Limestone Coast Region Plan

A volume of the South Australian Planning Strategy

August 2011

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This document is the *Limestone Coast Region Plan*.

The document has been prepared by the South Australian Government, through the Department of Planning and Local Government, as a volume of the South Australian Planning Strategy pursuant to section 22 of the *Development Act 1993* and is subject to change.

For further information

Please visit www.dplg.sa.gov.au or telephone the Department of Planning and Local Government on 08 8303 0600.

Government of South Australia
Department of Planning
and Local Government

MINISTER FOR URBAN DEVELOPMENT, PLANNING AND THE CITY OF ADELAIDE

South Australia's Limestone Coast is well-placed to build on its sound economy, with its strong townships, well established agricultural and fishing industries, and growing tourism performance.

The region's strengths are many: it is home to South Australia's second largest city, Mount Gambier, and a range of well serviced commercial centres; it hosts several prestigious wine regions including the world famous Coonawarra, and it is one of South Australia's most important primary production regions. The coastal towns and wine growing districts, in particular, are attractive tourist destinations for South Australians and interstate visitors. Importantly, the Limestone Coast is home to around 64,500 people who live and work in the region.

The *Limestone Coast Region Plan* is designed to make sure this beautiful region remains a great place to live, work and visit for many years to come. This plan is one of seven regional volumes in the South Australian Planning Strategy. Based on a presumption of steady economic growth, the plans indicate where new housing, industry and commercial activity should be best located – and not located. The plan outlines the different roles and functions of towns and addresses important issues, such as the way industrial, commercial and residential areas connect and impact on each other.

As with all of the regional plans, the challenge is to balance changes in the economy and population with the need to protect the region's natural and historical features. These include unique ecosystems, landscapes and the built environment of towns. The plan identifies the potential effects of growth on these features and sets out land-use principles and policies for development that will support their protection. Ultimately, the plan is about helping the Limestone Coast to continue to grow and develop in a way which preserves everything the community values about the region.

The *Limestone Coast Region Plan* was produced as a result of close collaboration between the State Government, local councils, regional development and natural resources management boards, local industry and the community. The result is a document which points the way to a future of well-managed growth, protected natural and industry assets, and strong communities.

Hon John Rau MP
Deputy Premier
Minister for Urban Development, Planning and the City of Adelaide

The **regional volumes** of the South Australian Planning Strategy provide a link between broad, statewide planning aims and local, council-specific planning needs. They give direction on **land use and development**, outline where people are likely to live so that agencies can plan for the provision of **services and infrastructure**, and set out policies to manage **changes in population and climate**. Local councils, the state government and regional development and natural resources management bodies are working with communities and industry to develop **effective strategies** that will lead to a **sustainable future**. They recognise that population growth and economic prosperity must be balanced with preservation of the **environment** and retention of the **heritage, history and character** of regional communities to attract and retain **skilled workers** and for the benefit of **future generations.**

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OVERVIEW

Chapter A

Background

The *Limestone Coast Region Plan* (the Plan) guides future land use and development in the region.

It has been prepared by the South Australian Government, through the Department of Planning and Local Government (DPLG), in collaboration with the Limestone Coast Regional Development Board[1], the South East Local Government Association, the South East Natural Resources Management Board and the seven councils of the region:

- Tatiara District Council
- Kingston District Council
- Naracoorte Lucindale Council
- District Council of Robe
- Wattle Range Council
- City of Mount Gambier
- District Council of Grant.

Submissions received from industry, interest groups and the community during the public consultation period from March to May 2010 were valuable in improving and finalising the Plan.

For more information about the *Limestone Coast Region Plan* and how it was developed, please see Appendix 1.

[1] The Limestone Coast Regional Development Board became Regional Development Australia Limestone Coast in 2009–10.

The role of the South Australian Planning Strategy

The *Limestone Coast Region Plan* is one of seven regional volumes that, together with *The 30-Year Plan for Greater Adelaide*, make up the South Australian Planning Strategy. The regions covered in the regional volumes of the Planning Strategy are: Eyre and Western, Far North, Kangaroo Island[2], Limestone Coast, Murray and Mallee, Yorke and Mid North[3] (refer to Map A1).

In the regional volumes the state government gives direction on land use and development for the period 2010–2036. They set out how the government proposes to balance population and economic growth with the need to preserve the environment and protect the heritage, history and character of regional communities. They also help state and local government in planning for the provision of services and infrastructure, such as transport, health, schools, and aged care and community facilities.
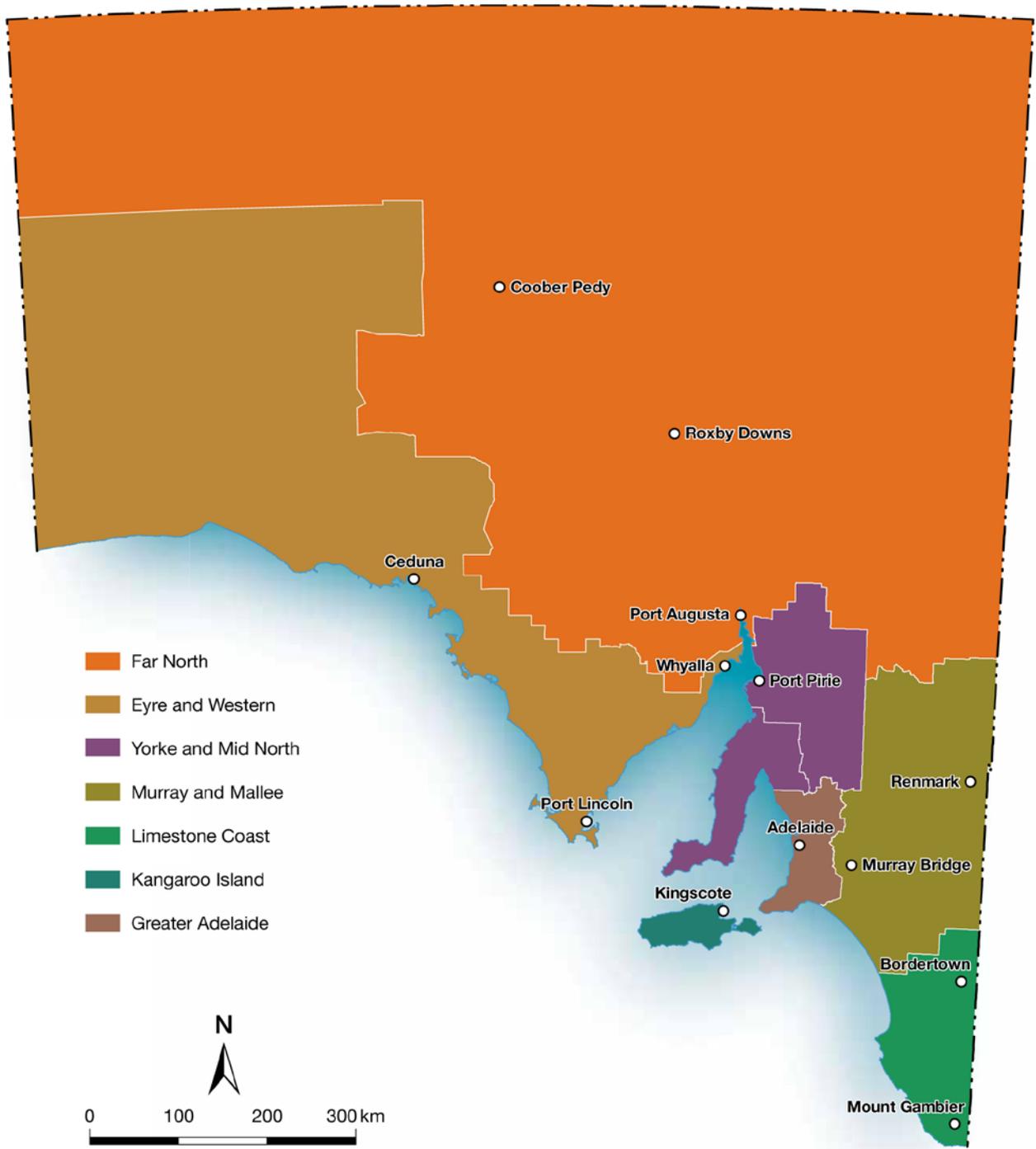
[2] Kangaroo Island is part of the Fleurieu and Kangaroo Island SA Government Region but for planning purposes it is covered in a separate regional volume of the South Australian Planning Strategy. The Fleurieu Peninsula is covered in *The 30-Year Plan for Greater Adelaide.*

[3] The Yorke and Mid North regions are currently covered in the South Australian Planning Strategy as separate volumes. They will eventually be combined into one volume.

At a local level, the regional volumes provide guidance and resources for councils as they undertake their Strategic Management Plans and review and amend their Development Plans. Development Plans contain the zones, maps and explicit rules that specify what can and cannot be done with land in a council area. Councils must ensure that their Development Plans and Development Plan Amendments are consistent with the land-use policies and directions of the relevant regional volume. The regional volumes also guide Development Plans and Development Plan Amendments in unincorporated (out of council) areas, as undertaken by the Minister responsible for urban development and planning (the Minister).

The structure plans for the state's major regional cities, including Mount Gambier, Port Augusta, Port Lincoln, Port Pirie and Whyalla, flow from the regional volumes.

The South Australian Planning Strategy is a requirement of section 22 of the *Development Act 1993*. The Minister is responsible for its preparation on behalf of the state government and for reporting to the South Australian Parliament annually on its implementation. Each volume of the strategy must be reviewed at least every five years.

Legend:
- Far North
- Eyre and Western
- Yorke and Mid North
- Murray and Mallee
- Limestone Coast
- Kangaroo Island
- Greater Adelaide

N

0   100   200   300 km

The objectives of the regional planning strategies

To maximise the state's opportunities and respond to its challenges, the regional volumes of the South Australian Planning Strategy have three interlocking objectives. They are to:

- maintain and improve liveability
- increase competitiveness
- drive sustainability and resilience to climate change.

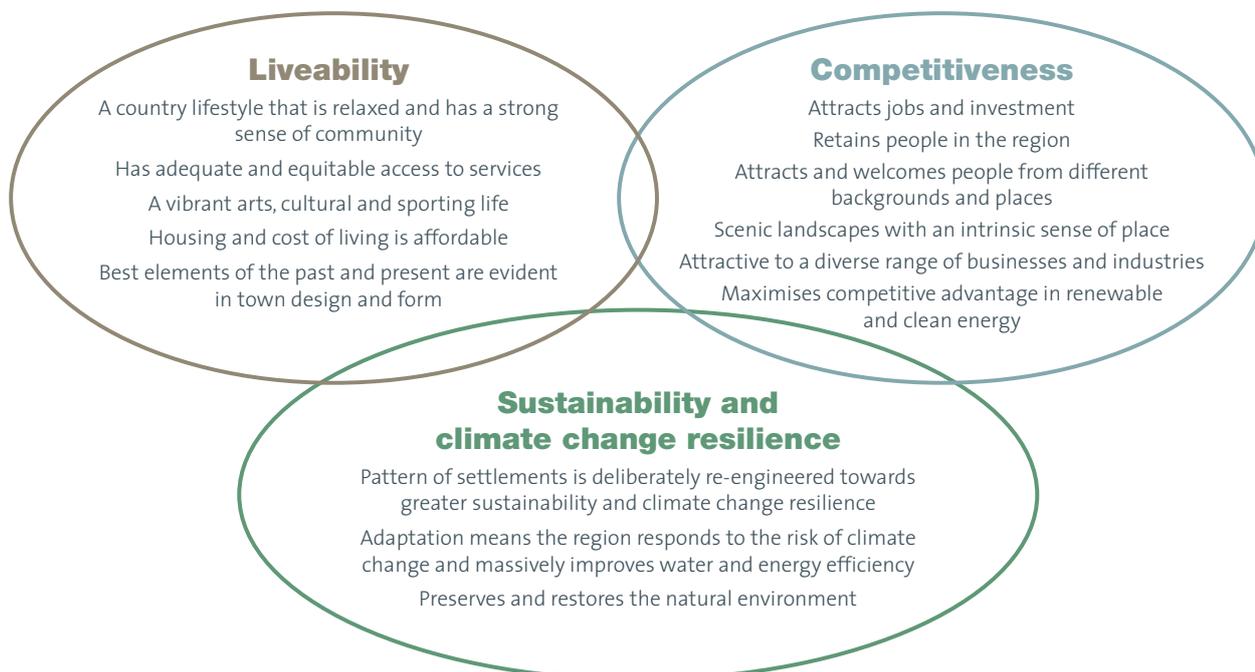Figure A1 shows how these three objectives interrelate.

Alignment with state government policies

The regional volumes of the South Australian Planning Strategy provide a link between broad, state-wide planning aims and local, council-specific planning needs, and they work in tandem with key state policies, leading to a consistent approach to land use and development across the state.

Firstly, the volumes support the achievement of a range of social, economic and environmental targets in *South Australia's Strategic Plan*. Second, they feed into the

Strategic Infrastructure Plan for South Australia (2005–06) by identifying the infrastructure priorities needed to support economic and population growth. Third, they tie in with the *Housing Plan for South Australia* (2005), *Water for Good—A Plan to Ensure our Water Future to 2050* (2009), the *Economic Statement* (2009), the *State Natural Resources Management Plan* (2006), the regional natural resources management plans (2009) and *South Australia's Waste Strategy* (2005).

Figure A1 – Objectives for the regional volumes of the South Australian Planning Strategy

Liveability

A country lifestyle that is relaxed and has a strong sense of community

Has adequate and equitable access to services

A vibrant arts, cultural and sporting life

Housing and cost of living is affordable

Best elements of the past and present are evident in town design and form

Competitiveness

Attracts jobs and investment

Retains people in the region

Attracts and welcomes people from different backgrounds and places

Scenic landscapes with an intrinsic sense of place

Attractive to a diverse range of businesses and industries

Maximises competitive advantage in renewable and clean energy

Sustainability and climate change resilience

Pattern of settlements is deliberately re-engineered towards greater sustainability and climate change resilience

Adaptation means the region responds to the risk of climate change and massively improves water and energy efficiency

Preserves and restores the natural environment

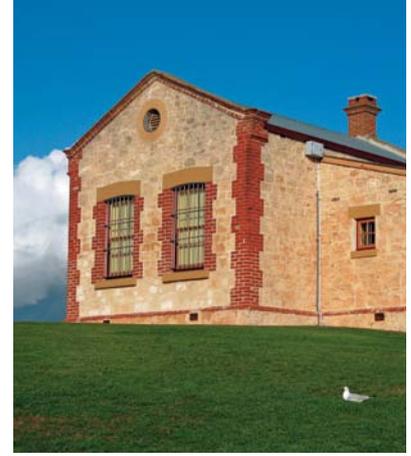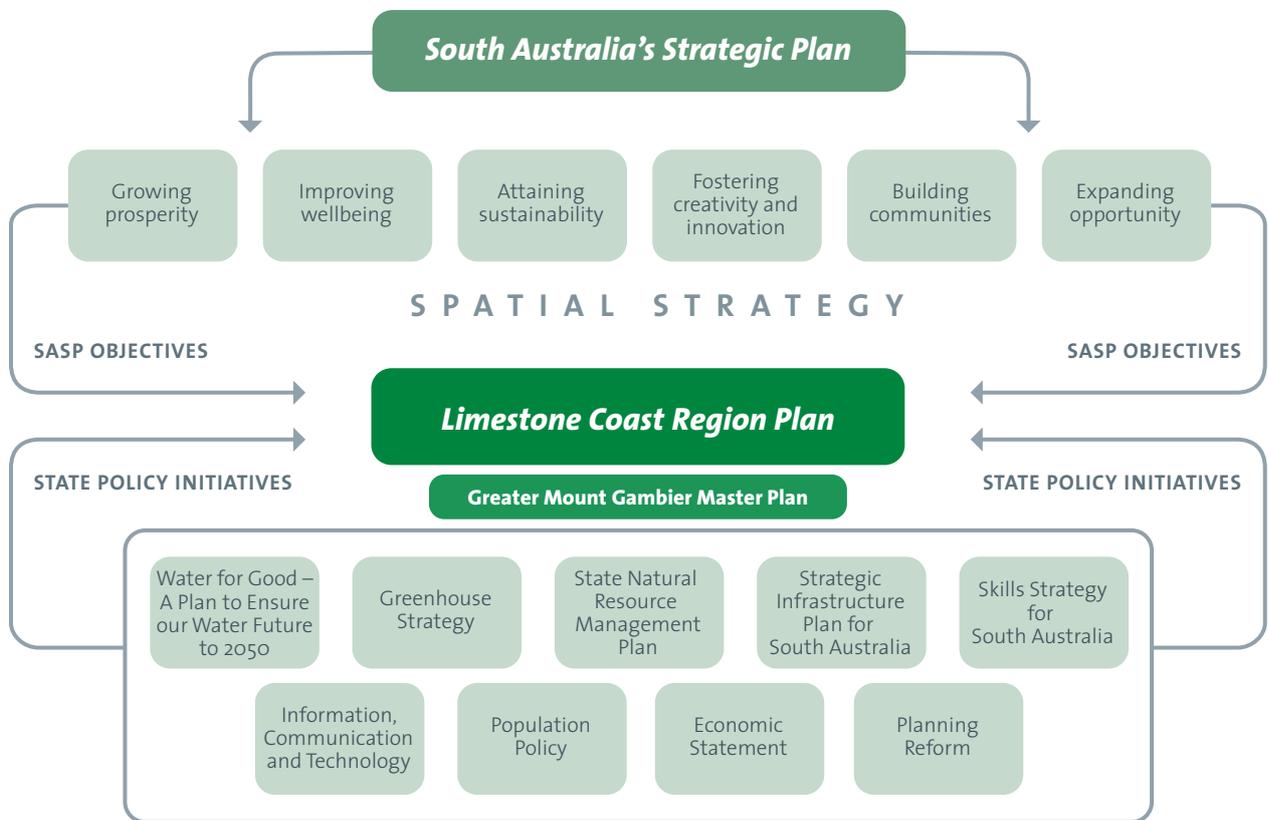**Figure A2 – The *Limestone Coast Region Plan's* relationship with key state government policies**

Relationship to *South Australia's Strategic Plan*

Figure A2 shows the relationship of the regional volumes with *South Australia's Strategic Plan* (SASP) and its targets, as well as the links to several state policy initiatives.

See Appendix 3 for further information about SASP principles and targets.

How the regional volumes will work at regional and local government levels

While the regional volumes will primarily operate at a regional level, local government will play a pivotal role in their implementation, in collaboration with DPLG, other state government agencies and stakeholders such as regional development and natural resources management boards. The collaborative process will feature regional forums, which will bring councils and relevant bodies together each year to agree on long-term land-use and infrastructure priorities, appropriate targets, and the need to focus their respective resources on implementing the priorities.

Consideration of Commonwealth environmental matters

The regions encompass many matters of National Environmental Significance (NES) that are protected under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). These matters include:

- nationally listed species and ecological communities
- migratory species
- wetlands of international importance under the Ramsar Convention (Ramsar-listed wetlands)
- national and World Heritage items/areas.

Councils' decision making processes and development controls should provide for early consideration of matters of NES and recognition that actions that may potentially have a significant impact on matters of NES will require a referral to the Commonwealth Department of the Environment, Water, Heritage and the Arts under the auspices of the EPBC Act.

Planning for change in regional South Australia

The regional volumes of the South Australian Planning Strategy set out land-use policies to manage the changes that are forecast to occur across the regions. Of particular concern are changes in population and climate, which are having, and will continue to have, significant impact on the demand for services and infrastructure, the natural environment, the character of communities and the economic prosperity of the regions.

Regional population change

The state government believes that sustainable population growth is essential to maintain healthy communities and a labour force that can support our economy. While much of the state's population growth is expected to occur in Greater Adelaide, regional areas are targeted to grow as well.

The make-up of the state's population is also changing dramatically—it is ageing at a faster rate than the other Australian states and this will bring significant challenges for planning, particularly in terms of the type and location of housing and its proximity to services.

Table A1 – Population trends and targets by region 1996–2036

Region	Population trends		SASP T5.9 Target—Maintain regional SA's share (18%) of state population[a]			
	ERP in 2008[b]	Average annual growth rate 1996–2008 (%)	Share of 2008 regional population[c] (%)	Population target in 2036[d] (based on 2008 share)	Population increase 2008–36 (persons)	Population growth 2008–36 (persons per year)
Eyre and Western	58,072	0.19	19.54	77,385	19,313	715
Murray and Mallee	70,125	0.23	23.60	93,446	23,321	864
Far North	28,460	−0.46	9.58	37,925	9465	351
Limestone Coast	**65,402**	**0.35**	**22.01**	**87,152**	**21,750**	**806**
Yorke and Mid North	75,112	0.15	25.28	100,092	24,980	925
Total	297,171	0.17	100.00	396,000	98,829	3660

South Australia's Strategic Plan (SASP) calls for regional South Australia to maintain an 18 per cent share of the state's total population (Target 5.9). Based on the all-of-state population target developed for *The 30-Year Plan for Greater Adelaide*, this would equate to about 99,000 additional people taking up residence in regional areas, resulting in a regional population of 396,000 people by 2036.

Table A1 breaks down this population target by region and indicates the past population growth rates (1996–2008). Each region requires an average annual growth rate of 1.03 per cent to achieve its population target increase and maintain its 2008 share of the estimated resident population (ERP).

Notes to Table A1:

a   *The regional population targets are aspirational, based on the all-of-state population target developed for* The 30-Year Plan for Greater Adelaide. *The timeframes cited are uncertain and the growth targets will be amended as the results of more recent demographic analyses become available.*

b   *ERP (estimated resident population). Australian Bureau of Statistics,* Regional population growth, Australia, *cat. no. 3218.0, ABS, Canberra, Apr. 2009.*

c   *Department of the Premier and Cabinet,* South Australia's Strategic Plan, *DPC, Government of South Australia, Adelaide, 2007, <www.saplan.org.au>.*

d   *South Australia's population is expected to reach 2.2 million by 2036. Department of Planning and Local Government,* The 30-Year Plan for Greater Adelaide: Background Technical Report, *DPLG, Government of South Australia, Adelaide, 2009, p. 16, <www.plan4adelaide.sa.gov.au>.*

While overall population numbers in regional areas have remained relatively static during the past decade, there have been significant changes in where people are choosing to live.

Numbers have declined in the more sparsely populated areas, particularly those in the Far North, and in settlements with less than 1000 people (with the exception of coastal communities). Changes to population distribution are being driven by the restructuring of farming enterprises, resulting in larger and fewer agricultural properties; the interstate and intrastate migration of people seeking a regional lifestyle; and changing industry demands.

Generally, towns with more than 1000 people have grown; several of these towns have had the fastest rates of population growth in the state. Larger centres such as Port Lincoln, Murray Bridge and Mount Gambier have continued to expand, while in Port Pirie, Port Augusta and Whyalla the population has stabilised and shown some improvement after a sustained period of decline.

The demographic profile of the regions also has been changing, with an ageing population and generally declining numbers of young people.

However, increasing economic investment in the regions and the expansion and diversification of primary industries, aquaculture, mining and the services that support tourism and older populations are expected to attract and maintain more young people and people from overseas. This will contribute to the achievement of the SASP population growth target.

To achieve the SASP workforce targets, the South Australian Government, through the Department of Further Education, Employment, Science and Technology, is working with industry to develop workforce action plans in the mining, defence, construction, health and advanced manufacturing sectors. As well, industry skills boards are developing workforce development plans to address the demand for labour and skills in industries that have lost workers to mining.
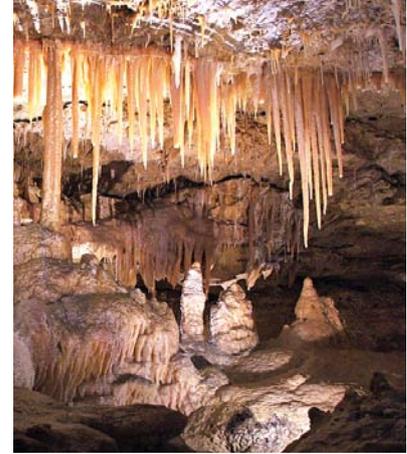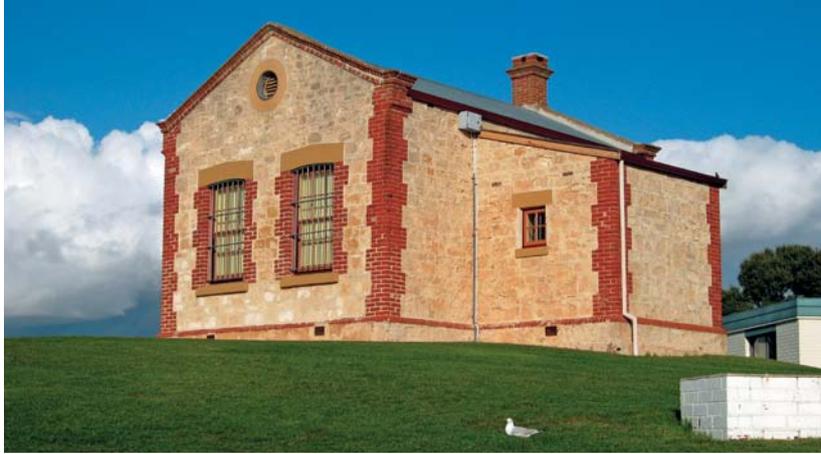
Any potential impacts on natural resources, the environment, biodiversity, unique landscapes and the character of communities as a result of these changing population patterns and related development will need to be carefully managed.

Climate change

The potential effects of climate change on the regions range from threats to water supply, increased risk of bushfire, sea level rise and greater fragmentation of native habitats to increased pressure on health care services from more vulnerable people.

The state government believes it is critical to intervene now to help the regions prepare for and adapt to long-term climate change. Securing water and energy supplies is fundamental to economic, social and environmental wellbeing in the face of such change.

In recent years state and local governments and regional communities have improved water security through augmentation of supply, the introduction of permanent water conservation, and measures such as wastewater re-use and stormwater harvesting. Increased housing density, improved water efficiency of buildings and the incorporation of Water Sensitive Urban Design (WSUD) principles in the development process will lead to more efficient water consumption in regional towns. State and local governments are developing regional demand and supply plans, to be in place by 2014, as outlined in *Water for Good—A Plan to Ensure our Water Future to 2050*, as well as investigating how regional communities can diversify their water supply sources.

In addition, state and local governments continue to investigate ways to organise land use such that it supports renewable and clean energy technologies. These opportunities will give South Australia a competitive advantage in a carbon-constrained economy. Investment in infrastructure will be critical to realise such opportunities.

These initiatives will extend the life and reliability of our water and energy supplies and allow the population and the economy to grow without placing unsustainable demands on our natural resources.

Our understanding of climate change and its ramifications is evolving rapidly. It is critical that policies and decisions are based on the best current information and can be adjusted in the future if required.

Managing change

South Australia's regions face the challenge of managing the impacts of climate change and population growth to protect viable primary production industries and the natural resources upon which they depend. This challenge has been compounded by reduced rainfall during several drought years. During this time rural communities have again shown their resilience and capacity to manage both good and bad years.

Local councils, regional and economic development boards, natural resources management boards and the state government have been working with the community, local groups and industry to develop effective strategies for specific sectors (for example, primary industries and tourism) and specific parts of the region (for example, individual towns and council areas) that will lead to a sustainable future for the region.

They recognise that population and economic growth must be balanced with protection of the environment, including biodiversity, and retention of the regions' unique qualities for the benefit of future generations and to attract and retain skilled workers.

THE CONTEXT FOR THE PLAN

Chapter B

THE CONTEXT FOR THE PLAN

Chapter B

The Limestone Coast region at a glance

The Limestone Coast region:

- covers an area of around 21,400 square kilometres

- has a population of around 65,400[4]

- has an economy based on agriculture and primary production, horticulture/viticulture, dairying, forestry and associated processing, and fishing

- has a growing tourism industry and many popular tourist and holiday coastal destinations

- is well resourced, with generally reliable water supplies (particularly in the Lower South East) and available energy

- is well placed to accommodate population growth, given its strong economy and well serviced regional centres

- is rich in environmental assets, including coastal environments, national parks, conservation areas and woodlands

- has a major regional centre, Mount Gambier (population around 23,500), which has a strong economy based on agriculture and timber processing, a wide range of educational, retail and commercial facilities and services, and extensive infrastructure

- has several important commercial and service centres, including Naracoorte, Millicent, Kingston and Bordertown, whose economies are based on servicing the surrounding communities and their industries.

See Appendix 2 for detailed information about the Limestone Coast region, including its population distribution, economy and infrastructure.

Key issues for the Limestone Coast region

The following issues were identified as critical to the region's future by local government, industry groups and communities during consultations in 2009. These issues, which are key drivers for the *Limestone Coast Region Plan*, are grouped under four themes:

- environment and culture

- economic development

- population and settlements

- infrastructure and services provision.

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4   Estimated resident population in 2008.

Environment and culture

- Providing quality water supply and reducing reliance on traditional water supplies by developing strategies to re-use stormwater and waste water

- Planning for the impacts of climate change particularly declining rainfall on agricultural production, as well as the increasing demand for water resources arising from population growth

- Supporting sustainable groundwater and surface water management

- Ensuring development protects and preserves environmental assets, including areas of international and national importance, conservation parks, coastal habitats, wetlands and water resources

- Supporting the creation of biodiversity corridors and linkages (including wetlands) to enhance landscape connectivity for biodiversity

- Ensuring development is appropriately located, and does not adversely affect environmentally significant areas and scenic landscapes.

Economic development

- Attracting and retaining a skilled and flexible workforce to support a stronger economic base

- Developing an integrated, strategic tourism plan to guide the expansion of tourism, building on the region's natural and cultural assets

- Encouraging further development of alternative energy industries (solar, wind, biomass, geothermal and wave)

- Attracting industry to the region, particularly where there is infrastructure capacity for growth (for example, electricity, gas, roads, rail and telecommunications)

- Developing and diversifying primary industries and planning for their sustainable adaptation to climate change

- Encouraging new industries to set up in the region to reduce reliance on agriculture

- Positioning the region to capitalise on the expansion of primary industry activities across the state and encouraging the relocation of activities from intra/interstate.

Population and settlements

- Valuing the strong sense of community spirit and regional identity

- Discouraging residential development outside towns

- Catering for an ageing population by developing a range of housing alternatives around existing health and community services

- Maintaining town character and heritage and promoting towns and settlements with distinctive built heritage and historical importance, including Aboriginal heritage

- Ensuring an adequate supply of residential land for future development

- Providing greater employment, recreation and other opportunities to retain young people.

Infrastructure and services provision

- Improving the capacity of water and sewer infrastructure to support growth in population, tourism and industry

- Expanding the re-use of stormwater and wastewater

- Investing in infrastructure to support economic and population growth

- Expanding electricity wind farms and fostering the development of other renewable energy sources and related infrastructure to facilitate economic growth

- Making the best use of existing and planned road and rail infrastructure

- Extending and upgrading broadband and mobile phone services to support industry and expand distance education opportunities

- Supporting the development and maintenance of social and community services and facilities, including sporting, education, health, recreational and other facilities to service the local population.

THE VISION FOR THE LIMESTONE COAST REGION

Chapter C

THE VISION FOR THE LIMESTONE COAST REGION

Chapter C

An integrated approach

The *Limestone Coast Region Plan* is a coordinated and integrated vision for land use and development across the region. It responds to the opportunities and challenges facing the region and identifies the planning priorities necessary to achieve the vision (see Map C1).

The Plan allows for communities to develop and grow, and encourages initiatives that help retain the special qualities of the region while fostering vibrant and distinctive towns that support a range of lifestyles. It supports activities that benefit the local and regional economy, provide local employment opportunities and attract people to the region. It recognises the region's variations in geographical features, economic strengths and community aspirations and seeks to make the most of the different opportunities each presents. It seeks to balance the needs of people today with those of future generations.

The aims of the vision are to:

- promote industrial growth, particularly in Mount Gambier, Naracoorte, the Katnook industrial area near Penola,[5] Snuggery, Bordertown, Keith, Kingston and Millicent

- manage growth to protect and enhance natural assets and existing industry

- foster small-, micro- and home-based businesses

- assist primary production industries to adapt to increasing variations in climate and water availability and so become more sustainable

- strengthen the roles of Mount Gambier as the major regional centre; Naracoorte and Millicent as major commercial and service centres; Bordertown, Kingston and Penola as supporting commercial and service centres; and Keith, Robe, Beachport and Port MacDonnell as local and visitor commercial / service centres

- strengthen the tourism industry by building on the region's natural and cultural assets

- protect areas of environmental and conservation significance, such as the Naracoorte Caves, Bool Lagoon and Hacks Lagoon wetlands

- retain built heritage and link it with tourism, especially in Robe, Kingston, Beachport, Port MacDonnell and Penola

- support and strengthen emerging industries, including the renewable energy (particularly wind) sector.

5 Industrial growth in this area is contingent on development of a pulp mill, which received Major Development approval in 2009.

Legend

- ● Regional city
- ○ Major town
- · Minor town
- Road network
- Strategic road
- Primary freight road
- Secondary freight road
- National rail network
- Disused rail
- LGA boundary
- Planning region
- State border
- ● Regional city/centre
- ● Major commercial/service centre
- ● Supporting commercial/service centre
- ● Local and visitor commercial/service centre

Environment and culture

- Water eco-systems and resources
- Native vegetation
- Protected area
- Coastal management

Economic development

- Potential horticulture/viticulture area
- Geothermal energy
- Wind energy (existing or potential)
- Wave energy (potential)
- ▲ Industrial land/hub (existing or potential)

Population and settlements

- Provide affordable and rental housing for temporary residents
- Ⓗ Strengthen heritage/township character

N

0   10   20   30km

PRINCIPLES AND POLICIES

Chapter D

PRINCIPLES AND POLICIES

Chapter D

This chapter outlines the principles and the policies that are required to realise the vision for the Limestone Coast region. These are set out under three themes:

- environment and culture
- economic development
- population and settlements.

Under each theme the Plan identifies:

- planning-related priorities for councils (and the Minister in out-of-council areas) to consider when developing Strategic Management Plans and updating Development Plans[6]
- principles to guide land-use planning and development
- planning-related policies that provide ongoing direction to councils (and which must be reflected in their Development Plans).

While the policies and priorities of the *Limestone Coast Region Plan* may change over time, the principles will be a constant driving force for future generations to ensure that the region is competitive, liveable, sustainable and resilient to climate change.

The contributions of these principles to South Australia's Strategic Plan are described in Appendix 3.

6 These priorities were identified during consultation and workshops with local councils during 2009.

The principles are:

1 Recognise, protect and restore the region's environmental assets

2 Protect people, property and the environment from exposure to hazards

3 Identify and protect places of heritage and cultural significance, and desired town character

4 Create the conditions for the region to adapt and become resilient to the impacts of climate change

5 Protect and build on the region's strategic infrastructure

6 Retain and strengthen the economic potential of the region's primary production land

7 Strengthen local commercial fishing and aquaculture industries

8 Reinforce the region as a preferred tourism destination

9 Provide and protect serviced and well-sited industrial land to meet projected demand

10 Focus commercial development in key centres and ensure it is well sited and designed

11 Strategically plan and manage the growth of towns

12 Design towns to provide safe, healthy, accessible and appealing environments

13 Provide residential land for a supply of diverse, affordable and sustainable housing to meet the needs of current and future residents and visitors

ENVIRONMENT AND CULTURE

Overview

The design, siting and management of development must prevent adverse impacts on environmental and cultural assets and minimise the exposure of people, property and the environment to danger from hazards such as floods and bushfire.

Achieving sustainable levels of demand for water and energy is also essential, particularly considering the projected effects of climate change.

Several organisations have policies and programs to guide the environmental management of the region, particularly the *South East Regional Natural Resources Management Plan* (2009); Environment Protection Authority policies, codes of practice and guidelines; the *Living Coast Strategy for South Australia* (2004); *Coast Protection Board Policy Document* (2002); *No Species Loss—A Nature Conservation Strategy for South Australia 2007–2017*; *Tackling Climate Change: South Australia's Greenhouse Strategy 2007–2020*; *Wetlands Strategy for South Australia* (2003); *Marine Planning Framework for South Australia*; and Marine Protected Areas program.

This *Limestone Coast Region Plan* seeks to ensure that future land-use directions complement these documents. It therefore contains land-use principles and policies to guide future development in a manner that:

- protects biodiversity and areas of environmental sensitivity, including coastal areas and wetlands of national and international significance

- supports the management of the region's natural resources

- prepares the region for the impacts of climate change

- ensures that development appropriately responds to hazards and risks

- helps preserve the region's heritage, including Aboriginal heritage.

Priorities for councils

- Incorporate information from environmental studies (for example, biodiversity, wetlands, climate change and dryland salinity) and state government policies and plans (referred to above) to inform the review and updating of Development Plans, including identifying areas of high biodiversity value to be protected and buffered

- Enhance understanding of the impacts of climate change on natural resources and habitats in order to inform future strategic planning for development and land use

- Develop and maintain local heritage registers and identify heritage-listed sites in Development Plans

- Identify coastal areas of high scenic value and other landscapes with amenity significance in order that they can be protected

- Protect and conserve wetlands of national and international significance

- Identify and map areas that are subject to risks and hazards.

Legend:
- ● Regional city
- ○ Major town
- · Minor town
- Road network
- Strategic road
- LGA boundary
- Planning region
- State border
- Water eco-systems and resources
- Native vegetation
- Protected area
- RAMSAR wetland
- Coastal management
- Coastal flooding (potential)
- Scenic landscape
- Ⓗ Strengthen heritage/township character

Meningie, Coonalpyn, Culburra, Tintinara, Salt Creek, Keith, Bordertown, Mundulla, Wolseley, Willalooka, Padthaway, Frances, Kingston SE, Cape Jaffa, Avenue, Lucindale, Naracoorte, Hynam, Kybybolite, Robe, Struan, Wrattonbully, Nora Creina, Coonawarra, Greenways, Penola, Furner, Beachport, Hatherleigh, Mount Burr, Nangwarry, Southend, Rendelsham, Millicent, Kalangadoo, Tarpeena, Glencoe West, Tantanoola, Glencoe, Mil-lel, Mount Gambier, Carpenter Rocks, Kongorong, Yahl, Nene Valley, Blackfellows Cave, Allendale East, Donovans, Port MacDonnell

N

0 10 20 30km

23

Principle 1

Recognise, protect and restore the region's environmental assets

Water

The Limestone Coast has significant groundwater resources, including two extensive aquifer systems that provide water for municipal, industrial and agricultural needs. Groundwater supports the region's distinctive ecosystems. Protection and enhancement of these groundwater resources is vital to the longevity and sustainable use of the region's environmental assets. Regulation of groundwater was introduced in the 1970s to manage groundwater depletion and quality deterioration.

The combination of diminished rainfall predicted as a result of climate change (and its associated impact on aquifer recharge rates) and the SASP population growth target[7] will increase the demand for available water. More efficient water use, recycling of stormwater and wastewater and other such measures are required in forward planning. The state government is working with regional communities to develop regional water supply and demand plans, as outlined in *Water for Good—A Plan to Ensure our Water Future to 2050*, and to incorporate water-sensitive urban design (WSUD) principles in the development process (see Box 1). Cooperation and coordination in relation to land-use planning, water management and integrated natural resources management is important to ensure relevant land-use matters are incorporated into Development Plans

Policies

1.1 Protect the quality and function of water-dependent ecosystems by preventing adverse impacts of land use and development (such as overuse of resources, erosion, impeded surface and subsurface water flows, increase in exposure of acid sulfate soils, land degradation and clearing, and pollution).

1.2 Encourage water harvesting initiatives where ecologically appropriate (that is, where it can be shown that the water requirements of dependent ecosystems are being met).

1.3 Pursue best practice water use efficiency in the built form (at both individual dwelling and town scales) drawing on WSUD techniques.

1.4 Ensure development retains natural watercourses and drainage patterns through the creation of appropriate buffers, the appropriate siting and design of development, and the application of WSUD principles.

7 Target 5.9 of *South Australia's Strategic Plan* (SASP) calls for regional South Australia to maintain an 18 per cent share of the state's total population.

Box 1—Water-sensitive urban design (WSUD)

WSUD techniques help to improve water quality and quantity, and reduce flood risk in urban areas, while enhancing biodiversity. They can be incorporated into development projects across a range of types and scales, including homes, streets, parking areas, subdivisions and multi-units, commercial and industrial developments, and public land. The techniques include:

- permeable paving of footpaths, common areas and parking spaces above underground water storage facilities

- water efficient fittings and appliances

- maintaining fixtures (for example, stopping leaks and drips from plumbing and taps)

- green roofs and living walls (that is, plantings on roofs and down walls)

- appropriate landscaping (for example, efficient irrigation, mulching, wind and sun protection, minimising lawn area and selection of suitable plants)

- wetlands to capture and treat run-off water

- the capture and storage of rainwater and stormwater for residential re-use, or to irrigate parks, sporting fields and other open space

- the capture, treatment and re-use of wastewater.

More information about WSUD principles and techniques can be found in the *WSUD Technical Manual for Greater Adelaide*, available at <www.planning.sa.gov.au/go/wsud>. Although the manual focuses on Greater Adelaide, many WSUD techniques can be applied on Limestone Coast.

Coastal, estuarine and marine environments

Resource-based industries, recreational and tourism activities associated with the coast provide great economic and amenity value to the region. Sustainable management of the coastal environment is essential to protect these values, as well as native flora and fauna and Aboriginal sites and objects located along the region's coastline, especially given the likely impacts of sea level rise.

In accordance with the *Marine Parks Act 2007*, nineteen marine parks were proclaimed in 2009. Multiple use management plans with associated zoning are being developed for these parks.

The Planning Strategy now includes the objects of the *Marine Parks Act 2007*. In addition, marine park management plans will need to complement planning strategies and will need to be taken into account in the review and updating of the Development Plan.

Policies

1.5 Protect coastal, marine and estuarine areas of conservation, landscape and environmental significance by limiting development in these areas. In limited circumstances where development may require such a location—such as a development of state significance—the social and economic benefits must be demonstrated to outweigh any adverse environmental and amenity impacts. If development cannot be avoided, the impacts should be minimised and offset where possible.

1.6 Protect coastal features and biodiversity by establishing coastal zones (see Box 2) that incorporate:

▶ habitats that are highly sensitive to the direct impacts of development

▶ important geological and/ or natural features of scientific, educational or cultural importance

▶ landscapes of very high scenic quality.

1.7 Establish appropriate coastal zones and manage development to:

▶ minimise the impact of development and land uses, including cumulative impacts, on natural coastal processes and systems

▶ sustain the coastal and estuarine environment by providing for the retreat of the beach, dune, mangrove and saltmarsh communities in response to predicted sea level rise and land subsidence

▶ enhance public access to the coast

▶ provide for appropriate nature-based tourism and ecotourism development

▶ prevent disturbance of natural coastal habitats and native vegetation.

1.8 Integrate into Development Plans relevant coastal management requirements, including:

- coast protection policies under the *Coast Protection Act 1972*

- marine parks under the *Marine Parks Act 2007*

- aquatic reserves under the *Fisheries Management Act 2007*

- relevant provisions of the *River Murray Act 2003*

- relevant provisions of the *Natural Resources Management Act 2004* and its associated plans

- relevant provisions of the *National Parks and Wildlife Act 1972*

- relevant provisions of the *Native Vegetation Act 1991*.

Box 2—What is a coastal zone?

Coastal zones in Development Plans incorporate:

- coastal features and habitats (including coastal dunes, coastal wetlands, tidal marsh, mangrove areas and estuaries)

- important coastal geological features or other natural features of scientific, educational, heritage or cultural importance (including coastal cliffs)

- buffer areas separating development from sensitive coastal and marine features and habitats

- areas exposed to coastal hazards (including seawater flooding, erosion, acid sulfate soils and sand dune drift) where there are not adequate measures to mitigate the hazard (such as a managed seawall or levee bank) or any strategies to provide further protection

- coast protection measures such as erosion buffer areas, seawalls and levee banks

- coastal landscapes of high scenic quality.

Biodiversity

To protect the region's biodiversity, ecological investigations and impact assessments should be undertaken in areas that are proposed for rezoning or development. Some developments may also require assessment by the Commonwealth (see Box 3).

Policies

1.9 Introduce a clear hierarchy of environmental areas to be protected to improve development certainty and transparency, and incorporate the protection of these areas into Development Plans. The three categories in the hierarchy, which will be managed through Development Plans, are:

▸ **areas of high environmental significance**, including protected public lands (such as National Parks and Conservation Parks), private/public lands under a Heritage Agreement, and land containing high-value native vegetation. These areas will be protected from development unless a specific regulatory exemption applies

Box 3 – Environment Protection and Biodiversity Conservation Act

Applicants for and proponents of developments may be responsible for forwarding development proposals to the Commonwealth Environment Minister. The Minister is responsible for determining if the action is a controlled action, under the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth), and subject to assessment and approval processes under that Act.

▸ **areas of environmental significance**, including habitat areas and lands that have human uses, such as primary production, but also support biodiversity because the uses are of relatively low environmental impact. Higher impact land uses in these areas should be avoided. If development cannot be avoided, the impacts will be minimised and offsets provided

▸ **areas designated for human use**, where human use is the principal consideration. Development is to be consistent with Development Plans and existing legislation.

1.10 Recognise areas of high biodiversity value, and locate and design development to prevent the loss, degradation and/or fragmentation of native vegetation and any loss of species and/or ecological communities.

1.11 Provide for environmental connections to link areas of high biodiversity value and create buffers as a means of managing the interface with conservation areas.

1.12 Avoid any adverse impact on biodiversity, where possible. If such impact is unavoidable, it should be minimised and offset. A comprehensive offset scheme, based on existing offset provisions and drawing on models such as bio-banking, will be developed to provide for a net gain to biodiversity through flexible offsets. Offsets could be made across regions or by funding designated rehabilitation programs.

Scenic landscapes

Attention should be given to the planning and design of development to ensure that significant landscapes and their associated views—both from the land and the sea—are retained (see Box 4). The incremental approval of individual developments, including minor additions and maintenance activities, has resulted in the degradation of scenic resources in the past. It is also important that Development Plan updates reassess landscapes and associated views and devise measures to ensure their protection.

The Coastal Viewscapes of South Australia study undertaken for the Department for Environment and Heritage (DEH)[8] identifies a number of areas in the region that have a 'high coastal scenic quality'. Similar work could be undertaken to determine important non-coastal landscapes and to incorporate them into future Development Plan updates.

Policies

1.13 Acknowledge, protect and manage areas of significant landscape and amenity value, including landscapes that form attractive backgrounds and entrances to towns and tourist developments.

8   DEH became the Department of Environment and Natural Resources (DENR) in June 2010.

Box 4—More than just a pretty picture

Protection of scenic landscapes is important for the Limestone Coast region because these landscapes:

- provide a range of environmental and ecological services in addition to their scenic value
- form a key component of tourism infrastructure, which supports the economic viability of the tourism industry
- encompass the visual amenity of the beaches, coasts, cliffs, sand dunes, conservation and wilderness parks and rural landscapes, which strengthen cultural ties to the land and build a common bond among residents and visitors to the region
- enhance the attractiveness of the region which helps to draw new residents
- support healthy lifestyles through the recreational opportunities they provide.

1.14 Avoid development in areas with significant landscapes that can be viewed from tourist routes, walking trails, the beach and the sea, unless the development requires such a location (such as a development of state significance, renewable energy developments), in which case the scale, height, design and siting of buildings and structures must:

- not adversely affect views to, from and along the ocean and scenic coastal areas
- minimise the alteration of natural land forms

- be visually compatible with the character of surrounding areas
- restore and enhance visual quality in visually degraded areas where feasible.

1.15 Avoid adverse impacts of development on landscapes through site selection and design alternatives that reduce the height or bulk of structures. (Note that landscape screening to mitigate the visual impacts of development is not a substitute for re-siting or re-design.)

Principle 2

Protect people, property and the environment from exposure to hazards

Hazards include flooding, erosion, disturbance of acid sulfate soils, bushfires, erosion, salinity and landslides, as well as water, air and noise pollution, and site contamination. These hazards can occur naturally or result from development activity. Inappropriately located or designed development and land uses can increase the exposure to and impact of hazards.

The potential impacts of climate change, such as sea level rise and increased extreme weather events, are likely to increase the risk of hazards in the future.

Better development planning and control measures can help reduce risks and hazards, but cannot eliminate them.

Policies

2.1 Design and plan development to prevent the creation of hazards and to minimise the impacts of naturally occurring hazards.

2.2 Develop policies to minimise the impact of extreme bushfires in line with the findings of the 2009 Victorian Bushfires Royal Commission.

2.3 Develop partnerships and agreements between state and local government (particularly with emergency services agencies) to address identified risks and hazards and protect the health and wellbeing of the community.

2.4 Integrate adaptation to climate change and disaster risk reduction and hazard avoidance policies, standards and actions into strategic plans, Development Plans and development assessment processes using best practice models to:

▶ reduce the social, environmental and economic impacts arising from extreme events

▶ achieve more consistent and rigorous decision making for long term land-use planning aimed at reducing emergency and hazard risks

▶ enhance protection of critical infrastructure

▶ develop building standards and urban design approaches that create resilient environments for the future

▶ reduce risks while protecting natural areas and biodiversity

▶ protect human health and the environment where contamination has occurred

▶ adopt appropriate processes and methods when remediating contaminated land and ensure its suitability for the proposed zoning

▶ address risk, hazard and emergency management issues in structure and precinct planning for new and existing urban areas.

2.5 Protect people, property and the environment from exposure to hazards (including flooding, erosion, dune drift and acid sulfate soils) by designing and planning for development in accordance with the following principles:

- ▶ Avoidance—avoid permanent development in and adjacent to areas subject to unacceptable risk from hazards

- ▶ Adaptation—design buildings and infrastructure to minimise risk in the long term

- ▶ Protection—establish works to protect existing development or facilitate major development (including stormwater discharge management to accommodate higher tide levels).

2.6 Identify and rehabilitate areas and sites where land is contaminated as a part of development processes.

2.7 Ensure new development is appropriately sited in relation to existing and closed landfills to minimise the risk to people and property from landfill gas emissions. Continue to monitor gas emissions from existing and closed landfill sites to ensure development is not placed at unnecessary risk.

Principle 3

Identify and protect places of heritage and cultural significance, and desired town character

Many buildings and places in the Limestone Coast have heritage and cultural significance that give the region a distinct character and are linked to the attitudes and values that have shaped South Australian history. Identification and careful management of these sites can enliven history, engender a sense of identity and attachment as well as inform future decisions.

Acts that identify and protect places of heritage and cultural significance include the *Heritage Places Act 1993*, the *Historic Shipwrecks Act 1981* and the *Aboriginal Heritage Act 1988*. The latter prohibits any damage to, disturbance of, or interference with the sites, objects and remains without an authorisation by the Minister for Aboriginal Affairs and Reconciliation.

The state government's Aboriginal Affairs and Reconciliation Division (AARD) maintains a register of Aboriginal sites and objects. Aboriginal people and the AARD should be involved early in the planning and development process to help identify and protect sites of cultural significance.

3.1 Protect and conserve places of heritage and cultural value, including national, state and local registered sites.

3.2 Identify the desired character of towns and parts of towns, and ensure the design of buildings and public places such as streetscapes and entrances supports the desired character.

3.3 Preserve and enhance the character of towns that are strongly valued for their unique design and character buildings, including Robe, Beachport and Penola.

3.4 Identify and protect sites that have Aboriginal cultural significance and provide guidance in relation to native title and Indigenous Land Use Agreement (ILUA) requirements.

Principle 4

Create the conditions for the region to adapt to and become resilient to the impacts of climate change

In recent years, reduced rainfall has affected the region's agricultural and horticultural activities and reduced the recharge of its aquifers. Climate change predictions indicate that diminished rainfall will continue to affect the region, with potentially negative impacts on the agricultural and horticultural industries as well as the tourism industry.

The effects of climate change in other, drier parts of the state may also have implications for the future of the Limestone Coast. It is expected that the region may experience some growth through the relocation of primary production activities from these drier areas (particularly the Murray and Mallee region), placing additional pressure on the region's natural resources, particularly water.

Accordingly, it will be important to pursue opportunities to make positive, long-lasting changes in water management in the region. Economically and technologically feasible measures are available to provide the quantity and quality of water needed for the future sustainable development of the region. A well-managed water

supply necessarily encompasses the application of water-efficient technologies and approaches that can save or reduce water consumption in the future.

While not yet mandated for country areas, WSUD principles should be incorporated into all new development. It is envisaged that by 2013 South Australia will develop and implement the best regulatory approach to mandate WSUD, including the specification of targets for particular regions of the state.

Sea level rise will exacerbate beach erosion and foredune erosion at ocean beaches. Recessions of 5 to 30 metres over 50 years can be expected, depending on beach topography, sand supplies and littoral sediment movement. The coastline seaward of the Coorong is a high-energy coastline at greatest risk.

Coastal erosion threatening buildings and infrastructure can be managed with structures such as levees, groynes and sea walls. These are costly to construct, however, and may impact on the amenity of coastal areas, the longshore transport of sand and affect the deposition of sand in other coastal areas.

Protection or maintenance of existing infrastructure and coastal assets (town beaches, boat launching facilities, roads, service infrastructure, housing, moorings and berths) in some areas will become increasingly difficult and expensive as a result of sea level rise. Planning within and around areas of sea level rise risk should therefore seek to address and mitigate these risks.

Energy supply is currently limited in many parts of the region. The implementation of sustainable building design methods together with the development of renewable local energy sources (such as solar, wind and co-generation) can help make the best use of available and planned energy supplies (see Box 5).

The southern ocean winds offer opportunities to further develop wind farms across the southern part of the region, from level with Lake St Clair (between Beachport and Robe) to the southern end of Lake Bonney near Carpenter Rocks.

Increasing industry, residential and tourism related development will place further pressures on energy and water supplies across the region. It is important that local Development Plans are consistent with the regional natural resources management plans and state policy frameworks under the *Natural Resources Management Act 2004*.

Managing demand for water and energy by raising awareness among both residents and visitors is essential to achieving South Australia's sustainable water and energy efficiency targets.

Policies

4.1 Promote carbon sequestration and greenhouse gas mitigation through sustainable land-use management practices, taking into account climate, land and soil suitability and species characteristics.

4.2 Provide buffer areas of sufficient width to separate development from the foreshore and coastal features and to accommodate long-term physical coastal processes.

4.3 Provide the opportunity for town/settlement-level energy efficiency through the promotion of alternative, renewable energy supplies, such as wind power and embedded generation.

4.4 Support the development of alternative and innovative energy generation (such as wind, marine, biomass and geothermal technologies) and water supply facilities, as well as provide guidance on environmental assessment requirements.

Box 5—Improve water and energy efficiency

Many subdivisions and buildings are now designed to maximise the re-use of stormwater and wastewater in residential and industrial developments. For example, at Mawson Lakes in Adelaide, stormwater is filtered and plumbed into houses for use in toilets. Some industries also re-use wastewater and stormwater for cooling or washing down machinery.

Energy demand can be reduced through innovative housing design and methods such as co-generation, which produces electricity and heat in a single process. More information is available on the Energy SA website, at <www.sustainable.energy.sa.gov.au>. The Energy Smart Toolbox, <www.energysmart.com.au/sedatoolbox>, provides tools to help industry reduce energy costs.

4.5 Support the incorporation of sustainable energy and water supply, conservation and efficiencies (for example, stormwater re-use, wind and solar technologies, green buffers, WSUD, building orientation to maximise solar access and shaded areas) in the design of residential, commercial and industrial developments and subdivisions.

4.6 Set building standards and design guidelines to create thermal- and energy-efficient buildings.

4.7 Plan for effective wastewater disposal through mains sewer and community wastewater management systems (CWMS) and maximise re-use opportunities.

4.8 Ensure compact towns to encourage cycling and walking (for example, to shops, work or school) and reduce the number of car trips.

ECONOMIC DEVELOPMENT

Overview

The South Australian Government is planning for an additional 21,750 residents in the Limestone Coast region during the next three decades. Economic development to provide employment opportunities will play a key role in facilitating this growth. Creation of employment opportunities depends on a good supply of land for development that is not constrained by a lack of infrastructure, as well as supporting opportunities in the primary production sector. In addition, the region is well positioned to benefit from having major rail and road freight transport networks that provide excellent access to markets in Adelaide and the eastern states.

A key objective of this Plan is to support the growth of existing industries, including value-adding activities and facilitate the growth of emerging industries. The region's economy is based on primary production, including horticulture/viticulture, dairying, forestry and associated processing, and fishing. Value-adding in these industries has the potential to provide for some employment growth, while the establishment of emerging industries will provide additional employment opportunities.
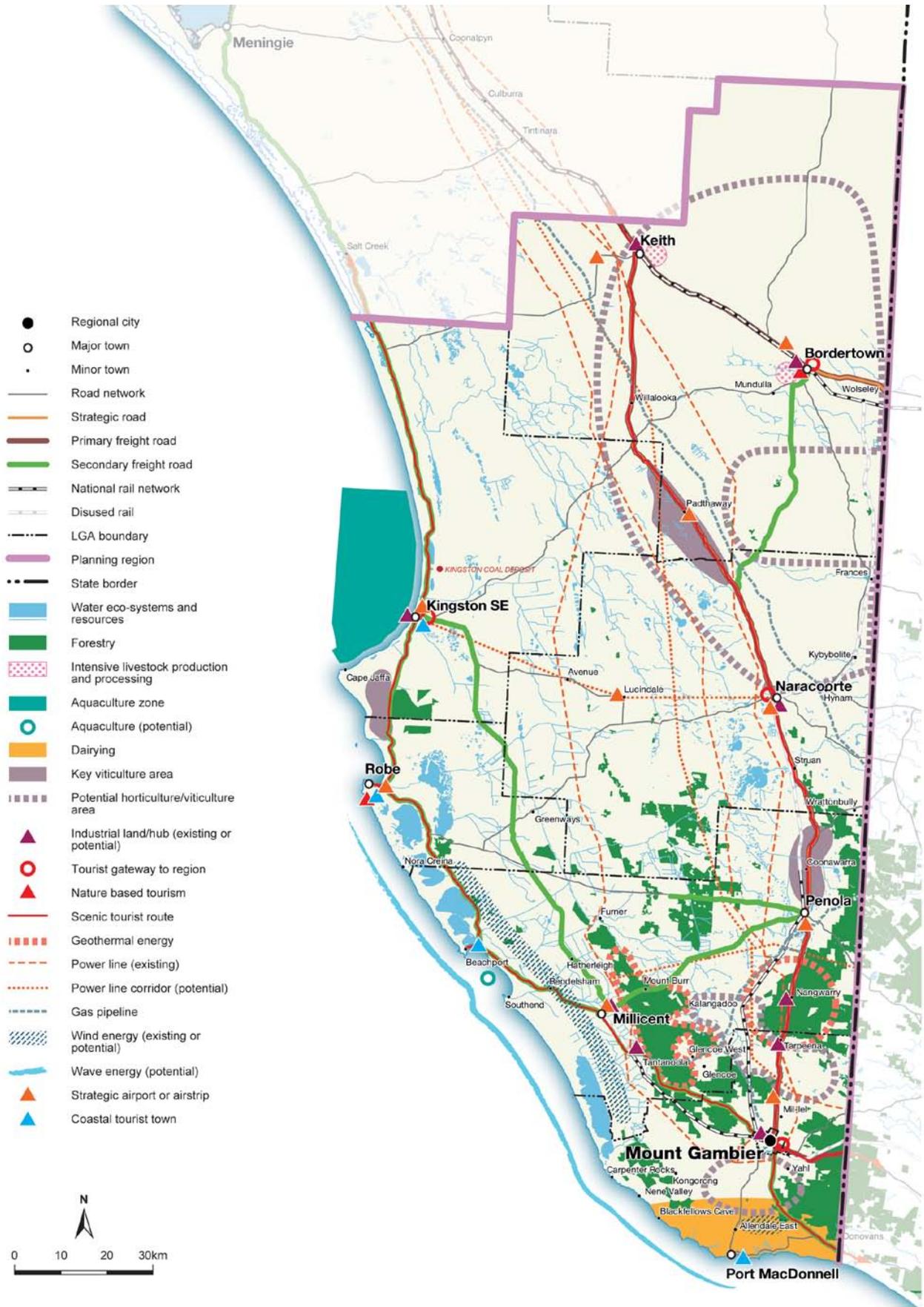
South Australia has the potential to be a 'green' energy hub and to help other states achieve the Commonwealth's target of 20 per cent renewable energy by 2020. Reaching this goal will require improvements to South Australia's transmission lines to encourage large energy companies to invest in the generation and distribution of renewable energy.

The Limestone Coast region has significant geothermal, wind and wave potential for renewable energy and is well-placed in relation to power infrastructure and links to the eastern states. ElectraNet regularly reviews the network to see where it requires upgrades and improvements to the grid in order to support the generation of renewable energy. Further development of the high voltage electricity transmission network will be required, including planning for and investment in new powerlines and substations.

Service sectors associated with population growth, such as health and aged care, are also likely to grow. Education opportunities, particularly at the tertiary level, are also vital in supporting and retaining young people and ensuring a skilled future workforce.

Tourism is another key economic driver in the Limestone Coast, with the region's natural and cultural assets offering potential for further growth. Current tourism themes include unspoilt natural landscapes, ecotourism, coastal recreation, local food and wine, and adventure four-wheel driving.

Supportive Development Plan policies, investment in infrastructure, expansion of local training opportunities and attraction of skilled labour will all be critical to realising regional economic development opportunities. Detailed Development Plan policies will be informed by industry plans and consultation with Regional Development Australia Limestone Coast, Limestone Coast Tourism, the South East Natural Resources Management Board and state government agencies, including the Department for Transport, Energy and Infrastructure (DTEI), Primary Industries and Resources South Australia (PIRSA), the South Australian Tourism Commission (SATC) and the Department of Trade and Economic Development (DTED).

Meningie

Coonalpyn

Culburra

Tintinara

Salt Creek

Keith

Bordertown

Mundulla

Wolseley

Willalooka

Padthaway

Frances

KINGSTON COAL DEPOSIT

Kingston SE

Kybybolity

Cape Jaffa

Avenue

Lucindale

Naracoorte

Hynam

Struan

Robe

Greenways

Wrattonbully

Nora Creina

Coonawarra

Furner

Penola

Beachport

Hatherleigh

Bendelsham

Mount Burr

Nangwarry

Southend

Kalangadoo

Millicent

Glencoe West

Tarpeena

Tantanoola

Glencoe

Mil-lel

Mount Gambier

Yahl

Carpenter Rocks

Kongorong

Nene Valley

Blackfellows Cave

Allendale East

Donovans

Port MacDonnell

Legend

- Regional city
- Major town
- Minor town
- Road network
- Strategic road
- Primary freight road
- Secondary freight road
- National rail network
- Disused rail
- LGA boundary
- Planning region
- State border
- Water eco-systems and resources
- Forestry
- Intensive livestock production and processing
- Aquaculture zone
- Aquaculture (potential)
- Dairying
- Key viticulture area
- Potential horticulture/viticulture area
- Industrial land/hub (existing or potential)
- Tourist gateway to region
- Nature based tourism
- Scenic tourist route
- Geothermal energy
- Power line (existing)
- Power line corridor (potential)
- Gas pipeline
- Wind energy (existing or potential)
- Wave energy (potential)
- Strategic airport or airstrip
- Coastal tourist town

N

0   10   20   30km

To promote future economic growth in the region, this Plan provides principles and policies aimed at ensuring that:

- there is a supply of well located zoned land suitable for industrial development
- commercial growth complements the role and function of particular towns
- primary production land is protected and agricultural/horticultural activities strengthened
- the renewable energy sector is supported
- opportunities for new and emerging industries are supported.

Priorities for councils

- Reflect in local Strategic Management Plans and Development Plans the South Australian Tourism Commission's directions regarding positioning and branding, tourism infrastructure priorities, partnerships and development opportunities

- Strengthen the economic potential of primary production land and foster sustainable practices

- Identify areas of primary production significance

- Strategically plan for the expansion of industrial land in Bordertown, Keith, Kingston, Millicent, Snuggery, the Katnook industrial area (contingent on development of the proposed pulp mill), Mount Gambier and Naracoorte

- Support aquaculture development, including processing and transport

- Facilitate the development of appropriately located renewable energy projects

- Protect strategic infrastructure (existing and potential) from encroachment

- Encourage small-, micro- and home-based industries.

Principle 5

Protect and build on the region's strategic infrastructure

Proximity to major freight transport networks and freight storage facilities are crucial elements in the value chain and provide comparative advantage to local agricultural, forestry, seafood and related industries in the region. These networks link the region to growing industrial areas in Adelaide and Melbourne, irrigated agricultural activities in the lower Murray and Mallee region, and export facilities and interstate markets.

The region also has an airport at Mount Gambier, as well as a number of aerodromes and airstrips, some of which would require redevelopment or upgrading in order to meet future industry demands and safety and security requirements.

Protecting these assets and providing for the expansion of nearby export-related and value-adding activities will enable capitalisation on investment, offer opportunities to attract new industry and provide support and certainty for existing industries.

The Green Triangle Region Freight Action Plan (developed by the South Australian and Victorian Governments in conjunction with local government, the timber and freight industries and the Port of Portland) identifies the actions needed to meet growing transport demand in the region, including road and rail network enhancements and regulatory reform[9].

Policies

5.1 Encourage industry clusters (including mining, primary production and aquaculture value-adding processing and storage activities) in strategic locations such as freight transport nodes to maximise transport efficiencies and support industry development.

5.2 Establish appropriate buffers to protect existing strategic infrastructure and sites and corridors identified as potential locations for future infrastructure from encroachment that may compromise their operation or expansion.

5.3 Reinforce the role of the region's airport, aerodromes and airstrips to support economic and social development and to provide emergency access for the Royal Flying Doctor Service (RFDS). Facilities include:

▸ an airport at Mount Gambier - which should allow for a potential upgrade to accommodate long-term growth in passenger numbers and larger, heavier aircraft

▸ sealed airstrips with pilot-activated lights at Naracoorte, Bordertown, Kingston and Millicent - used for RFDS, fire fighting, aerial agriculture and charter services

▸ aerodrome at Keith - used for aerial agriculture and RFDS

▸ aerodromes at Lucindale and Padthaway - used for aerial agriculture and RFDS

▸ aerodrome at Penola - used for aerial agriculture and fire fighting

▸ aerodrome at Robe - used for general aviation and light aircraft for tourism purposes.

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9   The Green Triangle is an area of about six million hectares in south-east South Australia and south-west Victoria that encompasses the cities of Warrnambool, Horsham and Mount Gambier, and the regional centres of Portland, Hamilton, Naracoorte, Bordertown, Millicent and Penola. The area's verdant green appearance is due to the predominance of agriculture, pasture and timber plantations and to the fact that is has been largely drought-free for 100 years.

5.4 Ensure land uses surrounding the airport, aerodromes and airstrips are compatible with these facilities and do not detract from their operation.

5.5 Identify land suitable for waste management and resource recovery facilities to optimise opportunities for re-use and recycling of waste while maximising economic efficiencies and protect this land from encroachment by sensitive land uses such as housing.

5.6 Protect the transport functionality of road and rail corridors through planning policy in Development Plans.

5.7 Designate and protect strategic roads and primary/secondary freight roads as identified on maps C1 and D2.

5.8 Protect current and future freight bypasses around towns.

Principle 6

Retain and strengthen the economic potential of the region's primary production land

Agriculture, horticulture, forestry, viticulture, dairying, livestock and associated processing activities underpin the region's economy. Protection of primary production land across the region is a priority to ensure the ongoing viability of these activities.

To strengthen the region's comparative advantage, new processing activities should be located on existing freight routes. Identification of suitable sites that have good access to existing freight routes and appropriate zoning to meet demand will provide certainty to potential investors and inform the planning and provision of infrastructure.

In addition to industry clusters around strategic transport hubs, major hubs identified for primary production processing activities are Mount Gambier, Bordertown, Kingston, Naracoorte, Millicent, the Katnook industrial area, Keith and Snuggery. Small industrial operations, such as electrical engineers, metal fabricators and engineers will require suitable sites in towns across the region.

Conversion of productive land to residential and other sensitive uses through inappropriate town expansion or subdivision into rural living allotments is strongly discouraged as it can create conflicts at interfaces and compromise primary production operations.

Agriculture and horticulture

Policies

6.1 Prevent loss of productive agricultural land and potential conflict with incompatible uses by:

▸ focusing housing (including rural living allotments) and industrial development in and adjacent to towns and industrial estates, unless directly related to primary industry

▸ preventing fragmentation of agricultural land

▸ managing interfaces with residential areas and other sensitive activities through the use of buffers

▸ limiting and carefully locating rural living zones

▸ managing and directing township expansion

- ensuring tourism-based developments are sited away from agricultural land where practical

- designating areas of primary production significance (in particular high-value agricultural and horticultural land) in Development Plans and introducing a standard set of planning controls to protect their use.

6.2 Support new horticultural development in locations between Bordertown and Naracoorte and north and south of Mount Gambier (as identified on Map 4), and ensure compatible land uses in these areas.

6.3 Remove unnecessary regulatory barriers to the adjustment of primary production activities. Development Plans should be flexible enough to allow property holders to change agricultural practices or commodity type, particularly where the change would enable increased productivity or better environmental outcomes.

6.4 Encourage the development of small-scale value-adding activity that complements primary production in the local area, provided it does not adversely impact on areas of primary production significance (see Box 6).

6.5 Maximise opportunities for processing plant waste and establishing other value-adding activities (for example, co-location of biofuel production with livestock enterprises).

6.6 Rehabilitate unproductive and degraded primary production land affected by salinity through revegetation using native species, increasing the vitality and integrity of remnant stands of native vegetation, and introducing perennial pastures.

Box 6—Supporting the value chain

The term 'value chain' refers to the various value-adding activities that occur along the supply chain of every industry sector - from primary production through processing and transport to marketing and sales. Competitive advantage is gained by improving the movement of goods and adding value at every link in the chain.

Combining spatial analysis with value chain analysis is a powerful tool for strategic land-use planning. It involves identifying key infrastructure and synergies or potential conflicts between activities and assists in deciding the best use of land and locations for development to maximise a region's economic competitiveness.

6.7 Co-locate intensive primary industries and compatible processing activities to reduce land-use conflict and achieve efficiencies in production, processing, distribution, energy efficiency and waste recycling, taking into account environmental, infrastructure and rural amenity issues.

Dairying and livestock production and processing

6.8 Focus the expansion of intensive animal keeping in locations that maximise the use of existing and planned infrastructure (for example, water, energy and waste facilities), particularly around Bordertown.

6.9 Focus dairy farming in areas that maximise the use of existing and planned infrastructure (for example, water, energy and waste facilities), particularly around Mount Gambier and near processing facilities.

6.10 Maximise opportunities for processing animal waste and establishing related activities.

6.11 Plan for intensive dairy or livestock production in accordance with PIRSA, Environment Protection Authority and natural resource management guidelines to meet biosecurity, environmental and public health requirements, including maintaining buffers adjacent to residential areas.

Commercial forestry

6.12 Encourage forestry plantations in locations that are sustainable and ensure they:

- ▶ maximise use of existing transport infrastructure
- ▶ minimise water use
- ▶ are as close as practical to existing processing facilities
- ▶ are on degraded primary production land where possible
- ▶ are on sites that complement other regional primary production land use.

(See *Guidelines for Plantation Forestry in South Australia 2009*, Managing the Water Resources Impacts of Plantation Forests and the Better Development Plan Forestry Module for guidance on locations for forestry activities.)

6.13 Effectively manage the impact of forestry plantations on the environment, in line with the requirements of the *Natural Resources Management Act 2004*, transport networks and surrounding land uses and landscapes.

6.14 Establish and maintain buffers around forestry plantations to protect them from incompatible uses.

6.15 Manage the expansion of timber processing and manufacturing activities to avoid conflict with sensitive uses.

6.16 Support the establishment of co-generation biomass power facilities associated with timber processing.

Mineral resources

6.17 Establish and maintain buffers around mines and mineral resources to prevent encroachment by housing and other development that may affect the viability of resource extraction.

Principle 7

Strengthen local commercial fishing and aquaculture industries

Development Plan policies should recognise that aquaculture and fishing industries have differing requirements in terms of site, infrastructure and environmental conditions. For example, hatcheries and grow-out facilities need to be located close to the coast, where pipe access to seawater is available and the costs of energy associated with pumping can be minimised. Efficiencies can be gained by reducing the distance between marine aquaculture and commercial fishing, and related on-land industries, such as storage and waste management and processing.

Policies

7.1 Provide for land-based processing facilities at key sites, in particular at Robe, Cape Jaffa and Beachport, in accordance with environmental requirements, including provisions for land-based waste disposal facilities.

7.2 Locate commercial boat launching facilities in areas adjoining towns or in locations that support marine aquaculture licences.

7.3 Protect potential aquaculture areas (see Box 7 and Maps C1 and D2) from incompatible uses.

Box 7—About aquaculture policies and zones

Aquaculture policies:

- identify where specific classes of aquaculture can and cannot occur in state waters
- are developed in accordance with the process set out in the *Aquaculture Act 2001* and involve consultation and consideration of environmental, social, equity and economic impacts
- provide clear direction, including specific criteria or conditions to ensure that activities are ecologically sustainable, to aquaculture operators.

The zones related to aquaculture include:

- aquaculture zones - areas of state waters in which specified classes of aquaculture can be permitted
- prospective aquaculture zones - areas of state waters subject to investigation (for no more than three years) to determine if they are suitable to become aquaculture zones
- aquaculture exclusion zones - areas of state waters in which no aquaculture is permitted.

For more information, see <www.pir.sa.gov.au/aquaculture>.

Principle 8

Reinforce the region as a preferred tourism destination

The Limestone Coast region offers tourists picturesque coastlines, rural landscapes, rustic towns and a range of unique food, wine and nature-based experiences. The *South Australian Tourism Plan 2009–2014* provides strategic direction for the marketing and management of the industry. The *Responsible Nature-based Tourism Strategy 2004-2009* provides additional guidance on the development of nature-based tourism, including design guidelines and case studies.

Policies

8.1 Protect, enhance and promote those assets that attract tourists and are of value to the community, including:

▸ open space and walking and cycling trail networks, including potential trails along former rail corridors (if they are not required for future freight and or/ passenger rail services)

▸ scenic tourist drives, particularly along the coast

▸ designated four-wheel drive trails, especially north of Bordertown and in the Mallee

▸ natural, rural and coastal landscapes and the marine environment (including the foreshore, jetties and boat ramps)

▸ the heritage, cultural and/or built character of towns, including town approaches

▸ caravan parks and campsites, including those that provide effluent disposal facilities for motor homes

▸ unique archaeological and geological features

▸ national and conservation parks and reserves.

8.2 Reinforce the desired roles of various towns in the Limestone Coast tourist experience:

▸ Kingston, Robe, Beachport and Port MacDonnell as premier coastal and recreational fishing destinations

▸ Bordertown, Millicent and Keith as visitor service locations

▸ Naracoorte as the primary visitor service centre for the central Limestone Coast and home of the World Heritage-listed Naracoorte Caves

▸ Mount Gambier as the region's principal business and retail hub, gateway to South Australia from south western Victoria and home of the Blue Lake

▸ Penola as a cultural and local service hub focused on food and wine tourism and accommodation servicing the Coonawarra and Limestone Coast wine areas.

8.3 Protect and enhance key tourism assets, such as the Naracoorte Caves, Blue Lake, Bool Lagoon and Hacks Lagoon, through sustainable land management practices.

8.4 Support the role of the coast in providing adventure, nature-based and eco-tourism experiences, including in national and conservation parks, as well as for food and wine experiences (see Box 8).

Box 8—Types of tourism

Sustainable tourism meets the present needs of tourists and local regions while protecting and enhancing opportunities for the future. It involves management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems.

Nature-based tourism is any sustainable tourism activity or experience that relates to the natural environment, whether for relaxation, discovery or adventure.

Eco-tourism is a niche segment where the key motivation is learning, appreciation and conservation. It is low-capacity, discrete, educational, conservation-minded and returns tangible benefits to the local community or natural resource.

Source: South Australian Tourism Commission

8.5 Facilitate sustainable tourist accommodation in suitable locations throughout the region.

8.6 Facilitate tourism-related developments, such as restaurants, specialist retail and accommodation, that add value to existing enterprises.

8.7 Promote the region as a culinary and coast/nature-based destination by:

▸ preserving the character and appeal of coastal towns

▸ encouraging the appropriate development of restaurants and culinary facilities promoting the region's produce

▸ ensuring high-quality design to protect scenic landscapes and productive coastal areas

▸ supporting adventure, nature-based and eco-tourism experiences (particularly in national and conservation parks)

▸ developing links with the fishing/aquaculture and wine industries.

Principle 9

Provide and protect serviced and well-sited industrial land to meet projected demand

Industries play a critical role in the regional economy, providing local employment and strengthening the region's comparative advantage. These industries range from large-scale processing and major agricultural equipment manufacturing and maintenance to small-scale engineering and processing firms. Identification of suitable sites for these activities and appropriate zoning to meet demand (including for large-scale development) provides certainty to potential investors and informs the planning and provision of infrastructure.

Policies

9.1 Provide a supply of well-sited and serviced industrial land (including an identified 25-year supply, of which 15 years should be already zoned) in Mount Gambier (in accordance with the Greater Mount Gambier Master Plan), Naracoorte, Bordertown, Keith, Millicent, Snuggery and Kingston. Industrial land at Nangwarry, Tarpeena and the Katnook industrial area also may be required in the long term.

9.2 Ensure an adequate supply of appropriately located industrial land to provide opportunities for small-scale and local industries that complement local agriculture, horticulture, fishing and aquaculture, livestock and dairying, and mining in towns throughout the region.

9.3 Site and locate industrial land to ensure:

▸ management of interfaces with residential areas and other sensitive uses, and protection from encroachment

▸ optimal use of existing and planned infrastructure (for example, wastewater re-use plants)

▸ provision for future expansion

▸ accordance with Environment Protection Authority policies, codes of practice and guidelines

▸ an efficient road freight network that minimises the impacts of freight movements on neighbouring areas

▸ access to required energy and water supplies.

9.4 Retain and support ongoing industrial operations by providing for appropriate buffers to minimise conflicts and managing external impacts, such as noise, vibrations, odour and native vegetation disturbance.

9.5 Support the growth of renewable energy and 'green' technologies by setting aside employment lands and ensuring flexibility in zoning to allow new industries to establish.

9.6 Provide for the establishment of facilities in appropriate locations to support new markets and products for recycled materials and animal waste products.

Principle 10

Focus commercial development in key centres and ensure it is well sited and designed

Focusing major commercial activities, such as shops, offices, banks and government services, in selected towns supports the ongoing viability of these activities and enables people to undertake several activities in one location.

Mount Gambier will continue to be the focus for major commercial activities servicing the region and western Victoria. Naracoorte is the major commercial service centre for the central and northern parts of the region and should be a focus for facilities, services and commercial growth. Millicent should be the primary focus for major commercial activities in the southern part of the region outside Mount Gambier. Bordertown, Keith, Penola and Kingston will be the preferred locations for secondary commercial activities. Local/small-scale commercial activities will continue to be located in other towns servicing local communities and visitors, such as Robe, Beachport and Port MacDonnell.

The southern port centres of Port MacDonnell, Beachport, Robe and Kingston should continue to develop service and infrastructure support for the fishing industry and may need to accommodate export and processing facilities associated with oil and gas exploration in the Otway Basin. These towns are also popular holiday/tourist destinations that should retain and protect their coastal features, character and unique environmental and recreational experiences.

Policies

10.1 Reinforce the primary commercial and services role of Mount Gambier as the focus of major retail, commercial, administrative, education, health, justice and recreational developments in the region (in accordance with the Greater Mount Gambier Master Plan).

10.2 Reinforce the major commercial and services role of Naracoorte and Millicent as the focus of secondary retail, commercial, administrative, education, health and recreational developments in the region.

10.3 Reinforce the supporting commercial and services role of Bordertown, Penola and Kingston.

10.4 Strengthen the local and visitor service/retail role of Keith, Robe, Beachport and Port MacDonnell.

10.5 Locate commercial activities in town centres or existing commercial zones, which should be expanded where necessary to support activity commensurate with the town role.

10.6 Commercial areas proposed outside of town centres must demonstrate that they:

▸ will avoid adverse incremental or cumulative impacts on existing town centres

▸ will avoid adverse impacts on primary production activities

▸ are clustered rather than linear development and do not adversely affect the efficiency and safety of arterial roads

▸ are convenient and accessible, including by walking and cycling

▸ are supportive of the desired future character of the town

▸ are not using land of strategic importance to industry.

10.7 Proposals for major commercial areas in towns other than those identified in 10.1–10.4 must demonstrate that they support and complement the commercial functions of these towns both incrementally and cumulatively in the long term.

10.8 Prevent linear/ribbon development along major roads to support an efficient road network.

POPULATION AND SETTLEMENTS

Overview

The state government is planning for an additional 21,750 people in the Limestone Coast region over the next 30 years, based on the SASP population target described in Chapter A. The region may experience a higher growth rate and so reach this target sooner.[10] The role of *Limestone Coast Region Plan* is to ensure that future land use can support the target population, at whatever growth rate.

Table D1 illustrates the number of dwellings that would be required, depending on occupancy rate (that is, the average number of people living in each dwelling) and the land area necessary to accommodate them, depending on the overall density (that is, the average number of dwellings per hectare). For comparison, the region currently has around 29,000 dwellings.

Table D1 – Land area required based on dwellings per hectare (dph) and occupancy rate (people per dwelling)

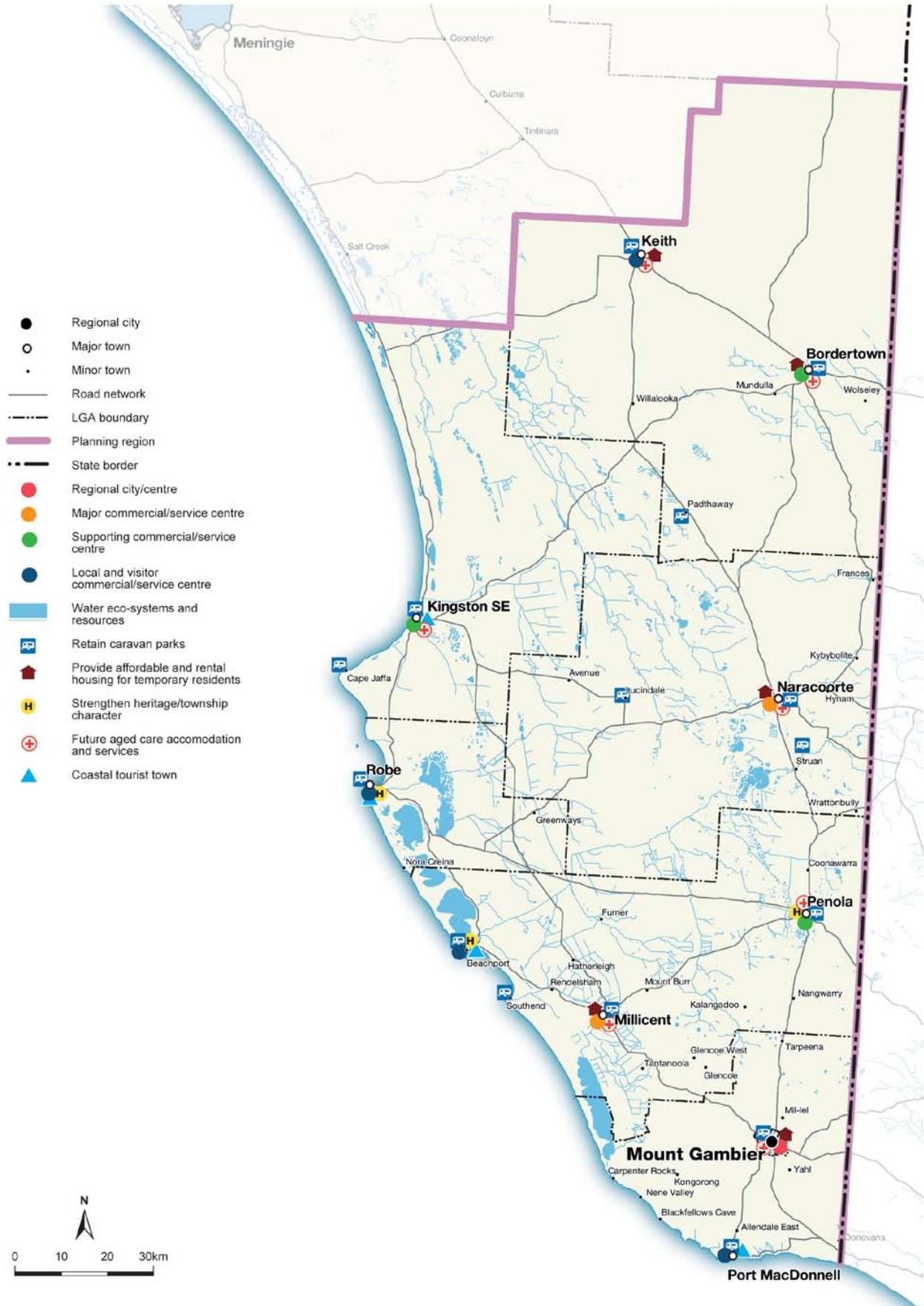| Required new homes (for 21,750 people)	Land area required (hectares)		
	8.5 dph*	10 dph*	13 dph*
9063 @ 2.4 people per home	1066	906	697
10,357 @ 2.1 people per home	1218	1036	797
12,083 @ 1.8 people per home	1422	1208	929

* Dwellings per hectare.

With an ageing population, the region's occupancy rates (which in Mount Gambier, for example, are around 2.4 people per dwelling unit) are likely to decrease while dwelling density may increase as ageing people move into smaller homes. This potentially could increase the number of new homes required to accommodate the target population. These factors should be considered when reading the table above.

There is also likely to be additional demand for new homes in centres across the region, as retirees living in rural areas move closer to health and community services and aged care facilities available in those centres.

Further investigations of intra- and inter-regional migration patterns and residential occupancy rates will be necessary to inform this Plan through the future review process.

The region currently has a significant amount of undeveloped, ready zoned land suitable for residential development, which includes around 1329 hectares (ha) zoned residential and 3048 ha zoned rural living. A further 225 ha of deferred urban land could in part be used for residential development, as shown in Table D2.

10 During the past five years around 460 new dwellings have been approved per year in the region. This is more than the 336 new dwellings per year required to achieve the 9063 dwellings needed to accommodate the target population (as per Table D2). If this level of growth were to continue, the target population for the region could be reached in around 20 years.
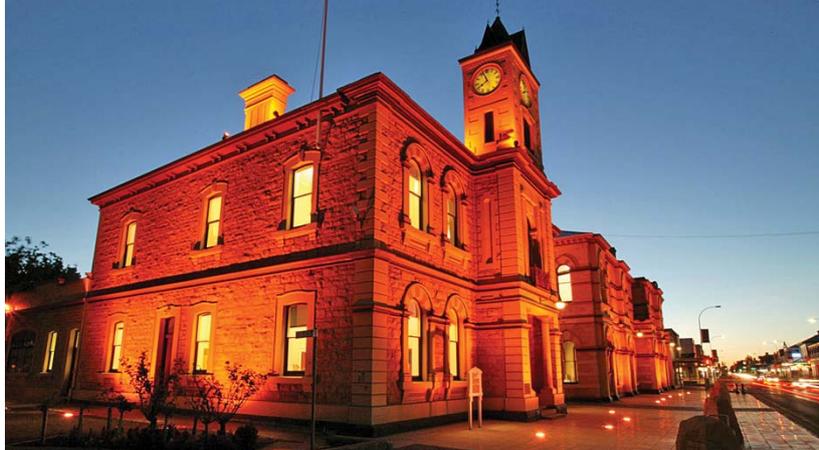
Legend:
- ● Regional city
- ○ Major town
- · Minor town
- —— Road network
- —··— LGA boundary
- —— Planning region
- —··— State border
- ● Regional city/centre
- ● Major commercial/service centre
- ● Supporting commercial/service centre
- ● Local and visitor commercial/service centre
- ▬ Water eco-systems and resources
- Retain caravan parks
- Provide affordable and rental housing for temporary residents
- Strengthen heritage/township character
- Future aged care accomodation and services
- ▲ Coastal tourist town

N

0 10 20 30km

Meningie, Coonalpyn, Culburra, Tintinara, Salt Creek, Keith, Bordertown, Mundulla, Wolseley, Willalooka, Padthaway, Frances, Kingston SE, Kybybolite, Cape Jaffa, Avenue, Lucindale, Naracoorte, Hynam, Struan, Robe, Wrattonbully, Nora Creina, Coonawarra, Greenways, Penola, Furner, Beachport, Hatherleigh, Rendelsham, Mount Burr, Nangwarry, Southend, Kalangadoo, Tarpeena, Millicent, Glencoe West, Tantanoola, Glencoe, Mil-lel, Carpenter Rocks, Kongorong, Nene Valley, Yahl, Mount Gambier, Blackfellows Cave, Allendale East, Donovans, Port MacDonnell

Table D2 – Residential land supply in key towns

Town	Residential zones		Deferred urban zones		Rural living zones	
	Area (ha)	Dwell est.[a]	Area (ha)	Dwell est.[a]	Area (ha)	Dwell est.[a]
Bordertown	65	650	–	–	360	144
Kingston	27	270	128	1088	476	238
Millicent	194	1940	–	–	672	336
Greater Mount Gambier[b]	942	9420	–	–	197	394
Naracoorte	101	1010	97	825	1343	2686
Total	1329	13,290	225	1913	3048	3798

[a] Dwelling estimates are based on: residential zones = 10 dwellings per hectare; deferred urban zones = 10 dwellings per hectare less 15 per cent (to factor in land used for non-residential purposes); rural living zones = the average rural living allotment for each council.

[b] The Greater Mount Gambier Master Plan provides specific detail regarding the city's growth (covering both Mount Gambier and adjacent areas in DC Grant). The land area and dwelling estimate is derived from the figures in the Master Plan (based on areas identified as 'land for residential development in the short to medium term' plus 'land for residential development in the longer term').

Table D2 shows that the Limestone Coast region has a significant supply of land identified for future residential/urban use in all the major towns, which could provide for more than 17,000 new dwellings. This capacity should be sufficient to support the growth necessary to achieve the SASP population target.

While this Plan seeks to prepare for an ageing population, policies are also needed to attract and retain young and working-age people.

Social infrastructure needs include increased housing in the major regional centres, as well as in remote locations where attracting and retaining staff - especially professional staff - is vital for development. Social infrastructure includes education and childcare facilities to service young families, as well as access to good health services. Broadband access outside major centres is essential to deliver distance learning and for business development and growth; it also facilitates social interaction and helps make remote locations more desirable places in which to live.

To guide land use in response to growth pressures, the Plan's principles and policies aim to ensure that:

- there is a supply of zoned land suitable for residential development

- growth occurs according to the roles and functions of towns

- growth is directed towards towns with health, education, community and aged care services/facilities

- there is a diversity of housing (including affordable housing) that is adaptable to changing preferences

- town growth is managed to preserve areas of primary production significance and environmental sensitivity

Priorities for councils

- Undertake demographic analysis of the region's population, including growth projections and movement patterns to provide a clear picture of future occupancy rates, dwelling sizes and types and consequent land needs.

- Undertake detailed analysis of capacity for residential development in towns that have been identified for growth. Ensuring these towns have sufficient suitable land zoned for residential development to cater for population growth also requires detailed analysis of future demand (see also Policy 13.1).

- Develop urban design frameworks for the major towns to ensure new development is well designed and provides attractive places in which to live and invest.

- Reinforce the primary service and commercial roles of the major towns.

- Undertake an audit of existing housing supply to determine whether the needs of older people and other vulnerable groups in the housing market are being met.

- Address the housing needs of lower income workers and ensure an affordable housing supply keeps pace with demand.

- Identify the desired character of towns (and parts of towns) to guide design of buildings and public places.

Principle 11

Strategically plan and manage the growth of towns

The Plan supports the consolidation of population growth in existing settlements in order to:

- limit development in places difficult to adequately service (for example, household waste collection, water supplies/ treatment and energy transmission)

- facilitate the treatment and re-use of wastewater and stormwater

- preserve councils' financial viability

- build on existing and planned business, service and infrastructure investment

- reduce the population's vulnerability to increased fuel and transport costs

- protect important scenic and natural landscapes and areas of environmental and primary production significance.

Population growth in the region has chiefly occurred in the larger towns and urban areas, particularly in Mount Gambier. Planned economic expansion in Mount Gambier is likely to be accompanied by continued interest in housing development in the lower Limestone Coast.

As the main city for the region and western Victoria, Mount Gambier will experience significant growth in the future. The Mount Gambier Master Plan identifies capacity for up to 9420 additional dwellings on 942 hectares of land identified for short-, medium- and long-term residential development; any land uses that might impede this, such as rural living, should be avoided. If additional land is required for residential purposes in the longer term, Mount Gambier should expand to the north. Medium density opportunities close to the city centre, including for aged care accommodation, should be encouraged.

Naracoorte has a major role as a commercial and service centre for the central and upper parts of the region, and should be a focus for delivering facilities and services, as well as accommodating population growth.

Millicent, Penola and other towns within commuting distance of Mount Gambier are likely to experience development pressures as economic opportunities expand there and in the lower Limestone Coast in general. Penola is an important cultural/heritage and tourist hub, so future development needs to be carefully managed to preserve its attributes. Millicent is the area's principal centre outside of Mount Gambier and has capacity to accommodate additional growth. Residential growth should be accommodated principally through development within existing town areas, while growth in rural living should be avoided.

Bordertown is the Limestone Coast's northernmost supporting commercial/service centre and has capacity to accommodate further growth in this area of the region.

The natural coast and wetland environments surrounding Port MacDonnell, Beachport, Robe and Kingston provide a unique environmental and recreational experience. Development in these southern ports should retain and protect coastal features and characters while service and infrastructure support for the region's fishing industry should be developed in harmony with the coastal environment. Sensitive development of export and processing facilities associated

with oil and gas exploration in the Otway Basin may also be required. Coastal settlements should be rationalised and properly planned, but not expanded.

A planned approach to development seeks to balance a range of competing interests. This regional plan supports development in existing settlements and towns to build on current and planned business, service and infrastructure investment while protecting scenic and coastal landscapes, environmental assets and rural land of importance to industry.

Identifying and effectively managing suitable sites for waste facilities to meet the needs of residents and tourists is essential to creating healthy communities and protecting the environment.

Environment Protection Authority guidelines and codes provide guidance on the management of waste and wastewater and stormwater to prevent risk to public and environmental health.

Policies

11.1 Focus growth and development in existing towns and settlements based on their roles and functions, as described in Principle 10 and shown on Map D3.

11.2 The expansion of towns should:

- ensure new areas are continuous with and form compact extensions of existing built-up areas, and prevent linear development along the coast and arterial roads

- not encroach upon areas of importance to economic development

- not encroach on environmentally sensitive areas

- support the cost-effective provision of infrastructure and services such as health and education, avoiding unnecessary expansion or duplication of existing regional infrastructure and services

- promote strong linkages between all parts of the town, particularly between residential areas, town centres, sporting and recreational facilities, and open space

- promote development on vacant land, surplus government land and infill sites, and renew existing developed areas (where it does not compromise town character or heritage) in preference to broadacre or greenfield sites

- locate land for rural living in towns in such a way that opportunities for future town expansion are retained

- retain a functional and visual separation between towns

- allow for the incorporation of WSUD features to enable treatment and re-use of wastewater and stormwater

11.3 Development in areas remote from infrastructure should be self-sufficient in energy, water supplies and wastewater management.

11.4 Retain the coastal living, fishing and holiday appeal of Kingston, Robe, Beachport and Port MacDonnell.

11.5 Build on the cultural/heritage tourist focus of Robe, Beachport, Penola and Mundulla by strengthening heritage and town character.

11.6 Provide a range of aged care accommodation (locating supported aged care accommodation in towns with health services).

11.7 Provide opportunities for lifestyle/retirement village type accommodation.

11.8 Manage waste in accordance with the Zero Waste SA hierarchy of waste management practices (from the most preferred to least preferred: avoid, reduce, re-use, recycle, recover, treat, dispose) by ensuring that settlements and developments have appropriate space, facilities, access and construction methods.

11.9 Restrict ad hoc construction of isolated rural dwellings and subdivision of rural lands through the planned expansion of towns, increasing density within town boundaries, appropriate intensification of existing rural living zones, and strategic designation of new rural living zones outside areas of primary production significance.

11.10 Prevent the expansion and/or intensification of existing, or creation of new, rural living zones in areas of primary production significance.

11.11 Manage the interface between primary production activities and urban areas and towns through appropriate separation buffers, screening vegetation and appropriate alignment of allotment boundaries.

Principle 12

Design towns to provide safe, healthy, accessible and appealing environments

The way in which towns across the Limestone Coast region are designed influences not only how they look, but also how well they function. The ease and safety of getting around town, the accessibility of services and facilities, and a sense of community and civic pride are all influenced by the way a town is designed.

Towns and parts of towns can develop a strong identity and sense of place built around local history, unique natural features (for example, the coastline and Mount Gambier's Blue Lake) and future aspirations.

Features such as building height, rooflines, scale, materials and building setbacks in new developments can contribute to, rather than detract from, town and landscape character.

Policies

12.1 Reinforce those elements (natural and built) that contribute to the unique character and identity of towns, including landscapes, building design, streetscape design and built heritage.

12.2 Establish and retain distinct and attractive entrances to towns.

12.3 Retain town centres as the focus of retail, commercial, recreation, entertainment, community and civic activities in accordance with the role and function of the town.

12.4 Locate health, community and education facilities and services where the community will have equitable access.

12.5 Provide strong links between coastal town centres and the coast and between other town centres and key sites of tourism interest.

12.6 Manage interfaces between residential, town centres and industrial areas to avoid potential conflicts.

12.7 Encourage active lifestyles by providing:

▶ a range of open space, sport and recreation facilities in towns and throughout the region

▶ walking and cycling facilities in towns, giving consideration to the needs of people of different ages and physical and intellectual abilities

12.8 Develop safer towns by incorporating the principles set out in *Designing Out Crime: Design Solutions for Safer Neighbourhoods*,[11] using Crime Prevention Through Environmental Design (CPTED) principles and consulting with the South Australia Police.

12.9 Design all developments to minimise their visual and physical intrusiveness and ensure they are sympathetic to cultural and landscape features and contribute to the desired character of the area.

12.10 Apply WSUD principles to all new development and public open spaces, and encourage their application in existing development.

11 Planning SA, *Designing Out Crime: Design Solutions for Safer Neighbourhoods* (2004) <www.planning.sa.gov.au>.

Principle 13

Provide residential land for a supply of diverse, affordable and sustainable housing to meet the needs of current and future residents and visitors

Considered planning is required to ensure a supply of housing to meet the needs of people who live and work in the region, taking into account demographic changes such as higher numbers of older people. Population growth will be driven primarily by local and regional employment opportunities.

Retirees and holiday home owners, including from western Victoria, could add to overall housing demand.

Housing for seasonal and low-income workers needs to be considered to support the livestock processing, forestry, viticulture and horticulture industries, and fishing. Towns may experience localised pressure for rental accommodation from temporary workers.

Strategies are required to ensure a range of housing options, including affordable housing, to maintain the region's attractiveness as a place to live and help retain young and working-age people.

Policies

13.1 Ensure a 15-year zoned supply of land for residential development in towns/centres identified for growth (refer Principle 11 and Map D3).

13.2 Ensure that appropriately serviced towns provide a range of housing types and densities to enable people to stay in their community as their housing needs change and to cater for the region's changing demographics.

13.3 Provide opportunities for higher density housing near the centre of towns identified for growth, in particular Mount Gambier, Naracoorte, Millicent, Bordertown and Kingston.

13.4 Provide a range of accommodation for older people and people with a disability, and focus high-level care accommodation in towns with health services.

13.5 Ensure that land is made available for public and social housing in towns with a service role.

13.6 Encourage provision of rental housing and accommodation for temporary workers in locations where there is high demand, including from professionals, tradespeople and labourers employed in various local industries.

13.7 Provide for 15 per cent affordable housing, including a 5 per cent component for high needs housing, in all new housing developments, in accordance with the Housing Plan for South Australia (2005).

13.8 Actively involve Aboriginal people and newly arrived overseas migrants in planning for housing supply to ensure their needs are met.

13.9 Retain caravan parks and support the use of some parks for affordable rental housing, particularly for temporary accommodation.

INFRASTRUCTURE AND SERVICE PROVISION

Chapter E

INFRASTRUCTURE AND SERVICE PROVISION

Chapter E

This chapter discusses the implications of the *Limestone Coast Region Plan* for the provision and coordination of infrastructure and services in the region.

Government agencies are required to use the Plan to identify infrastructure priorities, such as health and education centres, and are encouraged to identify clear trigger points, such as population growth in a particular town, to indicate when new infrastructure is needed.

The state government recognises the importance of integrating land use and infrastructure planning. This approach aims to build strong and healthy communities and ensure industrial and commercial land activities remain competitive by making the best use of existing infrastructure capacity and ensuring new infrastructure and services are strategically planned for and proceed in a timely manner.

The *Strategic Infrastructure Plan for South Australia* (2005) is the first step in developing a coordinated long-term approach to infrastructure and service provision throughout the state. It provides a strategy for planning and delivery of infrastructure and services by all government and private sector providers.

The priorities identified for the Limestone Coast in the *Strategic Infrastructure Plan* are listed on the following pages. The *Limestone Coast Region Plan* confirms these priorities, further clarifies where specifically in the region these infrastructure and services are most required, and identifies other potential demands on infrastructure and services.

Infrastructure, with the exception of major works, is generally the responsibility of the landowner. Given the long lead times associated with industrial development, the state government and other infrastructure providers need to plan, budget for, and coordinate the development of infrastructure. This is particularly important for larger parcels of land that have been identified as key future supply sites but have significant constraints.

Further, infrastructure provision should link with the *Limestone Coast Region Plan* to ensure industrial and commercial land is ready when needed, and that appropriate services are provided to support industrial/commercial operators, residents and visitors. This is crucial to ensure that funding is not prematurely invested in infrastructure and services that will be under-used. It also reinforces the need for ongoing information gathering and liaison with the private sector and local government on industry and community needs.

Priorities for the Limestone Coast Region, as identified in the *Strategic Infrastructure Plan for South Australia, Regional Overview, 2005-06–2014-15*

Land (economic development)

- Establish new headquarters for Forestry SA (now completed)
- At Cape Jaffa develop a combined public/commercial marina and upgrade recreational facilities to cater for aquaculture and recreational/commercial fishing activities
- Investigate the potential location of future industrial sites
- Develop an industrial estate at Mount Gambier

Water and wastewater

- Complete drainage program in Upper South East
- Implement the South East Catchment Water Management Board Plan (now completed)
- At Tantanoola, develop options to harvest and re-use KCA's wastewater resource

- Upgrade Community Wastewater Management Systems (CWMS) servicing particular towns
- Collect and analyse data to determine if the Eight Mile Creek Catchment should and could provide an environmentally sustainable yield of water

Transport

- Work with the Victorian Government to facilitate the use of rail to transport freight between SA and Victoria (Portland)
- Develop plans to manage growth in freight, including road improvements and heavy vehicle detours of key towns e.g. Penola, Mount Gambier
- Leverage Australian Government funding to provide additional transport infrastructure
- Upgrade the Riddoch Highway and the Princes Highway section along the Coorong
- Identify the preferred site for a regional intermodal facility as part of a state-wide intermodal strategy

Energy

- Strengthen and augment the electricity supply network by undertaking transmission network upgrades and sub-station upgrades
- Build gas laterals from SEA Gas pipeline to Katnook and Naracoorte to provide an alternative supply of gas to Katnook gas users and industrial businesses at Naracoorte
- Investigate the viability of biomass power generation from timber waste

Information and communication technologies (ICT)

- Develop a business case that identifies sufficient aggregated demand to justify installation of broadband

Health

- Provide additional residential aged care facilities through redevelopment of hospital facilities at Millicent and Bordertown

- Establish an Aboriginal Wellbeing Centre in Mount Gambier

- Continue to upgrade hospital facilities to better meet acute service requirements and support the co-located delivery of primary health care services including general practice, allied health, mental health and Aboriginal health programs

Housing

- Increase the supply of affordable and adaptable housing in Naracoorte and other centres

Arts, culture and heritage

- Upgrade the Sir Robert Helpmann Theatre at Mount Gambier

Education and training

- Rejuvenate the existing built asset base of schools to support improved utilisation, integration of services and future education provision

- Undertake planned capital works at Mount Gambier high school and Kalangadoo preschool

Further issues related to infrastructure and services provision as identified through the process of the developing the *Limestone Coast Region Plan* are:

- the need for improved north-south access between communities and for freight vehicles during harvest periods, and for the management of potential conflicts between cars and large freight vehicles

- increasing pressure on wastewater facilities associated with residential development and tourist facilities

- localised pressures to upgrade aerodromes and air services, especially at Robe, Naracoorte and Mount Gambier

- potential increase in demand for public transport services, particularly to improve access to local, regional and Adelaide-based health services and education/training facilities

- potential pressure on recreation and sporting facilities due to growing resident and tourist numbers.
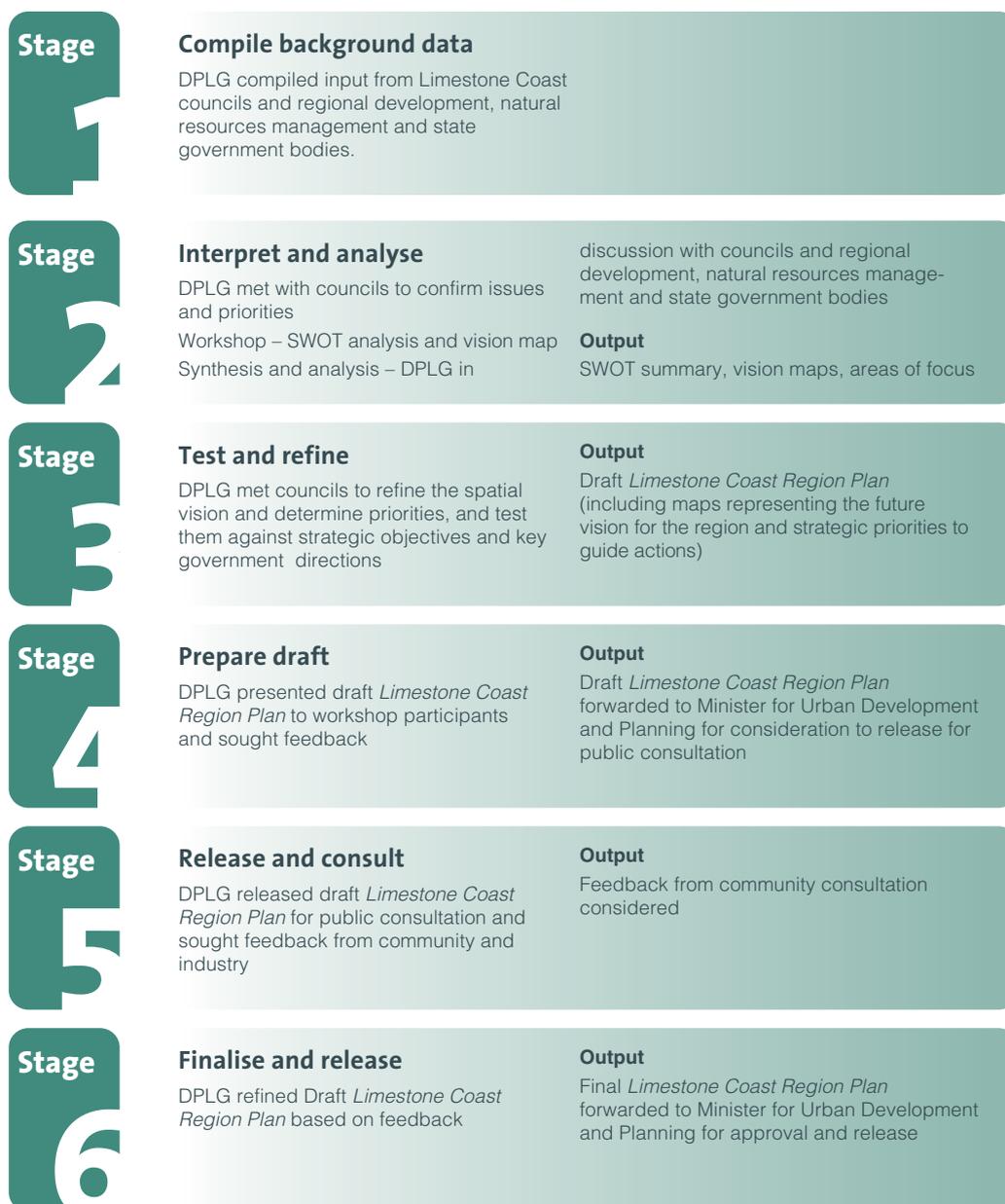
APPENDICES

APPENDIX 1
HOW THE PLAN WAS DEVELOPED

Figure 3 – The *Limestone Coast Region Plan* process

Stage 1

Compile background data

DPLG compiled input from Limestone Coast councils and regional development, natural resources management and state government bodies.

Stage 2

Interpret and analyse

DPLG met with councils to confirm issues and priorities

Workshop – SWOT analysis and vision map

Synthesis and analysis – DPLG in

discussion with councils and regional development, natural resources management and state government bodies

Output

SWOT summary, vision maps, areas of focus

Stage 3

Test and refine

DPLG met councils to refine the spatial vision and determine priorities, and test them against strategic objectives and key government directions

Output

Draft *Limestone Coast Region Plan* (including maps representing the future vision for the region and strategic priorities to guide actions)

Stage 4

Prepare draft

DPLG presented draft *Limestone Coast Region Plan* to workshop participants and sought feedback

Output

Draft *Limestone Coast Region Plan* forwarded to Minister for Urban Development and Planning for consideration to release for public consultation

Stage 5

Release and consult

DPLG released draft *Limestone Coast Region Plan* for public consultation and sought feedback from community and industry

Output

Feedback from community consultation considered

Stage 6

Finalise and release

DPLG refined Draft *Limestone Coast Region Plan* based on feedback

Output

Final *Limestone Coast Region Plan* forwarded to Minister for Urban Development and Planning for approval and release

APPENDIX 2
INFORMATION ABOUT THE LIMESTONE COAST REGION

COMMUNITIES AND CHANGING SETTLEMENT PATTERNS

A changing region

The needs of residents and communities throughout the region are a driving force for the preparation of the *Limestone Coast Region Plan* and associated strategic priorities for the region.

In 2006 the combined population for the seven council areas that make up the region was 61,098 persons.[12] The population for the region increased by 2.6 per cent between 1996 and 2006.
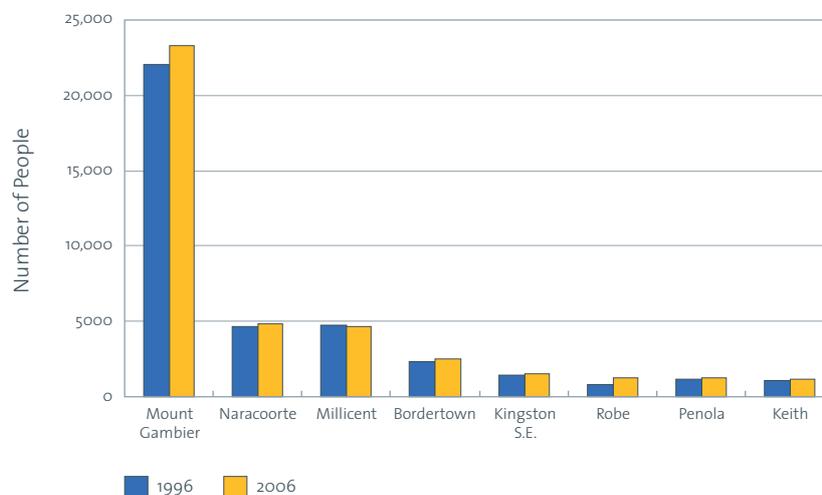
Mount Gambier has 38.1 per cent of the region's total population (23,273 at the 2006 Census). It sustained the region's highest per annum growth rate (1.06 per cent) during 1996–2006. A further 17,230 people (28.2 per cent) live in towns: Naracoorte (4816), Millicent (4641), Bordertown (2550), Kingston (1546), Robe (1286), Penola (1266) and Keith (1125) (refer Figure 4).

Towns with less than 1000 people together accommodate only 4.7 per cent of the population; 29 per cent of the population live on farms or in small settlements of fewer than 200 people.

While the larger towns grew during 1996–2006, many smaller towns, including Beachport, Kalangadoo, Lucindale, Nangwarry, Port MacDonnell, Tantanoola and Tarpee, experienced small declines (refer Figure 5). Given the larger labour markets and better services in the larger centres, this trend is expected to continue.

Permanent population figures may not reflect the additional demands of visitors on local and regional facilities. For example, Robe experiences high levels of visitors during peak tourist periods; in 2006 43.5 per cent of the town's dwellings were considered 'unoccupied', indicating a high proportion of holiday houses. However, this proportion fell from 50.2 per cent in 1996 (refer Figure 6), indicating that holiday accommodation is increasingly used for extended occupation. Overall, the region's occupancy rate is around 85 per cent, leaving 15 per cent of dwellings unoccupied.

Figure 4 – Towns with population > 1000, Limestone Coast Region

12 2006 Census Basic Community Profile released Sept 2007.

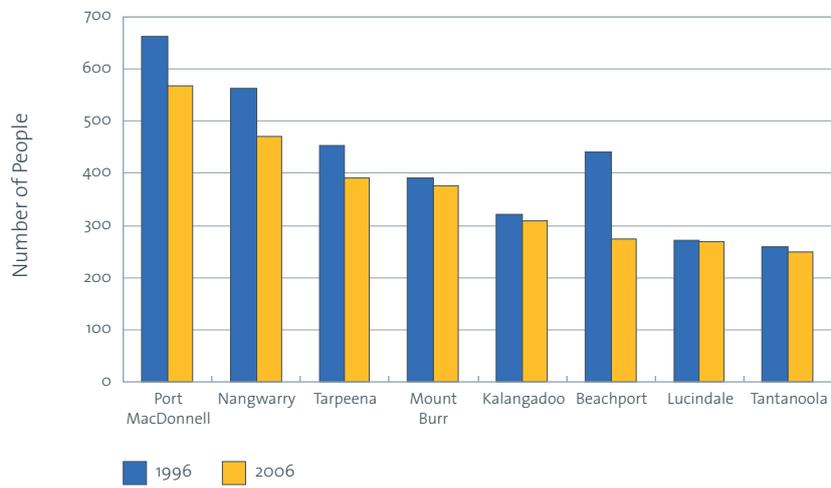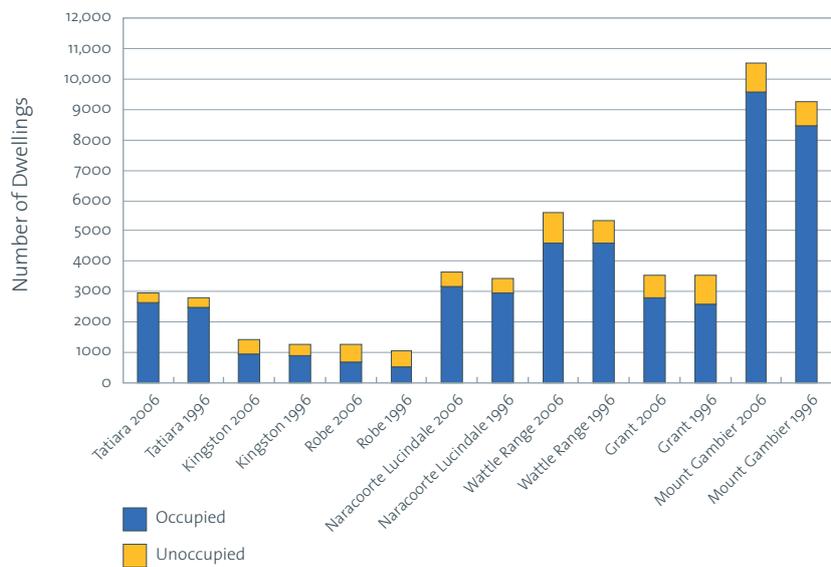**Figure 5 – Towns with population < 1000, Limestone Coast Region**

Figure 6 – Occupied and unoccupied dwellings 1996 & 2006
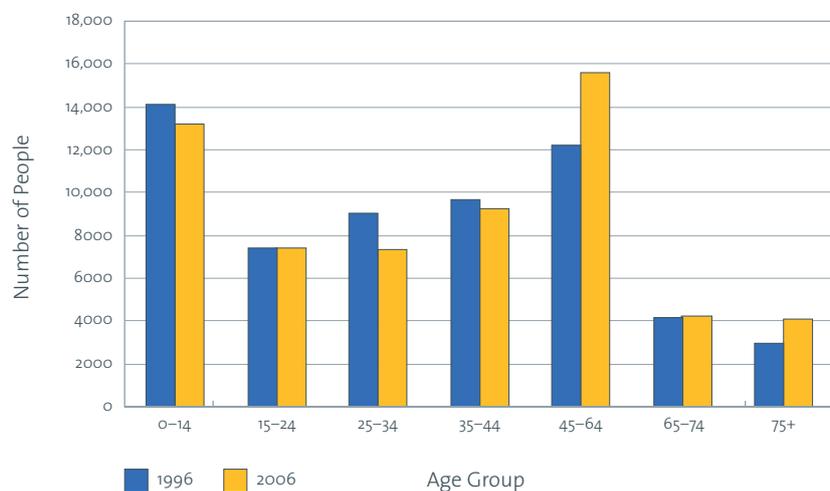

Source: ABS Census 2006.

An ageing region

Of the 64,615 persons living in the region in 2006, 8309 (13.6 per cent) were aged over 60. The number of people over 60 is projected to increase for South Australia as a whole, and similar trends are expected in this region.

The population of the region is already ageing. Between 1996 and 2006 there was an increase of 1.2 per cent in the number of people aged 65–74; however, the increase in people aged 75 and over was far more pronounced, at 37.4 per cent.

Conversely, the major family-creating cohorts of 25–34 years of age declined (by 13.5 per cent), as did the 35–44 age cohort (by 4.4 per cent) over the period 1996–2006, as did the number of children (the 0-14 age cohort declined by 6.5 per cent).

Considerable shifts in the demographic balance as the population ages and people move from farms into towns to retire will have implications for the provision of community services and facilities.

Figure 7 – Population by age, Limestone Coast region 1996–2006

Source: ABS Census 1996, 2001 and 2006 .

Housing demand and affordability

Australian Bureau of Statistics (ABS) data on the population distribution in the region indicates that most local government areas have experienced population growth, with only Kingston remaining fairly static and Wattle Range experiencing some decline.

ABS data also indicates that the number of aged persons as a percentage of the total population in the region is likely to increase faster than the region's overall population growth. The number of people over the age of 70 years is expected to triple statewide within the next few years, with the region likely to be strongly affected.
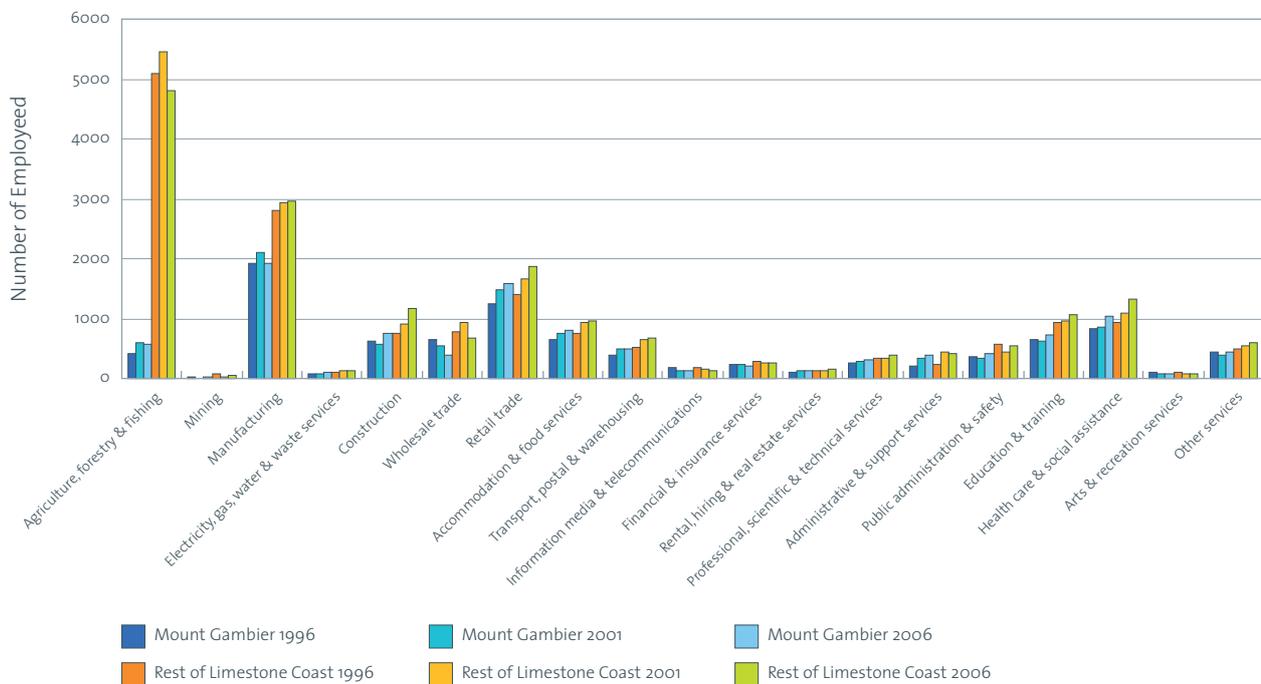
This trend should be taken into account in planning for the provision of suitable and appropriately located housing to meet the needs of an ageing population.

Attracting and retaining young people will remain a challenge. ABS data shows that between 1996 and 2006 the number of people in the 0–14 age group declined by more than 800. Similarly, the young working age group declined by over 1400 during the same period.

Table 4 – Demographic summary, Limestone Coast

Population	Grant	Kingston	Mount Gambier	Naracoorte Lucindale	Robe	Tatiara	Wattle Range	Limestone Coast Region
0–14	22.6%	19.9%	21.1%	21.0%	20.2%	23.1%	22.1%	21.6%
15–24	10.9%	10.4%	13.8%	12.4%	9.8%	11.4%	10.5%	12.1%
25–34	10.5%	9.6%	13.0%	12.4%	10.4%	12.2%	11.4%	12.0%
35–44	17.1%	12.4%	14.5%	15.2%	14.2%	15.2%	15.6%	15.1%
45–64	28.6%	30.0%	23.8%	25.4%	27.7%	25.0%	25.9%	25.5%
65–74	6.0%	10.1%	6.7%	6.5%	9.3%	6.6%	7.5%	6.9%
75+	4.3%	7.6%	7.0%	7.0%	8.4%	6.6%	7.0%	6.7%
Indigenous	0.8%	1.3%	1.6%	1.2%	0.6%	0.9%	1.2%	1.3%
Workforce Participation	69.3%	61.9%	63.2%	68.6%	50.8%	69.8%	62.3%	
Unemployment Rate	3.5%	3.8%	7.1%	3.2%	3.2%	1.9%	5.2%	
Median Weekly Household Income	$1063	$706	$816	$925	$796	$939	$823	
Total Population	7692	2238	23273	7900	1716	6806	11,473	61,098
0–14	1737	446	4920	1662	346	1574	2533	13218
15–24	838	233	3220	980	169	773	1207	7420
25–34	807	214	3024	983	179	827	1306	7340
35–44	1319	278	3373	1200	243	1033	1789	9235
45–64	2202	671	5545	2004	476	1701	2977	15576
65–74	460	227	1566	516	159	450	855	4233
75+	329	169	1625	555	144	448	806	4076
Indigenous	65	29	373	95	11	63	141	777

Figure 8 – Industry of Employment, 1996–2006

Source: Australian Bureau of Statistics, 2006 Census of Population and Housing, ABS, Canberra, 2007.

Land values in the region are rising. Job creation and growing economies, combined with the region's natural features and the affordability of housing relative to Adelaide, make the Limestone Coast attractive for new residents.

Rental accommodation

A shortage of affordable rental housing is, however, affecting the region's ability to attract and retain people in the region, particularly seasonal workers and workers in lower income occupations.

Higher building costs compared to the metropolitan area, coupled with difficulties in obtaining finance due to the unpredictability of the rural economy, are contributing to the shortage of housing in most parts of the region.

THE ECONOMY AND ECONOMIC DEVELOPMENT OPPORTUNITIES

Employment

With a regional unemployment rate that is consistently lower than the state average and a participation rate that is higher than the state average, the region's strong economic activity may be retaining

young people in employment and reducing the need for them to go elsewhere to find employment.

The ABS Population Census 2006 - Labour Force Participation Rates is a key indicator of how well the local economy is faring. With a participation rate of 64.2 per cent, which is more than 5 per cent higher than the state average, it is clear that the Limestone Coast has not experienced the negative changes that have affected much of regional South Australia over the past 30 years.

Regional employment data reflects a very diverse and self-reliant local economy. Continuing employment growth in the construction, transport, tourism, health and education sectors suggests that the regional economy continues to diversify and is adapting to changing economic conditions.

As can be seen in Figure 8, employment in the Limestone Coast is dominated by agriculture, forestry, fishing and manufacturing, with these sectors employing people in greater proportions than the state average. Retail trade is the third largest employer in the region, which, combined with accommodation, cafes and restaurants, reflects in part the region's continuing attraction to tourists.

Between 2001 and 2006, there was a strong increase in employment in health and community services and construction. Employment in the

construction industry is now higher than the state average. There was a major percentage increase in employment in government administration and defence at the same time, although the numbers of people affected were smaller. Despite the significant decline in employment in agriculture, forestry and fishing between 2001 and 2006, it remains the region's largest employing sector. Overall employment increased by 4.2 per cent (1219 jobs) between 2001 and 2006.

While more than a third of the region's population is employed in the agriculture and manufacturing sectors, the construction, wholesale and retail sales, and tourism sectors also contribute strongly to the regional economy, with around 30 per cent of the workforce now employed in these sectors.

As the region's industries adapt to changing environmental conditions and adopt new technologies, practices and policies, enterprises will require new skills and skill combinations from their existing workforce, or new workers with appropriate skills.

In summary, the Limestone Coast region has a strong and diverse base which will underpin future growth. Its natural resources coupled with being positioned midway between the markets of Adelaide and Melbourne will continue to realise opportunities if forward thinking and good planning outcomes are achieved.

Agriculture and fishing

In 2006, 18.8 per cent of the region's workforce was engaged in primary industry; it continues to be one of the largest employment sectors in the Limestone Coast.

PIRSA's *Food Scorecard Summary* estimated that in 2005–06 the gross food revenue for the region was $919 million. This takes into account the value of farm production, food value-adding, processing, packing and distribution, as well as food service and retail sales, but does not include revenue derived from viticulture.

While there has been a greater focus on viticulture in more recent times, livestock production (primarily sheep and cattle) remains the single largest primary industry in the region. In 2005–06, livestock production was valued at $277 million in farm gate terms and represents about 31 per cent of the total value of the South Australian livestock industry.

In addition, the region is also known for its horticultural activities, particularly potato production with about 2,500 hectares producing 130,000 tonnes of potatoes annually, and supporting 300 full time jobs. Carrot and onion production is increasing in the region.

The Limestone Coast supports one of regional South Australia's key dairy industries. Around 20,000 hectares from 128 farms

produces around 300 million litres of milk annually. This has a farm gate value of $80 million, and $247 million wholesale supporting around 750 full time jobs.

Field crops including grains and seed production contribute over $100 million to the local economy.

The region's active agricultural sector and generally reliable rainfall have encouraged the relocation of agricultural activities from other parts of the State, particularly to the Tatiara Council area. This trend is expected to continue throughout the region.

The region produces some of the best seafood in Australia and is renowned for its rock lobsters. Each year, over 1,890 tonnes of lobsters are sent to markets throughout Australia and abroad, earning valuable income for the region. Overall, the region's seafood industry earns around $63 million in farm gate terms.

Viticulture

The Limestone Coast has a number of wine regions: Padthaway in the north, Robe and Cape Jaffa and Mount Benson on the north west coast; and Wrattonbully and Coonawarra in the centre. Bordertown and Mount Gambier also produce wine but are recognised as wine regions by the Geographic Indication (GI) Committee of the Australian Wine and Brandy Corporation.

In 2007 the Limestone Coast had 300 winegrape growers with a total of around 15,000 hectares (ha) of winegrapes under cultivation, which accounts for 21 per cent of South Australia's plantings. The largest wine regions by area planted are Coonawarra (5860 ha), Padthaway (4010 ha) and Wrattonbully (2550 ha).

The Limestone Coast produces 20.5 per cent of Australia's premium wine. Its wine industry has a farm gate value of approximately $250 million and a value-added worth of around $1.5 billion. The industry supports 1200 full time jobs.

Future opportunities for vineyard planting and wine production are likely to occur in the lower south east, particularly considering water allocations. PIRSA's investigations suggest that the area south of Mount Gambier is well suited to viticulture, while areas around Mt Benson and Robe may be suitable for expansion.

Forestry

The forest and forest products industry sector in the Limestone Coast is significant. Since the introduction of forestry to the region a century ago, this industry sector now has over 150,000 ha of timber currently under plantation with one in five jobs in the region directly related to this area of employment.

The direct and indirect contribution to the Gross Regional Product (GRP) by the forest and forest

products sector is $759 million per annum or 28 per cent of GRP (2003–04 figures). The sector employs more than 7000 people or 22 per cent of the workforce.

There are over 108,000 ha of softwood plantation (predominantly Pinus Radiata) and over 42,000 ha of hardwood plantation (predominantly Eucalyptus globulus). The softwood plantations were originally started in the early 1900s followed by major expansion in the 1930s, 1960s and 1970s. The hardwood plantations have been established during the past decade.

A comprehensive value-adding industry produces structural timber, dressed timber products, engineered timber products and paper pulp. Almost all the biomass residue is used by the industry in timber processing or for soil improvement.

The hardwood plantations are nearing the end of their first rotation. It is envisaged that contracts will be secured to supply overseas companies with export wood chip through Portland.

A paper pulp plant, a potential major investment project, has been facilitated by the passage of indenture legislation through the State Parliament. If it proceeds, this project may generate significant demand for hardwood plantation products to meet input requirements of the plant.

During the period 2009–2014 the volume of wood harvested in the Green Triangle Region is expected to nearly double as the hardwood plantations come on stream. This will require rapid expansion in workforce capacity.

Industry

Although the regional economy is dominated by agriculture and timber processing, general industries servicing these sectors are also located throughout the region. Several emerging industries are establishing in the region, including a biomass plant near Tarpeena and meatworks at Bordertown and Naracoorte, which provide significant employment opportunities and generate export earnings. The region also has resources and features that may facilitate the development of renewable energy opportunities on a large scale.

The region's proximity to infrastructure, transport networks, available water and proximity to important markets will continue to make it attractive for new and relocating industries.

Tourism

Tourism is a key element of the regional economy, with more than 5700 associated jobs in retail, accommodation, cafes and restaurants. Employment in the accommodation, café and restaurant sector rose by 7.9 per cent in the five years to 2006 and should continue to provide employment growth throughout the region.

The region has a number of iconic natural tourist attractions, including the Naracoorte Caves and Mount Gambier's Blue Lake. The natural beauty of the region coupled with a growing food and wine industry continue to draw a significant number of visitors each year. Historic fishing ports, coastal holiday destinations and the national and conservation parks also attract visitors. Proximity to Adelaide and Melbourne encourages visitors travelling between the two to explore the region.

It is estimated that there were around 525,000 overnight visits to the region in 2008, with an average stay of three nights. This directly contributes around $230 million to the local economy and provides employment opportunities for many local residents.

Visitors range from grey nomads to young activity seekers wanting to explore new recreational and nature-based activities.

Mining and mineral processing

The region is not part of a geological province and has a relatively low prospect for mineral resources, with mining largely limited to low value agricultural, industrial and construction materials, such as sand and road base materials (for example, crushed limestone). Prospects are also attached to the proposed Hybrid Energy Coal project at Kingston (which could potentially generate enough diesel fuel to supply South Australia for the next 30 years).

INFRASTRUCTURE AND SERVICES

A wide range of infrastructure and services support the community and economy.

Road and rail

The main corridors in the Limestone Coast region are as follows:

- National Land Transport Network corridor is the Dukes Highway, which transverses the region and is the major corridor linking to Victoria

- State and local roads provide access throughout the region and to other regions and states. Important state roads include the Riddoch Highway and the Princes Highway. The importance of the Riddoch Highway to the national economy has been identified by the Victorian and South Australian governments in the Green Triangle Region Freight Action Plan (2009) and recommendations regarding its inclusion in the national network have been made to the Commonwealth. Heavy vehicle movements are expected to increase, placing significant demands on the network. Efficient transportation links to cater for economic growth will be a priority, particularly in regard to providing effective local road and lower order state road links to major freight routes

- The rail link between Adelaide and Melbourne generally follows the Dukes Highway corridor. It facilitates the export of grain from the region to Port Adelaide.

Road connections to the Port of Portland provide the region with an export port and competitive advantages.

Air

The Mount Gambier Airport is the Limestone Coast region's only regular passenger airport. Growth in passenger numbers over the 14 years between 1990–91 and 2004–05 is equivalent to an annual average growth rate of 5.5 per cent. Projecting this to 2020 would see passenger numbers increase to around 224,700. The airport currently does not have capacity to cater for larger planes.

Other aerodromes include:

- Naracoorte, Bordertown, Kingston and Millicent , which have sealed strips with pilot-activated lights suitable for RFDS, firefighting, aerial agriculture and charter services

- Keith aerodrome, used for aerial agriculture and the RFDS

- Lucindale and Padthaway, used for aerial agriculture and available for RFDS use

- Penola aerodrome, used for aerial agriculture and fire fighting

- Robe aerodrome, used by general aviation light aircraft for tourism purposes.

Public transport

Most regional centres have daily services to and from Adelaide, but services connecting towns are mostly limited to once or twice a week. As a result, the population is highly reliant on private motor vehicles.

Larger centres have taxi and small passenger vehicle (hire car) services, enabling subsidised travel through the SA Transport Subsidy Scheme (SATSS), which is funded by the state government through the Department for Transport, Energy and Infrastructure.

An integrated transport service is provided in the Tatiara area by a commercial operator under service contract with the Minister for Transport. This provides regular services for students, specific services for the South East Regional Health Service and general community services between Keith, Bordertown, Mundulla, Padthaway, Serviceton and Wolseley.

The Department for Transport, Energy and Infrastructure, through the Public Transport Division, funds a Community Passenger Network (CPN) to provide information, coordination and direct transport services for people who are transport disadvantaged. The CPN is based in Mount Gambier and covers the council areas of Wattle Range, Tatiara, Robe, Naracoorte, Kingston and Grant.

Despite these services, lack of access to transport is a major cause of social isolation in the region.

Cycling

The region's relatively low traffic volumes, wide streets and compact towns make cycling and walking attractive transport and recreation options. Many towns have strategic Local Area Bicycle Plans and most have extensive footpaths and are developing cycling networks. Opportunities exist to further develop cycling tourism. Highway routes, including for heavy vehicle traffic, pass through many towns, creating barriers to connectivity. Specific allocated space, such as bicycle lanes or shared-use paths, can help address this problem.

Health services

The South East Regional Health Service funds, supports and oversees a group of six publicly-funded hospitals and a regional community health service, which operates over eight sites.

Public hospitals are situated at Bordertown, Kingston, Millicent, Mt Gambier, Naracoorte and Penola while privately-funded hospitals are located in Mount Gambier and Keith. Health services are located at Lucindale.

Education facilities

The region has 49 government and non-government schools and 16 childcare facilities.

The demand for childcare facilities may increase due to the region currently experiencing higher than normal birth rates, and higher proportions of single parents, compared to the past. This increased demand could accelerate given the trend for people to seek off-farm employment as a means to supplement household income.

TAFE SA has campuses located in Mount Gambier, Millicent and Naracoorte. TAFE learning centres are also located at Bordertown, Kingston and Lucindale. The Mount Gambier campus offers a wide range of courses whilst the Millicent and Naracoorte campuses both focus on business, finance and

management with Naracoorte also having an agricultural, wine and rural focus. A number of universities – Flinders, University of South Australia and Deakin (Melbourne-based) – operate from Mount Gambier.

Community wastewater management systems (CWMS)

Local governments operate 13 CWMS schemes throughout the region. In addition, several new schemes such as Beachport, Donovans, Blackfellows Caves, Carpenter Rocks and Nene Valley are being planned or are currently under construction.

Existing schemes at Robe, Bordertown, Penola, Kalangadoo and Southend are currently being upgraded to supplement existing water supplies through increased recycling of reclaimed wastewater.

The Local Government Association of SA is facilitating applications on behalf of South Australian councils under the Commonwealth's Water Smart Australia Program for funding to upgrade individual schemes identified by individual councils as a priority.

Wastewater (and stormwater) recycling, and other water-sensitive initiatives (such as urban design measures) will provide an opportunity to reduce water consumption.

Water

Water in the South East not only supports industry and settlements, but also the region's distinctive ecosystems (including significant wetlands) and environment.

SA Water supplies 33 towns in the upper area of the Limestone Coast via the Tailem Bend to Keith pipeline and the remaining areas served mostly from underground water supplies and rainfall runoff.

The Limestone Coast has significant groundwater resources, comprising two extensive aquifer systems:

- The unconfined aquifer – the principal resource for municipal, industrial, rural residences and irrigation water use
- The confined aquifer – utilised mainly for municipal and agriculture needs.

The South East Natural Resource Management Board has produced a number of Water Allocation Plans to carefully manage this important resource. These strategies include the Blue Lake Management Plan aimed at ensuring clean safe water for Mount Gambier and surrounding districts.

The implications of diminished rainfall projected for the region through climate change (and associated impact on aquifer recharge rates), together with increased population and economic growth targeted through SASP, will increase competition for the available water.

Electricity

The electrical interface with Adelaide is a meshed network of 275 kV and 132 kV transmission lines with an additional two 275 kV lines providing interconnections to Victoria.

Three distillate-fuelled gas turbine generators are installed at Snuggery, and the Ladbroke Grove gas turbines near Penola provide around 107 MW respectively into the network.

Wind farms are operational at Canunda (23 turbines producing 46 MW) and Lake Bonney (46 turbines producing 80MW). Other wind farms being constructed and planned in the lower section of the Limestone Coast will further boost generation.

The high deep water wave energy that occurs naturally off the coast in the lower Limestone Coast is attracting significant interest from the energy sector for its potential to develop base load renewable energy. There are also potential opportunities for future geothermal energy in the lower south east, with reasonable proximity to the power grid.

While generally reliable, electricity supply in some towns and areas can fluctuate, which impacts on communities, while the availability of three-phase power in some locations has affected industry development.

Natural gas

The Katnook area gas field supplies natural gas to industrial, residential and other customers in the Mount Gambier region with spur lines delivering gas to Kimberley-Clark Australia's processing plant at Tantanoola and the SA Fries factory and the Nangwarry timber mill.

The SEA Gas pipeline passes within 8 km of Naracoorte continuing to the south-west of Keith.

Information and communications technology (ICT)

The region has broadband services in the major urban centres. Wireless opportunities may exist along the Riddoch highway route from Bordertown to Mount Gambier following recent back haul infrastructure build.

The state government's project to provide microwave backhaul from Mount Gambier to Bordertown includes specific provision for connections at Mount Burr, Penola, Naracoorte and Bordertown. This enables more competitive broadband services in various forms at those locations including ADSL and WiMax wireless broadband services.

THE ENVIRONMENT

The Living Coast Strategy and the Natural Resources Plan provide a range of mechanisms to maintain and enhance the environmental qualities of the Limestone Coast region.

Much of the region is made up of a series of stranded dunes that rise 20–50 metres above interdunal plains. These plains can be inundated with water during the winter months and are part of internationally recognised wetland systems that include the 3200 hectare Ramsar-listed Bool and Hacks lagoons.

The region also has an extensive network of limestone sink holes and caves, including the World Heritage-listed Naracoorte Caves.

The 300-kilometre south-east coast is also a dominant feature of the region. It extends from the Victorian border in the south to the internationally acclaimed Coorong National Park in the north. This coastline features a number of towns, including Kingston, Robe, Beachport and Port MacDonnell. A number of small settlements south of Lake Bonney such as Carpenter Rocks, Blackfellows Caves and Nene Valley, as well as Donovans on the Glenelg River are attracting prospective investors and potential residents.

The coast's dunes, limestone cliffs, sandy beaches, rocky shores and coastal springs and lakes are unique to the region.

The near shore marine environment is dominated by numerous intertidal and sub-tidal reef systems interspersed with seagrass meadows, kelp forests and sandy bottoms. This environment provides habitats for various marine organisms.

Rainfall varies from approximately 440mm in the region's northern parts to around 900mm in the south. The temperate, Mediterranean-type climate brings average summer temperatures that range from 21°C in Cape Northumberland to 29°C in Bordertown. Cold days and chilly nights are usually associated with the winter months, especially in inland areas.

A natural resources management plan, due to be implemented in 2010, will identify the environmental issues that need to be managed with appropriate forward planning to ensure economic activity remains ecologically sustainable.

Managing climate change

The region has experienced diminished rainfall corresponding with drought conditions in recent years.

Climate change predictions indicate there may be a higher frequency of poor years in the future. The ongoing drought reducing rainfall in recent years and the predicted impacts of climate change are having widespread impacts on agricultural, horticultural and pastoral activities and have the potential to affect the tourism industry. A new climate regime means past weather experiences are an imperfect guide to the future.

The possible negative effects caused by climate change on the sustainability of some primary production areas should be monitored and climate risk management plans developed in a timely manner.

APPENDIX 3

CONTRIBUTION OF THE PLAN TO *SOUTH AUSTRALIA'S STRATEGIC PLAN* TARGETS

Table 3.1 – Linkages with *South Australia's Strategic Plan*

Limestone Coast Region Plan Principles	*South Australia's Strategic Plan* Target
ENVIRONMENTAL AND CULTURAL ASSETS	
1. Recognise, protect and restore the region's environmental assets	T3.1 Lose no species, T3.2 Land biodiversity, T3.3 Soil Protection, T3.4 Marine biodiversity, T3.7 Ecological footprint, T3.9 Sustainable water supplies, T3.10 River Murray
2. Protect people, property and the environment from exposure to hazards	T2.4 Healthy South Australians, T2.7 Psychological wellbeing
3. Indentify and protect places of heritage and cultural significance, and desired town character	T1.15 Tourism industry, T2.7 Psychological wellbeing, T6.1 Aboriginal wellbeing, T5.9 Regional population levels
4. Create the conditions for the region to adapt and become resilient to the impacts of climate change	T3.5 Greenhouse gas emissions reduction, T3.7 Ecological footprint, T3.9 Sustainable water supply, T3.13 and T3.14 Energy efficiency—dwellings and government buildings
ECONOMIC DEVELOPMENT	
5. Protect and build on the region's strategic infrastructure	T1.1 Economic growth, T1.14 Total exports, T1.21 Strategic infrastructure, T3.7 Ecological footprint, T3.8 Zero waste
6. Retain and strengthen the economic potential of the region's primary production land	T1.1 Economic growth, T1.10 Jobs, T 1.14 Total exports, T1.17 Minerals exploration, T3.9 Sustainable water supply
7. Strengthen local commercial fishing and aquaculture industries	T1.1 Economic growth, T1.10 Jobs, T 1.14 Total Exports
8. Reinforce the region as a preferred tourist destination	T1.10 Jobs, T1.15 Tourism, T1.5 Business Investment, T1.21 Strategic infrastructure
9. Provide and protect serviced and well-sited industrial land to meet projected demand	T1.1 Economic growth; T1.2 Competitive business climate ; T1.5 Business investment; T1.10 Jobs; T 1.14 Total exports; T1.21 Strategic infrastructure
10. Ensure commercial development is well sited and designed to support the role and function of towns	T1.5 Business Investment, T.10 Jobs, T1.21 Strategic infrastructure

Limestone Coast Region Plan **Principles**	*South Australia's Strategic Plan* **Target**
POPULATION AND SETTLEMENTS	
11. Strategically plan and manage the growth of towns	T1.21 Strategic infrastructure, T3.7 Ecological footprint, T3.8 Zero waste, T5.9 Regional population levels
12. Design towns to provide safe, healthy accessible and appealing environments	T2.4 Healthy South Australians, T2.7 Psychological wellbeing, T2.8 Statewide crime rates
13. Provide residential land for a supply of diverse, affordable and sustainable housing to meet the needs of current and future residents and visitors	T5.9 Regional population levels, T6.7 Affordable housing, T6.8 Housing stress, T6.9 Aboriginal housing, T6.10 Housing for people with disabilities, T1.24 Overseas migrants

APPENDIX 4
RELATED REPORTS, STRATEGIES AND PLANS

Various plans, strategies and research have been considered during the development of the *Limestone Coast Region Plan*. Many of these reports were developed in consultation with industry and the local community. The detailed research and analysis contained in these documents underpin and complement this Plan.

Australian Bureau of Statistics, *2006 Census of Population and Housing*, ABS, Canberra, 2007.

Coast Protection Board (2003) *Coastline: A Strategy for Implementing CPB Policies on Coastal Acid Sulfate Soils in South Australia*, DEH, Government of South Australia.

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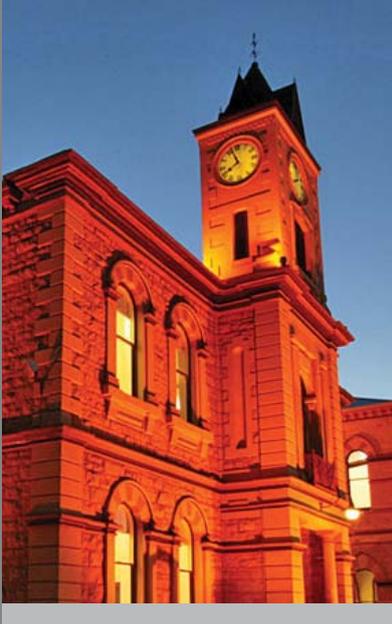
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GLOSSARY

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Acid sulfate soils	The common name given to naturally occurring soils containing iron sulfides (predominantly pyrite). When exposed to oxygen due to drainage, excavation or disturbance, they produce sulfuric acid and trigger the release of iron, aluminium and heavy metals. Once mobilised, the acid and minerals can kill vegetation, destroy building materials and seep into wetlands, killing fish and other aquatic organisms.
Affordable housing	Affordable housing is housing that is appropriate to the needs of households with low and moderate incomes (that is, up to 120 per cent of gross annual median income). The indicative affordable house purchase price for these groups—currently $225,000—is determined by the affordability indicators gazetted on 8 October 2009 (p. 4818) or in the *Development Act 1993* and South Australian Housing Trust (General) Regulations 1995.
Biodiversity	The variety of life in all its forms and at all levels of organisation, as well as the ecological and evolutionary processes through which genes, species and ecosystems interact with one another and with their environment.
Climate change	A change in the state of the climate that can be identified by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer (*The Garnaut Climate Change Review*, 2008).
Community Wastewater Management System (CWMS)	A system or scheme that is installed and operated by an individual council for the collection, treatment and disposal (including by recycling) of wastewater.
Density	Density is a measure of the population (persons) or the number of dwelling units in a given area.
Development Plans	Development Plans should seek to promote the provisions of the Planning Strategy and may set out to include planning or development objectives or principles. They are the principal document in South Australia used to assess development.
Distributed or embedded generation	Where a generating unit is connected to a distribution network and not having direct access to the transmission network.

Employment lands	Concentrated areas where people are employed on a full- or part-time basis in a wide range of employment industry categories including: agriculture; mining; electricity; construction; wholesaling; communication; finance; property; government; cultural and personal services; education, health and community services; manufacturing; retailing; accommodation; and cafes and restaurants.
Freight corridors	Road or rail corridors for the movement of freight.
Green industry	Green industries are primarily concerned with the supply of energy from renewable sources such as wind, solar and water (including waste), and those industries concerned with assisting other sectors of the economy to meet the climate change challenge by reducing their reliance on carbon-based energy supply.
Greenhouse gas emissions	Polluting carbon substances released into the atmosphere.
Gross state product (GSP)	Gross state product is the measurement of economic output of the state. It is the sum of all value added by industries in the state.
Indigenous Land Use Agreement (ILUA)	An Indigenous Land Use Agreement is a voluntary agreement between a native title group and others for the use and management of the land and/or water covered by the agreement.
Rural living	Large residential allotments outside towns that allow for minor primary production activity.
Strategic Management Plans	The *Local Government Act 1999* requires councils to apply a strategic approach in all actions they undertake through the preparation of Strategic Management Plans. These plans articulate council goals and objectives and the vision for the community and are intended to complement the regional volumes of the South Australian Planning Strategy, that is, the *Limestone Coast Region Plan*.
Sustainable development	Forms of development that meet the needs of the present without compromising the ability of future generations to meet their needs.
Water demand	Water demand is taken to be the measurement of all water uses in the region from all water sources for the purposes of essential human needs, the economy and the environment.

Water infrastructure	Water infrastructure includes treatment systems (including wetlands), pumps, pipelines, storages (including aquifers) and other natural or constructed means of transferring water of appropriate quality from its source to the demand point.
Water security	Water security has been taken to mean the availability of an appropriate quantity of water at an appropriate quality to meet the needs of the community. This includes the provision of potable and fit-for-purpose water supplies, collection and treatment of wastewater and the management of stormwater and groundwater resources.
Water-sensitive urban design (WSUD)	Water-sensitive urban design (WSUD) is an approach to urban planning and design that integrates the management of the total water cycle into the urban development process. It includes: ■ the integrated management of groundwater, surface run-off (including stormwater), drinking water and wastewater to protect water-related environmental, recreational and cultural values ■ the storage, treatment and beneficial use of run-off ■ the treatment and re-use of wastewater ■ using vegetation for treatment purposes, water-efficient landscaping and enhancing biodiversity ■ using water-saving measures inside and outside domestic, commercial, industrial and institutional premises to minimise requirements for drinking and non-drinking water supplies. WSUD incorporates all water resources, including surface water, groundwater, urban and roof run-off, and wastewater.