and represents an identifiable catchment for Narrogin. The catchment's current population is 14 00015 000 persons. It approximates 75% of the Central South Sub Region of the Wheatbelt Region. The catchment population would need to increase to a minimum 25 000 to attract higher order facilities and services to Narrogin.

18. The sub-region needs to forge an individual identity to assist social cohesiveness economic co-operation and to promote the sub-region to new industry and new residents. This is consistent with the recommendations of the Wheatbelt Development Commission.

19. Within the Strategy Area, local government initiatives should in the first instance be concentrated in the major towns and within the triangular area defined by Pingelly, Narrogin and Wickepin and the major transport corridors between them.

20. The Strategy supports the location of new industry within this triangle. Realistically, major industry requires a significant power load and will need to be located close to or south of Narrogin because of the cost of the infrastructure upgrade required elsewhere, unless a significant industry such as the kaolin mine east of Wickepin were to be commissioned which may justify a power upgrade elsewhere.

21. The Strategy incorporates a settlement hierarchy to enable development programmes to be focused in appropriate areas according to their designated function in the hierarchy. This focuses efforts to attract industry and makes more efficient use of current and proposed infrastructure.

22. Key features of the Settlement Strategy are:

- Narrogin is recognised as the regional centre and all the local authorities in the Strategy Area should lobby for the higher order services to be located in Narrogin.
- Outside of Narrogin, all other town centres are considered as satellite centres where rural residential and rural smallholding development should be encouraged. This includes local centres, Pingelly, Cuballing, Wickepin, as well as rural townsites Popanyinning, Yealering and Highbury.
- Smaller towns such as Dattening, Moorumbine, Tincurrin, Toolibin and Harrismith are regarded as rural hamlets where rural residential can be accommodated provided the availability of an adequate potable water supply can be demonstrated as well as adequate water for land management where appropriate.

23. Target populations have been set for each settlement to allow for accommodating population growth in the planned hierarchy, when and if, demand increases. The target populations are based upon a preliminary assessment of surplus capacity in each townsite. With the exception of Narrogin no provision has been made for population growth outside of existing townsites. If town capacities are reached, the total population will be double the current population and provide the regional critical mass to justify the higher level of facilities and services associated with a regional centre. (See Table 12 and Figure 20)

RURAL

24. The Strategy Area is a prosperous farming area which is seen to readily adapt to new technologies, new management practices and new crops. These initiatives are supported in the Strategy through recommending more flexible land use provisions in the local authority Local Planning Schemes to allow new and innovative changes to land uses provided they meet specified performance criteria to ensure that there is no adverse impact on existing surrounding agricultural activities. As the current predominant land use and lot size does not threaten the maintenance of broadacre agriculture it is recommended that the rural zone be zoned "General Agriculture" in all Local Planning Schemes with provision made for Intensive Agriculture for specific acceptable proposals.

25. Currently the demand for rural smallholdings in the Strategy Area, either for residential purposes or as hobby farms is modest.

Notwithstanding, the towns closer to the metropolitan region have a small but demonstrated market. In accordance with the proposed settlement hierarchy, we recommend that the focus for this type of development be within current townsite boundaries or abutting the smaller towns, particularly those with a reticulated water supply. Those not on scheme water would need to adequately demonstrate the availability of a potable water supply. Except for the smaller rural townsites special rural development contiguous with the townsite boundaries is not favoured. The Local Planning Scheme should include provisions for a Rural Smallholdings Zone, that should also include performance standards/assessment criteria for Rural Smallholdings proposals.

26. Because of Government initiatives in relation to sustainability of practice and the programme to reduce or ameliorate the impacts of salinity, the Strategy recommends that the Local Planning Scheme includes provisions relating to tree planting, arterial drainage and the construction of dams. Vegetation corridors based upon tree planting and fencing programmes are recommended along the major water courses particularly where they link town centres and where there may be the opportunity to develop a series of heritage trails. These proposals need to be integrated with ongoing landcare programmes. Subdivision and development resulting from or consistent with achieving the above objectives should be supported.

27. The Strategy recognises the major transport network as a landscape amenity corridor and Councils should adopt a general Landscape Management Policy as well as specific guidelines for development within the corridor. The corridor should be recognised as such in Councils' Vegetation Management Plans and programmes initiated to maintain and enhance its visual amenity where possible.

URBAN

28. Narrogin, Wickepin and Pingelly are all classic, legible railway towns where there is easy access to the town centre in a rural setting. Each has a high percentage of vacant and/or absentee owner land within their boundaries. As there is no evidence of excess demand, the original townsite framework should be maintained and in-filled and contained within a green belt to reinforce demarcation between urban and rural.

29. A variety of choice and lifestyles and housing is proposed within the urban areas of the Strategy Area where it is economically, socially and environmentally viable. Quality and innovation in design of settlements should be encouraged so that the landscape and streetscape character are maintained or enhanced.

30. Pingelly and Narrogin as the larger centres need to retain those features which make country living attractive. Each is compact and legible with ease of access to community facilities. Each is a classic railway town with distinctive town boundaries. These boundaries need to be retained as a clear delineation between urban and rural.

31. The Strategy proposes R20/R30 residential development close to the commercial centres of Pingelly and Narrogin and above commercial premises.

32. In urban areas, residential densities should be made more flexible and increased in sewered areas. It is proposed that a split code is allocated to each area with the first code representing the average density and the second code representing the maximum density. A three tier hierarchy is proposed which reflects country town values as expressed through the community input to this strategy.

	Average	Max
Rural Residential and unsewered urban areas	R2	R5
Sewered areas	R12.5	R20
CBD, town centre and adjoining areas	R20 (subject to bonus provisions)	R30/R40

33. Townscape plans prepared for Narrogin, Wickepin and Pingelly are recommended for review and reactivated. This will enhance community pride in the most visible part of the region. The concept of a core triangle corridor between Narrogin, Pingelly and Wickepin will provide the framework for the formulation of an events calendar for visitors.

34. A consistent zoning is proposed for all local authority Local Planning Schemes. For the commercial areas it is as follows:

- Central Business District; - (Narrogin)
- Town Centre - (Pingelly, Wickepin)
- Rural Townsite - (Highbury, Yealering, Popanyinning)
- Rural Hamlet - (Moorumbine, Dattening, Tincurrin, Harrismith, Toolibin)

35. To maintain simplicity, proposed zones are Mixed Business, Composite - Residential/Light Industry, Light Industry, General Industry, Civic/Community, General Agriculture, Rural Smallholdings, Intensive Agriculture (only if necessary), Rural Residential, Special Use. Provision is also made for additional/restricted uses.

36. Local Planning Policies are recommended for:

- Townscape and urban design guidelines in town centres;
- Vegetation management in designated Vegetation Corridors;
- Visual management in designated amenity corridors;
    - Natural resource management best practices in rural areas in conjunction with rezoning, change of use and/or subdivision proposals;
    - Heritage protection/townscape provisions for heritage buildings/precincts;
    - Performance criteria for the introduction of new rural uses into the "general agriculture" zone.

Pingelly

37. Recommended zones for the Pingelly, Moorumbine and Dattening townsites reflect the zoning categories described above.

38. Pingelly townsite includes large areas of vacant land where infill development should be encouraged. A register of vacant blocks needs to be established and those for which rates have not been paid be made available to the market. It is recommended that the Wheatbelt Development Commission initiate negotiations with the Water Corporation with a view to seeking a modification to their policy in respect to the recovery of rates on vacant land, so as to enable such land to be put on the market and be able to generate rates.

39. To enable more centrally located land to be developed for compatible Town Centre activities, Council should consider gradually relocating their depots to the industrial area.

40. A specially planned composite residential/light industry zone should be investigated for a proportion of the current industrial zoned area in the north of Pingelly townsite.

41. Specific routes through and around Pingelly for heavy vehicle traffic are proposed to improve townscape opportunities for town centre development on either side of the railway.

42. Rural residential development should not be contiguous with the town boundary which should remain as a clear urban/rural demarcation (green belt).

1.0 STATE AND REGIONAL PLANNING CONTEXT

1.1 WHAT IS A LOCAL PLANNING STRATEGY?

The Town Planning Amendment Regulations 1999 introduced the requirement for local authorities to prepare a Local Planning Strategy (LPS) when they envisage the zoning or classification of land through the preparation or the review of a Local Planning Scheme.

Regulation 12A (3) of the Town Planning Amendment Regulation 1999 requires that a Local Planning Strategy shall:

(a) set out the long-term planning directions for the local government;

(b) apply State and regional planning policies; and

(c) provide the rationale for the zones and other provisions of the Scheme.

The Local Planning Strategy replaces the former Town Planning Scheme Report required to precede the preparation or review of Local Planning Schemes and should incorporate any existing Rural, Commercial, Industrial, Residential/Housing, Tourism or other strategies relating to the local government. The LPS needs to be reviewed on a regular basis to respond to changing circumstances.

A Local Planning Strategy should be:

- A "leadership" document which provides strategic planning direction for the next 15 years or longer as distinct from the Local Planning Scheme, which manages that growth within a statutory framework.
- A document which sets out the direction for economically, socially and environmentally sustainable development based on a comprehensive analysis of state, regional and local planning issues and objectives.
- A document which gives direction both to local government, the Department of Planning and Infrastructure, the WAPC and the Minister in assessment of amendments, subdivision, development and provides strategic planning support for this decision making.
- A document which provides the basis for co-ordinated decision making on future servicing of the local government area by local, state government and any other service agency.
- A document which explains/justifies the strategic direction for growth and development to all stakeholders.

The LPS should be consulted when questions of background data about the Shire emerge in relation to the Scheme Text and Maps. It may also be useful during the planning approval process to provide the background reasoning for decisions where Council is required to use its discretionary decision making powers.

The LPS effectively forms part of the Local Planning Scheme and provides a broader 10-15 year vision for the formulation of the Scheme Text and Maps which operate over a 5 year timescale.

The LPS should also assist the public's understanding of:

- How State and regional policies apply to the municipality; and
- The planning rationale for the zones, reservations and statutory provisions contained in the Local Planning Scheme.

In essence, the LPS is the community's vision for the municipality and how this will be reflected in longer term directions for land use and development, anticipating 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 and form of urban areas and other settlement forms such as rural residential and rural smallholding areas.

This Local Planning Strategy applies at three levels.

At the regional level it applies to the Central South Region as defined by the Wheatbelt Development Commission. The Central South Region comprises 15 local authorities in which Narrogin is the major town (See Fig. 1).

Within the Central South Region, the local authorities of Pingelly, Narrogin (Town and Shire) and Wickepin have sought specific direction for their sub region within the wider regional context. For these purposes the above local authority areas together with the adjoining Shire of Cuballing, who have already prepared a Local Planning Strategy, comprise the Strategy Area (See Fig. 1). This is the second level of investigation.

The third level of investigation is at the local level. At this level the Local Planning Strategy provides the framework for a new or reviewed Local Planning Scheme for each local authority area. The Strategy therefore identifies issues specific to each municipality, as well as those common to the whole of the Strategy Area.

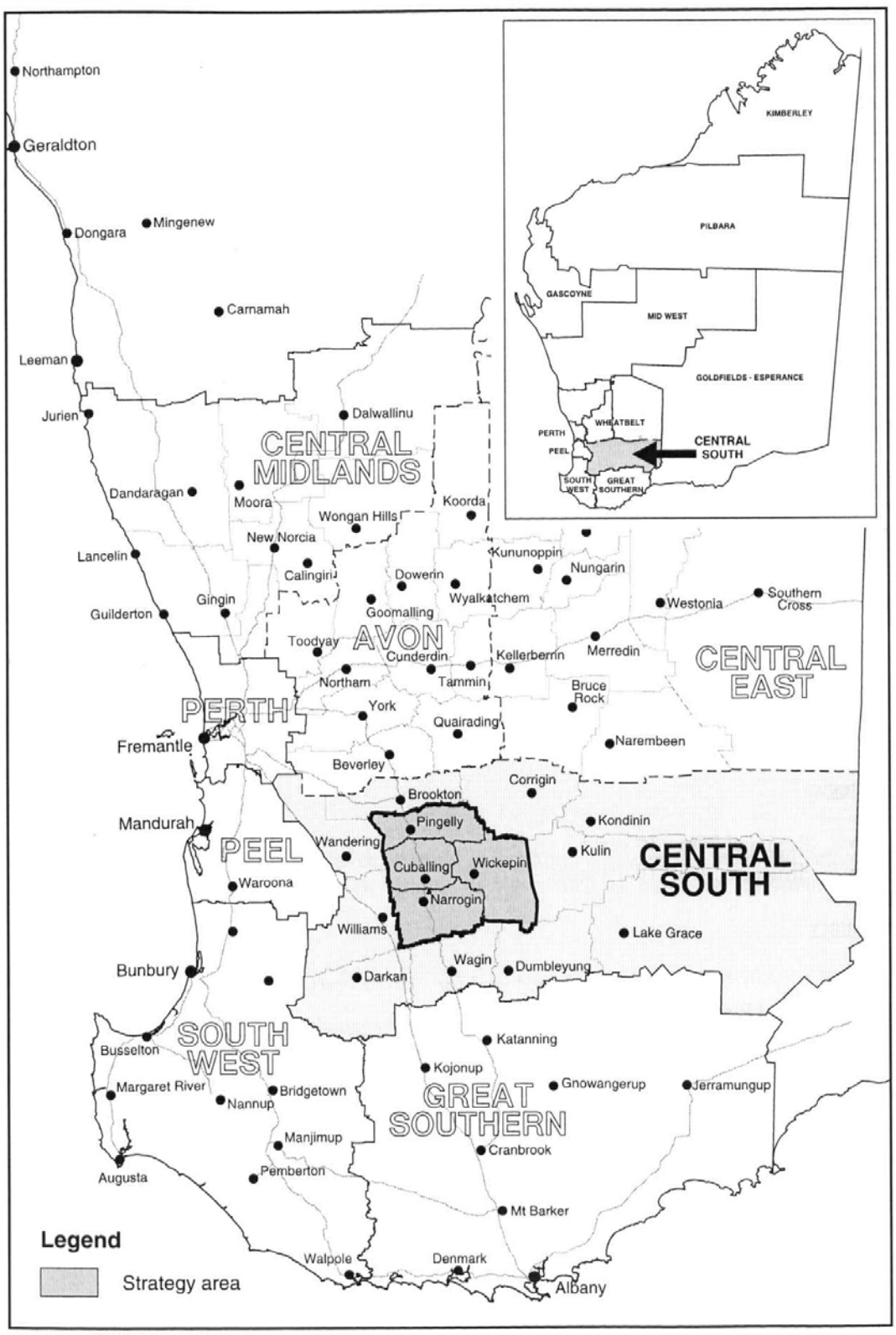
This LPS is in two parts. The first part is a description of the elements and features common to the region and sub region. The second part comprises the strategy for the participating local authorities with a section tailored to each individual local authority.

Planning issues are categorised as either regional, rural or urban. The issues have been identified as a result of stakeholder interviews and community input either through previous community initiatives or through workshops carried out specifically for this project.

A series of possible Strategy responses to the issues are provided before recommending a preferred course of action.

This document is in draft form and is made available for further community input prior to finalisation.
It recommends Local Planning Scheme provisions where possible to address individual issues consistent with the recommended preferred course of action.

FIGURE 1: REGIONAL CONTEXT



1.2 LOCAL PLANNING SCHEMES

A Local Planning Scheme provides for the reservation or zoning of land for a particular use or class of uses. Schemes can be made flexible to allow for a number of uses in particular zones or rigid to limit the number of uses. The more flexible the Scheme the more open it is to the discretionary decision making of a Council. The more rigid a Scheme the less opportunity for a Council to use its discretion and the less opportunity to accommodate innovative or unforseen proposals which may have been otherwise acceptable except for the rigidity of the Scheme

Many responses to identified issues are outside the purview of a Local Planning Scheme. In some cases, to achieve satisfactory outcomes, support will be required through other statutes (local laws), council policies and voluntary community co-operation.

When finalised and approved by Council, a new Local Planning Scheme will be prepared or the existing scheme reviewed, to implement the recommended course of action contained in the Strategy.

Clause 2.1 of the Town Planning Amendment Regulations 1999 requires that except to the extent that a Local Planning Strategy is inconsistent with a Scheme, determinations of a local council under the Scheme are to be consistent with the Local Planning Strategy.

1.3 LAND USE PLANNING HIERARCHY

Figure 2 indicates the regional and local land use planning hierarchy operating through each tier of government.

Each level of the planning framework focuses on different time scales;

<u>Strategic</u>

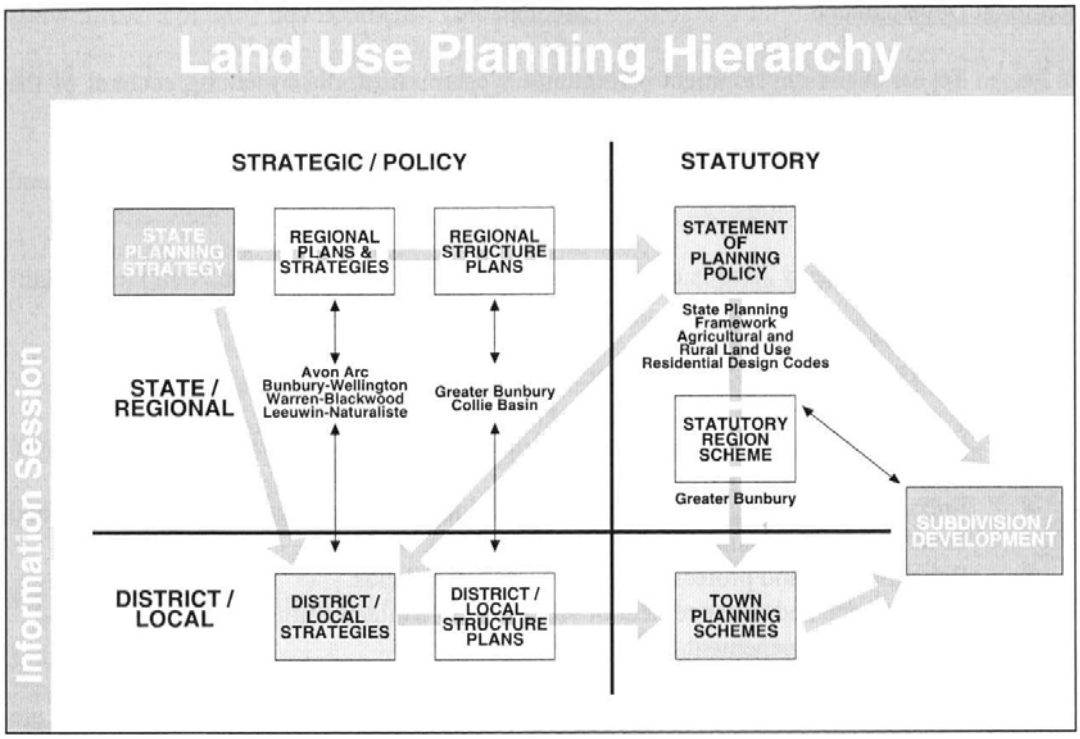
- Regional Plan - 30 years
- Structure Plan - 10-20 years

<u>Statutory</u>

- Region Scheme provides zoned land for - 10-20 years
- Local Planning Strategy - 15 years
- Local Planning Scheme - 5 years

In this case as some strategic planning levels are absent they have been effectively incorporated into this LPS. For example as there is no regional plan for the Strategy Area and its Sub Region, this LPS has looked at a longer term vision than the recognised 15 year term. Additionally as there is no region scheme programmed, zoning and reservation proposals take on a broader context consistent with the principles and recommended actions of the State Planning Strategy.

FIGURE 2: LAND USE PLANNING HIERARCHY



1.4 THE STATE PLANNING STRATEGY

The State Planning Strategy is the overarching planning document for the State. It sets out five key principles for planning in WA:

Environment

- To protect and enhance the key natural and cultural assets of the State and deliver to all West Australians a high quality of life which is based on environmentally sustainable principles.

Community

- To respond to social changes and facilitate the creation of vibrant, safe and self-reliant communities.

Economy

- To actively assist in the creation of regional wealth. Support the development of new industries and encourage economic activity in accordance with sustainable development principles.

Infrastructure

- To facilitate strategic development by making provision for efficient and equitable transport and public utilities.

Regional Development

- To assist the development of regional Western Australia by taking account of the special assets and accommodating the individual requirements of each region.

The State Planning Strategy designates Narrogin as a regional service centre and Pingelly and Wagin as local service centres.

The whole of the Strategy Area is considered as a "Productive Agricultural Area under High-Extreme Soil Salinity Risk".

The Strategic Objectives in the Strategy for the Wheatbelt Region are:

- Development of a range of expanded and consolidated towns linked by improved transport infrastructure.
- Encouragement of innovation in agriculture, environmental management and downstream processing of agricultural products.
- Rehabilitation and protection of productive farmlands.
- Maintenance and enhancement of vibrant, viable inland communities.
- Sustainable management of resources.

The principles espoused in the Strategy in relation to "Environment and Resources" are consistent with those of the WAPC's "Agricultural and Rural Land Use Policy" (see Section 1.5.2).

Actions listed which are relevant to the Strategy Area are:

- Adopt planning principles to provide for sustainable environmental management. This includes:

    - the rehabilitation of salt affected areas.
    - the revegetation of water catchments.
    - the protection of prime agricultural land.
    - the protection of landscape values.
    - the protection of basic raw materials near townsite.
    - the protection of heritage values.

- Investigate the use of performance based standards for rural land and for the application of these standards in Local Planning Schemes. These include:

    - the avoidance of land use conflict through the provisions of the Local Planning Scheme.
    - the encouragement and relocation of chicken and pig farms from the Perth Metropolitan Region.
    - the promotion of niche agricultural products including aquaculture (fresh and saltwater).
    - the recognition of tourism as a legitimate compatible land use with a range of land uses.
    - the promotion of public access to telecommunications such as "telecentres".

The Strategy recommends the adoption of innovative and flexible Local Planning Schemes to allow future economic development. This includes:

- An assessment of the current and future infrastructure requirements for the region to ensure new industries can develop.
- The implementation of the road network upgrades recommended in the MRWA's Roads 2020 Strategy.
- The need to investigate the establishment of a research centre in environmental management.
- A new approach to planning areas of low or declining population including the promotion of nodal urban settlement patterns in agricultural areas separated by agricultural/green belts.
- The flexibility to promote the diversification of local economies into markets such as downstream processing of agricultural products.
- The investigation of commuter rail links to Northam and a road freight link to Kwinana.
- The pursuit of heavy haulage bypass routes to the major centres.

1.5 STATEMENT OF PLANNING POLICIES

A Statement of Planning Policy (SPP) is a statutory policy of the Western Australian Planning Commission (WAPC), prepared pursuant to section 5AA of the former Town Planning and Development Act 1928 (as amended) and is approved by the Commission, Minister, Cabinet and the Governor, prior to gazettal.

The SPP guides the planning and decision making activities of the:

- Western Australian Commission;
- The Department of Planning and Infrastructure;
- Local Government; and
- The Town Planning Appeals Tribunal.

A local government is required to have due regard to a SPP when:

- Amending or reviewing Local Planning Schemes;
- Preparing local planning strategies; and
- Giving advice to the WAPC.

A Local Planning Scheme in having due regard to an SPP, may include a provision that such a policy shall be read as part of the Local Planning Scheme.

SPP's relevant to the Strategy Area include:

- State Planning Framework;
- Agricultural and Land Use Planning Policy;
- Environment and Natural Resources Policy (draft);
- Residential Design Codes;
- Public Drinking Water Source Policy;
- Water Resources; and

- Urban Growth and Settlement.

1.5.1 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 of the State that provide direction on the form and methods of growth and development

A number of strategic policies apply to, and will influence the LPS for the Strategy Area. Operational policies within the Framework that are relevant are general policies on subdivision and development, policies relating to specific uses for commercial, industrial, residential, open space and other uses. These policies address siting, development and management issues. Of particular relevance to a predominantly rural area, are policies relating to bushfire protection, hazard and safety reduction, land use buffers, and land capability.

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

1.5.2 Agricultural and Rural Land Use Planning Policy (SPP No. 2.5)

The State Government has recently released a Statement of Planning Policy No. 11 (now SPP No. 2.5) which applies to rural and agricultural land in the State.

SPP 11 requires Local Planning Strategies to address its four major objectives which are:

- Rural settlement, hierarchy and pattern.
- Protection of significant agricultural land.
- Management of natural resources.
- Minimisation of land use conflict (though zoning and subdivision control).

As it is a Statement of Planning Policy adopted under Section 5AA of the former Town Planning and Development Act, the provisions of the Policy are to be applied to the LPS and Local Planning Scheme which must incorporate the identification of Priority Agriculture Areas and other rural land uses and activities including rural-residential areas.

<u>Identifying Areas of Agricultural significance.</u>

SPP 11 provides a detailed process to identify areas of Agricultural Significance. (Miscellaneous Publication 15/2000. Department of Agriculture).

The key points are that the process:

- Must be undertaken in consultation with the community.
- Should be undertaken in preparation of a local or regional planning strategy.
- Takes into account not only soil capability but also suitability factors in identifying Areas of State/Regional Agricultural Significance.

- Allows Local government to identify areas of local agricultural significance.

The LPS and Local Planning Scheme should:

- Simplify zoning of rural land.
- Designate Priority Agriculture for areas of state/regional or local significance.
- Designate General Agriculture to other areas.
- Provide flexibility for all agricultural uses.
- Include provisions for agriculture related tourism.

Priority Agriculture areas once identified must be zoned as such in the Local Planning Scheme having been refined from Agricultural Priority Management Areas shown in the SPP 11.

Settlement Strategy

The LPS must also include a settlement strategy. A settlement strategy for a rural area needs to:

- Plan a viable network of town centres.
- Carefully plan expansion of town boundaries.
- Provide areas for rural residential where appropriate.

To achieve settlement objectives it is normally necessary to direct population growth to support existing settlements as it enables the co-ordination of and the efficient and equitable provision of infrastructure and services and serves to protect areas of agricultural significance, extractive industries and other natural resources. It also provides the opportunity to maintain and enhance the values of the area as it provides a separation between agricultural and urban areas while providing for the expansion of urban areas as part of a planned settlement pattern. This can be assisted through the use of appropriately located, low density rural residential development.

Plan and Provide for Rural Settlements

Two zonings are available; Rural Residential and Rural Smallholdings.

Rural Residential

- Provides a residential use in a rural environment.
- An expectation of basic services (power, roads, water).
- 1 ha to 4 ha lots depending on local conditions (Local Planning Scheme).
- Provision of reticulated potable water supply.

Rural Smallholdings

- Provides for a residential use in association with a rural pursuit.
- 4 ha to 40 ha lots depending on local conditions (Local Planning Scheme).
- Opportunities for home business, tourist and rural pursuits.
- Identifiable theme (conservation, permaculture).

- Potable water supply.
- Separate water supply for land and fire management.

In each case the following prerequisites are necessary:

- Requirement for a subdivisional guide plan.
- Identification of building envelopes.
- Restriction to one dwelling per lot.
- Compliance with local government environmental and health requirements.
- An outline of acceptable agricultural uses.
- Consideration of landscape amenity.
- Preparation of a bushfire management plans.
- Identification of emergency egress.

Typical provisions for rural residential and rural smallholding development include:

- Clearing restrictions.
- Tree planting/revegetation programme.
- Stocking restrictions.
- Identification of building envelopes.
- Protection of natural features.

Minimising Land Use Conflict

Proposals to rezone subdivide or redevelop requires an assessment of the potential for land use conflict particularly between farming and residential activities.

In order to locate residential and rural residential activities appropriately adequate separation needs to be provided between conflicting land uses.

Adherence to an approved settlement strategy and the incorporation of performance criteria will assist this process.

Management of Natural Resources

Increasingly rural planning is affected by environmental legislation as it becomes integrated with the States' natural resource management objectives.

Water

Planning for rural areas in particular requires the integration of Land Use Planning with Catchment and Water Resource Management, mineral and basic raw material protection, vegetation and landscape amenity. Provisions need to support Landcare work.

The protection of water resources needs to recognise;

- Gazetted public, drinking water source areas.
- Water reserves.
- Underground water pollution control areas.

- Wetlands.

Guidelines on Land Use Compatibility within Public Drinking Water Supply Areas have been prepared by DEWCAP.

Minerals and Basic Raw Materials

Planning for Mineral and Basic Raw Material Resource Areas requires, the following:

- Identification of mineral and BRM areas.
- Try to limit sterilization of resources.
- The encouragement of sequential land uses i.e. extraction, rehabilitation, rural residential.
- Provision for the extraction of resources.

The above protective measures may be incorporated in Local Planning Schemes through Special Control Areas.

Vegetation Management

Under the Environmental Protection Act 1986, the clearing of native vegetation requires a permit from the Department of Environment and Conservation unless it is for an exempt purpose (i.e. these exemptions ensure that low impact day to day activities involving clearing can be undertaken). Any development proposal that will lead to the clearing of native vegetation will require consultation with the Department of Environment and Conservation to determine if a permit is required.

Landscape Management

The visual quality of a rural area is one of its primary assets.

Landscape management is concerned with the management of land, vegetation and water resources so as to maintain or improve their visual quality.

Changes to the landscape continually occur. Whether visual changes are perceived as positive or negative depends on numerous factors, including the viewer's perception and position, view duration, view distance, landform , soils, aspect and type of landscape alteration. The ability of landscapes to absorb change without loss of scenic value also varies and depends on slope, soils and vegetation cover. Landscape management thus involves extensive broad scale and on-site analysis of these factors, project impact evaluation and sensitive site planning, design and construction methods.

SPP No. 2.5 is supported by the WAPC's Policy D.C. 3.4

Policy D.0 3.4 indicates a general presumption against subdivision in rural areas, unless it is endorsed in a Local Planning Strategy or other endorsed planning strategy. There are some exceptions and provisions made, for conservation lots. In certain circumstances in the Wheatbelt Agricultural Policy Area (in which the Strategy area falls), homestead lots, are available to local authorities where there has been a decline in population over two intercensal periods and rural multiple occupancy lots.

Guidelines are provided for preparing an agricultural impact assessment. These relate primarily to:

- Loss of productive agricultural land.
- Land use conflict.
- Land and environmental management and rehabilitation.

1.5.3 SPP Environment and Natural Resources Policy (SPP No. 2)

This policy seeks to use all levels of the planning system to achieve appropriate protection, management and use of the environment and natural resources in a proactive rather than reactive manner.

Its aim is to provide more certainty for proponents of developments regarding consideration of environmental issues and provide a reference to guide natural resource use, development and conservation.

The policy promotes land use decisions that acknowledge the often competing interests of the environment and economic and social considerations that affect our natural resources. It identifies elements of the environment and natural resources that are considered important and significant and requires these to be considered when making land use decisions.

The policy provides a clear link to the State Planning Strategy.

Section 5.1(xiii) of State Planning Policy No. 2 'Environment and Natural Resources Policy' states that planning strategies, schemes and decision making should consider any relevant accredited natural resource management strategy, or catchment management strategy prepared by catchment groups and endorsed by State Government Agencies, with a view of integrating implementation of appropriate and relevant parts through Local Planning Schemes and assessment of developments. Strategies that the Shire needs to consider within the context of section 5.1(xiii) include:

- Avon Natural Resource Management Strategy (2005)
- South West Regional Strategy for Natural Resource Management (2005)

Policy measures relate to:

- Water resources.
- Air quality.
- Soil and Land quality.
- Biodiversity.
- Agricultural land and rangelands.
- Minerals, petroleum and basic raw material resources.
- Landscape.
- Greenhouse gas emissions and energy efficiency.

1.5.4 Public Drinking Water Source Policy (SPP No. 2.7)

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

SPP No 2.7 informs local governments of those aspects of State-level planning policy concerning the protection of PDWSAs which should be taken into account in planning decision-making.

SPP No 2.7 requires that:

- Local and regional planning strategies should identify PDWSAs based on advice from the WRC (now Department of Water).
- In Areas outside of the Perth Metropolitan Region, all priority source protection areas in PDWSAs should be shown as special control areas in region schemes and in local government schemes in accordance with the recommendations of any relevant land use and water management strategy published by the WAPC, or any water source protection plan approved by the WRC.
- The special control area provisions should provide for referral of applications to the WRC for advice and comment, and set out the relevant considerations in determining planning applications within these areas, guided by the WRC Water Quality Protection Note on Land Use Compatibility and Public Drinking Water Source Areas.
- Land uses and developments in all priority source protection areas that have the potential to impact detrimentally on the quality and quantity of public drinking water supplies should not be permitted unless it can be demonstrated, having regard to advice from the WRC, that such impacts can be satisfactorily managed.
- Planning schemes and decisions on land use and development should have regard for any adopted region scheme policy or relevant environmental protection policy on public drinking water supply.

The study area contains no PDWSAs.

1.5.5 Water Resources (SPP No. 2.9)

SPP No 2.9 relates to the overarching State Planning Policy 2, Environment and Natural Resources Policy, and provides clarification and additional guidance to planning decision-makers for consideration of water resources in their land use planning activities.

The objectives of the policy are to:

- protect, conserve and enhance water resources that are identified as having significant economic, social, cultural and/or environmental values;
- assist in ensuring the availability of suitable water resources to maintain essential requirements for human and all other biological life with attention to maintaining or improving the quality and quantity of water resources; and

- promote and assist in the management and sustainable use of water resources.

The policy measures relate to:

- Surface and Groundwater Resources;
- Wetlands, Waterways and Estuaries;
- Total Water Cycle Management.

The policy defines water resources are defined as 'water in the landscape (above and below ground) with current or potential value to the community and the environment' (WRC, 1998).

Water resources that may be the subject of this policy include:

- wetlands
- waterways
- estuaries
- groundwater
- surface water
- irrigation dam
- floodplain
- foreshore
- stormwater
- existing and future surface and groundwater drinking water catchments and sources for public and private supplies
- wastewater

The strategy area lies within the upper reaches of the Avon, Murray and Blackwood Rivers and contains many the tributaries to the three rivers. The area also contains the small, but ecologically important Narrogin wetlands. These water resources have economic, social, cultural and environmental value to the local community and state as a whole. The SPP 2.9 promotes and assist in the management and sustainable use of these water resources.

1.5.6 Urban Growth and Settlement (SPP No. 3.0)

The aim of the SPP No 3 is to facilitate sustainable patterns of urban growth and settlement by setting out the requirements of sustainable settlements and communities and the broad policy in accommodating growth and change. The policy must be taken into account in preparing regional and local planning strategies, and planning schemes and amendments, and given weight in statutory decision making in relation to urban growth and settlement.

The objectives of this policy are:

- To promote a sustainable and well planned pattern of settlement across the State, with sufficient and suitable land to provide for a wide variety of housing, employment, recreation facilities and open space.
- To build on existing communities with established local and regional economies, concentrate investment in the improvement of services and infrastructure and enhance the quality of life in those communities.

- To manage the growth and development of urban areas in response to the social and economic needs of the community and in recognition of relevant climatic, environmental, heritage and community values and constraints.
- To promote the development of a sustainable and liveable neighbourhood form which reduces energy, water and travel demand whilst ensuring safe and convenient access to employment and services by all modes, provides choice and affordability of housing and creates an identifiable sense of place for each community.
- To coordinate new development with the efficient, economic and timely provision of infrastructure and services.

The policy measures include:

- Creating sustainable communities;
- Managing urban growth and settlement across Western Australia;
- Managing urban growth in Metropolitan Perth;
- Planning for liveable neighbourhoods;
- Coordination of services and infrastructure;
- Managing rural-residential growth;
- Planning for Aboriginal communities.

This policy will be implemented through local planning strategies developed by Local Governments.

SPP No. 3 is relevant to major towns in the strategy area, particularly the significant centres of Narrogin, Pingelly, Wickepin and Cuballing. Almost half the total population of the Strategy area lives in these towns.

1.6 ENVIRONMENTAL CONSIDERATIONS

Local Planning Schemes when amended, reviewed or replaced require assessment by the Environmental Protection Authority. Environmental and natural resource management legislation, strategies and policies relevant to the Strategy area, are:

- State Salinity Strategy
- Hope for the Future the Western Australian State Sustainability Strategy
- CALM Management Plans
- EPA Guidance Statement No. 33 - Guidelines for Environment and Planning (August 1997) and the proposed new draft - Environmental Guidance for Planning and Development (2005)
- Environment Protection Act 1986
- Contaminated Sites Act 2003

1.6.1 Environmental Protection Act 1986

The Act provides for the Environmental Protection Authority, in order to prevent, control and abate pollution and environmental harm; to ensure the conservation, preservation, protection, enhancement and management of the environment.

In protecting the environment of the State, the objectives of the Act have regard for the following principles —

- The precautionary principle: Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- The principle of intergenerational equity: The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.
- The principle of the conservation of biological diversity and ecological integrity Conservation of biological diversity and ecological integrity should be a fundamental consideration.
- Principles relating to improved valuation, pricing and incentive mechanisms
- The principle of waste minimisation: All reasonable and practicable measures should be taken to minimise the generation of waste and its discharge into the environment.

Section 38 of the Act outlines who can refer a proposal to the EPA, under what circumstances and how the referral is to be made.

Any person may refer a significant proposal to the Authority except a proposal under an assessed scheme. In which case the proposal can only be referred to the EPA by the proponent. The Minister can, if it appears that there is public concern about the likely effect of a proposal on the environment, refer the proposal to the Authority.

A decision-making authority must refer a proposal to the EPA if it believes it to be a significant proposal or a proposal of a prescribed class. If the EPA considers that a proposal that is significant or of a prescribed class has not been referred to it, the EPA will require the proponent or a decision-making authority to refer the proposal to the Authority.

In the case of a proposal under an assessed scheme, the EPA can only require the referral of the proposal if it did not, when it assessed the assessed scheme have sufficient scientific or technical information to enable it to assess the environmental issues raised by the proposal.

Section 48C outlines the powers of the EPA in relation to the assessment of schemes referred to it. The Authority may require the responsible authority to undertake an environmental review of that scheme and report on it to the Authority. The EPA will instruct the responsible Authority on the scope and content of that environmental review. The Authority may also require any person to provide it with information. The responsible authority or person of which a requirement has been made is obliged to comply with the EPA's requirement.

The Authority may make such investigations and inquiries as it thinks fit; and consider existing reservations and zonings if the Authority believes there is scientific or technical information that a proposal framed in accordance with, one or more of those reservations or zonings is likely to have a significant effect on the environment.

1.6.2 Contaminated Sites Act 2003

The Act provides for the identification, recording, management and remediation of contaminated sites. The Act addresses previous problems arising from the absence of powers requiring people to report known or suspected contamination; vendors to disclose contamination when selling land; possible contamination to be investigated and inadequate powers to require remediation of contaminated sites.

Prior to the Act, responsibility for remediation generally fell to the landowner rather than the person who caused the contamination, and the general public has no guarantee of access to information about contaminated sites that may affect them.

The key provisions of the Act provide powers to find and fix contamination, a fairer hierarchy of responsibility and open access to information.

Where a development site is suspected to be contaminated, the WAPC and or EPA will require a report to be prepared to determine the extent of contamination and the means by which it will be addressed prior to the proposed development taking place.

The Contaminated Sites database is accessible via the Department of Environment and Conservation website free of charge. The data base holds information on known contaminated sites in Western Australia.

1.6.3 EPA Guidance Statement No. 33 - Guidelines for Environment and Planning (August 1997) and proposed new draft- Environmental Guidance for Planning and Development (2005)

This EPA Guidance Statement is a response to the need for environmental guidance for land use planning and development following the introduction of legislation in 1996 enabling the environmental assessment by the EPA of Local Planning Schemes and their amendments.

The Guidance Statement is intended as a resource document for local government, State government agencies, consultants, proponents and the public.

The main purposes of this Guidance Statement are:

- to provide information and advice to assist participants in land use planning and development processes to protect, conserve and enhance the environment
- to describe the processes the EPA may apply under the EP Act to land use planning and development in Western Australia, and in particular to describe the environmental impact assessment (ETA) process applied by the EPA to schemes.

This Guidance Statement has the status 'Draft' which means that it has been endorsed by the EPA for release for stakeholder and public review and comment. The period for public comment has now passed.

Prior to making an application to Local Government, proponents should consult Guidance Statement No 33 for advice on the environmental protection processes; referrals and environmental impact assessment processes; and the range of environmental factors that need to be considered in order to protect, conserve and enhance the environment.

1.6.4 State Salinity Strategy

Salinity is perceived as the greatest environmental threat facing Western Australia.

Salination is caused by changes in the delicate balance between surface water and groundwater systems.

In many agricultural areas of Australia, water tables are rising because perennial native vegetation has been replaced with crops and pastures that use less water. As it rises, the groundwater dissolves naturally occurring soil salts and brings them towards the surface.

The State Salinity Strategy (2000) sets out a strategy 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.

Of further relevance to the Strategy Area is the salination of wetlands. A rising water table can cause salination of freshwater wetlands in two ways. Low-lying swampy areas can become overwhelmed as saline groundwater rises up through their beds. Alternatively, salt that has been brought to the surface and deposited in surrounding farmland can be washed into the wetlands as surface run-off after rain.

In addition, clearing of native vegetation means that less rainwater is trapped by the vegetation and more runs off into the wetlands. There is simply more water about, so seasonal wetlands are wetter for longer.

Any attempt to address the problem of salination must tackle these three issues and the complex interactions between them. (CALM, 2002)

1.6.5 Hope for the Future the Western Australia State Sustainability Strategy

Sustainability of resources is a key principle of the State Planning Strategy. The Draft State Sustainability Strategy recognises the importance of the planning system as a mechanism to apply the principles of sustainability (p. 55). The Strategy seeks to explore opportunities for regional councils and local councils and statutory planning processes (such as Statements of Planning Policy and Environmental Protection Policies) to support natural resource management outcomes, including the possibility of adopting regional natural resource management strategies through Statements of Planning Policy. In the medium to longer term, the Sustainability Strategy considers that it may be desirable to give effect to the regional natural resource management strategies through various statutory mechanisms, such as Environmental Protection Policies and regional Statements of Planning Policy.

Agricultural sustainability is particularly relevant to the Strategy Area.

Agriculture continues to be an important economic driver for Western Australia. The value of the State's agricultural exports for 2000-01 was estimated at $3,802 million, which represents 15% of the State's total export and 16% of national agricultural exports. (Govt of WA, 2002, p 95)

However, the 1998 Western Australian State of the Environment Report identified that the economic contribution of agriculture has come at the great cost of widespread land degradation associated with unsustainable farming and grazing systems. More recently, the 2001 Australian State of the Environment Report concluded that while strenuous attempts are being made to improve environmental, economic and social sustainability in many regions of established agricultural land use, serious doubts exist as to whether agricultural industries can finance the adoption of remedial and truly conservation-oriented farming systems.

The Department of Agriculture's submission on the State Sustainability Strategy provides a useful overview of the existing challenges to sustainable agriculture in Western Australia by considering the trends impacting on vibrant rural communities, profitable agricultural systems and conservation of the environment over the last 25 years as well as future challenges and emerging trends. These are summarised in Table 1 below.

Table 1: Trends influencing sustainable agriculture in Western Australia (Government of WA, 2002)

Vibrant rural communities	Profitable agricultural systems	Conservation of the environment
• Depopulation of rural areas. • Decreasing rural employment with increased mechanisation, comparatively low wages for the rural workforce and low diversity of job opportunities. • Reduction of services, in rural towns. • Increasing isolation for those remaining in rural communities.	• Rationalisation of country towns into large regional centres. • Weakening relationship between farm and food prices. • Decreasing terms of trade. • Deregulation of markets. • Relative importance of agriculture in the nation's economy is declining. • Introduction and spread of quality assurance schemes.	• Salinity. • Loss of soil structure. • Water-repellence of some soils. • Waterlogging. • Wind erosion. • Traffic hard-pans. • Deterioration in remnant vegetation. • Destruction of habitat. • Nutrient run-off causing pollution problems.

Growth management also relates to water issues, to air quality issues and to land-use transport planning.

At the town planning scale, the State Sustainability Strategy supports improvements to public access to transport, the improvement of amenity and the creation of urban forms to support the development and the maintenance of a sense of community.

1.6.6 The CALM Managed Estate

The Department of Conservation and Land Management (CALM) (now incorporated into DEC) manages a marine and terrestrial reserve system throughout the State. It's two primary natural resource management objectives are to;

- Conserve biodiversities.
- Create sustainable community benefits.

To do this it may identify and acquire new conservation reserves to achieve comprehensiveness, adequacy and representativeness targets as well as protecting sites of special importance.

CALM also seeks to promote off reserve conservation that complements the reserve system as well as implement the Western Australian Salinity Strategy in partnership with landholders, the community and other agencies.

An ongoing objective for CALM is to prepare management plans for all of its estate.

As a major land manager CALM's objectives and programmes affect and are affected by adjoining land uses and landholders with whom it seeks co-operation in the achievement of common goals.

The CALM Managed Estate and Management Plans for the Strategy Area are discussed in Section 2.10.

1.7 URBAN PLANNING

1.7.1 Residential Codes

The revised Residential Design Codes (R Codes) were gazetted in October 2002. The R Codes provide the basis of controlling the siting and design of residential development throughout Western Australia.

The general objectives are:

- To provide for a full range of housing types and densities that meet the needs of all people;
- To provide for local variations in neighbourhood character;
- To ensure appropriate standards of amenity for all dwellings;
- To ensure provision of on-site facilities for all dwellings;
- To protect the amenity of adjoining residential properties;
- To encourage the conservation of buildings with heritage value; and
- To encourage environmentally sensitive design.

Although the codes are similar to those they replaced, they include "deemed to comply" criteria which means that development consistent with these criteria will be approved. Notwithstanding there is an opportunity for a local government to consider alternative proposals in the context of the designated performance criteria.

All code provisions (with the exception of the site area requirements set out in Table 1) are open to the exercise of discretion.

In considering whether to grant a discretionary approval, Councils should adopt a consistent approach taking into account:

- The Performance Criteria relating to the matter for which discretionary approval is sought;
- The relevant provisions of the Scheme; and
- The relevant contents of a Local Planning Policy prepared in accordance with the Codes.

A Council cannot refuse an application that meets Acceptable Development requirements unless there are more stringent Local Planning Scheme or Local Planning Policy provisions that are unmet.

Notwithstanding the above, the WAPC may approve the creation of a lot of a lesser area and the Commission or a Council may approve a minimum site area of a Grouped Dwelling on a site area less than that specified on Table 1 provided that the proposed variation would meet the following criteria:

- be no more than 5% less in area than that specified on Table 1; and
- facilitate the protection of an environmental or heritage feature; or
- facilitate the development of lots with separate and sufficient frontage to more than one public street; or
- overcome a special or unusual limitation on the development of the land imposed by its size, shape or other feature; or
- allow land to be developed with housing of the some type and form as land in the vicinity and which would not otherwise be able to be developed; or
- achieve specific objectives of the local government Scheme and where applicable, the Local Planning Strategy.

The Codes aim to obviate the need for the use of Local Planning Policies which incorporate generic provisions, such as those designed to protect privacy and to design for streetscape by incorporation of these aspects within the Codes.

However, Local Planning Policies may still be necessary to accommodate local differences of character and regional differences of climate and topography.

The Codes permit Local Planning Policies to be prepared to address local requirements for streetscape, building design, building height and boundary walls.

1.7.2 Liveable Neighbourhoods - Community Codes

The Liveable Neighbourhoods - Community Design Codes provide urban design guidelines for cities and towns.

It includes proposals to address:

- Western Australia's changing population.
- Increasing environmental awareness.
- Reducing the cost of current procedures.

The Codes' principles of neighbourhood design are:

- Compactness so most people can walk to local centres in five minutes.
- Build streets where people can walk, cycle or take public transport rather than drive.
- Connect the streets in a simple pattern so people can choose different routes and make short trips to local facilities.
- Put windows and verandahs overlooking streets to deter crime.
- Provide opportunities for local employment in shops and businesses close to people's homes.
- Create a neighbourhood heart with shops, businesses and community facilities.
- Make town centres more sustainable by developing clusters of about six neighbourhoods with a wide range of services, facilities and jobs.
- Place public transport stops at town centres and neighbourhood centres.
- Offer a wide choice of housing and lot sizes and use a flexible layout so the area can be changed to meet future needs.
- Respond to the physical characteristics of the site to reinforce local character and protect natural features.
- Provide neighbourhood parks of different sizes and types for a variety of uses and with a five minute walk for most people.

The Codes will be implemented through the WAPC by encouraging the planning methods outlined in Liveable Neighbourhoods: Community Design Code when assessing subdivisions and structure plans.

The new approach will be used when new neighbourhoods are being planned in the Perth metropolitan area and country towns. It may apply to large urban infill sites or vacant areas on the urban fringe where two or more lots are being created.

2.0 THE STRATEGY AREA - PHYSICAL FEATURES

2.1 THE REGION

The Strategy Area forms part of the Wheatbelt's Central South Region.

The Central South Region extends from the Darling Scarp in the west, through the Wheatbelt, to the near marginal lands in the east. The region covers 1.8% of the State, has 1.5% of its total population and comprises fifteen local government areas (See Fig. 1).

The Central South is widely recognised as a region (Australian Bureau of Statistics - Upper Great Southern Statistical Division). However, there are differences, due to climatic and historical factors, between the eastern and western parts of the region. These parts conform generally to the Hotham and Lakes Statistical Subdivisions.

The Strategy Area comprises the Shires of Pingelly, Wickepin, Cuballing and Narrogin and the Town of Narrogin towards the west of the Central South Region. (See Fig. 3).

The Region and Strategy Area is divided physically (See Fig.4). The northern portion is in the Avon Natural Resource Management Area, the western portion in the South West Management Area and the southern portion in the Blackwood Basin Management Area.

The physical divide is recognised in the statistical districts of Agriculture Western Australia which divides the area into the Central Agricultural SRD region and the South West Agricultural SRD region.

Narrogin is the commercial administrative hub of the Central South and serves the region as a manufacturing and service centre. Its location makes it a convenient stopover for travellers between Perth and Albany. Other major centres are Pingelly, Cuballing and Lake Grace which is located in the south-east of the region. Corrigin serves as a commercial centre for the northern part of the region. Wagin in the south of the region is probably more connected to Katanning in the adjoining Great Southern Region.

The rest of the local authorities in the region have smaller urban centres, mainly providing support services for the agricultural industry in their surrounding areas.

The last comprehensive plan prepared specifically for the Central South Sub Region was prepared by the Wheatbelt Development Commission in 1988. In early 2003 a Central South Action Plan was prepared by the Wheatbelt Development Commission.

Much of the physical description in this section has been extracted from the 1988 study supplemented where appropriate with ABS statistics and AGWA data.

FIGURE 3: THE STRATEGY AREA

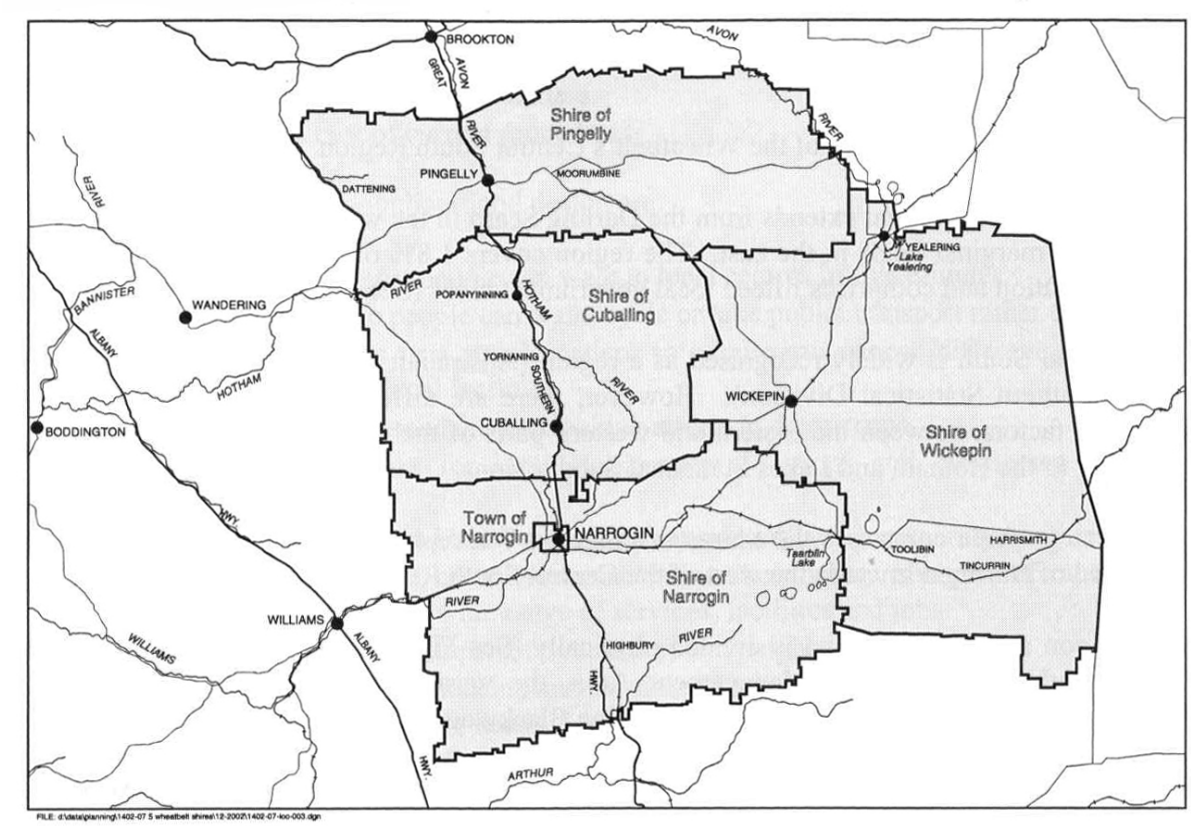
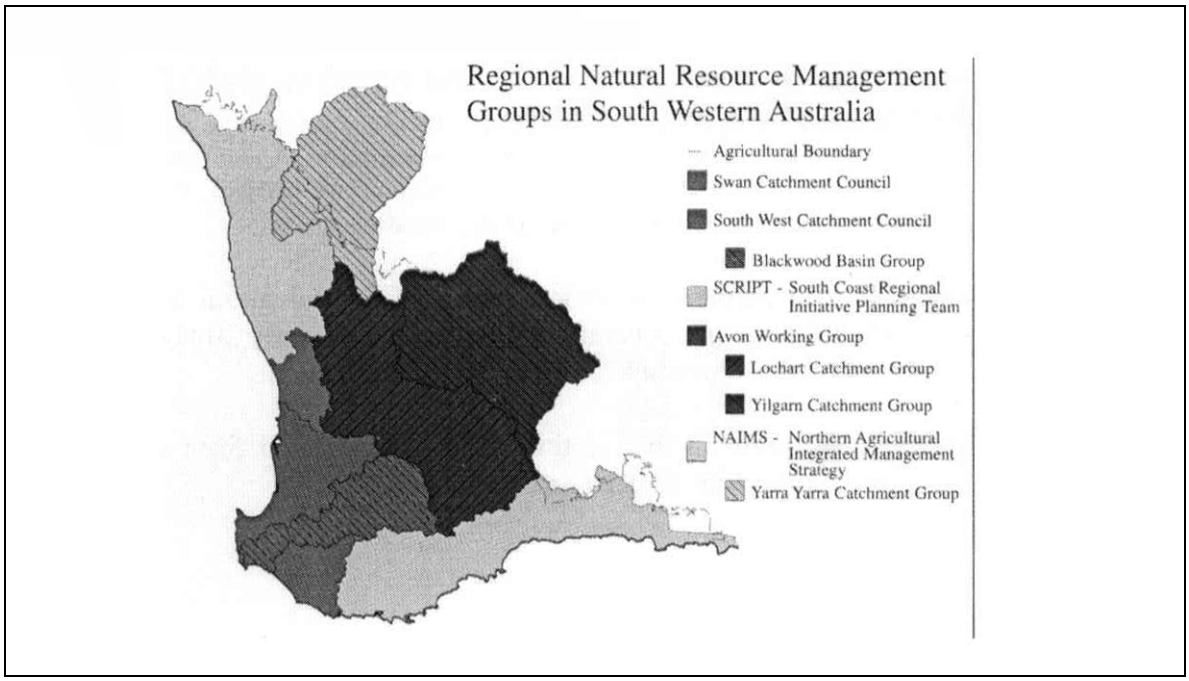


FIGURE 4: NATURAL RESOURCE MANAGEMENT AREAS



2.2 CLIMATE

The Central South has a temperate Mediterranean climate with mild, wet winters and hot, dry summers. The western border of the region is within 80 kilometres of the coast and this causes many climatic factors including the movement of the anticyclonic belt which lies east to west across the continent for 6 months of the year to control the weather pattern and to show a south – west to north – east variation. Rainfall tends to decline from west to east from 600mm/annum to 400mm/annum and occurs mainly from May to October.

The hottest months are January and February and the coldest months are July and August.

FIGURE 5: AVERAGE ANNUAL RAINFALL

2.3 GEOLOGY

Most of the agricultural region of Western Australia including the Strategy Area is underlain by gneiss, granite and migmatite rocks. This has been a relatively stable part of the earth's crust for 2400 million years.

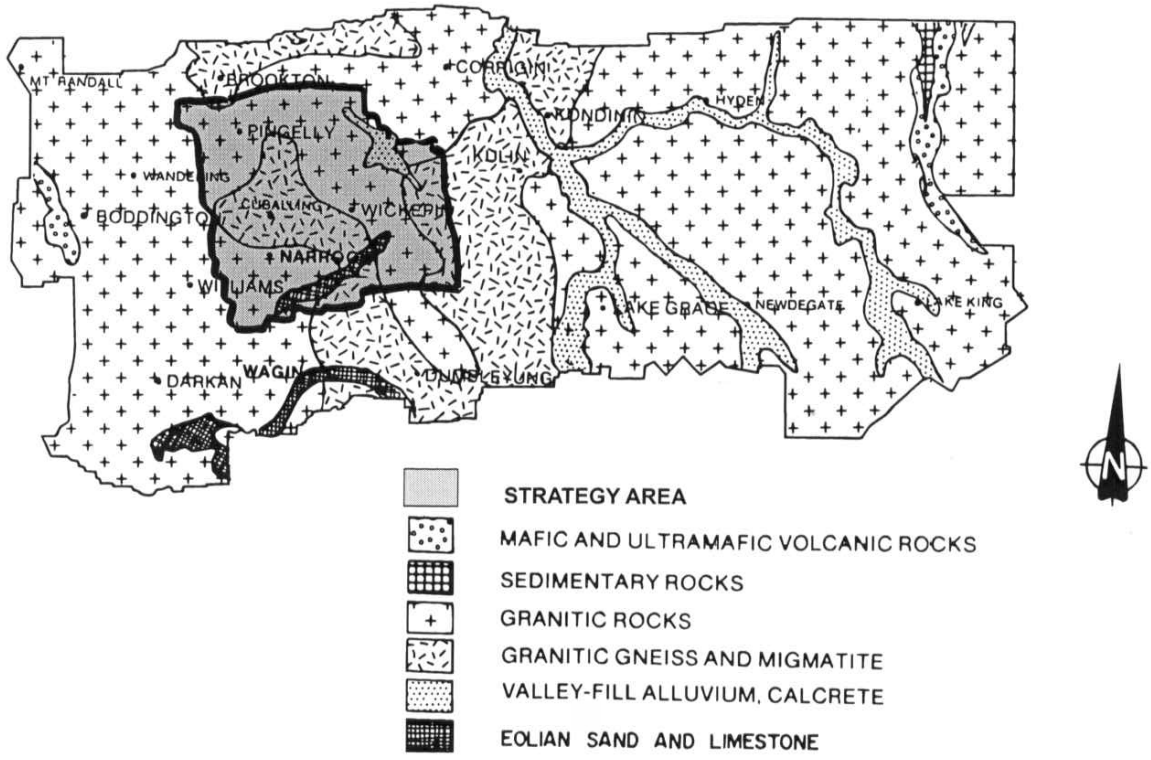
Geologically it is part of the Yilgarn Craton, a Precambrian crystal massif comprising granite and gneiss together with sinuous belts of metasedimentary metavolcanic rocks left as undigested remnants after extensive granitization. In the Wheatbelt System granite dominates and many of the townships originally relied on the availability of shallow groundwater around the margins of bald granite hills.

Suites of basic and quartz dykes have intruded into the gneisses, granites and migmatites. The most common rock type is dolerite which is a dark rock with a high proportion of iron and magnesium minerals. Quartz dykes are a predominant feature in some areas.

The western sector contains part of the Darling Scarp, which forms the rim of the plateau. Immediately to the east there is an area of flat-floored valleys with drainage towards the coast.

Beyond this, the major portion of the Central South is a plateau dominated by sandplains low hills with small salt lakes and bordering dunes in the shallow valley floors.

FIGURE 6: GEOLOGY



2.4 SOILS

Earth movements over hundreds of millions of years have uplifted the basement rocks and weathering has led to soil formation as the climate changed soils formed and eroded. (See Fig 7)

Overlying the Yilgarn Craton is a regolith veneer. The regolith is typically 5 metres and includes a laterite profile dominantly on upland parts of the landscape.

This has resulted from prolonged weathering and erosion which has produced a peneplain about 300 metres above sea level on which laterite has developed and is now being eroded. There are three zones; an upper ferricrete; an intermediate mottled zone and a lower clay layer (See Fig. 8). Silica sand is often found as pockets above the laterite. In the absence of laterite, sandy loams predominate as residual soils derived from granite.

FIGURE 7: SOILS

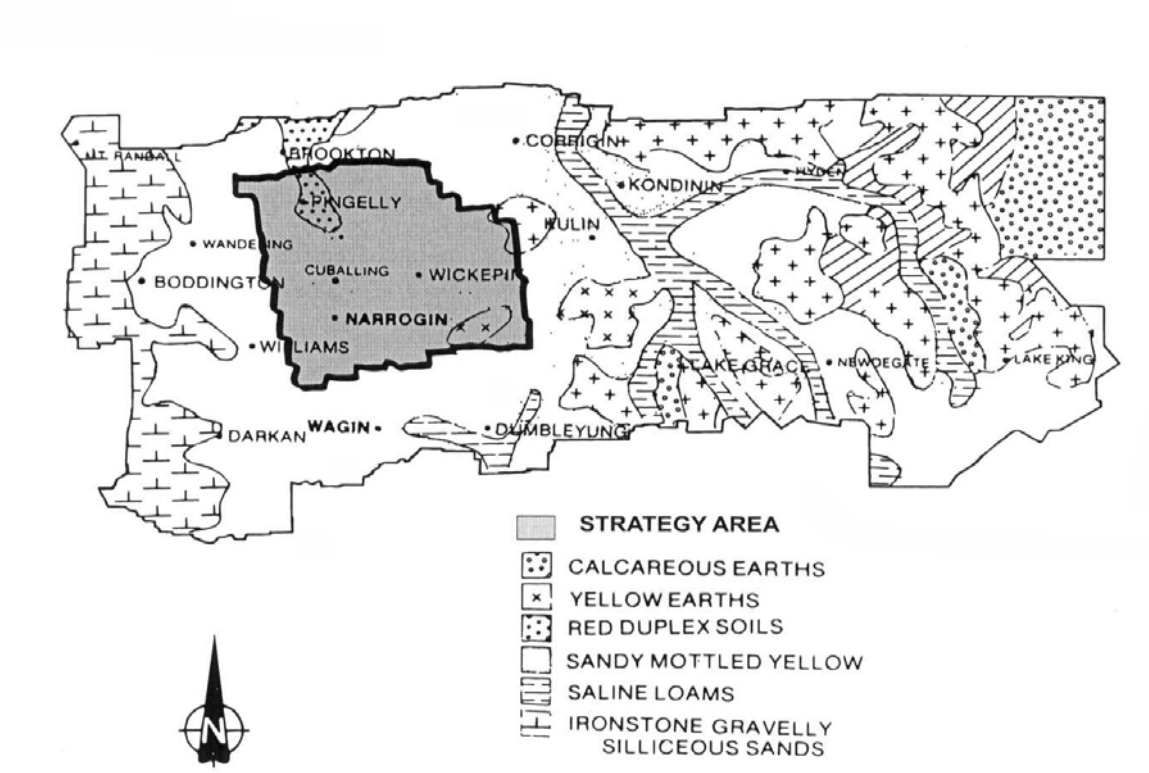
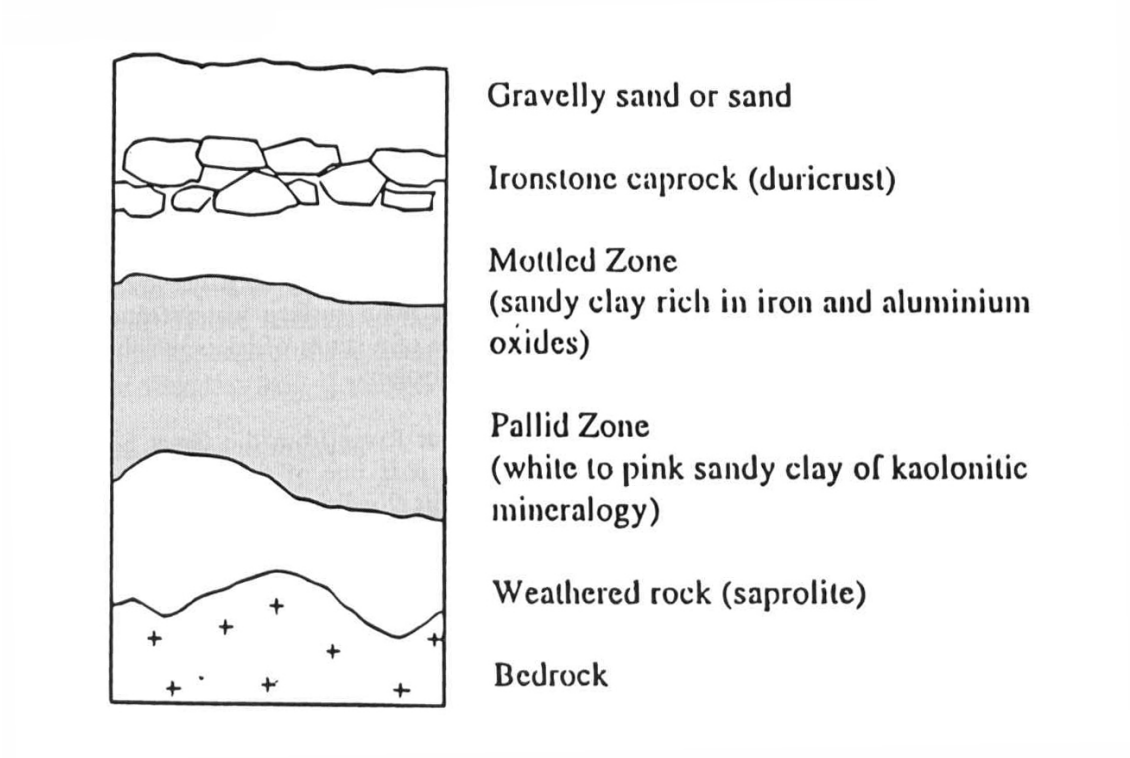


FIGURE 8: SOIL PROFILE



The lateritic profile (see Fig. 8) formed in the Tertiary period during a moist temperate tropical climate has since been eroded to varying degrees. Source: Lantzke (1993).

As a result the most extensive soils of the region have a relatively sandy topsoil and a loam subsoil. To the west, the soils contain more clay, whilst to the east they contain more sand and, in cases, are influenced by the presence of salt lakes. The soils of the region are generally infertile, requiring the addition of superphosphate and trace elements for pasture and cereal production. Agricultural use of these soils is predominately for wheat in the east, and for sub-clover based pasture for sheep production in the west.

2.5 SURFACE DRAINAGE

The strategy area falls within the upper reaches of the Avon, Murray and Blackwood Rivers (See Fig. 9).

In the Shire of Pingelly, the upper reaches of the Avon River effectively form the eastern boundary of the Shire with the Hotham River forming much of its southern boundary with the Shire of Cuballing.
The town of Pingelly is at the headwaters of the Avon River South and is situated on the watershed between the Avon and Murray River Catchments. Many of the tributaries of the Avon River begin in the Shire of Pingelly, some being: Woodebulling Creek, Woyerling Creek, Sandplain Creek, Petercarring Brook, Avon River South and the Dale River South.

In the case of the Murray Catchment, the southern portion of the Shire of Pingelly, the Shire of Cuballing and the northern portion of the Shire of Narrogin, falls within the catchment of its tributary the Hotham River.

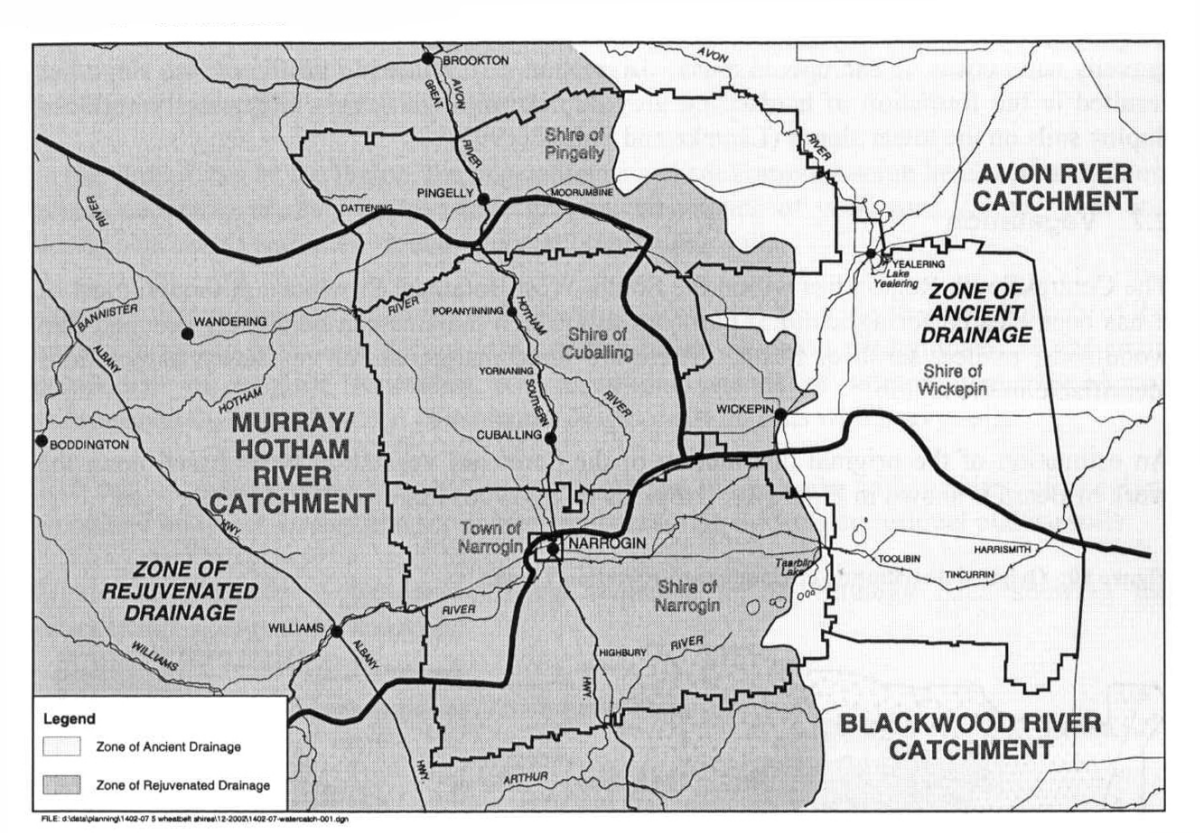
To the south west of Narrogin, the Strategy Area straddles the boundary between the Murray and Blackwood catchments.

The area to the east of Narrogin drains into the Williams River, whilst further south it feeds the Arthur River a tributary of the Blackwood.

The surface drainage pattern in the Shire of Wickepin is through the Avon River to the north and the Blackwood River to the south. Otherwise the main surface water features are Toolibin Lake in the south west of the Shire which is one of a series of lakes which extend south westwards into the eastern portion of the Shire of Narrogin.

Narrogin Wetlands extend north-easterly along the Arthur River from the Great Southern Highway about 20 km south of Narrogin. For its size it is one of the most productive waterfowl areas in the south-west. However, due to sporadic flooding and drying it cannot be counted on as an annual breeding area. Most important lakes are already conservation reserves, viz. Lake Toolibin, Lake Taarblin, Ibis Lake, Billy Lake, Nomans Lake and White Lakes.

FIGURE 9: SURFACE DRAINAGE



2.6 LANDFORM

In the Pleistocene period (2-10 million years ago) the sea level dropped and/or uplift of the south west of Western Australia occurred. This resulted in erosion of the lateritic mantle to varying degrees exposing the lateritic profile and in places, the bedrock below.

The extent of the dissection of this lateritic profile can be used to explain the development of the landform, soils and the vegetation. Where little or no erosion of the laterite profile has occurred, fossil soils have been preserved as sandplain or as "buckshot gravels" above breakaway hills. This is known as the Zone of Ancient Drainage. Where the laterite profile has been dissected to reveal the pallid zone, loamy sand and sandy loam over clay soils have developed. Where removal of the laterite profile has been complete the soils are shallow, gritty soils on granite or red loam on dolerite. This is known as the Zone of Rejuvenated Drainage. (See Fig. 9).

These are defined as follows;

The **Zone of Rejuvenated Drainage** is characterized by greater dissection of the landscape forming steeper, narrower valleys which contain rivers and creeklines that flow in winter. Small remnants of sandplain occur, often bordered by a scarp or breakaway. Large areas of sandy surfaced over yellowish clay soils occur in the area. Where the lateritic profile has been completely removed there are extensive areas of rocky red and grayish soils. The valley floors contain alluvial clays, loamy and sand.

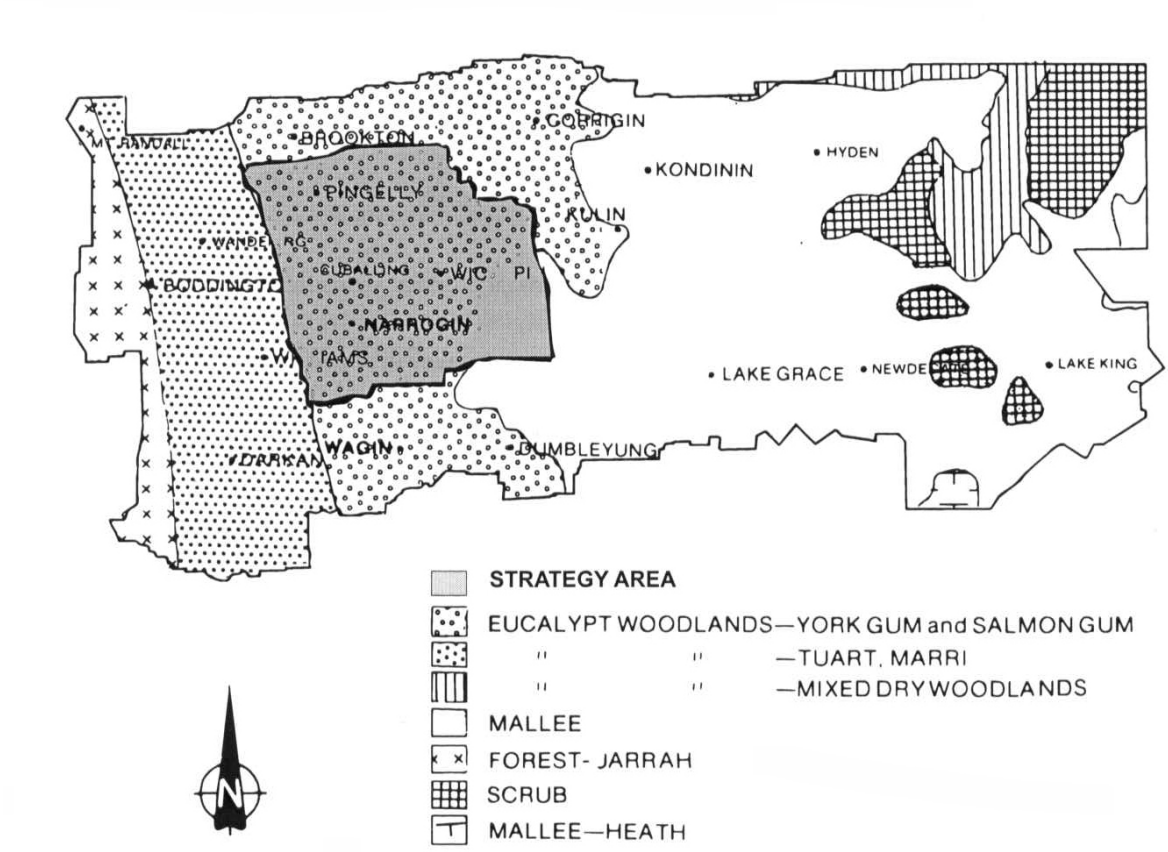
The **Zone of Ancient Drainage** consists of gently undulating plateau with wide divides, long gentle slopes and broad valleys that contain salt lakes. Large areas of yellow sandplain and gravelly soils occur on the upland areas. Dissection of the lateritic profile on the slope has resulted in the formation of hardsetting grey duplex soils with some loose, sandy surfaced duplex soils on the lower slopes (Lantzke and Fulton (1993).

2.7 VEGETATION

The Central South Region lies within the South–West Botanical Province. Although most of it has been cleared for agricultural purposes that which remains can be loosely grouped into woodlands, mallee, scrub or heath. There are three major natural vegetation associations identifiable in the region.

An estimation of the original distribution of the dominant vegetation types based upon the work of Beard is shown in Figure 10 (Hopkins et. al. 1996) (Sabtron 1997).

FIGURE 10: ORIGINAL DISTRIBUTION OF DOMINANT VEGETATION TYPES.



In the west, in the higher rainfall areas jarrah forest is dominant on ironstone gravels while math-wandoo woodlands with dry scrub understorey are found on loamy soils.

Flooded gum *(Eucalyptus rudis)* is common along the creeklines in the west. York gum *(Eucalyptus loxophleba)* with rough grey bark is often mixed with the low, bushy jam tree (Acacia acuminata) on the lower slopes, and features along the drainage lines and roadsides or as scattered clumps. Wandoo (*Eucalyptus wandoo)* with its pale silver grey or mottled creamy yellow bark, mainly occurs on the middle to lower slopes. Larger areas of native vegetation often indicate outcroppings of granite such as Boyagin Rock or breakaways -terracotta coloured hills of lateritic gravel with powder-bark wandoo *(Eucalyptus accedens*) and brown mallet *(Eucalyptus astringens).*

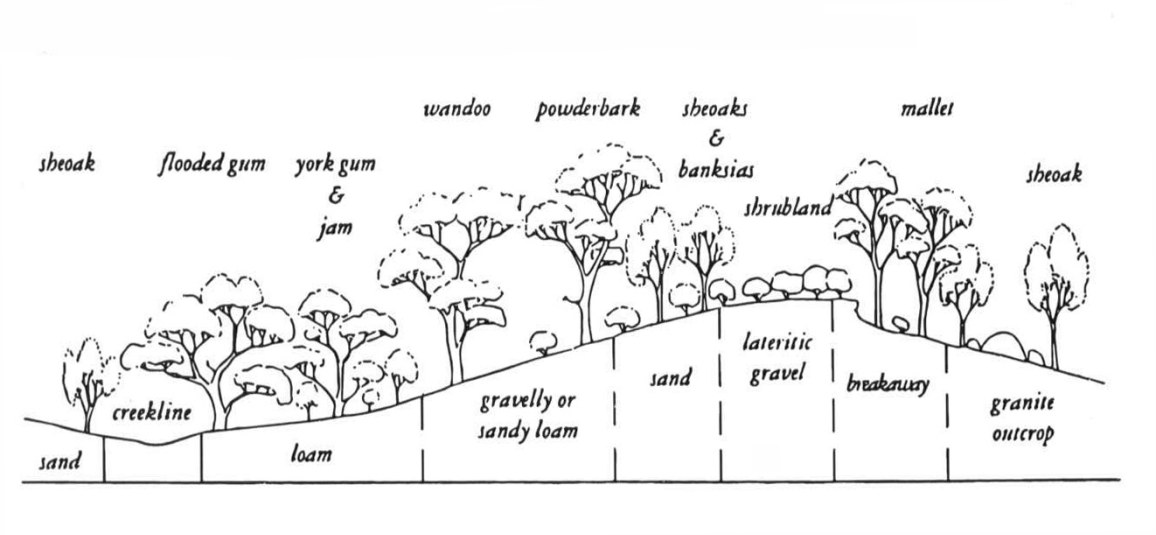
In the central part of the region, the vegetation sequences comprise scrub heath on sandplains, acacia casuarina thickets on ironstone gravels; woodlands of york gum, salmon gum and wandoo on learns and salt — tolerant vegetation on saline soils.

There are occasionally breakaways and sweeping views over the wide shallow channels of the ancient drainage lines and distant low cresting hills. Wandoo predominates as the main component of remnant vegetation with occasional stands of salmon gum *(Eucalyptus salmonophloia)* and red morrel *(Eucalyptus longicornis)* on flats with heavy soils.

The east is mostly dominated by mallee scrub on sandy soils with patches of eucalypt woodland on lower ground and scrub heath and casuarina thickets on residual plateau soils.

Figure 11 illustrates a typical landscape sequence in the Strategy Area showing the relationship of vegetation and soils.

FIGURE 11: TYPICAL LANDSCAPE SEQUENCE IN THE STRATEGY AREA



2.8 FAUNA

The remaining areas of natural vegetation in the Central South Region provide habitats for remnant populations of native animals. The Dryandra Forest is home to one of the few extant populations of numbats, the State's fauna emblem. Many of the lakes and wetlands in the region are important as water bird refuges. The Lake Cronin area has a unique frog population and the highest concentration of jewel beetles in Australia.

More common mammal species that are found in the forested parts of the region are the western grey kangaroo, western brush wallaby, southern brown and the short—nosed bandicoots, the mardo, bush rat and common ring-tail and brush-tail possums.

Some commonly found bird species are the emu, white-tailed black cockatoo, silvereye, grey fantail, scarlet robin, Port Lincoln ring-neck, red wattlebird, Australian raven, brown goshawk and the wedge-tailed eagle.

Endangered or rare species which occur in the area include the woylie, numbat, tammar, western mouse, red-tailed wambenger, mallee-fowl, honey possum and the white-tailed dunnart.

2.9 LAND USE AND MANAGEMENT

The predominant land use in the Strategy Area is agriculture occupying approximately 90% of the total land area of the Strategy Area. (See Table 2). The CALM managed estate occupies about 6%.

Table 2: Land Use

Local Authority	Total Area '000 ha	Agriculture '000 ha	CALM Managed Estate '000 ha	Townsites '000 ha	Other (Roads, etc) (Est. 4%) '000 ha
Narrogin (Shire)	161.6	143.0	11.8	0.2	6.6
Narrogin (Town)	1.3	-	-	1.3	N/A
Wickepin	203.8	191.0	3.7	1.2	7.9
Pingelly	129.3	116.0	7.3	0.8	5.2
Cuballing	119.4	102.0	12.0	1.3	4.1

This has given rise to a number of land degradation issues. In the Shire of Pingelly (AGWA & Greening Australia, 1997) these were listed as:

- Rising water tables and salinity;
- Waterlogging;
- Wind erosion;
- Water erosion;
- Acidity and
- Soil compaction.

Sandy soils such as occur in the Shire of Pingelly are highly susceptible to wind erosion and water erosion is considered to be a significant factor in the siltation of the Avon River and its tributaries.

There has also been a rise of saline ground water as a result of the clearing of native vegetation throughout the agricultural region with salinity increasing in the Avon River catchment much earlier than other wheatbelt regions which were cleared later. The wetlands of the wheatbelt have suffered enormous changes as a result of these salinisation processes, run off, siltation and eutrophication.

Increasing river salinity was quickly followed by the death of vegetation fringing lakes and wetlands in the catchment. The freshwater aquatic weed, Marsillea Sp. (nardoo) found in the Avon River began to disappear as a result of these changes and the appearance and increase of ribbonweed (Ruppia maritima) was recorded. This is a salt tolerant species (Sanders 1991).

The upper reaches of the Hotham River in the Shire of Pingelly mirror the Avon River in terms of salinity. The catchment has deteriorated significantly since development and now the headwaters of the Hotham River are a major contributor of salinity to the Hotham River and further downstream the Murray River.

During the last 20 years, stream and land salinity in the Blackwood River Catchment have continued to increase. Significant further spread of land salinity is expected within the catchment, with the area ultimately affected likely to be between a fifth and two fifths of the total land area. (Aquitech HydroPower 2002)

There is a trend of increasing water salinity from west to east within catchments. This reflects an increasing concentration of salts within the soil profile with diminishing rainfall.

Most of the wetlands in the upper Avon River catchment were fresh or near fresh until the mid 1930's. Lake Yealering on the border of the local authorities of Pingelly, Wickepin and Corrigin is reported to have become saline between 1936 and 1940 (Sanders, 1991). Originally, the wetlands were covered by sheoak, paperbark and tea tree, forming a dense canopy with low scrub below. Animal life in the area of the Avon was varied and quite different to that which occurs today.

As part of the State Salinity Strategy, the Department of CALM has undertaken a comprehensive biological survey of the agricultural areas.

Of about 4000 flowering plant species found in the Wheatbelt, more then 1500 grow low in the landscape, in riverine valleys, freshwater or primarily saline lands.

Areas affected by secondary salinisation also show major declines in biodiversity. Most lowland communities including tall woodlands, mallee and melaleuca shrublands, freshwater and naturally saline wetlands will be lost unless remedial action is taken. The wheatbelt will lose much of its landscape character with the loss of those communities and paddock trees.

Species richness declines with salinity. Most fresh wetlands contain about 50 invertebrate species compared with only four in the most hypersaline areas. As a rule of thumb doubling salinity halves the number of aquatic invertebrate species.

The death of shrubs and trees in many Wheatbelt wetlands due to salinity cause a 50% decrease in the number of waterbirds species using them. If salinity continues to increase only 16 species plus 3 or 4 species that use freshwater dams will persist in the Wheatbelt out of an original waterbird fauna of more than 60 species.

The biological survey conducted by CALM has identified 10 potential natural diversity recovery catchments one of which is Toolibin Lake.

CALM has also been planting areas of cleared and often unproductive land with maritime pine to lower the water table and help fight salinity.

Land management is administered on the basis of Natural Resource Management Areas. (See Fig. 4) The Strategy Area incorporates the Avon, Blackwood and South West Catchment Groups. (See Fig. 9).

Landcare groups have been established throughout rural areas of the Strategy Area. These comprise local farmers and often operate with the assistance of Agriculture WA or CALM. Approved projects are funded from the Natural Heritage Trust. Landcare groups operate independently of the local authorities in which they fall.

Landcare projects often involve fencing off and replanting vegetation in an attempt to stop or reverse land degradation. Protection and management of existing areas of native vegetation is very important. However, planting native trees and shrubs can remedy some land degradation problems but is a relatively expensive practice. (AGWA & Greening Australia, 1997).

Deep rooted perennial vegetation is being used in some areas to increase water use and to provide farmers with an additional source of income. Many farmers are looking at use of natural fertilisers, alley farming is increasingly changing the landscape, tagasaste is a possibility particularly on sandy soils. Olives, tea tree oil and eucalyptus oil industries are being trialed or developed. Tannins from acacia and eucalypt species; cut wildflowers and wildflower seeds; and value-added wood products are all possibilities.

Landcare Groups in the Strategy Area include the Facey Group, Wickepin and Toolibin Groups in the Shire of Wickepin and the East Hotham Woodebulling and Dartling Creek groups in the Shire of Pingelly.

CALM has a particular interest in ensuring compatibility between projects and adjoining area to, or affecting the CALM managed estate with its own management objectives.

2.10 CONSERVATION

A number of small conservation reserves exist in the Strategy Area (See Figure 12). These are important in maintaining the rural character of the countryside and conserving a fairly diverse flora and a smaller variety of animals which are able to survive in small areas. Small reserves and roadside verges are of particular importance to migratory or nomadic birds.

The department of CALM manages four major reserves in the Strategy Area. These are:

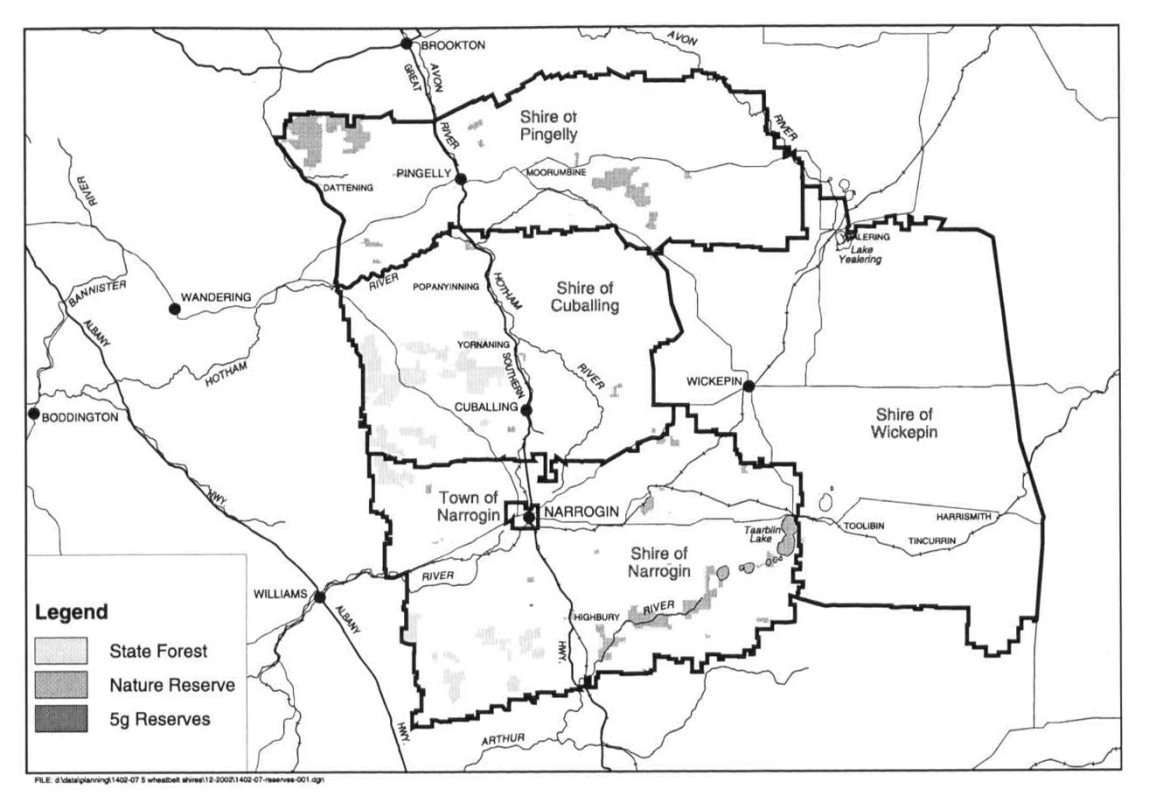
Boyagin Nature Reserve; 30 kms north west of Pingelly; covers 4844 hectares. Attractions are large granite outcrop with spectacular views and walk trails. Facilities include, barbecue and picnic areas, bushwalking and information.

The reserve represents upland country with seven district land types and has a rich animal fauna.

The vegetation is similar to that found at Dryandra except that most is of plateau and Powderbark slope types. The mammals are similar to those of Dryandra except that neither the Woylie nor the Red Tailed Wamberger has been recorded.

The reserve is separated by freehold cleared land along Boyagin Creek. Boyagin Rock is a popular picnic place.

FIGURE 12: THE CALM MANAGED ESTATE



Tutanning Wildlife Sanctuary lies about 20 kms east of Pingelly. It is a small reserve of 2087 hectares.

Over 400 species of plants have been recorded. Several sandplains occur within the reserve, each with a distinctive flora. Other vegetation types are somewhat similar to those at Dryandra except that the understory is of Box Poison rather than Sandplain Poison.

As at Boyagin there are few areas of lower slope or valley vegetation. Areas of exposed granite and the associated plants are common. Tutanning is close to Wayerling Well where collections were made between 1904 and 1907 which give an insight into the changes which have occurred since then. A research station has been established to develop management techniques for wildlife sanctuaries.

Dryandra Woodland; 29 km north west of Narrogin; It is a series of discontinuous areas of bushland and covers about 29 000 hectares. Attractions include open woodlands, endangered mammal species, wildlife viewing, seasonal wildflowers, drive trails with audio and walk trails.

The woodland is the home of a large number of rare native mammals including the Numbat and Woylie.

The "Return to Dryandra" project includes the re-introduction of the Bilby, the marl (western barred bandicoot), the boodie (burrowing bettong) the mala (rufous hare wallaby) and the marnine (banded hare wallaby).

Dryandra Woodlands lies on the boundary between the Darling and Avon Botanical districts of the South West. It is a distinct transition zone between the jarrah dominant forests of the Darling Range and the more arid Wheatbelt.

Jarrah gives way to powderbark wandoo and brown mallet. Marri begins to disappear from the mid slopes and the valleys host stands of York gum. This transition is also marked by stark contrasts in the vegetation structure - tall open wandoo woodlands, dense sheoak forests, low dense heathlands and granite outcrops. The heathlands or kwongan are the most species rich vegetation associations. (CALM, 2002)

The Draft Management Plan for Dryandra Woodlands encourages adjoining farmers to create corridors of native vegetation for native mammals to migrate. (CALM, 2002).

The mammalian fauna is outstanding and 20 native species including 13 marsupials have been recorded including the Numbat, the Woylie, the Tammar and the Red Tailed Wambenger. Ninety seven species of bird have been recorded including comparatively rare species such as the Mallee Fowl and the Bush Bronzewing.

Of the three areas in the Narrogin-Pingelly-Brookton region which contain a wide variety of mammals and which were included in the National Parks Report (1962) - Tutanning (East Pingelly), Boyagin (West Pingelly) and Dryandra - Dydrandra provides the best chance of maintaining the full variety of flora and fauna of the region because it is much larger and more varied physiographically. It is most important that the area be protected and managed for conservation.

Toolibin Nature Reserve is located 55 kms east of Narrogin covering 497 hectares. This is the largest freshwater lake in the wheatbelt. When filled with water it attracts many waterbirds.

Facilities include barbecue and picnic areas, bushwalking and information.

Lake Toolibin is at the headwaters of the Arthur River. It is the only remaining Wheatbelt wetland where there are extensive stands of living swamp sheoak growing across the lake floor.

More species of Waterbirds breed in the Toolibin Reserve than any other single wetland in the south west. Until the first wave of clearing for agriculture (1890-1930's), freshwater wetlands were widespread in the south west but most of them have fallen victim to salinisation, waterlogging and inundation.

A clear contrast is available with nearby Lake Taarblin which has become saline. When trees began dying along the western shores of Lake Toolibin in the 1970s, this led to the formation of the Northern Arthur River Wetlands Rehabilitation Committee in 1976.

The Wickepin Land Conservation District Committee formed in 1985 led a major community effort to rehabilitate salt affected land and plant trees in the catchment.

The Department of CALM has purchased and rehabilitated land adjacent to the lake so that perennial vegetation now completely surrounds the lake. AGWA and CALM are encouraging the planting of trees and shrubs in the catchment. Bores and pumps have been installed to extract groundwater from under the lake and to test whether pumping on a larger scale could lower groundwater to a safe level.

In 1992 it was decided that the most effective way of co-ordinating the many actions needed to save Lake Toolibin was to draw up a recovery plan for the management of the whole catchment. Local farmers are actively involved and formed the Toolibin Catchment Group.

As well as tree planting around the Lake, selecting crops that use more water can improve the water balance for all land users in the catchment.

Success of these programmes also rests on social and cultural issues. Catchment boundaries do not necessarily reflect social boundaries and the problems facing land managers may differ across the landscape.

3.0 SETTLEMENT PATTERN

3.1 ABORIGINAL SETTLEMENT

Aborigines of the Balardong, Wilmen and Nyauginyagi tribal groups lived in the region at the time of European settlement.

Detailed knowledge of their traditional lifestyles is incomplete, however, evidence of the extent of their occupation remains in place names and at a number of sites throughout the region (WDC, 1988).

There were thought to be at least 13 different Aboriginal Clans in the south-west region: collectively the people are known as Noongars. The word Noongar, or its linguistic equivalent, is identifiable as the word for Aboriginal (or person) in many of the vocabularies in this region. The people from the Narrogin district belonged to the Wiilman Clan.

Evidence of Aboriginal occupation and links to the area survive in the form of archaeological sites and the ever-growing interest of local Noongars in re-establishing cultural ties to the land.

European settlement had a dramatic effect on the aboriginal inhabitants of the region; conflict and introduced diseases reduced their numbers, while interaction with the settlers and the alienation of hunting grounds dispersed their society. Those who survived this contact established a co-existence with the settlers and as part of the workforce, they contributed to the early development of the region.

Government policies and the influx of population, particularly during the Depression further displaced those aborigines who had begun to find a place in this new society.

There has been a significant resurgence of interest in Noongar culture in recent years.

Local Noongar people have expressed a strong desire for areas to be set aside where they can legally engage in cultural activities, including hunting (CALM 1991b). The feasibility of permitting such activities on various categories of CALM-managed land within the southwest of the State, including Dryandra, is currently being investigated.

Quinns Block, within the Highbury State Forest, was identified by local Aboriginal people as a favoured location for future cultural activities, including hunting, camping, and passing on cultural knowledge (i.e. "the Noongar way") to the younger generation. It is also the largest of the Highbury Blocks and receives relatively little recreation use compared to those areas of Dryandra north of Narrogin (CALM, undated).

3.2 EUROPEAN SETTLEMENT

Europeans settled the area to the north of the Strategy Area in the 1830's leading to the establishment of the towns of York, Northam and Toodyay.

Some settlement subsequently occurred in the Williams area followed by an expansion of pastoralism eastwards, mostly as outstations for established farms in the Avon Valley to the north.

Gradually European settlement linked the settlements on the Swan and Avon River Valleys with Albany, the then colony's major port.

The 1840's was a time of low wool prices and the cost of labour and materials was very high. Exploration still occurred during this period as it was felt that better pastures would stimulate the economy but it was the arrival of convict labour and additional settlers, after 1849 that assisted the growth of the fledging settlements.

From the 1860s settlement gradually increased as colonists took up pastoral leases and then purchased farms. By the mid 1870's pastoral leases were extensive with woolgrowers settled as far east as Merredin and Bruce Rock. Land laws were changed to encourage smaller rural properties, closer settlement and large grain crops, particularly after 1887 when the need to lessen the amount of grain imported into the State to feed Perth and the Goldfields was recognised. The Homestead Act of 1893 and the Land Act of 1898 were introduced to establish wheat as a staple export of Western Australia.

The railway linking Albany to Beverley was completed in 1889 leading to the establishment of Narrogin which was declared a town in 1897. Katanning, Pingelly and Wagin were declared in 1898.

When the Great Southern Land Company began construction of the final section of railway linking Perth and the mail steamer port of Albany, it proved the stimulus for intensive farming and the development of farms along the railway route including Brookton, Pingelly, Cuballing, Narrogin and Wagin.

Following the gold rush in the 1890s, an available workforce and a State Government flush with funds resulted in land being released to the east pushing the Wheatbelt eastwards.

The action of the Government in taking over the railway from the Great Southern Land Company opened up previously tied up land.

The renewed interest in farming was perhaps most active following the turn of the century and was reflected by the heightened level of commercial and building activity in the town of Narrogin together with the extensive areas of farming land being opened up in the surrounding district.

By the 1920s, towns were established at Corrigin, Kondinin and Lake Grace.

The period since the early 1900s has been characterised by the growth and consolidation of the agricultural base of the area. This expansion and growth was interrupted by the events of the two World Wars and the depression of the 1930s.

In particular Western Australia's early period of prosperity ended with the collapse in world prices for wool and wheat in 1929. The depression years saw a rise in gold prices and the booming of the goldfields, as well as the change from handling bagged wheat to bulk handling.

Notwithstanding by the time of World War II, the Central South Region or Upper Great Southern as it was called, was a well established farming region. Pioneers having overcome considerable hardship, were becoming established residents. The older railway towns sported fine public and private buildings and newer towns were well established service centres.

The region's rate of expansion eastwards slowed in the 1950s and 60s, but its productivity and population grew.
As the regional centre for the Strategy Area and beyond, the Town of Narrogin has sustained a steady level of population growth over the post World War II period.

Throughout the south west of Western Australia the railways have had a major influence upon settlement patterns. Townships were anticipated along the routes of the proposed railways at relatively short intervals of 5 km (in the case of the South Western Railway). This spacing proved unrealistic as mobility improved, meaning that many small centres were shortlived. As farms expanded the requirements for the service centres decreased further.

3.3 RURAL SETTLEMENT

From the hunting and gathering of the region's original inhabitants to the modern agricultural economy of the present, human settlement in the Strategy Area has had a close relationship with the productivity of the land and climate. Advances in technology, particularly since European settlement, have continually altered this relationship and the landscape itself.

The recorded history of the Strategy Area is closely linked with the development of Western Australia's agricultural industries and because it is consistently productive, the region played an important part in the State's development.

The goldrush in the 1890's, while it temporarily deprived the area of a workforce and investment, was to lead to a rapid expansion of agriculture in the Strategy Area during the first decades of the 20th century.

Land was released and railways built to encourage returning diggers and other immigrants to push the wheatbelt eastwards. This eastward expansion of farming which continued to the 1940's, was assisted by the use of new varieties of wheat, improved fertilizers and by the development of machinery, which enabled the cultivation and cropping of larger areas.

Development in the western part of the region began to take a distinctly different form to that in the east, during this period. Wool became this area's major product as wheat yields were indifferent in the relatively higher rainfall, though oats and barley grew well and in the forested parts, a timber industry supporting more than thirty sawmills was established.

Machinery and scientific breakthroughs, supported by buoyant commodity prices, enabled individual farmers to increase their cultivated lands and yields, through increased clearing and better returns from once marginal soils. The amalgamation of properties into bigger farms is a process which has continued to the present.

Table 3: Number and Area of Farms

Local Authority	1976		1983		1986		1991		1996		1999		Change in No.
	No.	Area ('000 ha)	*No.*	Area ('000 ha)	*No.*	Area ('000 ha)	*No.*	Area ('000 ha)	*No.*	Area ('000 ha)	*No.*	Area * (1) ('000 ha)	1976-1999
Narrogin	*153*	148	*141*	138	*139*	144	*128*	146	*132*	150	*152*	143	-1
Wickepin	*145*	185	*134*	200	*127*	199	*122*	191	*118*	201	*100*	191	-45
Pingelly	*110*	123	*104*	127	*94*	125	*93*	127	*87*	126	*97*	116	-13
Cuballing	*117*	100	*101*	86	*97*	83	*87*	84	*81*	82	*87*	102	-30
	525	556			*457*	551			*418*	559	*436*	552	-89
	Ave farm size 1 059 ha				Ave farm size 1 206 ha				Ave farm size 1 337 ha				(2) **
Central South	2 348	3 261			2 041	3 324			1 851	3 399			(3) ***
	Ave farm size 1 389 ha				Ave farm size 1 629 ha				Ave farm size 1 836 ha				
Total WA	17 817	115 221			11 636	113 833			↑13 872 (13 205)	112 482 (20 196) (4)****			

1. Adjusted to agree with digitised areas for Local Government Authorities - See Table 2
2. 26% increase in farm size 1976-1996
3. 32% increase in farm size 1976-1996
4. Excludes Kimberley and rangelands

From the mid-1970's the region's rural population has declined, partly as a result of a reduced labour requirement in agriculture but also because of lower commodity prices and poor seasons. In recent years diversification in the economy has occurred, with new crops, such as lupins and the manufacturing of stock feed for the live sheep.

During the last thirty years, population in the Wheatbelt has generally declined under the influence of increasing farming costs and decreasing real commodity prices. Improvements in the size and sophistication of farm machinery have also reduced the demand for farm labour inputs. This trend has been evident in the Central South Region.

There was an increase of approximately 4% in the total area farmed in the Central South Region during the period 1976/77 to 1996/97 and a 17% decrease in the number of agricultural establishments. In the State as a whole during this period, the area farmed decreased by 2.4% and the number of agricultural establishments decreased by 22%.

It can be seen from Table 3 that the average size of farms in the Central South has increased during the 1976/77 - 1996/97 period, by 32% and in the Strategy Area by 26%. In the eastern portion of the region, farm sizes (a^y. 2360 ha) are double the size "of farms in the western portion (a^y. 1280 ha). The average farm size in the Strategy Area is 1337 ha.

3.4 POPULATION CHARACTERISTICS

In 2000 there was an estimated 72,596 people living in the Wheatbelt Region which was 3.9% of the State's population and 14.1% of regional Western Australia's population. The Central South Sub Region comprises 28% of the Wheatbelt Region and contains approximately 25% of the Wheatbelt population. The population is spread across 21 towns and several smaller localities. (See Table 4).

The western portion of the Central South Region forms the Hotham Statistical Subdivision. It has approximately three times the population of the eastern portion or Lakes Statistical Division.

The size and distribution of the Central South population over the last 10 years is shown in Table 4. It should be noted that the 1986 Census was conducted during school holidays when many people were away from their usual residence. The estimated resident population figures have been adjusted by the Australian Bureau of Statistics to allow for this and for other factors. Therefore they are considered to be a more realistic measure of local populations.

In assessing future population growth for the Narrogin district, the WAPC forecasts that the Rural Areas are likely to remain at a constant and static level of population while the Towns of Narrogin, Pingelly, Wickepin and Cuballing have the potential to increase at a gradual rate. (See Table 4)

The Town of Narrogin with an estimated population of just over 4,700 is the largest urban centre in the region. However, there are other significant centres, such as Wagin, Pingelly, Wickepin, Corrigin and Lake Grace. Almost half the total population lives in towns scattered throughout the region. Table 5 indicates the distribution between town and rural population in the Strategy Area.

Table 4: Population Trend, Central South Region

	1971	1976	1981	1986	1991	1996	2001 (1)	2006 (2)	2011 (2)	2016 (2)
Brookton			1 210	1 116	1 098	973	1 023			
Corrigin			1 620	1 474	1 481	1 318	1 290			
CUBALLING			680	648	788	741	726	750	n/a	n/a
Dumbleyung			1 010	1 039	934	894	761			
Kondinin			1 280	1 204	1 126	1 186	1 012			
Kulin			1 280	1 186	1 119	966	892			
Lake Grace			2 040	2 168	1 885	1 819	1 567			
NARROGIN (SH)		870	810	698	871	860	774	900	n/a	n/a
NARROGIN (TN)		4 950	5150	5 105	5 028	4 626	4 712	4 760	4 760	4 800
PINGELLY			1 410	1 382	1 272	1 200	1 207	1 250	n/a	n/a
Wagin			2 400	2 226	2 092	1 979	1 840			
Wandering			490	409	426	364	336			
West Arthur			1 290	1 134	1 038	1 003	909			
WICKEPIN			1 020	963	964	860	746	870	n/a	n/a
Williams			1 180	1 168	1 073	1 040	942			
Central South			22 870	21 920	21 195	19 829	18 737	20 000	20 000	20 100
STRATEGY AREA			9 070	8 796	8 923	8 287	8 165	8 586	n/a	n/a

(1) Preliminary 2001 Census figures
(2) WAPC forecasts

Table 5: Town/Rural Population Distribution 2001

Local Authority	Total Population	Rural	Town	% Town/Total
Narrogin (Town)	**4 712**	**-**	**4 712**	**100%**
Narrogin			4 712	
Narrogin (Shire)	**774**	**532**	**242**	**31%**
Highbury			200	} 90%
Narrogin town outskirts			42	
Wickepin	**746**	**220**	**526**	**70%**
Wickepin			405	
Yealering			100	
Toolibin			-	
Tincurrin			11	
Harrismith			10	
Pingelly	**1207**	**340**	**867**	**72%**
Pingelly			817	
Pingelly Heights			20	
Moorumbine			20	
Dattening			10	
Cuballing	**726**	**305**	**421**	**58%**
Cuballing			321	
Yornaning			-	
Popanyinning			100	
TOTAL	**8 165**	**1 397**	**6 768**	**83%**

850 people in the South Central Sub Region identified as being of indigenous origin in 2001 (4.5% of the total population). 88% of the population stated that they were Australian born. Of those born overseas the main countries were the United Kingdom and New Zealand (ABS, 2002).

The age structure in the Central South Sub Region is also undergoing significant change as the median age of people increases. In 1991 it was 30 years while in 2001 it is 37 years. There is also a noticeable absence of people aged 15-24 years in the Central South Sub Region, as many young move out of the region in search of employment and higher education opportunities. (WDC, 2003)

Although 2001 Census figures are currently unavailable it can be concluded from previous census figures that the Strategy Area's age structure, when compared with that for the State, is typified by a higher percentage of both males and females in the age groups 10-19 and by a lower percentage in persons in almost all categories over 19 years. The average age for the rural areas is growing.

The current population projections prepared by the WAPC show a steady increase in the Wheatbelt's population over the next 30 years which is estimated to reach 118,000 with the major growth areas being the local authority areas adjoining the Perth Metropolitan Region. If the Central South Region were to maintain its proportion of population growth, then the Sub Region population would grow to 29,000 over the 30 year period.

However, the Central South Region has declined from 21,920 in 1986 to 18,737 in 2001.