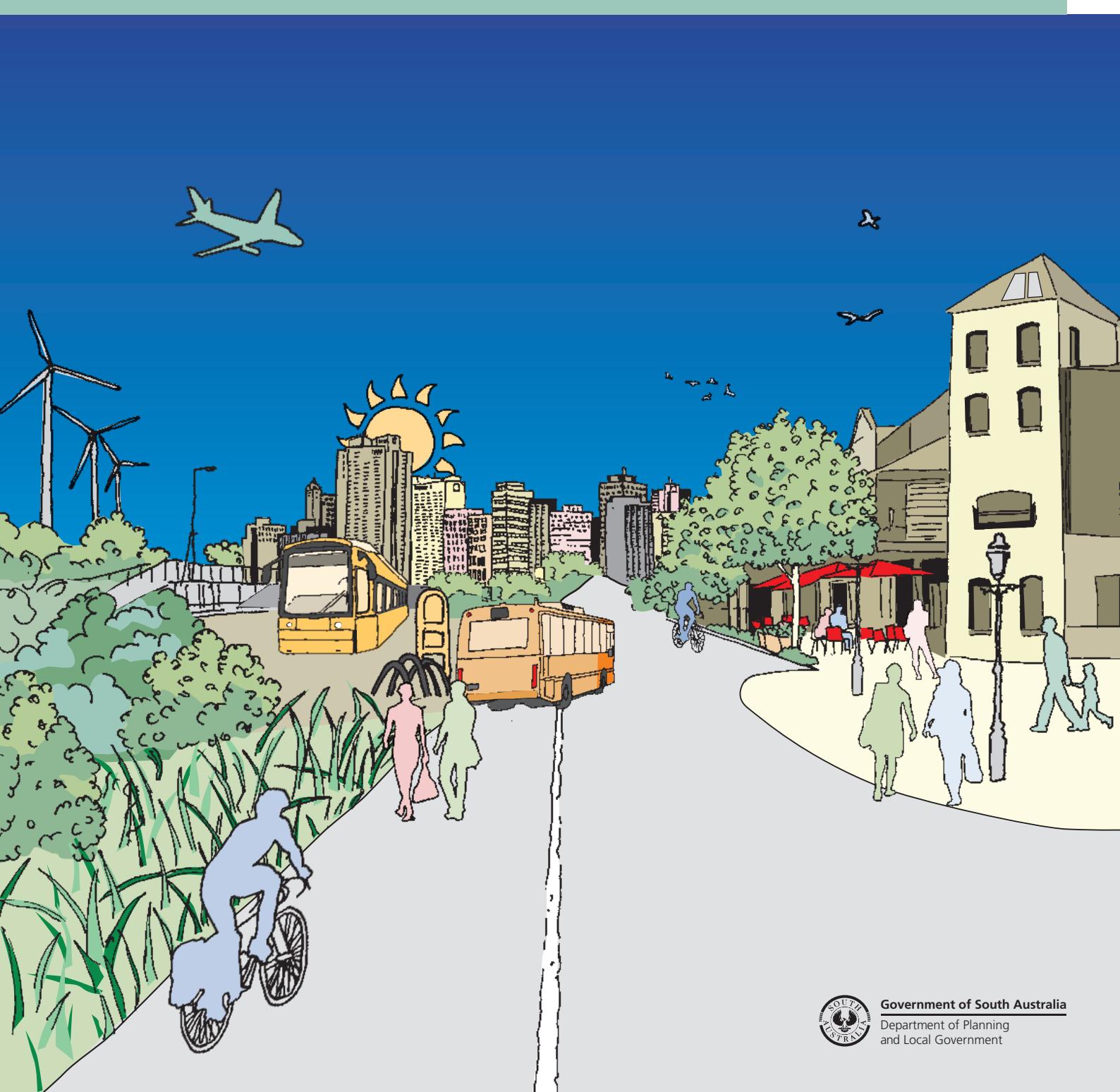


# The 30-Year Plan for Greater Adelaide

A volume of the South Australian Planning Strategy



Government of South Australia  
Department of Planning  
and Local Government



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This document is *The 30-Year Plan for Greater Adelaide*.

The document has been prepared 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.plan4adelaide.sa.gov.au](http://www.plan4adelaide.sa.gov.au) or telephone the Department of Planning and Local Government on 08 8303 0760.



**Government of South Australia**

Department of Planning  
and Local Government

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# PREMIER OF SOUTH AUSTRALIA

## A message from Mike Rann

Premier  
**Minister for Economic Development**  
**Minister for Social Inclusion**  
**Minister for the Arts**  
**Minister for Sustainability and Climate Change**

The vision and foresight that Colonel William Light brought to his design for Adelaide—Australia's first planned city—remain defining features of our capital.

Today, amid the rapidly changing ways in which we live, work, travel and relate to our environment, the challenges and opportunities for Adelaide's growth have rarely been greater.

That is why the South Australian Government is releasing *The 30-Year Plan for Greater Adelaide*.

For the next three decades, the Plan will guide where people live, how we manage population growth, and how we create jobs.

It will inform our transport and infrastructure priorities, it will help drive our future budget settings and service planning, and it will aid us in further protecting our environment.

It will also emphasise the value we place on Adelaide's heritage and unique character, and help underpin the highest quality in integrated design, as we build our future heritage.

Under this Plan, around 80 per cent of our existing urban character will remain largely unchanged.

In addition, we are establishing an Integrated Design Commission—an Australia-first initiative—to ensure the changing face of our city is co-ordinated and of the highest quality.

We want South Australia to be as celebrated for excellence in design as we are for our mines, our festivals and our leadership in renewable energy.

We all want a vibrant, liveable city. Over the past decade, our state has enjoyed strong economic growth with record numbers of South Australians in work.

However, the global economic downturn provides a timely reminder that we must now—more than ever—improve our competitiveness, and plan for sustainable jobs for the future.

We have set an ambitious target for Greater Adelaide of 282,000 jobs over the next 30 years.

We will support that aim by setting aside land critical to employment, by targeting job creation at a regional level, and by establishing specialist industry precincts for new and existing sectors such as defence, mining, renewable energy and higher education.

To ensure we lead the nation in the management of a growing population, we will set clear targets for the levels and location of new housing, and ensure that a rolling supply of land is available, affordable and accessible.

This will not only make Greater Adelaide attractive to skilled workers from interstate and overseas, but also help reduce the number of working-age people choosing to relocate beyond our borders.

The Plan sets new benchmarks in urban planning by locating new housing developments close to public transport networks, enabling us to create well-connected and safe residential precincts that allow residents to work, shop and access services closer to where they live.

We will locate a majority of our new housing within the established metropolitan area, and in transit-oriented developments along our transport corridors.

The Plan will be underpinned by the largest infrastructure investment in our state's history—\$11.4 billion over four years to upgrade and modernise our transport networks, hospitals and schools, and to supply the water needed to sustain population and economic growth.

*The 30-Year Plan for Greater Adelaide* will, in turn, support that investment through the location of new housing near those transport networks, as well as close to new and existing infrastructure.

In addition, our buildings and suburbs will be designed to be more energy efficient, we will reduce over-reliance on motor vehicles, and we will create a network of green and open-space precincts.

As with our renowned parklands designed by Colonel Light, these will have a cooling effect to help mitigate the forecast impacts of climate change.

The Plan will also drive more efficient use of water through innovative building design, and increased water re-use and recycling initiatives to sustain our parks and open spaces.

*The 30-Year Plan for Greater Adelaide* outlines an exciting vision for our city.

I acknowledge the contribution of everyone involved in its development and finalisation, particularly the members of the public who made submissions during the consultation phase, and the input of local government.

These valuable community contributions are reflected in the targets and strategies outlined in this document.



**Mike Rann**

Premier of South Australia  
Minister for Economic Development



# MINISTER FOR URBAN DEVELOPMENT AND PLANNING

## A message from Paul Holloway

**Minister for Mineral Resources Development**

**Minister for Urban Development and Planning**

**Minister for Small Business**

Less than three decades from now we will celebrate the bicentenary of Colonel William Light's plan for Adelaide. I am pleased to release *The 30-Year Plan for Greater Adelaide*, which contains a vision for our community beyond that significant milestone in 2037.

The State Government's vision for the next three decades is to position Adelaide as a city that is recognised worldwide as liveable, competitive and resilient to climate change while retaining those things we love, such as open space, the ambience and charm of rural centres, and a city that is vibrant and family friendly.

People in the Greater Adelaide region want to live in places with a sense of local community and that is what the Plan is all about. We will build infrastructure to support new developments and deliver better public transport to make Adelaide more 'walkable' and less reliant on private cars.

The State Government is currently investing in public transport infrastructure as never before. *The 30-Year Plan for Greater Adelaide* capitalises on that multi-billion dollar investment by ensuring that we have more people living within easy access of these major transport corridors.

Given the recent economic downturn, it is inevitable that the next few years will be tougher than recent times, but we are determined to position South Australia so that we emerge from this period with a sharpened competitive edge.

Despite the global financial crisis, South Australia is facing a bright future. In the first quarter of 2009, South Australia was the only state or territory to experience economic growth. Opportunities for growth in mining, defence and ICT industries, coupled with continuing strong performances from our traditional primary industries, have placed us in a good position to weather this financial storm.

However, South Australia's population is ageing at a faster rate than other states. Sustainable population growth will be essential to maintain a healthy balance and a labour force that can support our economy. We need to continue to encourage skilled migrants to move here and provide an environment that encourages our children to stay and work in this state.

The low inflows to the Murray River have caused South Australians to be concerned about our water supply, but as with the other challenges we have faced during the past two centuries, we will adapt. The Adelaide desalination plant will deliver its first water by December this year, with an expansion to a 100-gigalitre capacity to be completed in 2012. The expanded plant will then provide about half of Greater Adelaide's water supply, ensuring we have the water required for our future.

While expanding our working-age population, we also need to protect our state's natural environment and primary production areas. This means containing urban sprawl and planning for new housing within vibrant higher-density neighbourhoods that reinvigorate a sense of community.

In the past, our city has been planned based on people's ability to drive from one place to another and park conveniently, but at the cost of discouraging people from walking to shops and services that are too far away or across very busy roads. Rising fuel prices, increasing greenhouse gas emissions and the health risks from growing incidences of obesity are compelling reasons to change this approach.

That is why the Plan ensures that, by the end of the 30 years, up to 70 per cent of new dwellings will be built within our established boundaries as we focus on better using the opportunities provided by our city's transport corridors.

Our fringe growth will also be well planned with new population centres closely connected to transport, infrastructure and employment opportunities. We are planning for both an affordable supply of housing and a broad range of housing choices.

The Plan details where and how those housing choices will be located, providing certainty and at the same time recognising regional differences, strengths, opportunities and constraints.

By focusing growth in transit corridors we can ensure that we preserve Adelaide's distinctive urban character, leaving about 80 per cent of metropolitan Adelaide largely unchanged as a result of the Plan.

To realise the Plan will require a community-wide approach. We have collaborated with local councils in the Greater Adelaide region to develop this document. We want to move forward in a genuine partnership between state and local government, industry and communities on the local detail, but provide firm state leadership on the broad direction.

I look forward to working with councils, industry groups and the community in implementing *The 30-Year Plan for Greater Adelaide*. It is an exciting challenge.



**Paul Holloway**

Minister for Urban Development and Planning



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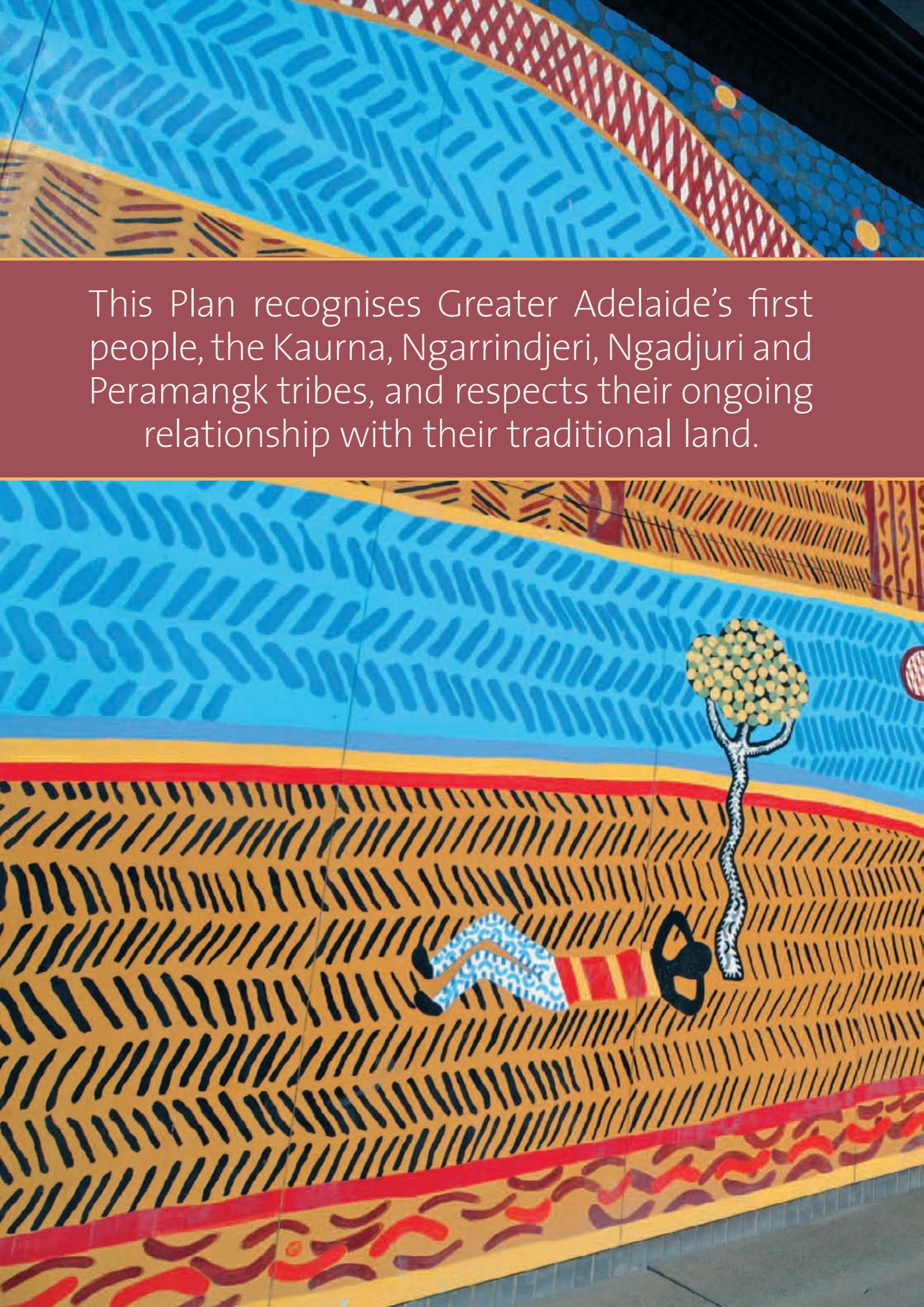
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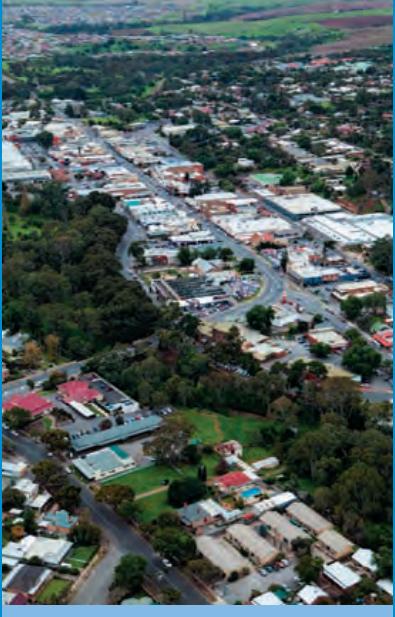
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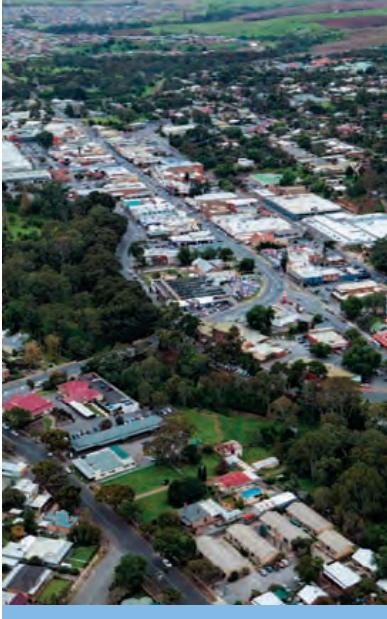




This Plan recognises Greater Adelaide's first people, the Kaurna, Ngarrindjeri, Ngadjuri and Peramangk tribes, and respects their ongoing relationship with their traditional land.



# OVERVIEW



# OVERVIEW

## Introduction

In 1835 Colonel William Light was appointed Surveyor-General of the new colony of South Australia. Light prepared the first urban plan for Adelaide—

his vision created a river city surrounded by parklands for fresh air and a rural hinterland beyond.

Light faced enormous challenges in planning this new settlement, including isolation; moving people, goods and services; and securing water. His most difficult challenge, however, was to plan a community that would stand the test of time, and be flexible enough to encompass a future he could not possibly envisage.

Light's visionary plan successfully tackled all the challenges of the day, but it was not without controversy at the time. Today it is regarded as one of the best urban plans in the world; it is even on the National Heritage list. Light's plan has stood the test of time because it was flexible enough to allow the city to grow and change. In 1962, a 30-year plan was developed that built on Light's vision after consideration of population and economic trends. Both these plans were instrumental in creating the Adelaide we have today—an immensely liveable, prosperous and attractive region.

The far-reaching nature of Light's plan has enabled the population and economy to grow and change without compromising our quality of life. As we enter the second decade of the 21st century we clearly face vastly different challenges to those that confronted Light. Our population is growing steadily, which will bring economic growth and a vibrant culture. The make-up of the population, however, is changing dramatically. During the next 30 years the proportion of our population aged over 65 will increase, as will the number of single people and smaller households, such as couples without children. We need to plan now for the right types of housing

and jobs so that the people of Greater Adelaide can continue to experience a high-quality affordable lifestyle.

Key features of that lifestyle will be easy access to affordable, efficient transport and services, such as schools and health centres. The aim is to develop Greater Adelaide in a way that reinforces the importance of local neighbourhoods, where people can shop, work, play sport, and spend time together.

We know our economy will continue to grow and change. New technologies will transform our industrial base and labour market. We need to plan ahead for these changes, particularly in industries such as manufacturing, as well as protect the industries including primary production and mining that have been the backbone of our economy.

Our natural resources are under pressure. We can no longer take our environment for granted or consume unlimited water and energy. Our climate is changing, and we must get ahead of the climate change challenge. We must reduce our consumption of energy and water so that future generations can enjoy the same quality of life that we have enjoyed. We can also create a competitive advantage for South



Australian industries in a carbon-constrained economy by building on our national leadership in renewable energy and water recycling.

*The 30-Year Plan for Greater Adelaide* (the Plan) sets out the land-use policies to manage the growth and change that is forecast to occur in the region. It builds on Light's vision and the 1962 *Report on the Metropolitan Area of Adelaide*, and positions South Australia to take advantage of our opportunities and be fully prepared for future challenges.

This generation of South Australians has a choice. We can simply allow growth to happen—uncoordinated, unplanned and without vision or purpose—which would result in a sprawling city with poorly located housing, insufficient access to transport or jobs, and an over-consumption of water, energy and other natural resources.

Or, we can build on the heritage of Light's planning vision by managing population and economic growth to control our future urban environment. Proper planning determines the way our neighbourhoods and suburbs develop, look and function. There are real benefits for residents of well-planned, well-designed and connected urban communities.

## The Plan at a glance

*The 30-Year Plan for Greater Adelaide* has been the subject of extensive consultation with the community, local government and industry. This has informed the two fundamental changes to Greater Adelaide's planning that will result from the Plan: a new urban form and the creation of Australia's most competitive and efficient planning system. Urban form is the way neighbourhoods and communities are organised, including the location of housing, jobs and services.

During the next 30 years we are planning for:

- steady population growth of 560,000 people
- the construction of 258,000 additional homes
- economic growth of \$127.7 billion
- the creation of 282,000 additional jobs.

The South Australian Government is embarking on this planning process with a record infrastructure investment of \$11.4 billion over four years from 2009–10. The investment focuses on major transport projects including the electrification and modernisation of our existing rail system, as well as the Noarlunga to Seaford rail extension, western tram extension and O-Bahn extension.

This Plan will:

- locate the majority of new housing in current urban lands, particularly around transport corridors
- focus on creating mixed-use precincts that bring together housing, jobs, transport services, recreation and leisure
- set aside a net land supply of 10,650 hectares to create new growth areas which will be based on the principles of mixed-use development, higher densities and a greater mixture of housing, and wherever possible will be located next to transport corridors
- through its implementation, generate \$11.1 billion of gross state product (GSP) over the 30 years
- create 14 new transit-oriented developments and more than 20 sites that incorporate transit-oriented development principles and design characteristics
- contribute to keeping housing and living affordable in South Australia
- provide for housing choice for our ageing population, families, professionals and young people



- develop suburbs and neighbourhoods which are connected and represent the world's best practice in sustainability and urban design
- strategically expand larger townships with infrastructure and services, while constraining growth in smaller townships to preserve their heritage and character
- protect at least 115,000 hectares of environmentally significant land and up to 375,000 hectares of primary production land
- support the important growth of the mining and defence industries, which will be important to South Australia's future
- create a network of greenways and open-space precincts, including designating green buffers that define the area between the town of Gawler, the northern suburbs and new growth areas
- significantly reduce the rate of water and energy consumption in all new dwellings
- support our national leadership position in the renewable energy sector and position South Australia to export green energy to other states and territories.

Against the backdrop of this economic and population growth, about 80 per cent of our existing urban character will remain largely unchanged as a result of the Plan. The entire community, however, will benefit from a more modern and efficient transport system and a better planned urban environment.

Greater Adelaide will represent the best features of well designed, small cities where people have a greater choice about whether they drive, use public transport or walk to get their basic goods and services. New mixed-use precincts will better serve the needs of a modern workforce whose working hours may not be the traditional nine-to-five day.

As Australia moves out of the global economic downturn, South Australia will be ready with land for jobs, land for housing, new transport and infrastructure underway, and a planning system that will allow for certainty of investment and faster decision-making, while protecting heritage, character and biodiversity.

Implementation of the Plan will mean that South Australia will be a leader in competitiveness, liveability and sustainability, ensuring that this generation and future generations will live in a prosperous, inclusive, healthy and efficient city.

## Conclusion

*The 30-Year Plan for Greater Adelaide* returns to some of the principles of Colonel Light's plan, such as the concept of a balance between nature and the city, by expanding the network of parks and greenways to encourage walking and cycling and to provide more shade to urban areas.

The Plan fulfils many of the fundamental principles of Light's vision, including:

- walkable neighbourhoods
- housing close to jobs, transport and services
- people living in the best places, near parklands, waterways and vibrant centres
- connected transport networks which form the backbone of the urban environment
- parklands and open spaces built into new urban environments from the outset.

Most importantly, the Plan seeks to build in the same amount of flexibility that Light gave his plan.

In essence, the Plan sets some fundamental principles but the governance and implementation arrangements recognise that local communities will always want to shape their environment. This will allow the Plan to stand the test of time and position Greater Adelaide to remain one of the most liveable places in the world.



## SUMMARY



# SUMMARY

## The role of the Plan

The *30-Year Plan for Greater Adelaide* (the Plan) has been prepared by the South Australian Government to guide the community, local government, business and industry.

Together, the Plan and the planning strategies for country South Australia form the South Australian Planning Strategy. Structure Plans for State Significant Areas (as described in Chapter F) will also form part of the Planning Strategy as they are progressively developed.

The Plan is a dynamic spatial expression of *South Australia's Strategic Plan* (2007).

It will be used by the State Government to guide the planning and delivery of services and infrastructure, such as transport, health, schools and community facilities.

The main aim of the Plan is to outline how the South Australian Government proposes to balance population and economic growth with the need to preserve the environment and protect the heritage, history and character of Greater Adelaide. The Plan seeks to create inclusive, vibrant and liveable communities, while protecting the regional hinterlands and primary production lands and sustaining natural resources. Finally, the Plan will be one of the key tools to assist the State Government, local government and the entire community in building resilience to the risks and impacts of climate change.

The Plan will guide the preparation of Development Plans by councils under the requirements of the *Development Act 1993*. Councils will need to incorporate infrastructure and service requirements in their plans, which will be informed by the Housing and Employment Land Supply Program (the revitalised and extended Metropolitan Development Program). This program provides estimates of future population levels, land supply, infrastructure requirements and development priorities, which are revised from time to time to reflect contemporary trends.

The Plan is integrated with, and should be read in conjunction with, other specialist plans, including the *Strategic Infrastructure Plan for South Australia* (2005–06), 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) and *South Australia's Waste Strategy* (2005).



## How has consultation changed the Plan?

Extensive consultation was undertaken to produce the Plan. During development of the Plan's draft, the Department of Planning and Local Government held briefings and detailed discussions from November 2008 to May 2009 with local government, industry, state government departments and private service providers. The draft Plan was then exhibited publicly from 6 July to 30 September 2009. In this time the department held extensive briefings with community groups, local government and professional organisations.

The consultation has been vital to better appreciate how people want to see Greater Adelaide grow and adapt during the next 30 years, and has led to the inclusion in the Plan of the following changes:

- Some technical changes have been made that result from comments received relating to the depiction of information and data in maps, along with clarification of some of the language in the Plan. Many of the policies have been rearranged, expanded, removed or combined with other policies to improve the flow of the document, to avoid duplication with other policies contained in the latter parts of the Plan, and to clarify the intent of the policy.
- Two new principles—one emphasising protection of our natural resources and the other stating a commitment to community engagement—have been added to the 12 principles in the draft Plan.
- Key changes to the distribution of population, jobs and housing targets include:
  - ▶ 11,000 people added to the population target for the Adelaide City centre. This addition is made up by reducing the population of the Eastern Region by 4000 and the Western Region by 7000
  - ▶ a reduction of 29,000 people (10,600 dwellings) in the Barossa Region and an additional 29,000 people (10,600 dwellings) in the Northern Region.
- The governance and implementation arrangements to deliver the Plan have been clarified and further refined, including specific reference to the Government Planning and Coordination Committee.
- Policies regarding climate change have been strengthened and a new section on emergency management and hazard avoidance has been added.
- Policies on new metropolitan and township growth areas have been clarified. Additional policies have been included to address the impact of population growth on primary production in peri-urban areas and close to townships.
- The quality of communities and the importance of social inclusion have been further highlighted.

A detailed explanation of the changes to the Plan can be found in the Consultation Report located at [www.plan4adelaide.sa.gov.au](http://www.plan4adelaide.sa.gov.au).



## Structure of the Plan

*The 30-Year Plan for Greater Adelaide* is presented in the following chapters:

- **Chapter A** outlines the intended role, function and rationale of the Plan.
- **Chapter B** describes the context of the Plan, having regard to the challenges and opportunities confronting the region.
- **Chapter C** outlines the vision of the Plan, as well as its benefits for competitiveness, liveability, climate change and sustainability. Allied to these benefits is a detailed description of the Plan's contribution to *South Australia's Strategic Plan* targets, which are provided in Appendix 5.
- **Chapter D** outlines the policies and targets for the key issues of the Plan: transit corridors, transit-oriented developments and growth areas, housing, economic growth, environmental protection, climate change and water security. These policies and targets are underpinned by detailed analysis contained in the Background Technical Report located at [www.plan4adelaide.sa.gov.au](http://www.plan4adelaide.sa.gov.au).

■ **Chapter E** summarises the targets for each region of Greater Adelaide. The targets include population, housing and employment, key transit corridors, major infrastructure proposals and key renewal areas. This chapter also contains schematic maps that indicate how the Plan might be given effect at a regional level. These will form the basis of Regional Implementation Strategies that will be developed by the Local Government Regional Partnership Forums (see chapter F).

■ **Chapter F** outlines how the Plan will be coordinated and implemented across state government agencies in partnership with local government. It describes how proposed State Significant Areas (for example, new transit-oriented developments, transit corridors and key employment precincts) will be activated and managed.

This chapter also includes a report card format to be used by state government agencies and councils to monitor the success of the Plan and to trigger major decisions, such as the release of more land or the provision of key infrastructure. In this way, the Plan will be dynamic and responsive to major changes in the economy, the environment or the demographic make-up of the population.

## Key challenges and opportunities

### Building on strengths

Greater Adelaide is one of the most liveable places in the world. It enjoys rich cultural diversity, world-class creative arts, competitive house prices, a growing and diversifying economy, and a vibrant labour market. The region's neighbourhoods, villages and hinterland towns have a unique history, heritage and character. The natural environment that surrounds the metropolitan area and townships is a magnet for tourists and an important source of economic activity; it is rich in biodiversity and is one of the key building blocks for a more climate resilient and sustainable region.

The Economist Intelligence Unit's 2009 Liveability Index rated Adelaide the 11th most liveable city in the world.

The city was planned by Colonel William Light and his plan for Adelaide took advantage of natural elements and made a feature of significant parklands. This made Adelaide a model for the 'garden city' concept of the later 1800s. As a result of rapid population growth and high postwar demand for housing, the 1962 *Report on the Metropolitan Area of Adelaide* provided a comprehensive study of trends



in Adelaide's economy, population, land use, transport and public services, along with planning and transport proposals to meet the needs of Adelaide for the 30 years to 1991. The 1962 report envisaged a built form based around a strong rail network. Despite this, the emergence of widespread car ownership meant that road replaced rail as the dominant transport mode.

What Adelaide is today largely reflects both Colonel Light's original plan and the 1962 report. *The 30-Year Plan for Greater Adelaide* will build on those strengths and return us to the vision of an urban environment centred on walkable neighbourhoods and access to public transport. This will position Greater Adelaide to have a world-leading approach to competitiveness, liveability, sustainability and resilience to climate change.

## Creating a competitive advantage for South Australia and responding to the global economic downturn

The Greater Adelaide region has enjoyed a decade of strong economic growth and industry diversification; however, the pace and nature of this growth will change because of the global economic downturn. As a result, the Plan deals with two issues. Firstly, it aims to create greater flexibility in land use to allow industries to change and restructure. Second, it is expected to invigorate the economy by stimulating employment in housing, infrastructure and related activities. It will create the platform to fast-track growth as the economy begins to recover through an efficient planning system and a clear strategy about where growth will occur to drive increased productivity, investment and economic activity.

This proactive intervention should give South Australia and Greater Adelaide a competitive advantage over other jurisdictions now that the national economy is beginning to recover.

## Challenges

### Population growth

Greater Adelaide is projected to grow by up to 560,000 people during the next 30 years. This is a moderate level of growth that will contribute to prosperity and a diverse labour market. This growth will need to be carefully managed so that there is sufficient land for the additional housing and jobs necessary to support it. It will also be essential to plan the vital infrastructure and services needed to support population and economic growth.

### Population change

The make-up of Greater Adelaide's population will be transformed. There will be a greater proportion of people aged over 65 and a significant increase in the proportion of households consisting of lone persons and couples without children. This requires action now to ensure that there will be a sufficient supply of a range of accommodation close to shops, services and public transport. Provision will also need to be made for an expanded range of services, and cultural and sporting facilities. Growth in the proportion of people aged over 65 will also require long-term planning for the expansion of health services and aged-care facilities. To balance our population into the future we need planning strategies to attract and retain the working-age population.



### Housing affordability

A growing and changing population will place additional demands on the housing market. Land prices have already escalated on average in Greater Adelaide, partly due to the supply of land not keeping pace with strong population growth. Housing affordability in South Australia and Greater Adelaide is currently better than in other parts of Australia. This is a competitive advantage, particularly in attracting and maintaining a working-age population. During the next 30 years, it will be essential that there is enough well-located land for housing and a sufficient supply of different housing types to cater for a changing population. This will ensure housing is competitive, affordable and accessible for all sections of the community.

### A growing and changing economy

South Australia's economy has grown strongly during the past decade. Since 1990 it has grown by 50 per cent in real terms. It has also significantly restructured and diversified: growth sectors include finance and insurance, information and communication technology (ICT), defence, renewable energy and clean technology. Primary production and mining remain critical elements of the economy; in particular, there has been significant growth in mining exploration in the past decade. The heavy manufacturing sector has declined during the past two decades; however, there are opportunities for significant growth in a more diversified manufacturing sector. It is essential that sufficient land is provided for the jobs of the future and that land-use policies allow key sectors to grow and change in response to national and global trends. In competing for labour at a global level it will be important to plan for a region where people are easily able to access employment close to home for a good work-life balance.

### Transport and infrastructure

A growing and changing population and a growing economy will place additional demands on infrastructure such as transport, health and education facilities. There is an urgent need to create a more compact and efficient urban form to take advantage of the established transport networks and infrastructure in existing areas, as well as the State Government's significant plans for new infrastructure investment. There is also an urgent need to design Greater Adelaide to reduce car reliance, potentially lowering per capita greenhouse gas emissions and creating more liveable, accessible and connected communities. It will also be critical that we set aside important economic infrastructure corridors to strengthen and foster productive and accessible businesses and industries.



## Environment and biodiversity

Greater Adelaide faces challenges in protecting and enhancing its key environmental assets. These assets are a vital part of the ecology and the economy because they create a more attractive and liveable environment, which is a drawcard for people wanting to move to Greater Adelaide or to remain living and working in the region. These natural resources have come under tremendous pressure and, in some cases, extreme threat from over-consumption and the encroachment of residential and industrial activities. The urban form needs to be more compact to avoid sprawl and the unnecessary expansion of residential and commercial activity into lands of environmental significance or lands that are vital for primary production.

## Climate change

The risks and potential impacts of climate change are a major challenge for Greater Adelaide, for South Australia and for the nation as a whole. Australia is predicted to experience increased average temperatures, rising sea levels and more extreme weather events such as bushfires and heatwaves. These have the potential to threaten the liveability, economic prosperity and health of the community. It is critical to intervene now in the urban form and the built environment to reduce the rate of growth in emissions and to prepare the region to adapt to the likely impacts of a changing climate. There is also a significant opportunity to organise land use in a way that supports the emergence of new technologies such as renewable energy and clean energy, to give South Australia a competitive advantage in a carbon-constrained economy.

## Water efficiency

Securing water supplies for a growing population and economy is fundamental to economic, social and environmental wellbeing. Greater Adelaide relies heavily on rainfall-dependent water sources such as the River Murray. In recent years the State Government has acted to improve water security

through the augmentation of supply (for example, the development of a desalination plant) and interventions such as the introduction of permanent water conservation measures. In 2009 the South Australian Government released *Water for Good—A Plan to Ensure our Water Future to 2050*, which includes additional capacity for the desalination plant. By the end of 2012 the plant will be able to supply 100 gigalitres a year, which is about half of Greater Adelaide's potable water supply. Together with the full suite of actions outlined in *Water for Good*, this will ensure that Greater Adelaide has enough water to meet the needs of a growing population and economy.

The urban form offers an important opportunity to reduce the rate of consumption of potable water. Actions such as increasing housing densities and improving the water efficiency of buildings contribute to a more efficient rate of water consumption for the urban population. This will extend the life and reliability of the existing and planned water supplies and allow the population and the economy to grow without placing an unsustainable demand on water resources.



## The imperative for the Plan's directions

The cumulative effect of the challenges and opportunities facing the Greater Adelaide region create an urgent need to intervene now to change the pattern and distribution of new housing and new jobs for the next 30 years. There is also an urgent need to rethink the designs of new housing, new neighbourhoods and new suburbs, to create a more compact and efficient city and to break the nexus between growth and unsustainable resource consumption.

The Plan calls for two fundamental changes to the way land use is managed in the Greater Adelaide region. The first change is to create a new, more compact and better designed urban form to meet the needs of a growing and changing population and economy. The second is to create a new set of governance arrangements to ensure that the proposed policies and targets can adapt to the inevitable changes that will occur in the economy and make-up of the population, and to the environment. A new set of governance arrangements is also needed to allow the Plan to be implemented in a way that complements the particular character of the different parts of Greater Adelaide and to allow people to have input into the planning and design of new communities.

Greater Adelaide is central to South Australia's economic, environmental and social future. The region successfully blends the demands of commerce and industry with a great lifestyle and a high standard of living. *The 30-Year Plan for Greater Adelaide* will build on this success and guide Adelaide's future growth by a fundamental shift to a more sustainable pattern of development. If Greater Adelaide does not move to a new urban form and a new set of governance arrangements, which allows the Plan's broad directions to be adapted to suit the different parts of the region, it faces the following risks:

- The region will not be in a position to take full advantage of opportunities as the economy moves out of the global economic downturn.
- There will be insufficient housing to meet the needs of older people and the growing numbers of couples without children.
- There will not be enough quality services to meet the needs of a changing and ageing population.
- The state will not attract and maintain a population of working-age people without quality jobs and sufficient affordable housing with access to transport and services.

- Governments at all levels will be unable to meet the infrastructure needs of new and existing communities.
- The city will grow beyond its sustainable limits in respect of the amount of resources and space it consumes.
- Greater Adelaide runs the risk of losing its competitive advantage by having inefficient land supply and inefficient and costly infrastructure requirements.

## The objectives of the Plan

To maximise South Australia's opportunities and respond to its challenges, *The 30-Year Plan for Greater Adelaide* has three interlocking objectives. These are to:

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

The graphic on the next page summarises these objectives.

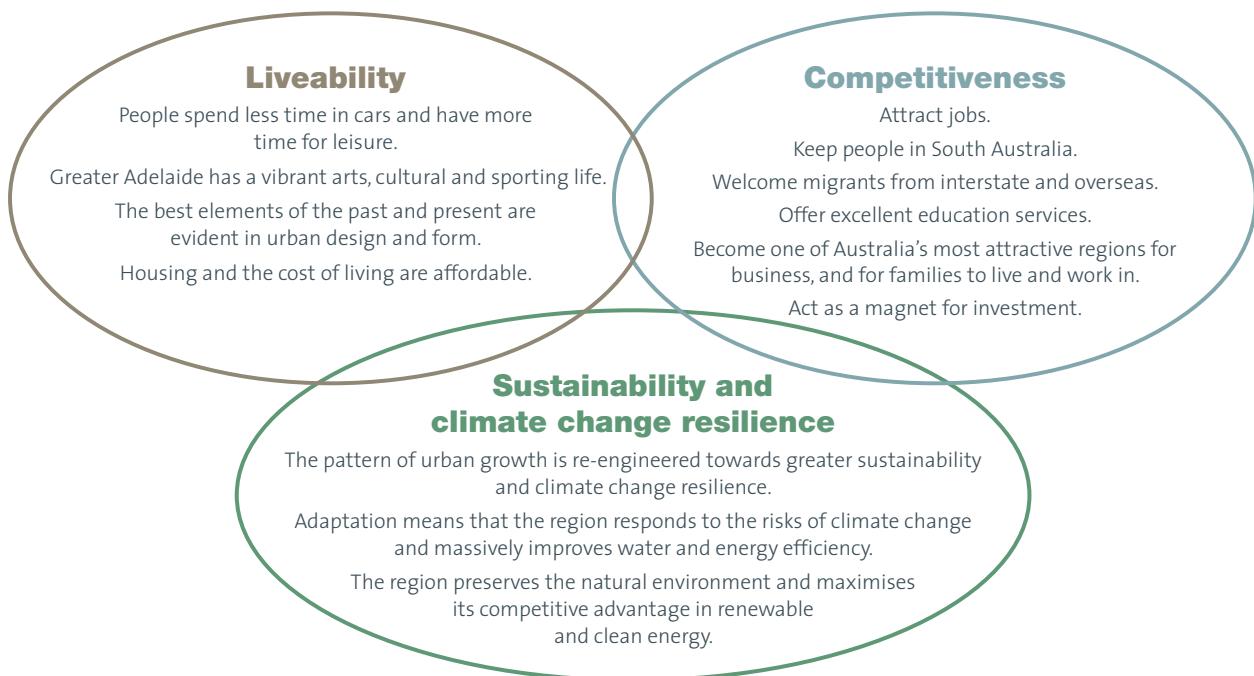
## The principles of the Plan

*The 30-Year Plan for Greater Adelaide* is underpinned by 14 principles. While the policies and specific targets may change over time, these principles will be a constant driving force for future generations to ensure that Greater Adelaide has a world-leading approach to competitiveness, liveability, sustainability and resilience to climate change.

The principles are:

- 1 A compact and carbon-efficient city
- 2 Housing diversity and choice
- 3 Accessibility
- 4 A transit-focused and connected city
- 5 World-class design and vibrancy
- 6 Social inclusion and fairness
- 7 Heritage and character protection and enhancement
- 8 Healthy, safe and connected communities
- 9 Affordable living
- 10 Economic growth and competitiveness
- 11 Climate change resilience
- 12 Environmental protection, restoration and enhancement
- 13 Natural resources management
- 14 Community engagement.

### Objectives for *The 30-Year Plan for Greater Adelaide*





## The characteristics of the new urban form

*The 30-Year Plan for Greater Adelaide* is underpinned by two fundamental changes: a shift to a new urban form and a change in governance arrangements to create Australia's most competitive and efficient planning system.

Over the life of the Plan, Greater Adelaide will change to a new, modern, efficient and sustainable urban form to accommodate additional housing and jobs. This new urban form will complement and support the existing character of the region. The overwhelming majority of the existing built form and existing suburbs and neighbourhoods will remain unchanged as a result of the Plan.

New metropolitan housing will gradually move from the existing 50:50 ratio of infill development to fringe development to a ratio of about 70:30 in the last years of the Plan period.

The Plan's policies and targets are driven by the characteristics of the new urban form, which include:

- the concentration of new housing in existing urban areas to contain the growth of residential and industrial and commercial activity to areas suitable for urban development
- the location of new housing and new jobs in designated transit corridors to promote easy access to jobs and services and reduce the reliance on cars
- the setting of specific housing and employment targets across the regions of Greater Adelaide to ensure the efficient and equitable distribution of housing and jobs
- the diversification of dwelling types and housing choice across Greater Adelaide and an increase in the supply of smaller accommodation
- an increase in housing densities around railway and tram stations and transport interchanges such as major bus interchanges
- the creation of mixed-use precincts, including housing, jobs and services, around transport networks and interchanges
- the designation of specific employment lands close to major residential areas and transport services. Land-use policies will also protect employment lands for commercial and industrial use and against encroachment from incompatible activities that undermine the capacity to create well-located jobs
- the revitalisation of major activity centres, particularly the City of Adelaide. Where appropriate, some specialist activities such as legal or education services will be clustered together to create more efficient use of infrastructure and to act as a stimulus for investment in key sectors
- the establishment of new transit-oriented developments in transit corridors. The developments will collocate medium- and high-density residential housing, major retail and service outlets, and major employers around railway and tram stations and bus interchanges
- the implementation of a new approach to greenfield development to create more mixed-use communities, higher densities and more efficient land use, walkable neighbourhoods, a greater mixture of housing types, and new suburbs that are contiguous to main transport corridors

- a renewed emphasis on innovative and world-class design, and on creating unique precincts with distinct characteristics across the region
- the dramatic improvement of water and energy efficiency for new suburbs, neighbourhoods, dwellings, and new commercial and industrial buildings
- the creation of a network of greenways and open-space precincts in transit corridors
- the protection of environmentally significant lands by containing residential and commercial activities to lands suitable for urban development
- the protection of primary production lands through land-use policies which protect the integrity of high-value primary production lands and minimise the encroachment of incompatible uses. New land-use policies will also reduce the risk of fragmentation and create greater flexibility to allow the primary production industry to change land uses in response to industry trends.

## The new governance arrangements

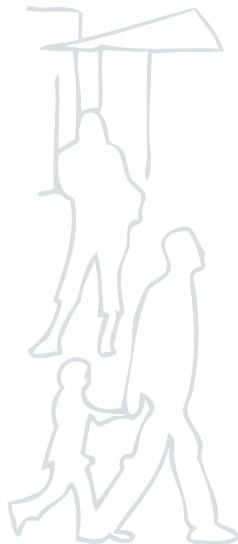
The long-term success of the Plan will be driven in large part by the effectiveness of the governance and implementation arrangements. To achieve the Plan's objectives and principles, several issues need to be managed over the next 30 years. These include a capacity to regularly update policies and targets, an ability to execute the Plan across local government and all state government agencies, and an implementation approach that recognises that different land-use solutions are needed in different parts of Greater Adelaide.

The key elements of the governance and implementation arrangements follow.

- There will be improved coordination across the agencies of the South Australian Government. Through the Government Planning and Coordination Committee, agency chief executives and local government will work together to drive a whole-of-government approach to the implementation and monitoring of the policies and targets. The Cabinet will play a stronger role in land-use planning decisions, particularly in the transit corridors and new growth areas.

- The Department of Planning and Local Government will be the lead agency for the implementation of the Plan.
- The Plan will be delivered in partnership with local government through the establishment of regional forums to develop Regional Implementation Strategies. These will deliver the policies and targets at a regional level and identify long-term infrastructure priorities.
- The Plan will be integrated with the State Government's infrastructure planning and budget strategy.
- There will be greater use of more efficient planning instruments in the form of Structure Plans and Precinct Requirements to deliver the land-use policies in transit corridors, new growth areas, transit-oriented developments and other key precincts, such as major activity centres and open-space precincts. These new planning instruments will deal with major policy decisions in advance so that rezoning and development assessment can be fast-tracked (see chapter F).

- The management of land supply will be revitalised through a new Housing and Employment Land Supply Program, which will ensure a rolling program of land for housing construction and job creation. This is vital to support population and economic growth.
- A report card and key triggers will be used to monitor the implementation of the policies and targets, and to update them when circumstances and policy priorities change.



## The benefits of the Plan

*The 30-Year Plan for Greater Adelaide* will have substantial social, economic and environmental benefits for the community of Greater Adelaide and South Australia as a whole. These benefits have been grouped in accordance with the Plan's three key objectives. An outline of the benefits follows.

### Competitiveness

- Greater Adelaide will be able to accommodate an additional 560,000 people over 30 years, which is a moderate and sustainable increase of about 350 people a week. This population growth will drive economic prosperity as well as social and cultural vibrancy.
- The Plan will underpin the creation of at least 282,000 new jobs during the next 30 years, which will increase Greater Adelaide's employment to 909,200 people. These new jobs will be located in areas of residential growth and in areas well serviced by transport networks.
- There will be an additional 50,000 jobs and 15,040 dwellings in the City of Adelaide, reinforcing its role as the cultural, economic and social hub of Greater Adelaide.
- Targets for housing and jobs will be set at a regional level and councils will be expected to have zoned land capacity to support local housing growth and job creation.



- The Plan will support the achievement of a 25-year rolling supply of land for residential and commercial and industrial purposes. There will be a 15-year supply of land zoned at any given time for residential or commercial and industrial purposes. These dwellings and land supply targets will ensure that the supply of housing will contribute to keeping housing affordable.
- There will be 5300 hectares of new and regenerated employment land set aside to foster the creation of well-located jobs.
- Provision will be made for the growth of new sectors such as ICT and the green economy by setting aside specific lands and creating planning controls that protect the lands' future use. The Plan will result in the protection of key mining areas and will preserve the important contribution of mining to the South Australian economy.
- The state's competitiveness will rise, with economic performance projected to increase by \$11.1 billion as a direct result of implementing the policies and targets of the Plan.<sup>1</sup>

- The increase in gross state product (GSP) implies productivity growth of about 60 per cent during the next 30 years, or 4.6 per cent more than business-as-usual planning.<sup>2</sup>
- The Plan will support a more efficient planning system that will underpin the economic performance and competitiveness of the state. The introduction of Precinct Requirements and Structure Plans will reduce the time taken to convert raw land into housing. This will reduce development times from the existing 5–7 years to a maximum of three years, which represents a saving of \$60 million a year.<sup>3</sup> The plans will also give greater certainty to investors by making it clear what development can occur in key locations.
- The Plan will support the proposed infrastructure expenditure of \$11.4 billion to upgrade major freight and passenger transport corridors and services, and key infrastructure such as hospitals and schools.

## Liveability

- During the next 30 years there is a projected requirement for about 258,000 additional dwellings across the Greater Adelaide region. This equates to an average construction level of 10,100 new dwellings per year (allowing for dwellings lost due to demolition).
- Over the life of the Plan, the ratio of infill development to fringe development in metropolitan Adelaide will gradually shift from the current 50:50 until about 70 per cent of all new housing is being built within existing urban areas to create an efficient urban form.
- The vast majority of new dwellings will be within walking distance of public transport access.
- Land-use controls will protect corridors to ensure they are capable of high-volume transit capacity.

<sup>1</sup> KPMG, 'Economic modelling methodology and results', prepared for the Department of Planning and Local Government (DPLG), Government of South Australia, 2009, in *Background technical report*, <[www.plan4adelade.sa.gov.au](http://www.plan4adelade.sa.gov.au)>.

<sup>2</sup> ibid.

<sup>3</sup> KPMG, 'Appendix G: Technical Report on the quantification of the potential benefits that may be derived from the planning reforms', in *Report to the Minister for Urban Development and Planning from the Planning and Development Review Steering Committee for consideration by Cabinet*, Planning and Development Review Steering Committee, report prepared for the Government of South Australia, 2008, p. 35, available at <[www.planning.sa.gov.au](http://www.planning.sa.gov.au)>.

- The Plan will result in the creation of 14 new transit-oriented developments and more than 20 sites that incorporate transit-oriented development principles and design characteristics. These developments will contain around 60,000 new dwellings.
- In metropolitan Adelaide the concentration of housing and jobs in transit corridors and transit-oriented developments will mean that only 20 per cent of the current built form is affected by the Plan's changes to land use.
- Most new housing in transit corridors will be located within 400 metres of local shops to promote walkable, healthier communities.
- The Plan will result in the reinvigoration of 16 higher-order activity centres, including the City of Adelaide. These will be mixed-use precincts to support the concept of connected communities and neighbourhoods.
- The region will move to a more sustainable density. Average gross density will rise from eight to 11 dwellings per hectare across Greater Adelaide. Gross densities in transit corridors and transit-oriented developments will average 25–35 dwellings per hectare in line with the international standard for sustainable density, which is about 35 dwellings per hectare.<sup>4</sup>
- The rate of consumption of energy will decrease through better buildings standards, design requirements and specific land-use policies that improve the efficiency of the urban form. This will result in a reduced rate of growth in greenhouse gas emissions.
- Household energy bills for new housing could be about \$400 a year less than comparative existing housing because of new energy efficiency building standards.
- There will be a new generation of greenways and open-space precincts. The result will be a more liveable city, with more green space for walking and cycling. This will also have a cooling effect on new communities, reducing the impacts of climate change such as more frequent hot temperatures.

## Sustainability and climate change resilience

- The Plan will reduce demand for potable water across the region through the introduction of water-sensitive urban design and higher density dwellings.
- The Plan will provide for 15,900 green-collar jobs and the development of new green industries.
- At least 115,000 hectares (13 per cent of Greater Adelaide) of environmental lands will be protected because a more compact urban form will avoid the need to encroach into these vital lands.

<sup>4</sup> P Hall, 'Sustainable cities or town cramming?', in *Planning for a sustainable future*, eds A Layard, S Davoudi and S Batty, Routledge, 2001, p. 107.



# THE PLAN'S ROLE, FUNCTION AND RATIONALE

## Chapter A



# THE PLAN'S ROLE, FUNCTION AND RATIONALE

## Chapter A

### About *The 30-Year Plan for Greater Adelaide*

*The 30-Year Plan for Greater Adelaide* (the Plan) has been prepared as a volume of the South Australian Planning Strategy in accordance with section 22 of the *Development Act 1993*.

The Plan outlines how the South Australian Government proposes to respond to population growth and demographic change in Greater Adelaide during the next 30 years. It also sets out how the State Government proposes to continue to drive economic growth so that the people of Greater Adelaide and all South Australians can benefit from carefully managed and balanced population growth, increased productivity and strong economic performance.

The Plan sets out a range of policies (both strategic and land use) and targets that will accommodate this population and economic growth, while at the same time preserving the heritage, history and character of the city; preserving the regional hinterland; protecting and enhancing the natural environment; and responding to the risks and potential impacts of climate change.

### About the consultation

The State Government is committed to ensuring South Australia is one of the most attractive places in the world to live, work and do business. The aim is to have the most competitive planning and development system in Australia, creating opportunities for growth while at the same time enhancing the outstanding lifestyle of our people, and the sustainability and climate resilience of the state.

*The 30-Year Plan for Greater Adelaide* is the culmination of extensive consultation with local government, state government agencies, key industry and community organisations, and the wider public (see the Consultation Report located at [www.plan4adelaide.sa.gov.au](http://www.plan4adelaide.sa.gov.au)).

During the compilation of the draft 30-year Plan for Greater Adelaide, the Department of Planning and Local Government (DPLG) held three rounds of workshops with councils across the region. These workshops discussed in detail the opportunities and constraints confronting councils in meeting the challenges of housing a growing population and facilitating regional economic growth. The workshops focused on the proposed targets for growth in housing supply (including the preferred regional distribution of housing) and identifying the key

infrastructure necessary to support increased economic activity and an expanding population. DPLG also consulted extensively with other state government agencies to identify key government policies and strategies and how services would be delivered.

The draft Plan was then available for public consultation from 6 July to 30 September 2009, consistent with section 22 of the *Development Act 1993*, and more than 570 submissions were received from interested organisations, groups and individuals.

As part of the consultation, DPLG held community focus groups in each of the seven Government Administrative Regions in Greater Adelaide, as well as the City of Adelaide local government region. DPLG held regional council briefings, to which councils were encouraged to invite local interest groups, and gave numerous briefings to business groups, professional organisations, universities and state government agencies. Some councils also requested additional briefings.

During the public consultation period DPLG distributed 2500 printed copies and 4000 CDs of the draft Plan, and electronic copies could be downloaded from the website, [www.plan4adelaide.sa.gov.au](http://www.plan4adelaide.sa.gov.au).



## Background to the Plan's preparation

The Plan responds to recommendations made in the Planning and Development Review (Planning Review) accepted by the South Australian Government in 2008. The report of the Planning Review was released in April 2008 and is located at [www.dplg.sa.gov.au](http://www.dplg.sa.gov.au).

The Planning Review made several recommendations for far-reaching reform of the planning system. They included the need to:

- urgently prepare a detailed and specific long-term plan for Greater Adelaide, which would position the state to effectively respond to population and economic growth, and maintain its competitive advantage
- streamline the development assessment system by introducing a Residential Development Code for South Australia, which would increase the amount of exempt and complying development, thereby reducing red tape and assessment times to encourage investment
- make sweeping changes to the management of land supply in South Australia, particularly Greater Adelaide, to ensure that a rolling supply of residential land is available for housing to maintain competitive house prices. The State Government adopted the recommendation of 25 years supply of residential land, of which 15 years supply should be zoned and ready for development at any given time. These targets recognise the long lead times in bringing land to the market
- introduce measures to fast-track the rezoning of land for industrial, residential and commercial purposes. The main strategy of fast-track rezoning is the introduction of Structure Plans for major sites or State Significant Areas. Structure Plans, which are used in a variety of ways in several jurisdictions across Australia, are intended to set out the broad land-use objectives for a particular area. Once land-use priorities are resolved, the need for individual rezoning requests in a designated area is also removed.

Following the adoption of the recommendations of the Planning Review, DPLG prepared a directions document, *Directions for creating a new Plan for Greater Adelaide*, which was the first step in the preparation of *The 30-Year Plan for Greater Adelaide*. The document, which was released in November 2008, is located at [www.dplg.sa.gov.au/go/planningreforms2008](http://www.dplg.sa.gov.au/go/planningreforms2008).



## A physical and economic profile of the Greater Adelaide region

Greater Adelaide is an attractive, liveable and prosperous region. It has a population of about 1.3 million people—just over 80 per cent of the South Australian total—and provides 84.5 per cent of the state's employment. The region has significant industries in a broad range of sectors, including defence, agriculture, property and business services, manufacturing and tourism. For example, more than 60 per cent of South Australia's wine is produced within three hours' drive of the City of Adelaide.

Greater Adelaide is made up of seven Government Administrative Regions plus the regional township of Murray Bridge (see Map A1). It covers about 9000 square kilometres and is bordered by Victor Harbor in the south, Gulf St Vincent to the west, the Barossa Valley in the north and the River Murray to the east. Kangaroo Island is excluded from the Plan and has its own plan. The Greater Adelaide region consists of a diverse and vibrant network of urban centres, radiating from the City of Adelaide.

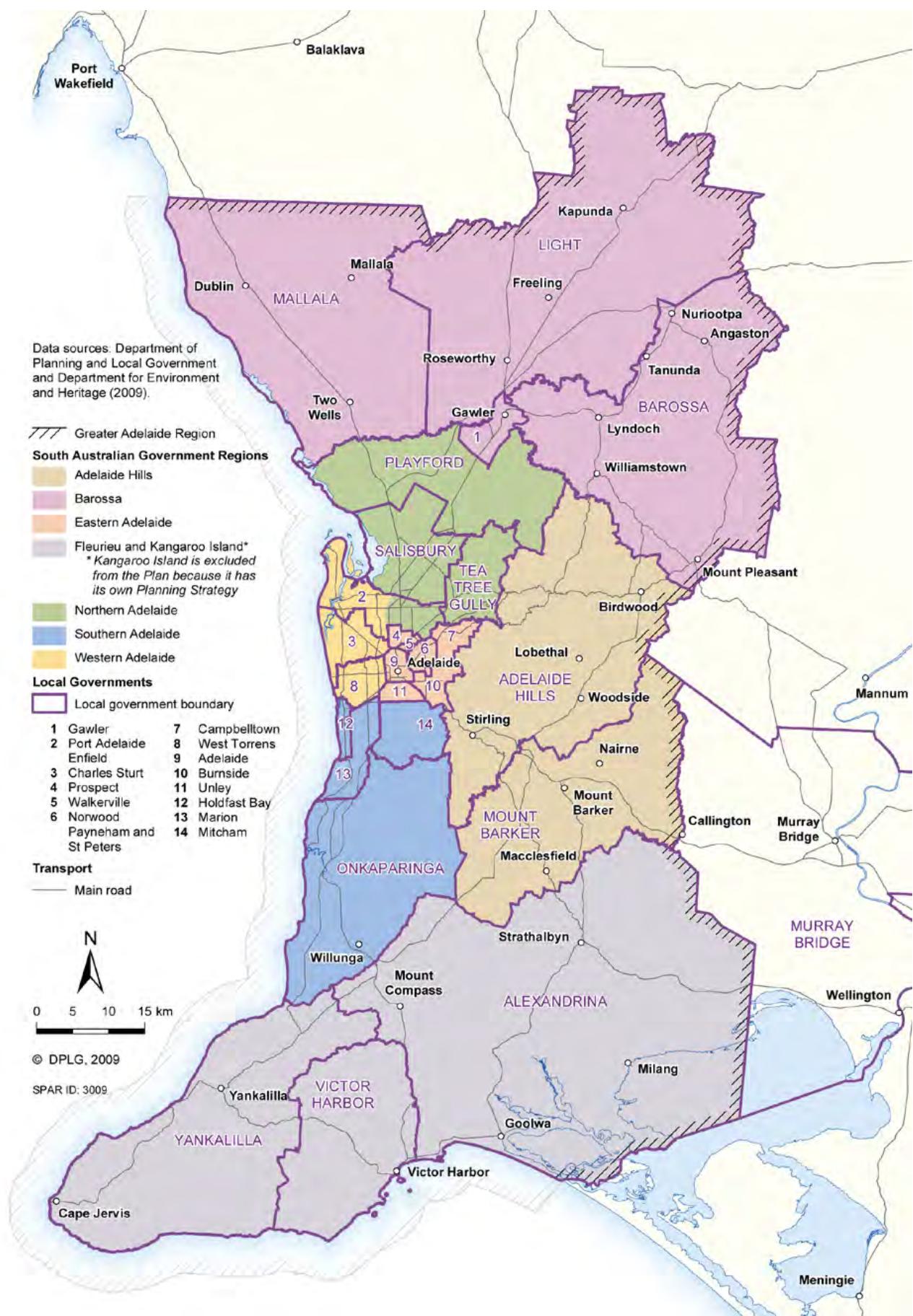
By world standards the region is cost competitive and has a high standard of living. The Economist Intelligence Unit's 2009 Liveability Index rated Adelaide the 11th most liveable city in the world. Some of the elements that make Adelaide an attractive city in which to live are its diversity, vitality and tolerance. It is the state's financial, political and commercial heart, and has a vibrant cultural and economic centre.

## Why South Australia needs a plan for Greater Adelaide

During the past decade, South Australia and Greater Adelaide, like other Australian states and cities, have undergone a period of rapid change. This has included diversification in the economy and structure of industry; and as a result the state can expect further economic growth, population growth and change, and increasing pressure on the availability of infrastructure and resources such as energy and water.

Change and growth will continue during the next 30 years. The global economic downturn will cause further restructuring of the economy and all states will need to prepare for the risks, impacts and opportunities that arise from climate change.

There are significant consequences for failing to plan for these changes, such as falling behind on infrastructure needs, inadequate budgeting for long-term infrastructure priorities, failing to provide enough land for housing and jobs, and inadequate planning for the services that communities will need, such as health and education. Collectively, these failures will act as a handbrake on the economy.



The Plan seeks to provide a set of practical and achievable policies and targets to manage the forecast changes that will confront Greater Adelaide during the next 30 years. The Plan recognises, however, that these changes will be dynamic and cannot be predicted with total accuracy. Therefore, changes to the governance arrangements that will manage the implementation of the Plan are proposed. Amended governance arrangements will allow state and local government to revise and update the targets and policies as circumstances change.

Another key reason for the Plan is the need to provide a better context for the individual planning and development decisions of state and local government. This was a core recommendation of the Planning Review, which found that a lack of clarity about where housing and employment growth should occur was adding to the complexity of the planning system. As a result, minor matters often took too long to assess.

## Role and function of *The 30-Year Plan for Greater Adelaide*

The Plan will guide state and local government decisions about managing growth and change. These decisions need to position Adelaide nationally and globally by providing a leading approach to liveability, competitiveness, sustainability and climate change resilience.

The Plan's key functions will be to:

- provide a dynamic spatial expression of *South Australia's Strategic Plan* targets
- provide the strategic directions and land-use policies that will be incorporated into local Development Plans and Structure Plans
- provide specific regional targets for housing and population growth
- provide related targets for the number of jobs needed to support population growth
- provide specific advice on where employment lands should be set aside
- protect the environment by clearly setting aside areas of environmental significance and ensuring they have sufficient protection in the planning system
- integrate land-use priorities (that is, housing and employment) with Adelaide's existing transport networks and long-term transport and infrastructure plans
- identify and prioritise the major transport corridors and growth precincts
- drive better infrastructure planning by describing the type of infrastructure that will be needed over the long term
- drive better whole-of-government planning and decision-making about where services such as health, education, water and electricity should be located

- drive economic growth by planning for key industries to expand by setting aside sufficient lands for industry and labour market activities. This includes preserving important primary production and mineral resources lands in, and surrounding, Greater Adelaide
- support the productive capacity and the competitiveness of the state.

A primary function of the Plan is to attract investment to Greater Adelaide by clarifying where growth will occur and improving the efficiency of government decision-making. A detailed set of land-use policies will remove the need to constantly revisit policy fundamentals every time a major project is proposed or, in some cases, where land is to be rezoned for residential or employment purposes.

## Alignment with state government policies

*The 30-Year Plan for Greater Adelaide* will be one of the key policy and budgetary instruments of the South Australian Government. The Plan will support the achievement of *South Australia's Strategic Plan* targets (see Appendix 5). It will also be one of the key inputs to the state's *Strategic Infrastructure Plan* by identifying the medium- and long-term infrastructure priorities to support economic and population growth. The Plan will give state government agencies clarity about where people are likely to live and the projected make-up of the population (that is, the proportion of families, single people or the elderly), so they can plan for the provision of schools, health services and aged care facilities.

The Plan will also work in tandem with other key policy initiatives including *Water for Good—A Plan to Ensure our Water Future to 2050*, the *State Natural Resources Management Plan*, the *Economic Statement*, *South Australia's Greenhouse Strategy*, the *Skills Strategy for South Australia*, the *Information, Communication and Technology Blueprint* and *Prosperity Through People—A Population Policy for South Australia*. Figure A1 shows the Plan's relationship with these key state government policies.

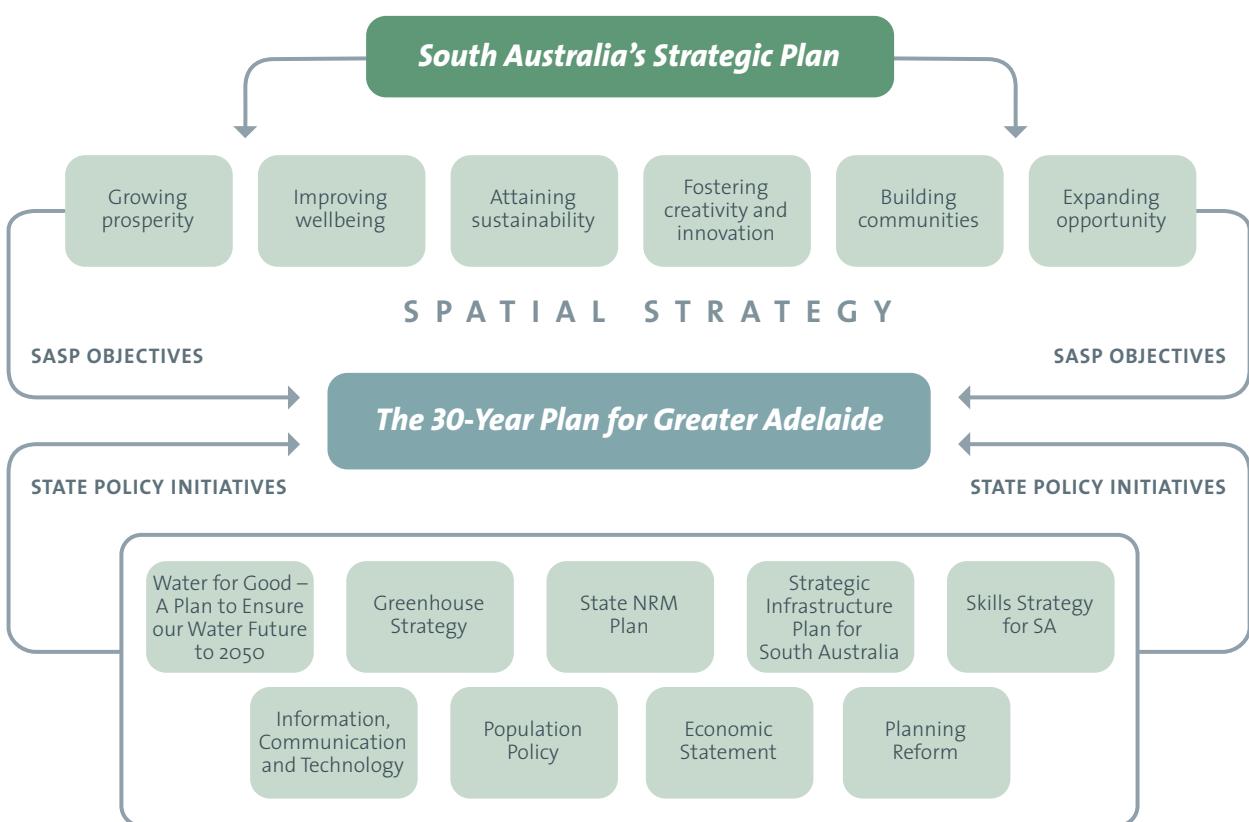
## How the Plan will work at regional and local government levels

The Plan will primarily operate at a regional level. Chapter E outlines the Plan's targets and directions for the seven Government Administrative Regions of Greater Adelaide, shown on Map A1.

It is proposed that Regional Implementation Strategies be produced for each of the seven regions, in partnership with their local councils. These strategies will show major land-use and infrastructure priorities. Local Government Regional Partnership Forums will meet with the key agencies of the State Government to implement the Plan at a regional and local level. The Plan will have a statutory effect, that is, Development Plans will be required to be consistent with the land-use policies of the Plan.

Development decisions such as land rezoning, development assessment and major project assessment will also need to be consistent with the Plan's principles, policies and targets.

**Figure A1 – The Plan’s relationship with key state government policies**





## THE CONTEXT FOR THE PLAN

### Chapter B



# THE CONTEXT FOR THE PLAN

## Chapter B

### Introduction

This chapter examines the key drivers for *The 30-Year Plan for Greater Adelaide*.

It is critical that the Plan responds to the challenges and opportunities confronting the region and that the policies and targets build on the achievements, strengths and unique character of Greater Adelaide.

### Building on strengths and achievements

Greater Adelaide has unique features that make it one of the most liveable cities in the world. These features are described below.

#### Greater Adelaide is competitive because it has:

- a strong economy that has grown by 50 per cent in real terms since 1990
- a diversification of industry structure and the growth of new industries such as defence and ICT. The State Government has encouraged industries such as these by designating specific sites (including Technology Park Australia at Mawson Lakes, Edinburgh Parks, and Techport Australia at Osborne) and providing incentives including:
  - ▶ \$37.3 million over four years to support the development of strategic industrial land precincts that provide access to national road and rail links and international port facilities
  - ▶ \$10 million over five years from 2009–10 to support the establishment of a Materials and Minerals Science Learning and Research Hub at Mawson Lakes and a Photonics and Advanced Sensing Institute at The University of Adelaide
  - ▶ \$3.2 million over three years from 2010–11 to extend the role of the Olympic Dam Taskforce as part of the state's commitment to the expansion of the Olympic Dam project
  - ▶ \$800,000 over four years to attract international students to South Australian universities
  - ▶ \$20 million over two years for the Renewable Energy Fund<sup>5</sup>
  - ▶ a \$260 million investment in the Techport Common User Facility<sup>6</sup>

<sup>5</sup> South Australian Government, 2009–10 Budget speech, Budget paper 2, 2009, p. 9.

<sup>6</sup> South Australian Government, 2009–10 Budget overview, Budget paper 1, 2009, p. 6.



- a strong mining sector. The State Government has invested \$30.9 million to support minerals exploration and mining in South Australia under the PACE (Plan for Accelerating Exploration) scheme and the number of mines has more than doubled in the past five years. In 1990, the sector's contribution to the economy was \$0.8 billion, or three per cent of GSP, and it employed 5100 workers; in 2008 its contribution was \$2.8 billion, or 4.5 per cent of GSP, with about 7500 workers.<sup>7</sup> There is also huge mining potential: the state is ranked the 10th most prospective location in the world by Canada's Fraser Institute, up from 31st place a few years ago<sup>8</sup>
- a primary production sector that has continued to perform strongly, even in the face of an unprecedented drought. Primary production constitutes about 4.2 per cent of South Australia's economic activity and employs 30,200 people.<sup>9</sup> Greater Adelaide includes several major food and wine producing areas, including the Northern Adelaide Plains, the Adelaide Hills, the Barossa Valley, the Willunga Basin and the Lower North. Adelaide is the only capital city to have a large, high-quality food bowl in such close proximity

- a rating in 2009 as the most affordable city in Australia and one of the most affordable cities in the Asia Pacific region<sup>10</sup>
- a rating as Australia's least expensive city in which to set up and do business, according to KPMG's 2008 *Competitive Alternatives* report.<sup>11</sup>

### Greater Adelaide is a highly desirable place to live because it has:

- an urban character typified by historic precincts (such as North Terrace), high quality heritage buildings (including The Treasury Building, the Supreme Court and St Peter's Cathedral), and villages (such as Port Elliot, Hahndorf and McLaren Vale)
- some of the nation's most competitive median house prices<sup>12</sup>
- a central position in the nation's wine industry, which has helped to make Australia the largest New World wine exporter and the world's fourth-largest exporter after France, Italy and Spain. South Australia contributes 46 per cent of Australia's total wine production<sup>13</sup> and generates up to \$3 billion in gross wine revenue<sup>14</sup>

<sup>7</sup> Australian Bureau of Statistics, *Australian national accounts, state accounts*, cat. no. 5220.0, ABS, Canberra, Nov. 2008. ABS, *Labour force, Australia*, cat. no. 6291.0.55.003, ABS, Canberra, Dec. 2008.

<sup>8</sup> F McMahon & C Vidler, *Survey of mining companies: 2007/2008*, Fraser Institute, Canada, 2008.

<sup>9</sup> KPMG, 'Economic modelling methodology and results', prepared for DPLG, 2009, in *Background technical report*, <[www.plan4adelade.sa.gov.au](http://www.plan4adelade.sa.gov.au)>.

<sup>10</sup> Economist Intelligence Unit, *Liveability ranking*, 8 June 2009; *Worldwide cost of living survey*, 9 Mar. 2009; and *Business travel ranking*, 2 July 2009, Economist Intelligence Unit, 2009, <[www.economist.co.uk/markets/rankings](http://www.economist.co.uk/markets/rankings)>. Mercer, *Cost of living survey*, 7 July 2009, <[www.mercer.com/costofliving](http://www.mercer.com/costofliving)> and *Quality of living survey*, 28 Apr. 2009, <[www.mercer.com/qualityofliving](http://www.mercer.com/qualityofliving)>, Mercer, 2009.

<sup>11</sup> KPMG, *Competitive alternatives: KPMG's guide to international business location*, Version 1.1, KPMG, Canada, 27 Mar. 2008, <[www.competitivealternatives.com](http://www.competitivealternatives.com)>.

<sup>12</sup> Adelaide median house prices were \$353,000 in the March quarter 2009, compared to Brisbane (\$399,000), Darwin (\$455,000), Hobart (\$315,800), Melbourne (\$410,000), Sydney (\$527,000), Perth (\$430,000) and Canberra (\$450,000). Real Estate Institute of Australia, *REIA real estate market facts*, March 2009, <[www.reiaustralia.com.au/market\\_reports/index.asp](http://www.reiaustralia.com.au/market_reports/index.asp)>.

<sup>13</sup> Australian Bureau of Statistics, *Australian wine and grape industry*, cat. no. 1329.0, ABS, Canberra, 2008.

<sup>14</sup> Primary Industries and Resources SA, *Wine industry scorecard 2007–08*, PIRSA, Adelaide, 2008.



- a strong attraction for tourists. In the year to December 2008, travel and tourism generated \$4.3 billion of expenditure in South Australia, an increase of \$1.15 billion (or 36.7 per cent) since 1999. In 2008 there were 356,100 overseas visitors and 1.8 million interstate visitors<sup>15</sup> and in the year to February 2009, 61,250 people were employed in tourism-related industries.<sup>16</sup> Greater Adelaide contains many of South Australia's premier tourism destinations, including the Barossa Valley, Adelaide Hills, Victor Harbor and the Fleurieu Peninsula, and is a gateway to Kangaroo Island
- high-quality safe public spaces such as the art gallery–museum precinct on North Terrace, Gouger Street, Jetty Road in Glenelg, Norwood's The Parade and The Strand in Port Elliot
- a world-class food and restaurant culture typified by Adelaide Central Market and chefs of world renown
- a vibrant cultural and sporting centre, with major festivals such as the Adelaide Festival of Arts, WOMADelaide, Adelaide Fringe Festival, the Tour Down Under international cycling race, Clipsal 500 Adelaide V8 Supercars, International Rugby Sevens, the World Solar Challenge and Tasting Australia
- a beautiful and diverse natural environment that is easily accessible to metropolitan area residents (for example, the Fleurieu Peninsula, Barossa Valley and Adelaide Hills)
- a leading position in the renewable energy and clean technology sectors, giving South Australia the potential for a competitive advantage in a national and international economy that will be driven by the need to reduce greenhouse gas emissions. South Australia has 56 per cent of the nation's wind power (a total of 740 megawatts representing \$1.87 billion of investment) and 30 per cent of the solar photovoltaic capacity feeding into the national grid.<sup>17</sup>

<sup>15</sup> South Australian Tourism Commission, *At a glance*, SATC, Adelaide, June 2008 and March 2009.

<sup>16</sup> Australian Bureau of Statistics, *Labour force*, cat. no. 6291.0.55.003, spreadsheet 5 and data cube E06\_aug 94, ABS, Canberra, 2009.

<sup>17</sup> Renewable Energy Focus.com, 'South Australia aims for 33% renewables by 2020', Renewable Energy Focus.com, 4 June 2009, <[www.renewableenergyfocus.com/view/2015/south-australia-aims-for-33-renewables-by-2020/](http://www.renewableenergyfocus.com/view/2015/south-australia-aims-for-33-renewables-by-2020/)>.



## Challenges and opportunities

The Plan will preserve the unique strengths and characteristics of Greater Adelaide, while at the same time positioning the region to effectively respond to new challenges and new opportunities.

Some of these challenges and opportunities are unique to Greater Adelaide; some reflect national and global trends.

Strong and well-managed population growth is a principal driver of prosperity and good economic performance. A growing, diverse population provides an accessible labour market to support growing and changing industries. Population growth also strengthens consumer markets such as retail and financial services, which can provide a variety of jobs in decentralised locations.

A growing population also provides the economic base for governments and the private sector to invest in improving key infrastructure such as public transport, health and education facilities. Put simply, some key services require a critical mass of population to ensure that they are viable and can be expanded and improved.

### Population growth and demographic change

One of the key drivers of the Plan is the inevitable change that will occur to the size and make-up of the population. This includes the growing proportion of elderly people, the growth in smaller households, and the increase in the overall size of the population.

### Meeting the needs of a growing population

The population of Greater Adelaide is forecast to increase to 1.85 million people by 2036. The population is growing faster than was forecast in *South Australia's Strategic Plan* (2004) and the *Prosperity Through People* population policy (2004), which both forecast a target of 2 million people by 2050 for the entire state; this is now projected to be reached 23 years ahead of target, in 2027. As a result the State Government needs to proactively plan for more rapid population growth and ensure that the supply of land for housing and employment keeps pace with this rate of growth. If the state does not provide for a more rapid rate of growth, it runs the risk that it may have medium- and long-term shortfalls in infrastructure. Similarly, housing affordability,

which is currently a competitive advantage for South Australia, could be placed at risk from a failure to provide enough land for new housing to support population growth.

In response to these issues, the Plan has adopted a population projection scenario which assumes a continuation of current high levels of net overseas migration; declining losses of people interstate, in accordance with target T1.23 of *South Australia's Strategic Plan* (2007); a continuation of the current relatively high levels of fertility; and a continuation of improvements in life expectancy observed during the past decade.

These assumptions are consistent with those adopted in the Commonwealth Treasury's third Intergenerational Report, which indicated that Australia should anticipate a population of more than 35 million by 2049.<sup>18</sup>

<sup>18</sup> Treasurer of the Commonwealth of Australia, 'Treasurer launches Australian Institute for Population Ageing Research', media release no. 101, Treasurer, Government of Australia, Sydney, 18 Sept. 2009, <[www.treasury.gov.au/DisplayDocs.aspx?doc=pressreleases/2009/101.htm&pageID=003&min=wms&Year=&DocType=0](http://www.treasury.gov.au/DisplayDocs.aspx?doc=pressreleases/2009/101.htm&pageID=003&min=wms&Year=&DocType=0)>.

The projected Australian population of more than 35 million by 2049 is higher than the Australian Bureau of Statistics series B (medium) projection of 33.7 million (*Population projections*, cat. no. 3222.0, ABS, Canberra, 2008, p. 78).



The projected increase in population means that the region will grow by 560,000 people or about 350 extra people a week over the life of the Plan. Compared with other jurisdictions, such as Sydney, which is projected to grow by up to 1200 people a week; Melbourne, by up to 1500 people a week; Brisbane, by up to 1100 people a week and Perth up to 900 a week;<sup>19</sup> Greater Adelaide's growth is moderate, but it will need to be carefully managed.

During the past 25 years, South Australia's population growth has been driven by two key sources: overseas migration, which has contributed an average of 4700 new residents a year, and natural increase (excess of births over deaths), which has contributed an additional 7600 people a year. In the past few years both of these sources have increased. Net overseas migration reached a high of 14,200 people in 2007–08, which partly reflects South Australia's preferential status under the State Specific Regional Migration programs. In the same year, due to a rise in fertility, natural increase reached a total of 7800 people.

Traditionally South Australia has experienced high levels of outward interstate migration, particularly of working-age people. While the overall population is growing due to increased birth rates and overseas migration, one of the challenges of the Plan is to retain and attract working-age people and stem the flow of interstate migration. This will be addressed by making Adelaide a more attractive, dynamic and affordable place to live for families and working-age people.

■ The number of people in Greater Adelaide aged over 65 will increase from 194,000 in 2006 to 407,000 in 2036, a 110 per cent increase. The proportion of aged people (over 65 years) in the population will increase from 18 per cent in 2006 to 22 per cent in 2036.<sup>21</sup>

■ The number of South Australians aged 85 years or more is projected to increase by 222 per cent by 2036.<sup>22</sup>

There are three key implications for Greater Adelaide in responding to a rise in the number of people aged over 65. The first is to create the living conditions for this group to have a quality, healthy, enjoyable and productive lifestyle. This requires planning for the predicted demand for smaller accommodation next to services, transport and shops. This planning needs to occur now, so that as the population ages there is sufficient supply of this type of accommodation to ensure that people aged over 65 have a choice about whether to remain in their family home or relocate to smaller, more affordable housing, retirement villages or care facilities.

### Meeting the challenges of an ageing population

The ageing of the population will cause a major demographic shift in all Australian cities. In the case of Greater Adelaide, this will present some unique challenges for current and future governments.

In summary:

- Greater Adelaide's population is older than the Australian average and our share of people aged over 65 is growing faster than the national average.<sup>20</sup>

<sup>19</sup> Australian Bureau of Statistics, *Population projections*, cat. no. 3222.0, series A (high), ABS, Canberra, 2008.

<sup>20</sup> KPMG Property Advisory Services, Background technical paper prepared for DPLG, KPMG, 2009.

<sup>21</sup> ibid.

<sup>22</sup> ibid.



It is also likely that many people aged over 65 will continue to participate in the labour market, particularly in part-time work. They will require smaller, affordable housing that is located in areas where they can access a variety of job opportunities.

The second issue is to provide for the likely services an ageing population will need, such as specialist aged care services, more decentralised community and primary health services (general practitioners and community health clinics) and access to cultural and sporting activities. It is critical that these services are distributed evenly across Greater Adelaide.

The third issue is the need to ensure there is a healthy balance between people aged over 65 and the working-age population (15–65 years).<sup>23</sup> If no action is taken to increase the working-age population in Greater Adelaide, the ratio of dependent people will increase from 49 per cent at the 2006 Census to 66 per cent by 2036.<sup>24</sup> The large majority of this increase is projected to come from the aged population. This will have a significant impact on the capacity of future generations to provide health and related services to an ageing population.

Many of the policies and targets outlined in the Plan are directed towards attracting and retaining working-age people to increase the proportion of this group in the population. These include providing greater choice in housing types, providing more affordable housing, reducing overall living costs, such as utility bills, and providing easy access to public transport, which reduces car running costs. The Plan also aims to underpin a diverse and vibrant labour market by locating housing, jobs, and education and training facilities close together; by planning for well-located open spaces to encourage cultural and recreation activities; and by creating sporting facilities such as golf courses, tennis courts, ovals, walking tracks and cycle ways in new growth precincts.

## Responding to changes in household formation

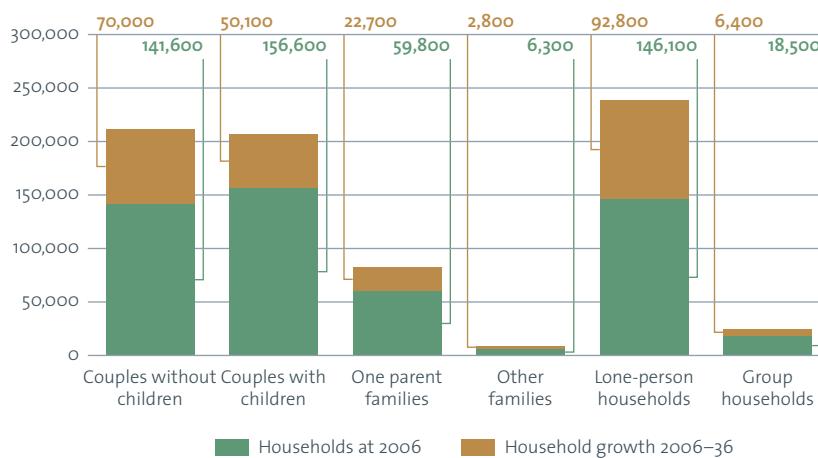
In Greater Adelaide there are three dominant household types: 'couples with children', 'couples without children' and 'lone-person households'. Collectively these household types comprise about 84 per cent of total occupied private dwellings. Lone-person households were the fastest-growing household type in the past decade, reflecting the ageing of the population and changes in family relationships. By 2036, lone-person households are projected to account for 33 per cent of all household types in Greater Adelaide (refer to Figure B1).

<sup>23</sup> The Australian Government recently announced: 'As part of the Australian Government's Secure and Sustainable Pension Reform, in 2017 the qualifying age for the Age Pension will gradually increase from 65 to 67 by 2023', Treasurer of the Commonwealth of Australia and the Minister for Families, Housing, Community Services and Indigenous Affairs, 'Secure and sustainable pension reform: simpler and more flexible pension system', media release no. 57, Government of Australia, Canberra, 12 May 2009, <[www.treasury.gov.au/DisplayDocs.aspx?doc=pressreleases/2009/057.htm&pageID=003&min=wms&Year=&DocType=0](http://www.treasury.gov.au/DisplayDocs.aspx?doc=pressreleases/2009/057.htm&pageID=003&min=wms&Year=&DocType=0)>

<sup>24</sup> The age dependency ratio, or what is commonly referred to as 'the dependency ratio', is '... the ratio of the population in the age groups 0–14 and 65 and over, to the population in the age group 15–64 years' in AH Pollard, F Yusuf and GN Pollard, *Demographic techniques*, third edition, Pergamon Press, Sydney, 1990, p. 20. The age dependency ratio is not a direct measure of economic dependency, but in the sense that the working-age group is a rough surrogate of the working population when precise information about the economic activity of individuals in a population is not known, it does '... reflect in a general way the contribution of variations in age composition to variations in economic activity' in HS Shryock, JS Siegel and Associates, *The methods and materials of demography*, condensed edition, Academic Press, New York, 1976, p. 134.



**Figure B1 – Projected household type in Greater Adelaide**



*Excludes other households*

*Source: Australian Bureau of Statistics, 1996 and 2006, Census of Population and Housing, ABS, Canberra.*

In addition to the increase in the proportion of lone-person households, there will also be a significant increase in the proportion of elderly population requiring dependent aged care (non-private) accommodation.<sup>25</sup> The population aged 85 and over living in non-private accommodation is projected

to increase by more than 220 per cent from about 10,000 in 2006 to in excess of 31,000 in 2036. Careful planning is needed to ensure there is an adequate supply of non-private accommodation to cater for our aged population in the future.

With current relatively high levels of fertility and overseas migration projected to continue, the child population (0–14 years) is expected to increase from 230,000 to 325,000, translating to a growth of 95,000 or 41 per cent. Family households will need to have access to schools, transport, a local GP and retail services.

These changes in household formation will bring related changes in the types of dwellings and the types of services future populations will need. For example, Greater Adelaide is now home to more than 23,300 overseas students and during the past five years it has outstripped the nation in the numbers of these students it has attracted.<sup>26</sup> Overseas students want small, affordable, quality housing in the city and near the major universities.

Young people who are starting out in the employment market also want similar housing, most likely in the inner city, but certainly around transport, jobs and shopping areas. They also want access to a particular cultural and social life, provided by restaurants, boutique wine bars, and high-quality, safe nightclubs.

Changes in the composition of households alter one of the fundamental dynamics of planning for Greater Adelaide's growth. In simple terms, more dwellings are needed to accommodate the same number of people. In the 1950s to 1970s, when households were made up of large families, 300 extra homes were needed for every 1000 extra people; today, 420 homes are required for every 1000 people; and by 2036, 435 homes will be required for every 1000 people.

<sup>25</sup> Non-private dwellings (NPDs) are establishments that provide a communal type of accommodation. Examples are nursing homes, hotels, motels, hospitals and residential colleges. For the purposes of census collection and processing, a building must either be classified as a non-private dwelling (NPD), or every separate unit in the building classified as a private dwelling.

<sup>26</sup> Australian Education International, *International student data*, Basic pivot table, Australian Government, Canberra, December 2008.

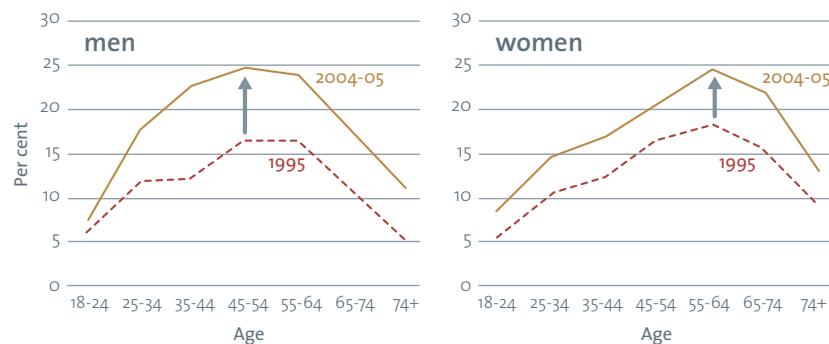


## Creating the living conditions for a healthy lifestyle

The Plan sets out several ideas to encourage a healthier lifestyle for the existing and predicted population. There is increasing evidence that the effects of a more sedentary lifestyle, which arise from a lack of access to open space or an opportunity for incidental exercise (for example, walking to the train or walking to work) will have a significant impact on the health of the community and on the costs of providing health services. Both the rising incidence of chronic disease and the ageing population are contributing to an increasing health budget in South Australia. Projections suggest that the share of health spending could surpass total projected budget spending in 2035. This is despite the fact that South Australia's total participation rate in physical activity of 79.3 per cent is broadly consistent with the national average.<sup>27</sup>

In particular, the increase in the rate of childhood obesity from five per cent in the 1960s to the present rate of about 25 per cent is a significant concern for the future health of the population. Figure B2 shows the percentage of obese Australians by age and gender in 1995 and 2004–05. There is evidence, however, that

**Figure B2 – Percentage of obese Australians by age and gender**



Source: Australian Bureau of Statistics, National health survey: summary of results 2004–05, cat. no. 4364.0, ABS, Canberra, 2006.

good urban design at a street level can increase physical activity by 35 per cent and access to places for physical activity can increase activity levels by 48.4 per cent.<sup>28</sup>

People who live in neighbourhoods that contain a mixture of shops and businesses within walking distance are nearly seven per cent less likely to be obese than those living in less well-planned areas.<sup>29</sup>

In planning for an ageing population and a change in the make-up of households, it is essential that new housing and new growth precincts are planned and designed in a way that supports a healthier lifestyle. It is equally important that existing neighbourhoods are rejuvenated by innovative design and have access to social and recreational infrastructure.

The Plan's policies and targets include several actions to achieve healthier lifestyles, including:

- locating the bulk of new housing (in both established and new growth areas) in transit corridors, so that people are within walking distance of the bus or train

<sup>27</sup> Australian Sports Commission, 'Participation in exercise, recreation and sport', table 18, in *Annual report 2007–08*, Australian Sports Commission, Department of Health and Ageing, Canberra, 2008.

<sup>28</sup> Preventative Health Taskforce, *Technical report no.1, Obesity in Australia: a need for urgent action*, prepared by the Obesity Working Group for the Preventative Health Taskforce, Department of Health and Ageing, Canberra, 2008.

<sup>29</sup> LD Frank, MA Andresen and TL Schmid, 'Obesity relationships with community design, physical activity, and time spent in cars' in *American Journal of Preventive Medicine*, vol. 27(2), 2004, pp. 87–96.



- locating higher-density housing around railway and tram stations and bus interchanges to encourage people to walk and to reduce the growth of car numbers, which will in turn improve air quality and reduce greenhouse gas emissions in the transport sector
- planning for cycle ways, walkways and walking tracks, and a connected network of open-space precincts
- locating housing near shops and services and encouraging a variety of high-quality neighbourhood and regional shops so people can buy fresh food near the railway or bus stations and do not need to make a separate car journey to do their shopping
- protecting Greater Adelaide's high-quality food bowl areas to ensure a supply of affordable fresh food
- planning for education and primary health services in close proximity to existing and proposed residential centres

- planning for vibrant and well-designed public spaces that encourage a sense of community
- encouraging more active lifestyles. Sedentary lifestyles are associated with the rise in obesity levels, which has subsequent health costs
- planning for integrated sporting and active recreational facilities that are accessible by all members of the community.

### Maintaining housing affordability

South Australia and Greater Adelaide have some of the most competitive house prices in Australia. This, combined with a strong labour market, makes Greater Adelaide one of the most liveable places in the world. In recent years, this competitive advantage over cities including Sydney and Melbourne has been under threat. The supply of well-located and affordable land on both the fringe and in the existing urban areas has not kept pace with the growth in population and the changes in the make-up of households.

Land prices in Greater Adelaide have risen by 30 per cent in the past five years. During the same period, land prices in Melbourne increased by only 15 per cent and in Sydney they fell by 15 per cent.<sup>30</sup>

In addition, land values as a proportion of new house and land prices have also increased, particularly compared to values in Melbourne (refer to Figure B3).

Greater Adelaide's median house price of \$353,000 still remains below that of Sydney (\$527,000), Perth (\$430,000), Melbourne (\$410,000) and Brisbane (\$399,000).<sup>31</sup>

The Plan seeks to lock in this competitive advantage by ensuring that there are clear targets for growth in housing stock, with that growth spread out across the regions of Adelaide, and that there is a rolling program of residential land supply in both established and new areas.

### Maintaining strong economic performance

One of the Plan's key challenges is to maintain and build on the strong economic performance that has occurred in Greater Adelaide during the past decade.

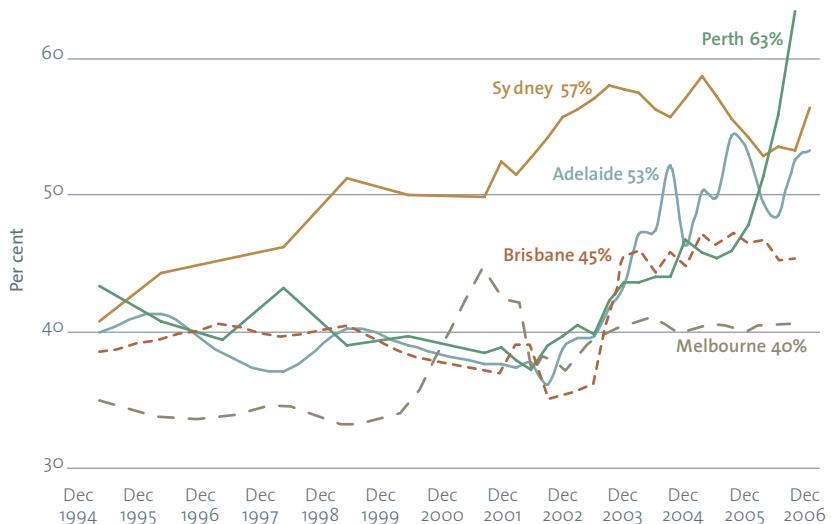
Another challenge will be to plan for the inevitable changes in the economy and the structure of key industries that will occur because of significant shifts in the national and global economy—particularly because of the global economic downturn. The Plan needs to stimulate the economy through clear targets and policies that will enable accelerated economic recovery from the downturn.

<sup>30</sup> Housing Industry Association, *HIA-RP Data residential land report*, HIA, Canberra, June 2008.

<sup>31</sup> Real Estate Institute of Australia, *REIA real estate market facts*, March 2009, <[www.reiaustralia.com.au/market\\_reports/index.asp](http://www.reiaustralia.com.au/market_reports/index.asp)>, Department of Trade and Economic Development, *South Australia's economic performance*, DTED, South Australian Government, Adelaide, 12 Nov. 2009, p. 8.



**Figure B3 – Land values as a proportion of new house and land prices in the five largest cities**



Source: Housing Industry Association Economics Group 2007, HIA-APM Land Monitor, HIA, Canberra, p. 3.

## The role of Greater Adelaide in the South Australian economy

The key economic decisions that will be driven by the Plan are fundamental to the economic future of Greater Adelaide and the state. In many respects, what happens in Greater Adelaide drives what happens in the rest of South Australia as the region is the engine room of population and economic activity. For example, Greater Adelaide is responsible for 71 per cent of total South Australian economic activity<sup>32</sup> and 84.5 per cent of total South Australian employment.<sup>33</sup>

## The changing nature of key economic sectors

The state economy has grown at about 50 per cent in real terms since 1990.

In 2006, Greater Adelaide had 570,000 employed persons and an unemployment rate of 4.9 per cent, which was in line with the Australian average.<sup>34</sup> The main industries include defence, manufacturing, services, ICT, primary production, mining and green industries. The latter has been brought on by new policies and investment in renewable energy and energy efficiency.

There have been some major shifts in economic structure and the role and dominance of key industry sectors in Greater Adelaide. In response to the changes, the Plan sets regional targets for employment growth which reflect the growth and distribution of key sectors in the economy. There must also be sufficient flexibility for sectors to change over time. It is essential that the Plan supports a strengthening and diversification of the economy.

The key changes to industry structure are outlined below.

- The finance and insurance industry has grown in importance during the past few decades. This will drive the need to ensure there is adequate land for retail and commercial activities, and in locations that maximise proximity to consumers.

<sup>32</sup> KPMG modelling for DPLG (using Monash TERM Model Database 2006–07), May 2009.

<sup>33</sup> Actual data relating to the regional (Government Administrative Region) level has been obtained from the 2006 *Census of Population and Housing* published by the Australian Bureau of Statistics. The actual data at the state level is in: Australian Bureau of Statistics, *Australian national accounts: State accounts, December quarter 2008*, cat. no. 5220.0, ABS, Canberra, Nov. 2008.

<sup>34</sup> ibid.



- The manufacturing industry has changed significantly. In the 1950s one in three workers was employed in manufacturing; now the figure is one in eight. It now contributes 11.66 per cent of GSP compared to 17.37 per cent in 1990.<sup>35</sup> Manufacturing, however, is still an important economic contributor, particularly since the shift to advanced manufacturing. Therefore, there is a need to ensure that industrial land is available for expanding and new manufacturing industries, with good access to an efficient freight network.
- There are emerging and significant opportunities in new industries such as renewable energy and clean technology. These opportunities will be accelerated by Australian and international policy responses, which place a price on carbon and will force a major shift in the price of energy and the type of energy that will be consumed.
- Mining and agriculture remain strong fundamentals of the South Australian and Greater Adelaide economies. The challenge will be to ensure that they remain strong over the long term by protecting land for their expansion, protecting freight and transport corridors, and encouraging the ancillary services and administrative headquarters of mining companies, in particular, to locate in Adelaide. This will enable the state to benefit from the significant expansion opportunities of the mining and resources sector.
- There has been significant growth in new industries such as defence and ICT. Defence is a substantial and stable contributor to the South Australian economy, in terms of employment and output. The sector offers flow-on benefits to the broader economy, including development of high-tech infrastructure and skills. In doing so this industry sector helps to underpin activity in other closely related industries such as manufacturing. Of critical importance will be the location of land for defence industries, such as emerging precincts like Techport Australia and Edinburgh Parks.
- ICT is a significant component of the South Australian economy due to its direct contribution to employment and GSP, and indirect contribution to technological innovation in other industry sectors, which has helped to drive overall productivity growth across the state. Given that some 90 per cent of South Australian businesses use a computer, 80 per cent have internet access, 40 per cent have a web presence, 30 per cent place orders via the internet and 18 per cent receive orders the same way, ICT is a major industry growth driver.<sup>36</sup>
- The Plan will be the first plan in South Australia underpinned by the new high speed internet through the National Broadband Network. This will dramatically improve the efficiency of industry and give greater flexibility in the type and location of new jobs. The National Broadband Network will support the move to a more connected, more efficient urban environment.

<sup>35</sup> Australian Bureau of Statistics, *Australian national accounts: State accounts* (2008), cat. no. 5220.0, ABS, Canberra, 2008.

<sup>36</sup> Australian Bureau of Statistics, *Business use of information technology*, cat. no. 8129.0, ABS, Canberra, Dec. 2007.



The challenge for the Plan is to increase the state's economic competitive advantage. The Plan sets out directions and targets to create employment land; to protect major industries by quarantining industrial, primary production and mining lands; and to minimise incompatible land uses that often force industries to relocate. The Plan's central objective is to make it easier to do business in South Australia.

### **The role of the Plan in supporting economic growth and responding to economic change**

The Plan complements and supports the key actions and targets outlined in the *Economic Statement* prepared by the South Australian Economic Development Board in 2009.

The Plan is underpinned by detailed economic analysis and is focused on directions and targets that will strengthen economic performance. It is acknowledged that many factors contribute to economic performance; however, planning issues such as the location and availability of land for housing and jobs or the efficiency of the planning system itself can

have a big impact. These issues are the fundamental platforms of the Plan. As such, the Plan will be a significant factor in the region's medium- and long-term economic growth and will support greater productivity and competitiveness for South Australia.

The Plan can foster economic growth in three ways. They are to:

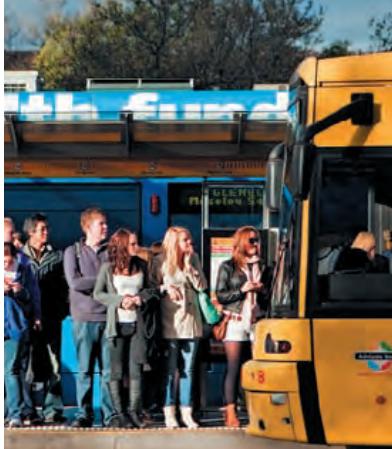
- assist in creating the preconditions for strong economic performance
- generate a dynamic economic framework which, when combined with stronger governance arrangements, will create a set of indicators to trigger key decisions such as the release of more residential land
- model the impact of external influences such as placing a price on carbon in response to the risks and impacts of climate change.

### **Creating the preconditions for strong economic performance**

The state economy is forecast to grow by \$127.7 billion over the life of the Plan.<sup>37</sup> One of the Plan's vital roles is to assist in creating some of the key preconditions for maximising economic growth. These include:

- ensuring an adequate supply of land for new housing and long-term planning for residential land supply to avoid shortages that can contribute to volatility in house prices
- designating and protecting lands for employment
- making it clear where certain industries and sectors can be located to act as a drawcard for investment
- designating specialist precincts to promote the efficient clustering of key industries
- encouraging flexible land-use controls to respond to industry changes
- improving the certainty of land-use decisions, which will help to create a more efficient planning system.

<sup>37</sup> Projected economic growth is based on key inputs such as the Commonwealth Treasury *Intergenerational Report 2007*. Refer to <[www.treasury.gov.au/documents/1239/HTML/docshell.asp?URL=03\\_Part\\_2.htm](http://www.treasury.gov.au/documents/1239/HTML/docshell.asp?URL=03_Part_2.htm)>



## Creating a dynamic economic framework to inform future land-use decisions

Decisions about land use over a 30-year period cannot be made definitively at the beginning of that period. Nor can the Plan exactly predict the effects of external influences such as the global economic downturn or a price on carbon. Therefore, the Plan attempts to articulate the key economic triggers to guide long-term decision-making about factors such as land supply. Some of those key economic triggers include:

- decreases of housing affordability, which would trigger a review of whether enough land has been set aside for housing
- emerging and expanding industry activity, which would trigger a review of whether there is enough employment land for certain sectors and also their access to efficient freight transport
- increases in GSP growth and labour participation, which would require a review of how quickly employment land is brought to the market.

### An economic model to drive key decisions

The Plan is based on a detailed economic model that underpins the policy directions and targets. This economic model drives some of the major policy shifts in the Plan, such as the decision to locate the bulk of new housing in the established areas of Greater Adelaide and the creation of transit-oriented developments.

These directions not only support objectives such as improving access to services and reducing the impact on primary production and environmental lands, but also they represent the best long-term economic benefits for the region. For example, if Greater Adelaide does not locate housing in established areas, it will need additional infrastructure to service land that is not contiguous to transport corridors; this represents an estimated opportunity cost of nearly \$2 billion to South Australia's economy or \$1.5 billion to Greater Adelaide over the life of the Plan.<sup>38</sup>

## An efficient transport network for a growing population and economy

The growth in Greater Adelaide's population and economy will inevitably place additional demands on transport networks; however, this provides the single biggest opportunity to upgrade, expand and modernise the transport system.

There has been a substantial increase in car use during the past three decades. Demand for passenger travel (in vehicle kilometres) in Adelaide increased by a total of 65 per cent between 1977 and 2004. Vehicle kilometres in Adelaide are expected to increase by 11 per cent between 2005 and 2020.<sup>39</sup> There is growing evidence that congestion has a serious impact on economic performance.<sup>40</sup> Congestion can have a negative impact on labour productivity, city liveability, and the ability to attract a skilled workforce. It also constrains the productivity of urban transport infrastructure in moving people and freight, and delivering services.

<sup>38</sup> KPMG has conducted a counterfactual analysis based on the assumption of underutilisation of critical infrastructure in the infill areas and overspending on infrastructure in the fringe areas. This would lead to an overall loss of productivity of 0.7 of a percentage point by 2036.

<sup>39</sup> Joint Transport Research Centre, *Greenhouse gas reduction strategies in the transport sector: Preliminary report*, Joint Transport Research Centre of the Organisation for Economic Co-operation and Development and International Transport Forum, Paris, 2008.

<sup>40</sup> Bureau of Transport and Regional Economics, 'Estimating urban traffic and congestion cost trends for Australian cities', Working paper 71, BTRE, Canberra, 2007.



According to *The Garnaut Climate Change Review* (2008), ‘petroleum-based fuels currently account for around 97 per cent of Australian transport energy use ... These fuels have been relatively cheap in Australia in the recent past, largely due to low global oil prices in the 1990s and relatively low fuel taxes by international standards. Low fuel prices, in combination with patterns of urban development and the low priority given to public transport, are a key factor behind the extensive use of fuel-intensive modes of transport, including trucks and cars, in Australia. These modes account for over 85 per cent of Australia’s transport emissions in 2006.’<sup>41</sup> Peak oil prices are likely to remain well above those of the late 20th century.<sup>42 43</sup>

Consequently, it is essential that a long-term plan for Greater Adelaide provides high-quality public transport choices for new and existing residents and does not compel them to multiple car ownership.

Greenhouse gas emissions from cars and motorcycles account for 53 per cent of all domestic transport emissions. Vehicles also account for the majority of air pollution in the Adelaide air shed.<sup>44</sup>

South Australia has a well-planned network of high-capacity roads capable of handling freight and passenger vehicles. The metropolitan railway network will be augmented by major upgrades that include standardisation and electrification of the major northern and southern rail lines; new electric railcars; conversion of existing diesel railcars to electric operation; an extended tramline; upgrading of stations and interchange connections, including the Adelaide O-Bahn corridor; and additional buses.

As well as laying concrete sleepers and undertaking track infrastructure upgrades to improve the standard of services on the Belair and Gawler lines, the rail revitalisation program is extending the Glenelg to City West tram to the Adelaide Entertainment Centre (connecting to the Outer Harbor line).

In addition, more than one billion dollars are being spent over five years by the state and federal governments on the South Road corridor.

The Plan aims to take advantage of the existing transport network by arguing that new growth areas be concentrated along existing transport corridors and that the existing, proposed and potential transport corridors are protected.

<sup>41</sup> R Garnaut, ‘Transforming transport’, *The Garnaut climate change review* (Garnaut Review), Commonwealth of Australia, Canberra, 2008.

<sup>42</sup> ‘Oil prices have risen steeply during the past few years and are likely to remain well above those of the late 20th century. World oil prices have more than tripled from an average of less than US\$30 a barrel in the 1990s to an average of more than US\$90 so far in 2008, with a peak of nearly US\$150 in July 2008’; US Energy Information Administration 2008a, 2008b, in ‘Transforming transport’, Garnaut Review, 2008, p. 506.

<sup>43</sup> We note that fuel prices have fluctuated in the past decade. ‘Oil prices strengthened to six-month highs, with benchmark crudes reaching \$58–60/bbl by early May. Oil futures have moved higher in tandem with stronger global financial markets. Yet, new bullish macroeconomic sentiment has not yet produced signs of oil demand recovery and oil market fundamentals remain weak’; International Energy Agency, *Oil market report*, 14 May 2009, viewed 16 May 2009, <[www.iea.org](http://www.iea.org)>.

<sup>44</sup> Environment Protection Authority, *State of the Environment Report 2008*, EPA South Australia, Adelaide, 2008, <[www.epa.sa.gov.au/soe/](http://www.epa.sa.gov.au/soe/)>.



## Improving the efficiency of infrastructure expenditure

The State and Commonwealth governments have allocated a record \$11.4 billion for infrastructure in South Australia over four years from 2009–10, including the extension of O-Bahn services into the heart of the city, augmentation to the Adelaide desalination plant to increase capacity to 100 gigalitres, and expansion of the metropolitan rail network.

The majority of the proposed expenditure on new infrastructure will be in established areas of metropolitan Adelaide, where more than 70 per cent of existing state infrastructure assets are located. Research indicates that the aggregated cost of building infrastructure on the urban fringe is more expensive than in established areas.<sup>45</sup>

The challenge and opportunity for the Plan are to take advantage of the existing and proposed new infrastructure. As with transport, the Plan sets directions and targets for new growth areas to be concentrated in the established areas of Greater Adelaide.

If most growth occurs outside the established areas and is not contiguous to existing transport networks, then state and local government must provide new infrastructure to new communities at the same time as upgrading existing infrastructure to service the bulk of the population. This creates unsustainable and inefficient demands on constrained federal, state and local government infrastructure budgets. It also detracts from productivity improvements associated with contiguous forms of developments and potentially duplicates existing infrastructure.

## Responding to the challenges, opportunities and risks of climate change

Climate change is one of the single biggest challenges confronting Australia and the rest of the world. The Plan has an important responsibility to factor in the likely risks and impacts of climate change because they will influence long-term decisions such as where people live and where major infrastructure will be located. This section covers the:

- role and importance of cities in addressing climate change
- likely climate change risks and impacts confronting Greater Adelaide
- proposed directions and targets that aim to mitigate the effects of, or reduce the growth of, greenhouse gas emissions; assist the region to adapt to climate change; and position the region to gain a competitive advantage by developing new green technologies and industries.

<sup>45</sup> See, for example, R Trubka, P Newman and D Bilsborough, *Assessing costs of alternative development paths in Australian cities*, Parsons Brinckerhoff and Sustainability Policy Institute, Curtin University, Fremantle, 2007, p. 2.



## Why cities are important in the response to climate change

### Cities as a source of greenhouse gas emissions

Cities and urban areas produce up to 75 per cent of the world's greenhouse gas emissions.<sup>46</sup>

There are major opportunities to reduce the growth of greenhouse gas emissions in the way the urban form of a city is planned and managed. For example, buildings are responsible for 23 per cent of emissions and transport for 15.4 per cent.<sup>47 48</sup>

There has been a lot of public commentary about the importance of improving the design and efficiency of the urban form of our cities as a means of reducing the rate of growth of greenhouse gas emissions. For example:

- Leading Australian sustainability author Professor Peter Newman (2009) notes that 'Density is a major tool available to planners in cities. It is best used where a city has good transit or wants to build transit as the resulting transit-oriented developments are found to reduce car use per capita among its residents by half and to save households around 20 per cent of the household income as they have on average one less car'. Newman also cites a 2007 study which claimed that 'shifting 60 per cent of new

growth to compact patterns would save 85 million metric tons of CO<sub>2</sub> annually by 2030'.<sup>49</sup>

- *The Garnaut Climate Change Review* (2008) stated that there is a 'major role to play in lowering the economic costs of adjustment to higher oil prices, an emissions price and population growth, through planning for more compact urban forms and rail and public transport'.<sup>50</sup>
- The 4th Intergovernmental Panel on Climate Change (IPCC) (2007) confirms that buildings represent the single biggest opportunity for greenhouse gas abatement globally, exceeding energy, transport and industry sectors combined in terms of mitigation options available.<sup>51</sup>

Members of the C40 Cities Climate Leadership Group have been pressuring their national governments to 'recognise the crucial role cities can play in delivering national targets' at the climate change negotiation in Copenhagen in December 2009, as they believe 'the battle to prevent catastrophic climate change will be won or lost in our cities'. National governments are being urged to:

- engage more closely with their city leaders, whose responsibility for critical services means they are best placed to deliver greenhouse

gas emission reductions empower their city leaders so that where necessary they have the authority required to take action within cities to drive down greenhouse gas emissions

- resource their cities so that they are equipped with the relevant tools, services and finances to help deliver national targets.

It is essential that the Plan—in setting out the urban form that will dominate the patterns of housing, employment and transport in Greater Adelaide for the next 30 years—intervene in that urban form to reduce the rate of growth in greenhouse gas emissions.

<sup>46</sup> C40 Cities Climate Leadership Group, <[www.c40cities.org](http://www.c40cities.org)>.

<sup>47</sup> Australian Greenhouse Office, *National inventory report 2005—The Australian Government submission to the UN Framework Convention on Climate Change*, Australian Greenhouse Office, Department of the Environment and Heritage, Canberra, 2007.

<sup>48</sup> The Garnaut Review states that the transport sector represents 14 per cent of greenhouse gas emissions. Garnaut Review, 2008, p. 161.

<sup>49</sup> P Newman, *Resilient cities: The sustainable transport city*, Island Press Eco-Compass blog, 12 March 2009, viewed 6 May 2009, <[www.blog.islandpress.org/325/peter-newmans-resilient-cities-the-sustainable-transport-city](http://www.blog.islandpress.org/325/peter-newmans-resilient-cities-the-sustainable-transport-city)>.

<sup>50</sup> 'Transforming transport', Garnaut Review, p. 503.

<sup>51</sup> Green Building Council of Australia, 'Submission in response to the Issues Paper on Transport, Planning and the Built Environment', GBCA, 2008, p. 5. This comment refers to figure 4.2 in the Intergovernmental Panel on Climate Change, Synthesis report, IPCC, 2007, p. 59, where there are mitigation options available at less than US\$20/tonne of CO<sub>2</sub>-e saved.



## Cities as the centres of population and economic growth—the adaptation challenge

In 2008, the world reached the point where more than half its population (3.3 billion people) lives in urban areas. By 2030, this is expected to swell to almost 5 billion.<sup>52</sup>

The growth of urban areas in Australia reflects this global trend. In 2007 the population growth rate for all capital cities combined was the highest recorded for several years. Capital cities accounted for about two-thirds of total population growth and the overall population in capital cities increased at a higher rate than for the rest of Australia.<sup>53</sup>

There is increasing recognition of the potential value of cities to long-term sustainability.

Greater Adelaide is, and will continue to be, the source of most of South Australia's population and economic activity. This means the region has an important responsibility to plan for the likely impacts of climate change, such as hotter temperatures, more extreme weather events and rising sea levels. These events present major challenges to the living conditions of a growing population and to the planning of long-lived assets, such as port and other critical infrastructure.

## Cities as the centres of economic opportunities—the opportunity for competitive advantage

Greater Adelaide is fundamental to the future shape of the state economy because it is such a dominant force in the economy. The challenges and opportunities of climate change, which are set out below, will drive major restructuring of the economy. The Plan has an important role to envisage how new carbon-efficient industries and green technologies may grow and emerge over time. Decisions about land use, such as setting aside land for renewable energy industries and changing building standards to encourage new technologies, need to be made now to allow those industries and technologies to flourish.

## The key challenges and opportunities of climate change

### The physical impacts

There is a large body of science indicating there will be significant physical impacts from climate change. The predicted impacts on the Greater Adelaide region include:

- We will experience hotter temperatures during the next 30 years. Based on a trajectory of mid-range greenhouse gas emissions in 2030, the average number of days a year over 35°C is projected to increase to 21–26 and the average number of days a year over 40°C is projected to increase to 3–5.<sup>54</sup>
- Inflows to the Murray-Darling Basin during the past 10 years have been decreasing significantly. Flows have consistently been less than 6000 gigalitres (GL) a year since 2002; the lowest inflow on record—1000 GL—was in 2006–07. The inflow for 2008–09 was 1860 GL. A permanent reduction of inflows into the Murray-Darling Basin system is forecast.<sup>55</sup> The *Water for Good—A Plan to Ensure our Water Future to 2050* outlines detailed measures to provide long-term water security to meet this challenge.

<sup>52</sup> UNFPA (the United Nations Population Fund), *State of world population 2007: Unleashing the potential of urban growth*, UNFPA, 2007, p. 1.

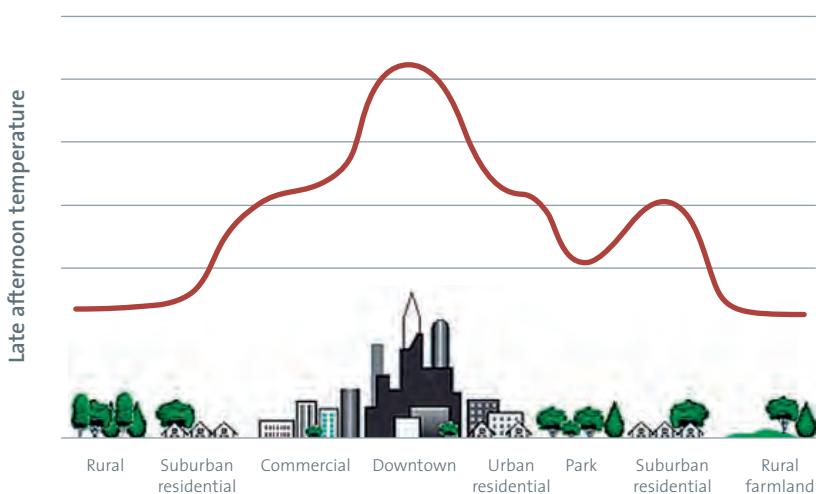
<sup>53</sup> Australian Bureau of Statistics, *Regional population growth, Australia, 2006–07*, cat. no. 3218, ABS, Canberra, 2007.

<sup>54</sup> P Whetton, K Hennessy and A Ash, 'Climate change: the latest science', CSIRO presentation to Parliament House, Canberra, 16 March 2009.

<sup>55</sup> Office for Water Security, *Water for Good*, Department of Water, Land and Biodiversity Conservation, Adelaide, June 2009.



**Figure B4 – Urban heat island effect**



Source: Heat Island Group, Lawrence Berkeley National Laboratory, University of California at Berkeley/US Department of Energy, <[www.eetd.lbl.gov/HeatIsland/HighTemps/](http://www.eetd.lbl.gov/HeatIsland/HighTemps/)>.

- Australia will be more vulnerable to extreme weather events such as heatwaves and bushfires.
- Monitoring conducted by the Bureau of Meteorology shows that sea levels have been rising at Port Stanvac at a trend rate of 5.1 mm per year since 1992.<sup>56</sup>

These climate change impacts will affect the type of urban form that is needed in Greater Adelaide. For example, in the way buildings are designed and suburbs are planned.

Figure B4 shows the urban heat island (UHI) effect. This occurs over urban areas dominated by

built structures which, due to the nature of their properties, trap heat and cause increased warmth. These include structures, surface materials and shapes, other contributing factors such as cars, industry activity, metabolic heat, and waterproof surfaces (such as roads and footpaths). Open space, greenways, parklands and dense green spaces such as green roofs and walls can reduce the UHI effect. The development of these green spaces will also help to reduce water consumption during hot weather and energy consumption by the built environment.

### Responding to major policy directions of the Australian and state governments

The Australian Government's policy response to reducing greenhouse gas emissions will affect the South Australian economy. The response includes the introduction of the Carbon Pollution Reduction Scheme (CPRS) or emissions trading scheme, which seeks to reduce the amount of greenhouse gas emissions by placing a price on carbon, thereby creating a market incentive to switch to clean energy, renewable energy and more efficient energy use. Commonwealth Treasury modelling demonstrates, however, that South Australia will be the least affected jurisdiction by a price on carbon due to the amount of renewable energy produced.<sup>57</sup>

<sup>56</sup> Bureau of Meteorology, Australian Baseline Sea Level Monitoring Project – Annual Sea Level Data Summary Report July 2008–June 2009, BOM, Australian Government, 2009, <[www.bom.gov.au/oceanography/projects/abslmp/reports\\_yearly.shtml](http://www.bom.gov.au/oceanography/projects/abslmp/reports_yearly.shtml)>

<sup>57</sup> The Treasury, *Australia's low pollution future: The economics of climate change mitigation report*, The Treasury, Australian Government, Canberra, 2008, <[www.treasury.gov.au/lowpollutionfuture/report/default.asp.>](http://www.treasury.gov.au/lowpollutionfuture/report/default.asp.>)



The Australian Government has legislated for a mandatory renewable energy target of 20 per cent, which requires all new energy to be produced by renewable sources by 2020; this will also drive the growth of renewable technologies. The Plan identifies some practical steps to encourage new industries and innovation in a carbon-constrained economy.

The Australian Government has also begun work on improving energy efficiency in all households. Of the initiatives being contemplated to improve energy efficiency, only one has been factored into the Plan: the proposal that the Council of Australian Governments (COAG) considers the introduction of mandatory improved star energy ratings for new buildings. The Plan has modelled the efficiencies that would arise from mandating more stringent standards on residential and commercial buildings.

The South Australian Government also has an ambitious policy agenda to tackle climate change and reduce greenhouse gas emissions, which must be factored

into a 30-year growth strategy. It has set a target to reduce the state's emissions by 60 per cent from 1990 levels by 2050 (*South Australia's Strategic Plan* target T3.5). South Australia is projected to reach its renewable energy target of 20 per cent well ahead of its 2014 deadline and has therefore set a new target for 33 per cent of the state's electricity generation to come from renewable energy by 2020.

Other key policies include the introduction of a feed-in tariff to encourage small-scale renewable energy generation; this has led to the state having the highest level of national grid-connected solar power in Australia.

### Economic opportunities

South Australia is well positioned to take advantage of the growth in the renewable energy sector. It already has Australia's largest supply of wind energy—56 per cent of the total national supply—and has identified significant new funding for large-scale renewable investments, including wind, solar and geothermal energy work programs.

The State Government will establish a Renewable Energy Fund to support the research, development and commercialisation of renewable energy technologies.

## How the Plan responds to the risks and impacts of climate change

### Mitigation opportunities

The Plan identifies several opportunities to mitigate or reduce the greenhouse gas emissions that would otherwise result from population or economic growth.

As stated, there are significant opportunities to both reduce emissions and reduce the impact of climate change from the way new buildings are designed and the region is configured. The Plan examines the relative carbon efficiency of different types of housing and concludes that low-rise apartments and low-rise attached dwellings represent the most carbon-efficient buildings. The Plan also highlights that a mixture of dwelling types, with an emphasis on medium-density dwellings, will be the most efficient urban form. It proposes that high-rise buildings are confined to large transit-oriented developments and the CBD.



The impact of greenhouse gas emissions (without thermal performance standards) between different developments can be demonstrated as follows:

- High-rise apartments have the highest heating and cooling load (2.23 tonnes equivalent carbon dioxide [CO<sub>2</sub>-e]) and additional emissions from the range of shared services, such as lifts, air-conditioning, car parks, pools and gyms (2.04 tonnes CO<sub>2</sub>-e) per dwelling.
- Low-rise apartments and attached dwellings have the lowest heating and cooling load (1.89 tonnes CO<sub>2</sub>-e) and lower emissions from the range of shared services (0.7 tonnes CO<sub>2</sub>-e) per dwelling.

The greenhouse gas emissions between these two forms of development differ because of the additional energy requirements of shared services. Detached dwellings have a high energy load because they are larger than flats and attached dwellings. This stylised analysis is illustrated in Figure B5.<sup>58</sup>

The Plan proposes to locate a larger share of medium-density dwellings in the existing areas of Adelaide to drive energy and carbon efficiencies. For example, the total improvements from density alone in developing close to the city rather than on the fringe are:

- 55 per cent in energy outputs—a saving of 30.5 megawatt hours (MWh) a year
- 42 per cent in carbon terms—a saving of 8.6 tonnes CO<sub>2</sub>-e a year.

There will be additional greenhouse gas emission savings if these developments increase thermal performance and are integrated with mass transport systems. For example, the combined average impact of raising thermal performance standards from four to seven stars for medium-density dwellings across both transport and buildings is:

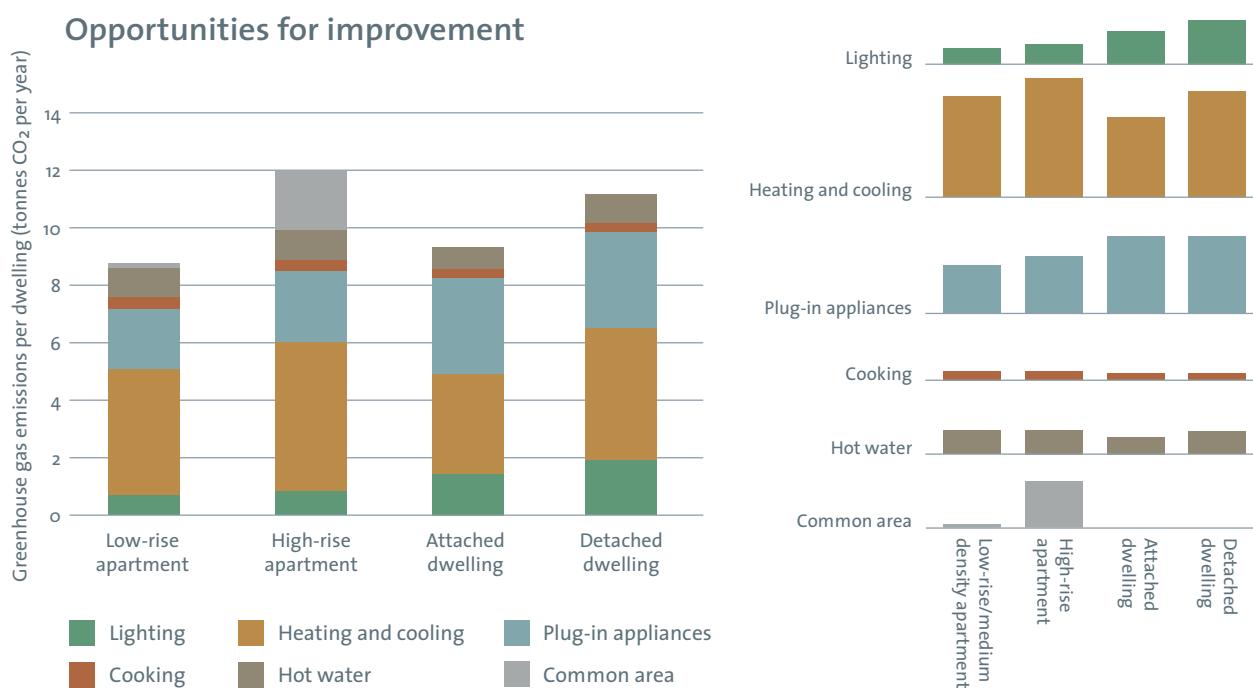
- an 11 per cent average improvement in energy performance—a saving of 2.8 MWh per year

- a 17 per cent average and combined improvement in carbon performance—a saving of 2.1 tonnes CO<sub>2</sub>-e a year
- a 13 per cent average improvement in affordability for consumers.<sup>59</sup>

<sup>58</sup> The results of this stylised analysis reflect the typical current occupancy rates (people per household) by housing type rather than any inherent characteristics of the dwelling type itself (although in South Australia, energy performance standards for apartments have not been as stringent as for stand-alone dwellings). When calculating the average energy performance of dwelling types, the total energy consumption is divided by average occupancy rates. For larger dwelling types, the per person energy consumption is lower because per dwelling energy consumption is divided by a larger number (reflecting slightly higher occupancy rates than for apartments). There are a greater number of lone-person households in apartments and so total energy consumption per dwelling tends to more closely align to the per person energy consumption.

<sup>59</sup> Arup, Carbon modelling, prepared for the Department of Planning and Local Government (DPLG), Government of South Australia, in *Background technical report*, 2009, <[www.plan4adelaide.sa.gov.au](http://www.plan4adelaide.sa.gov.au)>.

Figure B5 – Greenhouse gas emissions by dwelling type



Source: Arup, Carbon modelling, prepared for the Department of Planning and Local Government (DPLG), Government of South Australia, in Background technical report, 2009, <[www.plan4adelaide.sa.gov.au](http://www.plan4adelaide.sa.gov.au)>.



The Plan seeks to address the risks and impacts of climate change by proposing a more compact, efficient urban form that is integrated with public transport. This urban form complements other strategies in the Plan, such as producing smaller housing to suit changes in the make-up of the population and locating the bulk of new housing along existing transport corridors to encourage the use of public transport and reduce car use.

Adelaide's per capita greenhouse emissions will also decline. The Plan will assist in:

- reducing the reliance on cars and reducing car travel to cut the costs associated with multiple car ownership and the financial risks for households and industry associated with the volatility and unpredictability of fuel costs. For example, the Garnaut Review (2008) states that a mode shift may account for a quarter of emissions reductions in urban passenger transport, lowering the cost of transition [to a low emissions economy] and delivering multiple benefits to the community.<sup>60</sup>

■ creating more liveable conditions for an inevitably hotter climate with more extreme weather events. The Plan proposes several directions and targets to achieve greater liveability in a hotter climate, such as improving the thermal efficiency of building design and creating greenways and a network of open spaces to have a cooling effect on new growth precincts and existing areas. It also proposes to introduce incentives for the greening and shading of major industrial precincts.

### Adaptation opportunities

It is important that the policy directions and targets position the region to adapt to the likely impacts of climate change, as well as reduce the growth in greenhouse gas emissions. The Plan will help to reduce household energy costs by mandating stronger energy efficiency targets for all residential buildings. For example, although the energy efficiency performance of the current building stock for Greater Adelaide is not known, it is likely to average 2.5 stars or less. Based on current energy costs, to heat and cool a 2.5 star house to a

comfortable level will cost over \$400 more annually than for a six-star house. This estimate is based on an average house size of 186 square metres in Adelaide's climate zone using the Nationwide House Energy Rating System (NatHERS). The actual savings may be greater but they have been discounted to allow for a 'discomfort' factor, which is when occupants tolerate high levels of discomfort during extreme weather because they cannot or will not incur additional heating and cooling costs.

The additional up-front costs for six-star dwellings are likely to reduce over time as the building industry builds more of these dwellings. As energy costs continue to rise and climate change causes more hot days in Adelaide, these costs will be recouped over the life of the dwelling.

<sup>60</sup> Garnaut Review, 2008, p. 503.



## Supporting the growth of new technologies and clean energy

Green industries are primarily concerned with the supply of energy from renewable sources such as wind, solar and water (including waste), and assisting other sectors to meet the climate change challenge by reducing their reliance on a carbon-based energy supply.

Green industries will emerge as the demand for new energy-saving technologies becomes greater. South Australia has a competitive advantage over every other jurisdiction in Australia to exploit the opportunities from an emerging green industries' sector due to its extensive policies on and investment in the renewable energy sector. With the advent of mandatory renewable energy targets and the likely introduction of the CPRS, the opportunities for economic expansion include:

- the provision of advice to the household and business sectors about how to reduce consumption of carbon-based electricity

- research and development into new energy-saving and renewable energy technologies, such as developing viable options for reducing carbon reliance in all stages of production and supply chains
- preparing the financial, investment, industry and labour markets to respond to the carbon market
- new technologies and energy efficient practices—for example, direct atmospheric carbon sequestration, biomass and bio-sequestration, geo-engineering and wave power
- expanding teaching opportunities and skills development in TAFE and tertiary institutions and exporting this intellectual property to other states (and countries).

The Plan has a major role to foster the development of these new industries through the provision of employment land for research and development activities as well as ensuring that the planning system is ready to respond efficiently to these developments.

## Supporting water security

### *The role of Water for Good—A Plan to Ensure our Water Future to 2050 and new augmentations in securing Adelaide's water supplies*

The South Australian Government's *Water for Good* plan has introduced several initiatives to ensure Adelaide's water supply, including:

- 20 GL per year of stormwater harvesting capability in Greater Adelaide for non-drinking use by 2013 with a target of up to 35 GL a year in urban areas of South Australia by 2025
- capability of recycling 45 per cent of urban wastewater by 2013
- maintaining permanent water conservation measures
- using 50 GL per year less water in Greater Adelaide by 2050 than would have been the case without the water conservation measures in *Water for Good*.

There is the potential to expand or further develop large-scale recycled water re-use schemes. Opportunities also exist to encourage local re-use, particularly in new developments.



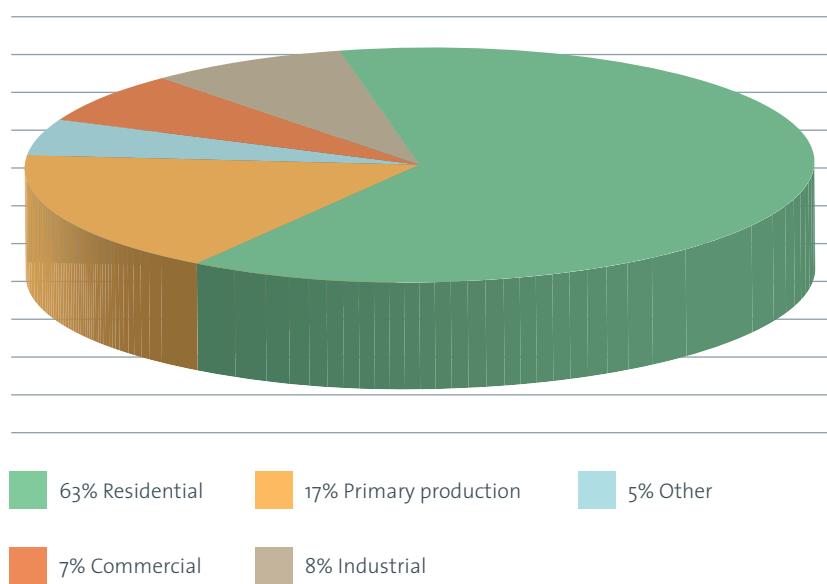
The State Government is building a major augmentation of Adelaide's water supplies through a 100 GL capacity desalination plant at Port Stanvac. The plant will be capable of supplying about 50 per cent of Greater Adelaide's potable water demand by the end of 2012.

Using water-sensitive urban design in new developments is another opportunity to improve the efficiency of water consumption.

The Plan works in tandem with *Water for Good* to drive a nation-leading approach to the efficient use of water.

These measures will provide sufficient water supply for forecast population and economic growth.

**Figure B6 – Mains water use for the Greater Adelaide region, 2008**



Source: Water for Good—A Plan to Ensure our Water Future to 2050

### The importance of managing residential consumption

The Plan recognises the importance of residential water consumption to overall water use in the region. Residential water consumption, the single biggest use of mains water resources, accounts for 63 per cent of all mains water consumption in Greater Adelaide. Urban influences, such as where people live, how they live, and the structure of the urban form, affect this use (see Figure B6).

The Plan argues that it is vital to consider how spatial planning and building design, particularly in greenfield developments, can influence water demand and ease the pressure on critical supplies.

## Opportunities to improve the efficiency of water use by households and commercial enterprises

There are substantial opportunities to reduce the demand on water resources in the way buildings are designed and the way housing growth is spatially configured (that is, the layout of neighbourhoods and precincts). Before the start of the State Government's *Water Proofing Adelaide 2005–2025* strategy, 40 per cent of all residential consumption was used outdoors on gardens and lawns. There is an opportunity to reduce per household use (through smaller dwellings) or replace this use of mains water with alternative sources of non-potable water in new developments.

South Australia is already a national leader in water re-use. Today, about 30 per cent of Adelaide's wastewater is re-used, compared to about five per cent in 1998–99, and new projects will increase this to about 45 per cent. Existing and committed stormwater harvesting schemes in the metropolitan Adelaide region are estimated to generate over 20 gigalitres a year.

The Plan highlights three critical opportunities:

- The standard for water efficiency in new residential, commercial and industrial buildings could be raised through water-sensitive urban design.
- A move to smaller accommodation in line with demographic needs could significantly reduce water consumption per household.<sup>61</sup>
- New public open space should be independent of potable water supplies.

## Biodiversity

Two of the Plan's key objectives are to protect the natural assets of Greater Adelaide, and to protect and restore the region's biodiversity.

The biological richness of the Greater Adelaide region is an environmental and economic asset. Greater Adelaide has a diversity of wildlife and environments that is rare for a major city—from the hills' high rainfall and wide range of plants and animals to the sheltered coastline's seagrass meadows and fringe of mangroves. This diversity provides the biological stability that sustains the region's natural resources. It is highly valued by the residents of Greater Adelaide, and is an attraction for tourists and migrants.

Importantly, protecting the region's natural assets will be critical to improving its resilience to the potential risks and impacts of climate change. The Plan highlights several critical challenges in biodiversity that are confronting the region:

- Today, only 13 per cent of the region retains native vegetation cover.<sup>62</sup> Global studies across a variety of environments show that native vegetation cover of less than 30 per cent is inexorably linked to significant species loss.

<sup>61</sup> Government of South Australia, *Water Proofing Adelaide 2005–2025*, p.27, shows that 40 per cent of household water use was on gardens in 2005.

<sup>62</sup> Adelaide and Mount Lofty Ranges Natural Resources Management Board (2009).



- The region has one of the highest concentrations of threatened or declining bird species on mainland Australia.
- The region has lost 30 per cent of its original mammal fauna and five species are of conservation concern.
- The region (with Kangaroo Island) was identified by the Commonwealth Government in 2003 as one of the 15 national biodiversity hotspots.

The Plan seeks to respond to these challenges by clearly identifying and protecting high-value environmental lands and halting the species loss in these lands.

## **The implications of these challenges and opportunities for the Plan—the need for a new urban form**

The policies and targets in the Plan are driven by the cumulative effect of all the challenges and opportunities outlined above. The Plan will drive two fundamental changes: firstly, the State Government needs to introduce a new urban form to manage housing and economic growth and change; and second, the Government needs to introduce new governance arrangements to effectively implement the new urban form across Greater Adelaide.

The challenges and opportunities facing the region mean that the housing and suburb designs of the past cannot simply be replicated to meet the needs of the future. The urban growth patterns that have characterised postwar development in Australia will be inadequate to meet the needs and challenges of the next 30 years. The Plan seeks to strike

a balance between preserving what is successful and changing the pattern of new growth to create a more sustainable and efficient region, where all citizens will enjoy the benefits of better planning for future economic and population growth.

The proposed new urban form is the most effective way to accommodate Greater Adelaide's population and economic growth. If action is not taken now to change the way new housing and new jobs are spatially delivered then the region faces some significant risks.

The risks include:

- Greater Adelaide will not be in a position to take full advantage of opportunities as the economy moves out of the global economic downturn.
- There will be insufficient housing to meet the needs of older people and the growing numbers of couples without children.
- There will be insufficient quality services to meet the needs of a changing and ageing population.



- We may not be able to attract and maintain a population of working-age people if there is insufficient housing choice, if housing is unaffordable, if housing is not accessible to jobs and services, or if there is limited access to public transport. When planned properly, these features of a modern and efficient city should act as a magnet, attracting a diverse and vibrant population.
- The city could grow beyond its sustainable limits, which could compromise the State Government's ability to provide affordable and secure water and energy. If no change is made to current development patterns, then housing and employment lands could potentially sprawl into vital primary production, mining and environmentally significant lands. There is also a real risk that the region's small townships and villages would have to take a higher percentage of growth, which could potentially compromise their unique character.

If the region continues with current development patterns and development stretches into land that is neither suitable nor close to existing transport and infrastructure, there is a risk that limited infrastructure resources will be diluted. State and local governments would be forced to divert funds to build new infrastructure, which would only service a small percentage of the population, rather than upgrading and expanding existing infrastructure for the benefit of the whole community.

Further, quality of life would be diminished because people would be travelling unnecessarily. Working-age people would not want to move to Adelaide if they had to face the same travel problems as in other cities.

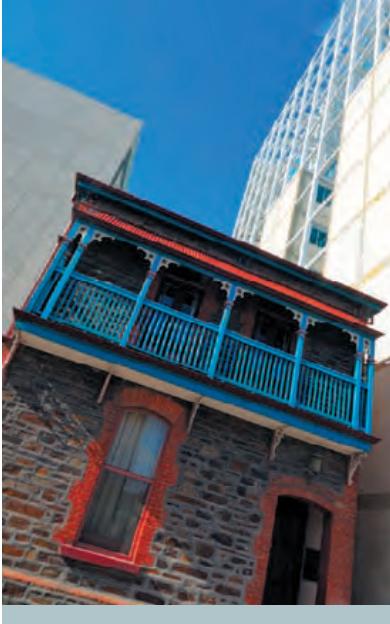
Finally, if the current development pattern continues as the only means of accommodating growth, there will be an unsustainable reliance on and increase in the number of private motor vehicles. This will create more greenhouse gas emissions, more air quality problems and more congestion, which dramatically reduce the liveability of a city. The overall cost of living will potentially increase as households are compelled to own multiple cars against the backdrop of unpredictable and rising fuel costs.

In respect of governance, a new approach is needed to ensure that the implementation of the new urban form reflects the different characteristics of Greater Adelaide's parts; that is, it is sensitive to existing heritage and character and the needs and priorities of existing communities. This new approach to governance also needs to lock in a permanent and continuous dialogue with councils.



# THE VISION FOR GREATER ADELAIDE

## Chapter C



# THE VISION FOR GREATER ADELAIDE

## Chapter C

### Objectives of the Plan

Against the backdrop of these challenges, opportunities and the need to build on the strengths of the region, the Plan reinforces the three interlocking objectives outlined in *Directions for creating a new Plan for Greater Adelaide* and shown in Figure C1.

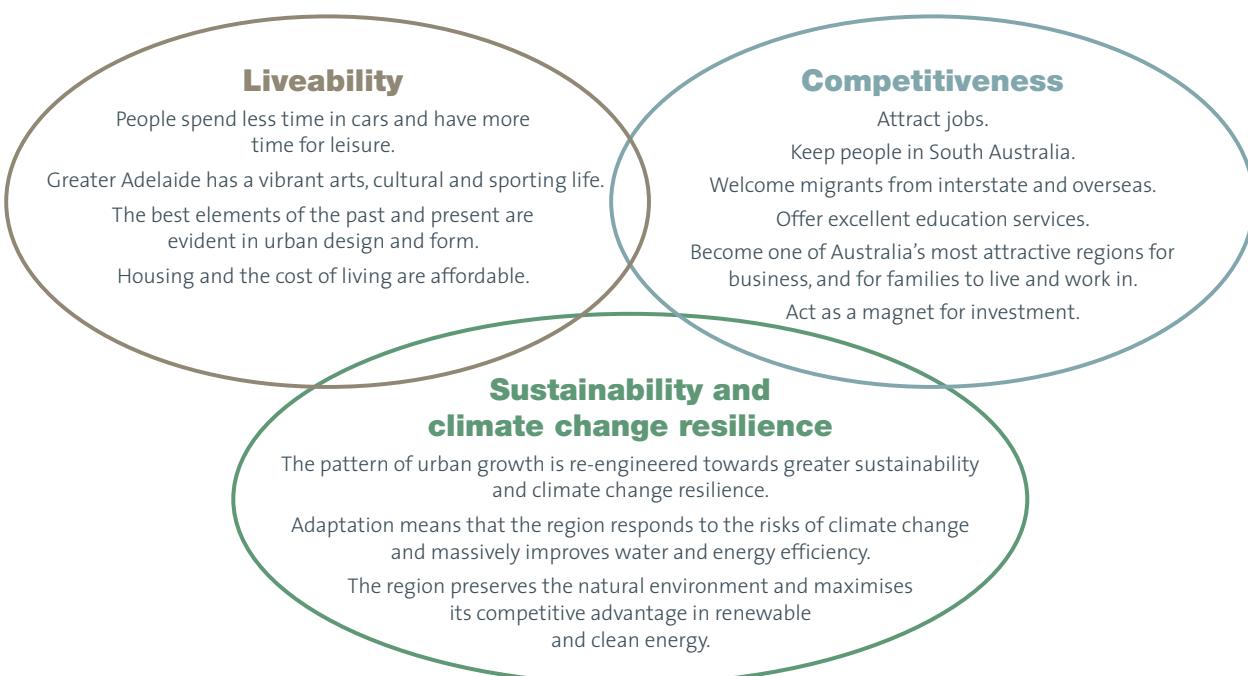
These are:

- maintaining and improving liveability
- increasing competitiveness
- driving sustainability, environmental protection and resilience to climate change.

There is a considerable amount of overlap between the three objectives. For example, housing affordability is often seen as a characteristic of liveability;

however, it is also one of the key features of a competitive city. If housing is affordable, it will attract and retain a vibrant and diverse population, which in turn creates a strong consumer market and attractive labour market. As another example, high-quality environmental assets make a city more liveable and enjoyable, and also contribute to its competitiveness as a tourist destination and as an incentive for people to relocate from other states.

Figure C1 – Objectives for *The 30-Year Plan for Greater Adelaide*





## Principles of the Plan

The Plan is driven by 14 principles, which seek to underpin the new urban form, respond to challenges and opportunities, and achieve the three interlocking objectives. Each of these principles is supported and promoted by a range of specific planning policies that provide clear guidance for land use at local and regional levels.

### Principle 1

#### A compact and carbon-efficient city

Create a compact and efficient city capable of supporting population and economic growth without creating an unsustainable demand on infrastructure and natural resources.

### Principle 2

#### Housing diversity and choice

Ensure there is a mixture and diversity of housing types and promote a high level of choice to cater for the changing needs of new and existing residents including the ageing population, families and professionals.

### Principle 3

#### Accessibility

Wherever possible, new and existing housing should be located close to transport, jobs and services.

### Principle 4

#### A transit-focused and connected city

Adelaide should be a transit-oriented city connected by efficient mass transit systems, affordable public transport and safe bicycle and pedestrian networks.

### Principle 5

#### World-class design and vibrancy

New developments should reflect world-class building and suburb designs to create the sustainable urban character of the future and encourage a vibrant and creative culture.

### Principle 6

#### Social inclusion and fairness

To promote an inclusive, fair and equitable city where people have access to the services and jobs that they need, wherever they live.



## Principle 7

### Heritage and character protection and enhancement

The existing heritage, history and character of Greater Adelaide should be preserved and enhanced by:

- concentrating housing growth in transit corridors and well-planned new suburbs
- driving quality housing designs which complement existing neighbourhood characteristics
- increasing density in designated areas with only minor increases required in other localities, thereby taking the pressure off character areas
- confining high-density housing to the central business district and very significant transit-oriented developments
- valuing and protecting Adelaide's heritage places and areas
- reinforcing the scale and character of small villages and townships.

## Principle 8

### Healthy, safe and connected communities

Promote healthy, connected and safe communities by ensuring new and existing suburbs are walkable neighbourhoods that incorporate Crime Prevention Through Environmental Design principles and contain high-quality, accessible and useable open space and sporting facilities.<sup>63</sup>

## Principle 9

### Affordable living

Promote a liveable and affordable lifestyle for new and existing residents by maintaining competitive house prices, reducing the over-reliance on motor vehicles, and designing housing and suburbs to reduce water and energy costs.

## Principle 10

### Economic growth and competitiveness

Create the conditions to enable strong economic growth by:

- planning for the number and type of jobs that are likely to be created during the next 30 years
- ensuring the availability of land for the expansion and diversification of industry and business
- protecting primary production lands
- improving the access to a wide range of educational institutions
- attracting and maintaining working-age people
- delivering an efficient planning system, consistent with the State Government's Planning Reforms (2008), to ensure that South Australia remains the most competitive place to do business in Australasia.

<sup>63</sup> Crime Prevention Through Environmental Design (CPTED) principles are nationally recognised guidelines for reducing crime in public spaces through environmental design.

## **Principle 11**

### **Climate change resilience**

Create the conditions for Adelaide to become resilient to the impacts of climate change by:

- reducing the growth in emissions through a reduction in car dependency and an improvement in the energy efficiency of buildings and neighbourhoods
- improving the liveability of the city to respond to increasing temperatures
- dramatically improving the water efficiency of new buildings and new neighbourhoods
- capitalising on the opportunities for the growth of new green industries and green jobs.

## **Principle 12**

### **Environmental protection, restoration and enhancement**

Protect environmentally significant lands, waterways and marine areas for existing residents and future generations; and to allow native plants and animals to survive, thrive and adapt to climate change. Planning controls protect vital environmental assets through unambiguous mapping and designation of key assets.

## **Principle 13**

### **Natural resources management**

Maintain and improve the health of natural resources by:

- ensuring land is appropriately zoned and sustainably used for current and future generations
- planning to minimise adverse impacts and avoid irreversible damage
- considering biodiversity and ecological integrity in land-use decisions.

## **Principle 14**

### **Community engagement**

Provide opportunities for the people of Greater Adelaide to have meaningful input into the planning of changes to and development of their neighbourhoods and the region.



## The characteristics of the new urban form

The new urban form will set the shape and characteristics of the pattern of housing and economic growth for the next 30 years. The policies and targets, which are set out in Chapter D, outline how the new urban form will be achieved.

In summary, Greater Adelaide will have a new, modern and efficient urban form that will complement and support the existing character of the region. Indeed, the vast majority of the existing neighbourhoods will remain unchanged as a result of the Plan. The key characteristics of the new urban form are:

### Concentrating new housing in existing areas

The Plan proposes locating a greater share of new housing in the existing urban lands and particularly within transit corridors. This is to take advantage of existing infrastructure, revitalise urban areas, maintain village integrity and provide the critical mass of population needed to make upgrading the infrastructure cost-effective over the life of the Plan.

Currently, creation of new metropolitan housing is focused on broadacre estates on the fringes of the urban area. The Plan will shift that balance over time to concentrate growth in existing built-up areas by planning for higher densities in strategic locations. Due to the long lead times required for changes in land use, and because transit-oriented developments take some years to develop, the ratio between infill and fringe growth will change over time. For the first years of the Plan it is likely that the Adelaide metropolitan infill to fringe ratio will continue to be about 50:50. However, the policies contained in the Plan will change that ratio to 70:30 by 2038.

Township growth will be confined to larger regional towns where infrastructure and services can be provided. Growth will be contained for smaller townships and villages to protect their heritage and character.

### Locating new housing and new jobs in transport corridors

The Plan contains a detailed strategy to locate the bulk of new housing in established areas around the existing public transport networks and transit corridors to create a transit-connected city.



## Establishing new transit-oriented developments

A centrepiece of the new urban form will be the establishment of substantial transit-oriented developments. These developments are a common feature in many Australian and international jurisdictions. They are walkable, mixed-use, connected communities that collocate medium- to high-density residential housing with retail services, other key services such as health, education and government, and a variety of employment opportunities, particularly knowledge economy jobs.

They are adjacent to key public transport interchanges—railway and tram stations and major bus interchanges. They can accommodate a significant amount of growth without affecting the character of existing neighbourhoods.

It is also proposed that key government services, such as primary and community health, social services, and Service SA Centres, will be collocated in the new transit-oriented developments.

The developments will decentralise services to the population centres where people live and, by containing a very high proportion of housing, will take the pressure for unplanned urban consolidation off established neighbourhoods. It is proposed that transit-oriented developments will be concentrated on the remnant industrial and brownfield sites that are scattered across Greater Adelaide.

For example, the former Clipsal site at Bowden, a 10-hectare former industrial site, is now being transformed into a sustainable green village on the Adelaide CBD's doorstep. The Bowden Village will offer rapid transit, energy and water efficient developments, and a broad range of housing choice.

## Increasing densities around stations and transport interchanges

The new urban form will result in a significant increase in densities in the established areas, particularly around shops, railway and tram stations, bus interchanges, and within transit corridors. This will encourage walkable, safe and connected neighbourhoods and will assist in reducing the over-reliance on cars.

Internationally recognised benchmarks have been used to define sustainable densities in the Plan. As previously highlighted, a shift to greater density and a mixture of dwelling types will significantly improve the carbon and energy efficiency of new buildings and new neighbourhoods, as well as provide the benefits of greater proximity to shops, open space, services and transport.

A key feature of the new urban form is a diversity of dwelling types. It is not the intention to replace one monoculture—detached dwellings—with another, such as medium-rise apartments. Instead, the new urban form will result in a well-planned increase of density around transport hubs, along with the retention of traditional housing styles (for example, a predominance of detached dwellings and low-rise attached dwellings) as development moves further away from transport thoroughfares and interchanges. This will give people maximum choice in the style of housing—from low maintenance, small dwellings situated near shops to traditional bungalows—that they want to live in at various stages of their lives.



## Placing an emphasis on good design and creating unique precincts

The Plan proposes an improvement in the quality of new housing design; an improvement that would also apply to commercial, industrial and retail precincts. Importantly, the design would blend in with existing neighbourhoods. It is proposed to prepare separate plans, on a corridor by corridor basis and a precinct by precinct basis, to create unique ‘urban characters’ across the region. The intent is to create distinct styles and characters in certain corridors and precincts; just as, for example, some European cities have distinct quarters which have their own personality.

## Creating vibrant mixed-use precincts

The new urban form will result in the collocation of a greater mixture of building uses. For example, street-facing shops and services would be located under residential apartments around railway stations, providing walkable neighbourhoods and easy access to services.

Like a small European city, people will not need to drive to acquire their basic goods and services. New mixed-use precincts will better service the needs of the modern workforce whose working hours may not fit into the traditional nine-to-five working day.

## Revitalising the Adelaide City centre and other higher-order activity centres

The Plan proposes that strategies to reinforce the role and importance of Adelaide City as the hub of the region be accelerated. These include:

- increasing the amount of residential accommodation
- increasing the diversity of cultural and retail activities
- taking advantage of upgraded transport networks such as the tram
- improving the attractiveness of the city to peak services such as legal, financial and educational, by creating high-quality precincts
- regenerating Victoria Square/Tarndanyangga into a dynamic focal point for the community, a space to celebrate culture and identity.

A key focus of the Plan is the development and redevelopment of regional activity centres, and work of this nature has already started at Noarlunga and Elizabeth.



## Taking a new approach to greenfield development

The new suburbs of the next 30 years will be very different from previous greenfield developments. It is proposed that new greenfield development contains a larger mixture of densities and housing types, and, where possible, is contiguous to transit corridors. This will connect people to transport and ensure that spending on upgrading transport networks is efficient.

## Retaining the essential characteristics of rural towns

The Plan proposes to retain the unique nature of rural towns, which contributes significantly to the diversity, beauty and attraction of Greater Adelaide. This will protect a sense of community as well as maintain the region's attraction for tourism and recreation.

## Achieving a diversity of dwelling types

The policies and targets aim to achieve a greater mixture of dwelling types to cater for the changing make-up of the population. These would range from single detached dwellings to low-rise attached accommodation, such as townhouses and villas, and medium-density housing, such as well designed three- to five-storey apartment blocks (the latter confined to appropriate locations).

## Water and energy efficiency

The new urban form will result in a dramatic improvement in water and energy efficiency standards for both new individual buildings and new neighbourhoods, for example, in water re-use.

## Greenways and a network of open spaces

A network of connected open spaces would characterise the major activity centres and transit corridors. These very distinct green buffers would improve amenity, have a cooling effect and provide a noise buffer between residential accommodation and transport thoroughfares.



## Benefits of the Plan

The new urban form will bring a range of benefits—competitiveness, liveability, climate change resilience and sustainability—to South Australia's economy and society.

### Competitiveness benefits

The state's competitiveness will increase, with economic performance expected to increase by about \$11 billion as a direct result of implementing the policies and targets of the Plan. This means:

- Greater Adelaide will be able to accommodate an additional population of 560,000 people over 30 years, which is a moderate and sustainable increase of about 350 people a week. This sustainable population growth will drive economic prosperity as well as social and cultural vibrancy.
- The Plan will underpin the creation of at least 282,000 jobs, which will increase regional employment to 909,200 people by 2036. These new jobs will be located in areas of residential growth and in areas well serviced by transport networks.
- Targets will be set at a regional level and councils will be expected to have zoned land capacity to support local job creation.
- There will be 5300 hectares of new and regenerated employment land in strategic locations set aside to foster the creation of jobs.
- Land will be set aside for the growth of new sectors such as defence, ICT and the green economy. Planning controls will be created to protect the land's future use.
- The increase in GSP implies productivity growth of about 60 per cent during the next 30 years, or 4.6 per cent more than business-as-usual planning.<sup>64</sup>
- The Plan will support a more efficient planning system that will underpin the economic performance and competitiveness of the state. The introduction of Structure Plans will reduce the time taken to convert raw land into housing. This will reduce production times from the existing 5–7 years to a maximum of three years, which represents a potential saving of \$60 million.<sup>65</sup>
- The Plan will support the proposed expenditure of \$11.4 billion to upgrade major freight and passenger transport corridors and services, and key infrastructure such as the trade schools, super schools, Flinders Medical Centre, redevelopments of The Queen Elizabeth and Lyell McEwin hospitals, the new Royal Adelaide Hospital, the upgrade at Christies Beach Wastewater Treatment Plant and expansion of effluent recycling at Glenelg Wastewater Treatment Plant.
- The Plan will protect key primary industry and mining areas and preserve the important contribution of these industries to the South Australian economy.

<sup>64</sup> KPMG, 'Economic modelling methodology and results', prepared for DPLG, 2009, in *Background technical report*, <[www.plan4adelaide.sa.gov.au](http://www.plan4adelaide.sa.gov.au)>.

<sup>65</sup> Planning and Development Review Steering Committee, 'Appendix G', *Report to the Minister for Urban Development and Planning from the Planning and Development Review Steering Committee for consideration by Cabinet*, Planning and Development Review Steering Committee, report prepared for the Government of South Australia, 2008, available at <[www.planning.sa.gov.au](http://www.planning.sa.gov.au)>.



## Liveability benefits

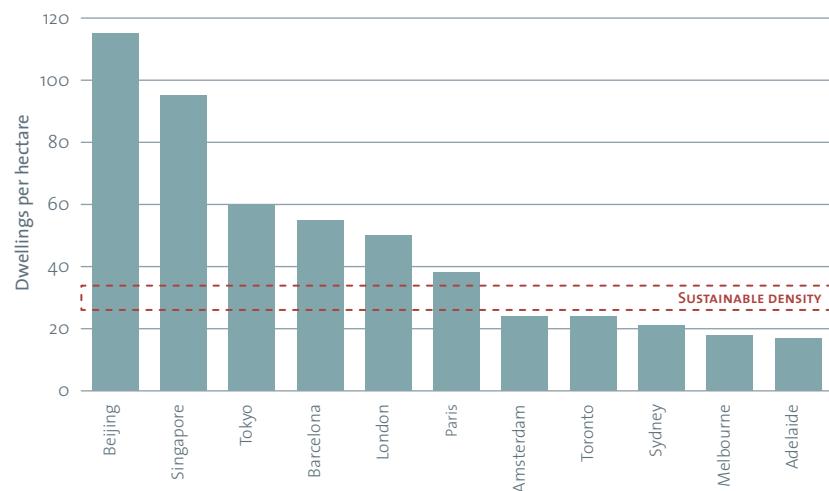
A transit-connected region that consists of a network of compact and walkable communities close to services and jobs, which also uses water, carbon and energy efficiently, will be a better place to live. Aspects of the developments will be:

- About 258,000 additional dwellings will be constructed over 30 years, which equates to 10,100 new dwellings a year (allowing for dwellings lost due to demolition). This will provide a rolling program of housing to accommodate a growing population and contribute an average of five per cent of total gross regional product (GRP), or about \$7.8 billion a year over the life of the Plan. There will be a 25-year rolling supply of land for residential and commercial and industrial purposes. There will be a 15-year supply of land zoned for residential or commercial and industrial purposes.
- The dwelling targets and supply of land will increase the accessibility and affordability of residential housing. This will not only improve liveability, but also give South Australia's economy a major competitive advantage.
- The Plan proposes a continuation of the State Government's policy that 15 per cent of all new housing in significant developments is affordable housing, which will further add to the liveability and competitiveness of the Greater Adelaide region.
- Over the life of the Plan, about 70 per cent of all new housing will be built either within the existing urban areas (including townships) or proposed transit corridors, to create an efficient urban form.
- More than 50 per cent of the region's growth will be concentrated in transit corridors that do, or are planned to, contain mass transit.
- Land-use controls will protect the transport functionality of these corridors to ensure they are capable of high-volume transit capacity.
- The Plan will result in the creation of 14 new transit-oriented developments and more than 20 sites that incorporate transit-oriented development principles and design characteristics. These developments will contain about 60,000 new dwellings. They are intended to reduce car travel and they will also incorporate sustainable design innovations, such as embedded generation to reduce greenhouse gas emissions.
- The concentration of housing and jobs in transit corridors and transit-oriented developments will mean that only 20 per cent of metropolitan Adelaide's built form will need to change as a result of the Plan. It also means that about 60 per cent of all new housing in metropolitan Adelaide will be within 800 metres of a transit corridor, creating a transit-connected city and reducing the reliance on cars.
- The Plan will result in the reinvigoration of the City of Adelaide and 16 of the region's major activity centres. There will be an additional 50,000 jobs and 15,040 dwellings in the City of Adelaide, reinforcing its role as the cultural, economic and social hub of Greater Adelaide.
- The region will move to a more sustainable density. The average gross density will rise from eight to 11 dwellings per hectare and gross densities in transit corridors and transit-oriented developments will be set at 25–35 dwellings per hectare. This will take Greater Adelaide closer to the international standard for sustainable densities, which is 35 dwellings per hectare (refer to Figure C2).<sup>66</sup>

<sup>66</sup> P Hall, 'Sustainable cities or town cramming?', in *Planning for a sustainable future*, eds A Layard, S Davoudi and S Batty, Routledge, 2001, p. 107.



Figure C2 – Comparative densities of international cities



Source: Six Degrees, presentation to DPLG, Adelaide, November 2008

## Climate change and sustainability benefits

The proposed climate change initiatives in the Plan will contribute to reducing unsustainable consumption of carbon, energy and water, and contribute to more affordable living over the long term.

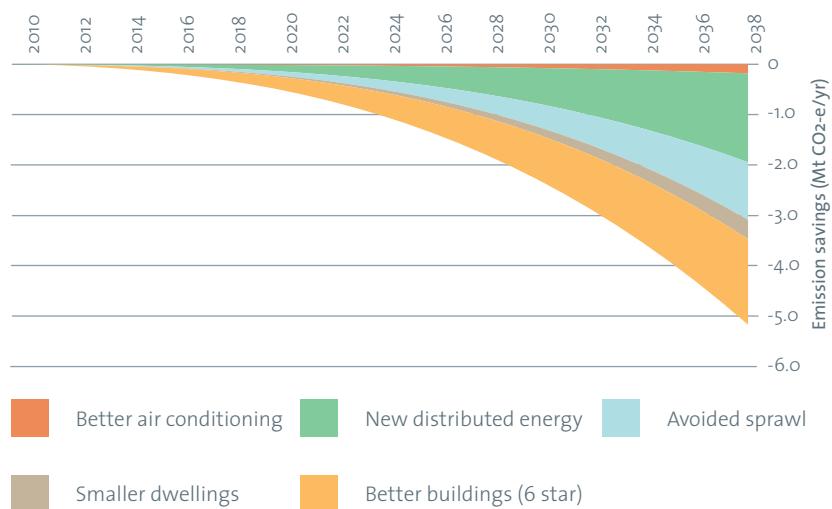
The climate change initiatives include:

- Consistent with *Water for Good*, water-sensitive urban design will be mandated in all new dwellings and residential developments.
- New greenfield developments will be required to source outdoor water from non-potable water supplies.
- The Plan will provide for 15,900 green-collar jobs and the development of new green industries.<sup>67</sup>
- The Plan will protect 115,000 hectares (13 per cent of Greater Adelaide) of environmental lands through the creation of a more compact urban form, which removes the need to encroach into these vital lands.
- The rate of consumption of energy will decrease through better building standards, design requirements and specific land-use policies that improve the overall efficiency of the urban form.<sup>68</sup> This will result in a reduction of greenhouse gas emissions per dwelling.

<sup>67</sup> This number does not include jobs that may be created as a result of the 2009 Commonwealth Government fiscal strategies. A significant aspect of the Commonwealth package is the insulation program, which will benefit 2.5 million homes and generate green-collar jobs.

<sup>68</sup> NatHERS suggests annual energy use in a five-star dwelling in Adelaide will be 29 MJ/m<sup>2</sup> more than a six-star dwelling. Assuming 75 per cent of energy is delivered by gas and 25 per cent by electricity, then this equates to about \$350 a year for a 180 m<sup>2</sup> dwelling at current energy prices. NatHERS, Energy Efficiency Working Group, Department of the Environment, Water, Heritage and the Arts, Canberra, 2008, viewed 15 May 2009, <[www.nathers.gov.au/about/pubs/starbands.pdf](http://www.nathers.gov.au/about/pubs/starbands.pdf)>.

**Figure C3 – Emission reduction estimates (Mt/yr)**



Source: KPMG modelling for DPLG, November 2009

- The implementation of the Plan over its 30-year life will result in 20 per cent of South Australia's overall greenhouse gas emissions reductions.<sup>69</sup>
- Household energy bills for new housing could be more than \$400 a year less than bills for comparative existing housing because of new designs and urban planning policies.
- A new generation of greenways and open-space precincts will create a more liveable city, providing opportunities for walking, cycling and other recreation. This will also have a cooling effect on new communities, ameliorating the urban heat island effect, and will also help to reduce the impacts of climate change, such as more frequent, hotter temperatures.

### The Plan's greenhouse gas reduction measures

Figure C3 shows the relative contribution of the state-based greenhouse gas reduction measures proposed in the Plan. Each wedge represents the amount of greenhouse gas emissions that are saved each year by one measure against a 'business as usual' baseline. The graph shows annual savings of greenhouse gas emissions in the year 2038.

These measures are assumed to be implemented gradually and only achieve their full potential in 2038. The exception is the six-star requirement for new residential buildings, which is expected to start no later than 2011.

<sup>69</sup> KPMG modelling for DPLG, November 2009.

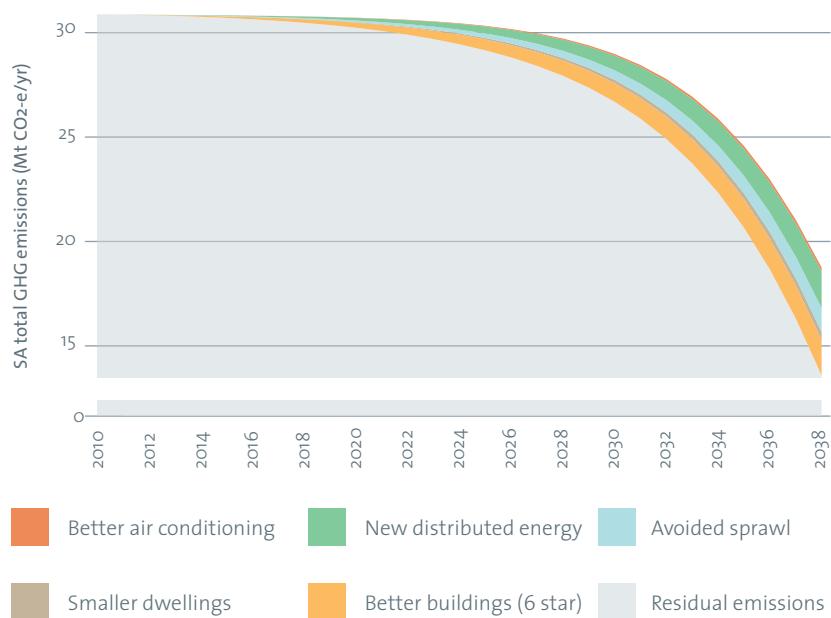
## Impact of the Plan on South Australian emissions

Figure C4 compares the greenhouse gas reduction measures proposed in *The 30-Year Plan for Greater Adelaide*. It also shows the potential impact of other measures such as the CPRS, Renewable Energy Target, Mandatory Energy Performance Standards and the solar feed-in tariffs (shown as residual emissions). Each wedge represents the amount of greenhouse gas emissions that are saved each year by one measure against a business-as-usual baseline.

The Plan's measures, including the six-star building requirement, would provide a reduction in South Australian emissions of around 17 per cent by 2038 from 2009 levels, which would complement the significant efforts needed to reach the State Government's target of a 60 per cent reduction by 2050.

The effects of the CPRS on South Australian emissions in the short term are limited as it is assumed most CPRS obligations would initially be met through buying international permits, with domestic abatement increasing over time. The effectiveness of the Renewable Energy Target also escalates gradually as the obligations on energy retailers increase.

Figure C4 – Emission reduction estimates with total SA emissions (Mt/yr)



Source: KPMG modelling for DPLG, November 2009

The measures outlined for greenhouse gas reduction and emissions savings will be progressively implemented over the life of the Plan and the estimates of savings have been discounted to account for this gradual ramp-up.

Figures C3 and C4 are indicative forecasts only; however, they are an attempt to understand the potential value and impact of a range of policy tools. The full assumptions and sources are provided in Appendix 2.



# POLICIES AND TARGETS

## Chapter D



# POLICIES AND TARGETS

## Chapter D

### Introduction

This chapter contains the policies and targets to meet *The 30-Year Plan for Greater Adelaide's* objectives and principles, as previously set out.

### The role of the policies

The policies represent the detailed actions required to achieve the Plan's objectives and principles. These policies will be used by state government agencies and councils to guide future planning and investment decisions. In the case of state government agencies, the policies will guide their infrastructure and service planning. In the case of councils, the policies will guide their Development Plans and service and infrastructure planning. Development Plans and subsequent zoning and development assessment decisions will need to be consistent with the objectives and principles of the Plan and, in particular, its policies.

### The role of the targets

The Plan includes two types of targets. The first relates to the distribution of housing and jobs, and the amount of land that should be set aside for employment and residential purposes. The second is a performance target that will primarily be used by the State Government in implementing the Plan. These targets are consistent with *South Australia's Strategic Plan* and relate to matters such as increasing public transport use and reducing non-renewable energy and water consumption.

If targets are not set, there is a risk that housing and employment growth will occur in an uncoordinated and unplanned manner, which could result in an uneven distribution with the following effects:

- It can place an unfair burden on some councils to meet the demand for housing and jobs.
- It can result in a failure to set aside sufficient land for housing and jobs (this concerns both the total amount of land available and the timing of availability; that is, having land ready when it is needed).
- It can result in a failure to adequately plan for the provision of services such as health and education.

The role of the targets, in respect of housing and jobs and the lands associated with their provision, is to require councils to demonstrate that their Strategic Management Plans and Development Plans can help to achieve these targets at a regional level. That is, local councils will need to demonstrate that they have sufficient land capacity and adequate planning controls in their regions to deliver on the targets.

The targets have been set at a regional level to allow for flexibility and negotiation between councils and to facilitate regional planning of economic activity and transport and infrastructure.



## New transit corridors, growth areas, transit-oriented developments and activity centres

### Rationale

The vision of *The 30-Year Plan for Greater Adelaide* centres on creating new transit corridors, growth areas and transit-oriented developments, and revitalising activity centres. Most housing and employment growth will be in these areas. They represent the critical land-use arrangements to achieve a more compact, efficient and liveable region.

This section outlines where these areas will be situated. It also sets out some of the areas' key characteristics, particularly transit-oriented developments and new growth areas (see Map D1).

Fundamentally, the Plan is about creating dynamic communities where people will want to live and work. These are not just lines on maps; they are people's homes, their communities and their workplaces. If well configured and designed, each with a unique character, these communities will give residents a sense of belonging and connectedness, which will make them a drawcard for both residents and investors.

The policies and targets in this section are the central, spatial parameters of the Plan because these new transit-oriented developments, transit corridors and growth areas serve multiple policy objectives, which include:

- supporting the achievement of a more transit-focused and connected city with an increase in the use of public transport
  - accommodating a significant amount of residential housing growth
  - providing a key location for jobs by concentrating commercial, retail and employment activities in transit corridors and transit-oriented developments
  - providing greater opportunities for neighbourhood and precinct-level water and energy efficiency
  - protecting existing character by accommodating the bulk of growth in designated areas rather than spread across the entire region
  - supporting the creation of a new network of open space and greenways.
- Overall spatial distribution**
- Policies**
- 1 Plan for population growth of 560,000 people over 30 years and accommodate this growth through the delivery of 258,000 additional dwellings to be constructed over the life of the Plan.
  - 2 Locate the majority of Greater Adelaide's urban growth within existing built-up areas through increases in density in strategic locations.
  - 3 Concentrate new growth within metropolitan Adelaide in transit corridors, transit-oriented developments and activity centres so that the urban character of the majority of neighbourhoods remains largely unchanged.
  - 4 Locate new growth areas contiguous to transit corridors wherever possible.
  - 5 Activate and rejuvenate higher-order activity centres and provide for integrated mixed uses around transport interchanges and wherever possible at the neighbourhood level.
  - 6 Concentrate growth outside the metropolitan area in major regional towns and generally constrain growth in small towns and villages to protect their heritage and character.



- 7** Ensure that the bulk of new residential development in Greater Adelaide is low- to medium-rise development (including detached dwellings) and confine high-rise developments to the 14 identified transit-oriented developments.

#### Targets

- A** Eighty per cent of the existing metropolitan area of Adelaide will remain largely unchanged as a result of the Plan.
- B** By the end of the Plan's 30 years, 70 per cent of all new housing in metropolitan Adelaide will be being built in established areas.
- C** About 60 per cent of metropolitan Adelaide's (50 per cent of the Greater Adelaide region's) new housing growth will be located within 800 metres of current or extended transit corridors.
- D** Density of development in transit corridors will vary throughout the corridor but gross densities will increase on average from 15 to 25–35 dwellings per hectare. Net residential site densities for individual developments will be higher than the average gross density.

#### Transit corridors

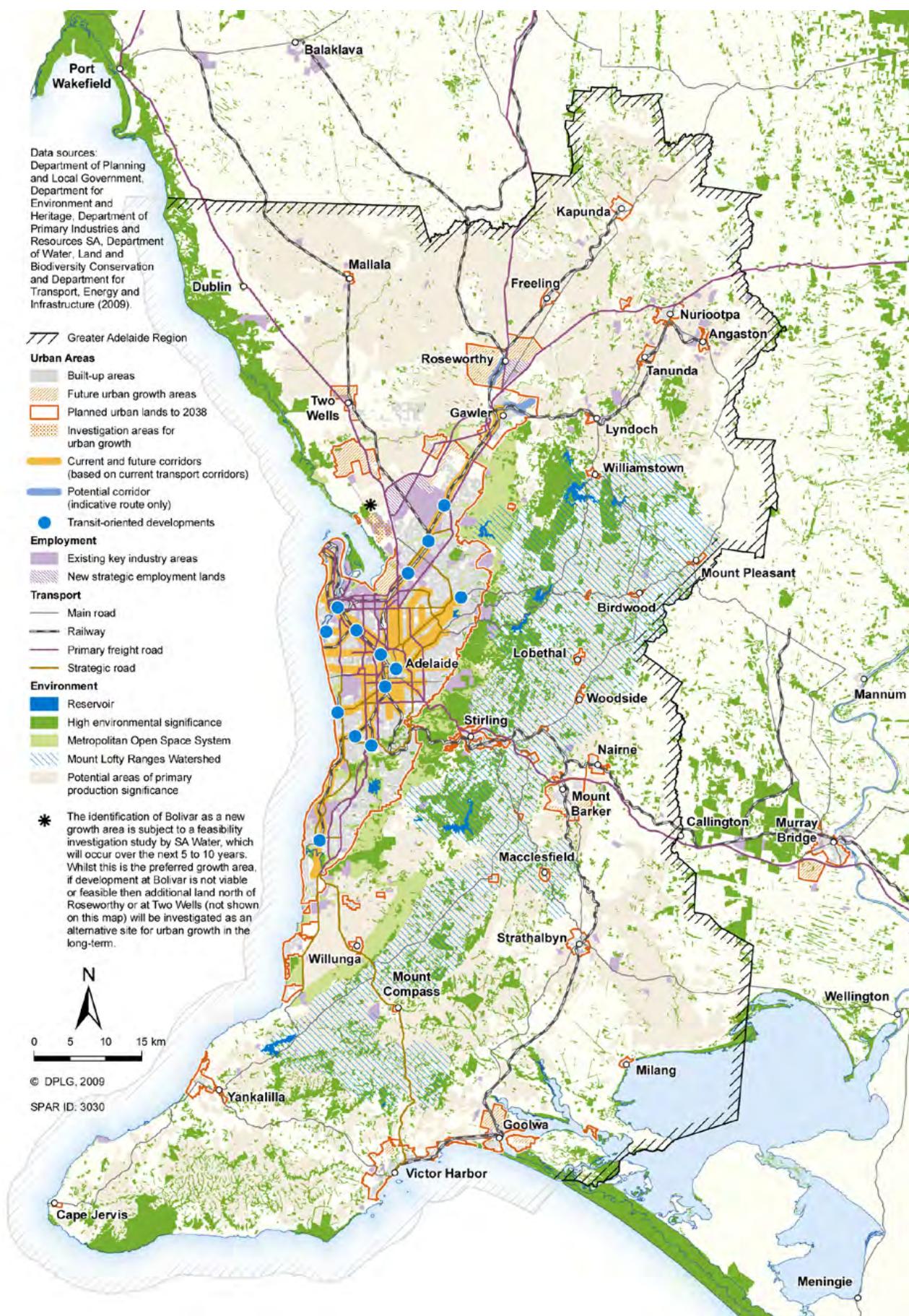
The Plan is based on concentrating urban development around access to public transport, that is, in transit corridors (see Map D4). For the purposes of the Plan, there are two types of transit corridors:

- Major transit corridors, which are characterised by fixed-line mass transit such as rail, tram and O-Bahn. The Plan identifies five major transit corridors. Future opportunities for development will generally be within 800 metres either side of these corridors.
- Other transit corridors, which are characterised by main road access and either have, or are earmarked to have, mass transit such as frequent bus or light rail services.

Structure Plans will identify the areas suitable for development within each transit corridor. Most development will be concentrated around activity centres and major public transport access points.

#### Policies

- 8** Designate and protect transit corridors so a significant amount of Greater Adelaide's net dwellings growth and net jobs growth can be generally located within 800 metres of a major transit corridor or within 400 metres of other transit corridors.
- 9** Designate five fixed-line transit corridors (see Maps D2 and D3) as State Significant Areas. The Department of Planning and Local Government will prepare Structure Plans for these corridors in partnership with other state government agencies and local government.
- 10** Prepare Structure Plans for transit corridors to determine up-front (or earlier in the process) the types of land uses permitted to avoid the need for individual rezoning of major sites.
- 11** Ensure Structure Plans are broad and outcomes-focused; that is, describing land use and activity types that are encouraged and permissible rather than concentrating narrowly on their form and layout.
- 12** Ensure Structure Plans clearly designate key precincts within the transit corridor, which include mixed-use transit-oriented developments, activity centres, open-space precincts and, where appropriate, employment lands.





- 13** Provide specific guidelines about the types of services and densities in key locations in the transit corridors, for example, surrounding railway stations. This is to take advantage of the value of assets such as railway stations, where it will be important to create mixed-use residential and retail developments. Structure planning around railway stations may require a mixture of high- and medium-density, low- and medium-rise apartments and ground-floor shopfront activities that could combine retail, restaurants, cafés, and local commercial or service activities.
- 14** Concentrate higher densities and medium-rise development around mixed-use activity centres and railway, tram and bus stations.
- 15** Ensure that there is an effective transition between higher densities and medium-rise development (near shops and stations) and existing low-rise detached housing. Structure Plans for transit corridors will prescribe that densities and building heights decrease as development moves away from transport thoroughfares and

shops and railway stations. This will mean that traditional detached dwellings will generally be bordered by low-rise dwellings such as townhouses.

- 16** Define transit corridors by unique design and character guidelines, giving each corridor a separate identity to avoid a monoculture of building styles across Greater Adelaide.
- 17** Ensure transit corridors contain a network of cycle ways, walkways and greenways to provide cooling and to create liveable and attractive locations for a diverse population.

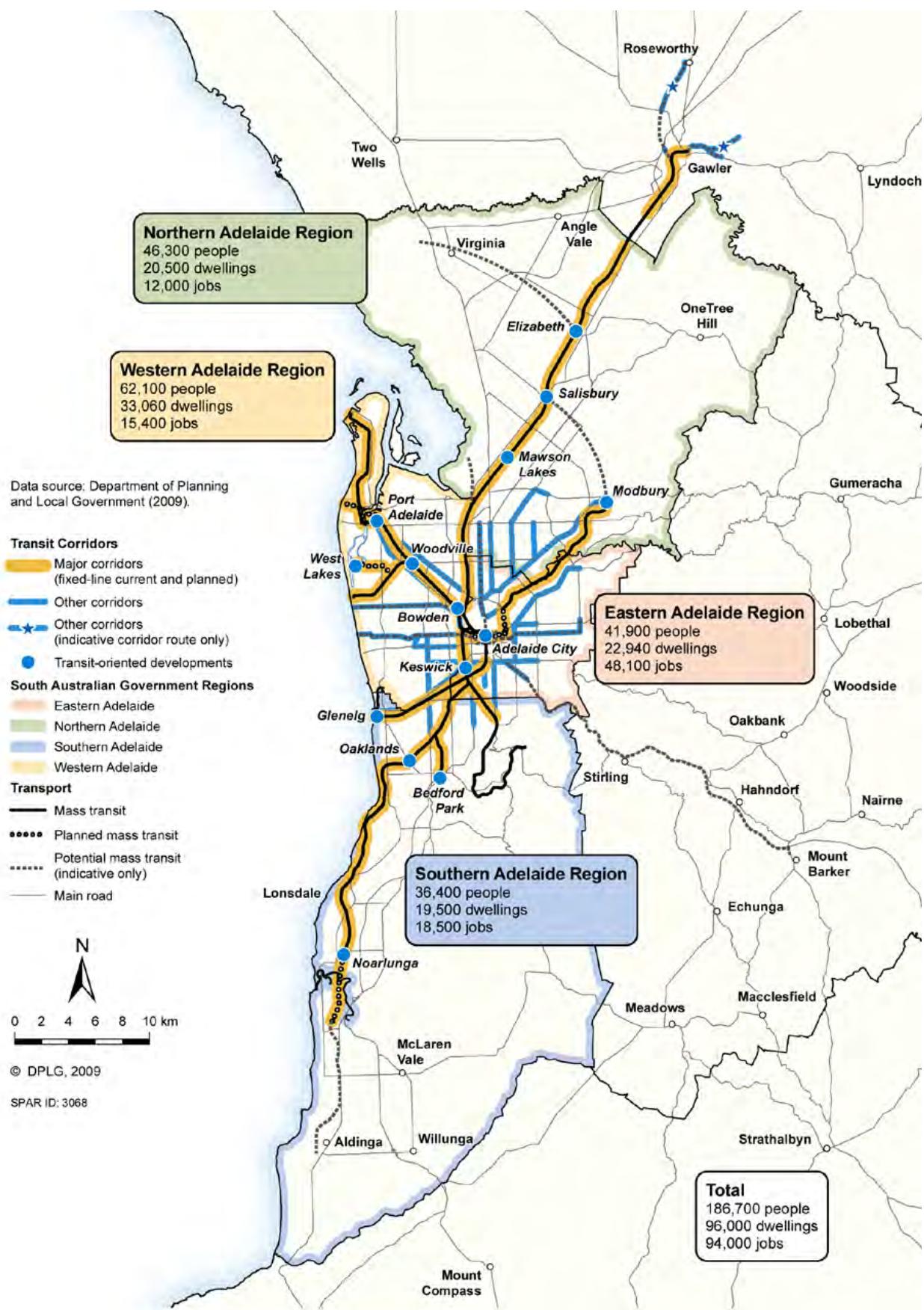
#### Targets

- E** Designate five fixed-line transit corridors: the Noarlunga train line, Outer Harbor train line, Gawler train line, Glenelg tram line and Adelaide O-Bahn busway (see Map D3).
- F** Complete Structure Plans and initiate key rezoning through Ministerial Development Plan Amendments (DPAs) for the major transit corridors within five years of implementation of the Plan. Rezoning will occur in stages with priority given to major precincts such as transit-oriented developments.

**G** Undertake Structure Plans for the first two transit corridors, Outer Harbor and Noarlunga (indicated on Map D3), by the end of 2011.

- H** Designate 24 other transit corridors—major roads capable of effective mass transit and which serve areas of high regeneration potential.
- I** Locate more than 50 per cent of Greater Adelaide's net dwellings growth (about 137,000 dwellings—including 60,000 in transit-oriented developments and sites that incorporate these development principles and design characteristics) and about 35 per cent of Greater Adelaide's new jobs in transit corridors.

- J** Provide a net contribution of active and passive open space in transit corridors.



## Map D3 Major transit corridors and structure planning priorities

Data sources: Department of Planning and Local Government and Department for Transport, Energy and Infrastructure (2009).

- South Australian Government Regions
- Indicative Corridor Structure Planning Priorities**

  - Priority 1 - Noarlunga, Gawler Central and Outer Harbor lines
  - Priority 2 - West Lakes and Semaphore extension
  - Priority 3 - Other fixed mass transit

- Urban Areas**

  - Built-up areas
  - Planned urban lands to 2038

- Employment**

  - New strategic employment lands

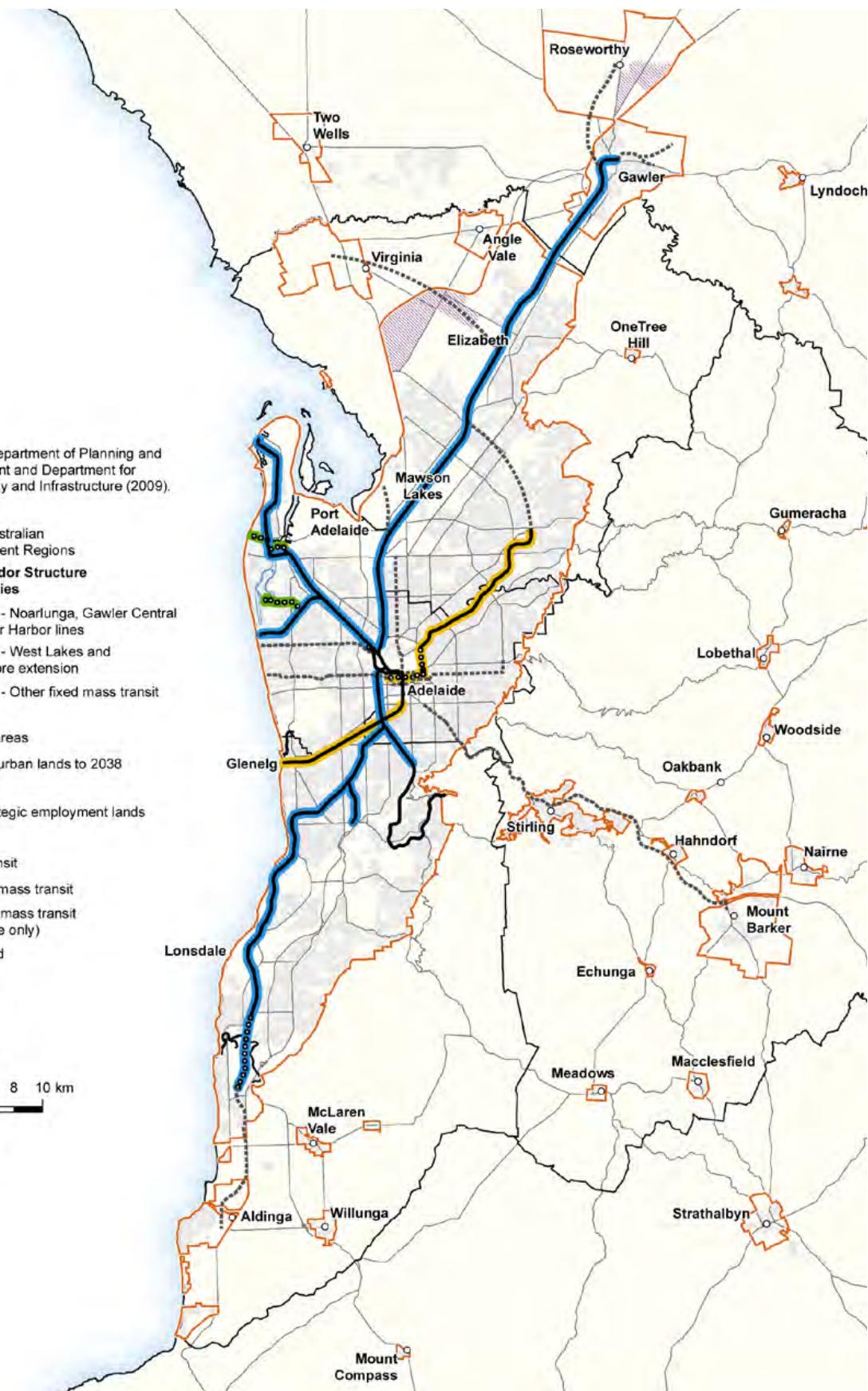
- Transport**

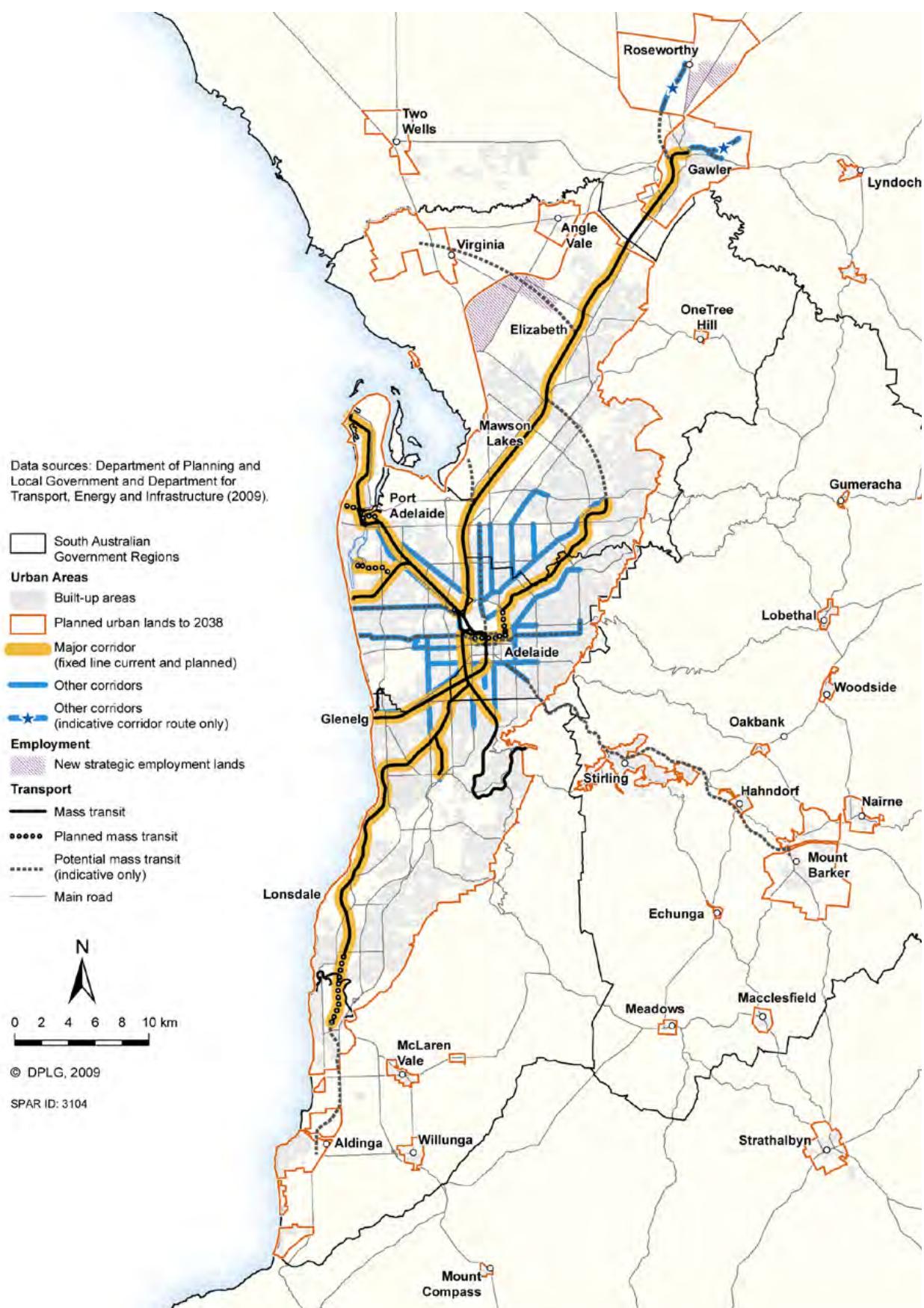
  - Mass transit
  - Planned mass transit
  - Potential mass transit (indicative only)
  - Main road



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SPAR ID: 3037







## Transit-oriented developments

Transit-oriented developments comprise mixed-use, higher-density development centred on a major public transport access point. They accommodate residential, high-order retail services and employment activities as well as high quality open space. They will be attractive, self-contained, accessible and walkable communities in which people can live, work, shop and recreate.

State and local government will support the delivery of 14 transit-oriented developments (identified on Map D5) through direct involvement and/or providing infrastructure. Other smaller developments around transit nodes will also incorporate transit-oriented development principles.

### Policies

**18** Provide for 14 new transit-oriented developments to be located across the region and encourage planning for transit-oriented style developments in appropriate locations.

**19** Locate transit-oriented developments next to mass transit stations and interchanges (rail, bus or tram) and connect to existing activity centres where possible.

**20** Identify transit-oriented developments in Structure Plans. Transit-oriented developments will be subject to precinct planning because of their scale and mixed-use nature. Precinct Requirements will dictate the type and character of development, as well as its layout and design. This will enable Development Applications for whole precincts simultaneously (Precinct Development Applications).

**21** Subject transit-oriented developments to very high design requirements as part of the precinct planning process.

**22** Design transit-oriented developments to be walkable and cycling friendly, and provide safe connections to surrounding communities.

**23** Declare transit-oriented developments as State Significant Areas.

**24** Require high quality open space in all transit-oriented developments.

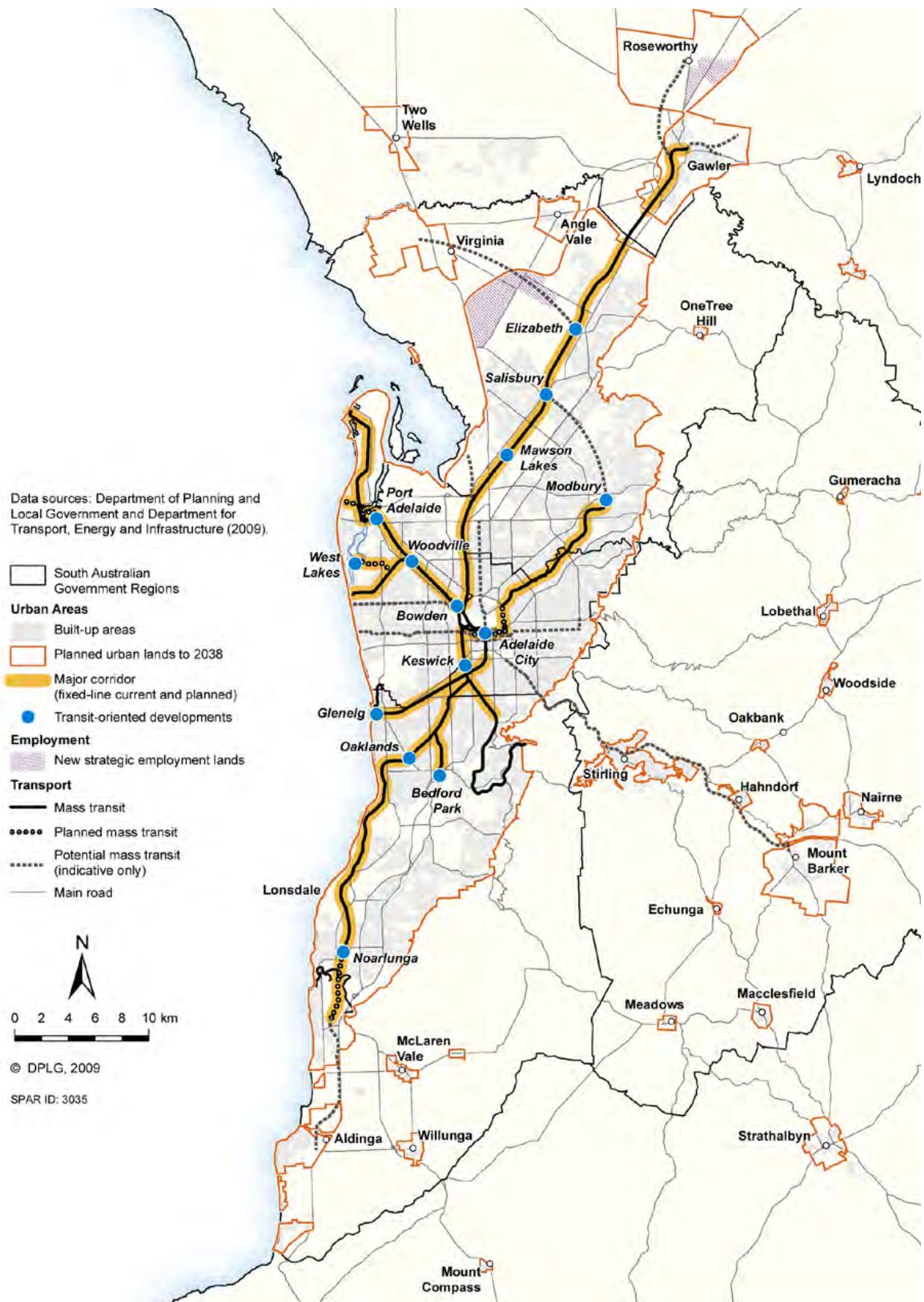
### Targets

**K** Deliver 14 transit-oriented developments (see Map D5) and designate them as State Significant Areas.

**L** Encourage local government to identify and facilitate delivery of more than 20 other transit-oriented style developments, such as Castle Plaza/Edwardstown, Kilkenny, Munno Para and near Tambelin.

**M** Plan for about 60,000 dwellings in 14 transit-oriented developments and more than 20 sites that incorporate transit-oriented development principles and design characteristics.

**N** Prepare Precinct Requirements for transit-oriented developments, initially for the following priority developments: Bowden Village, Cheltenham/Woodville, Keswick/Wayville, Marion/Oaklands, Noarlunga, Port Adelaide and Tonsley/Bedford Park.





## Mixed-use activity centres

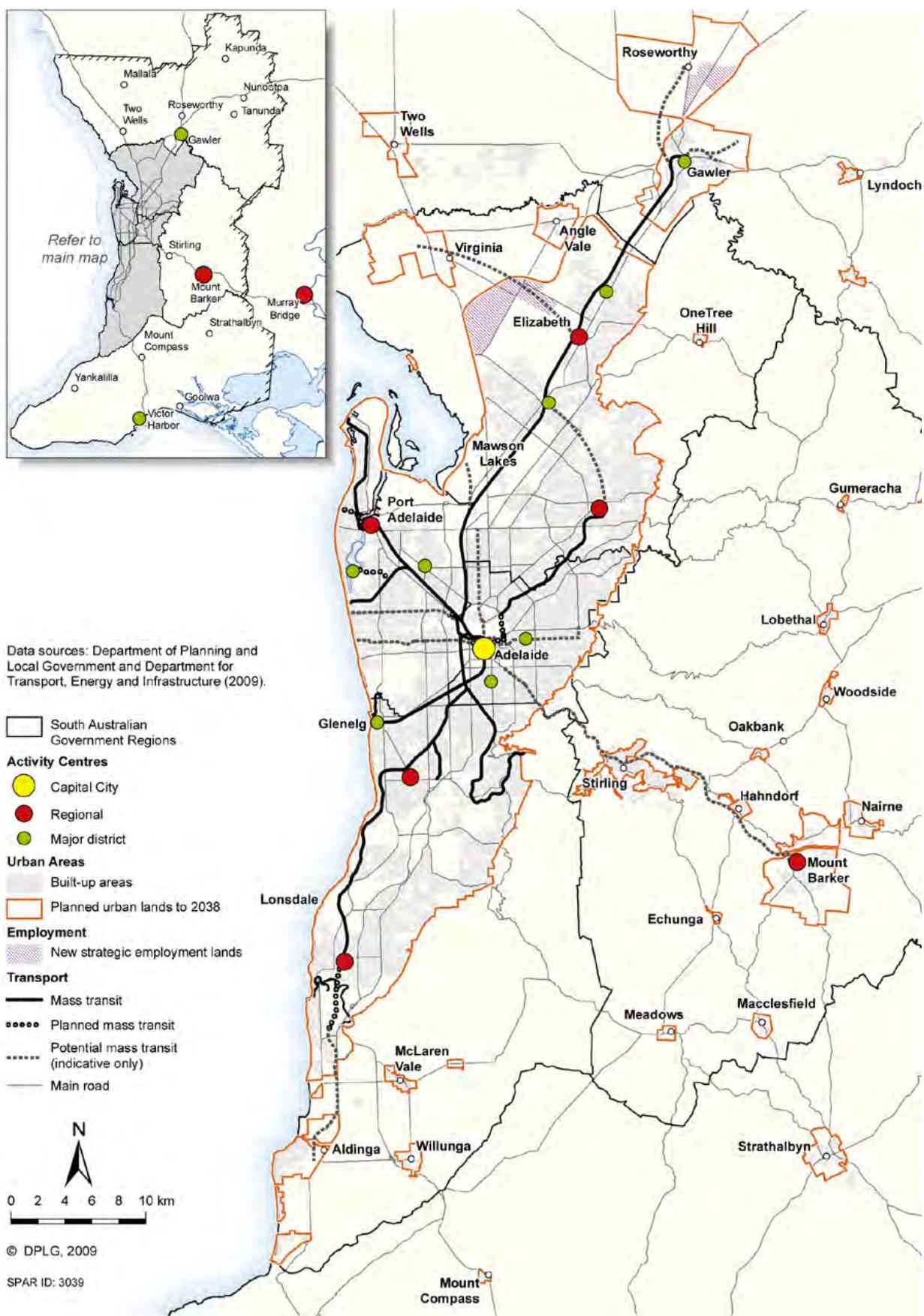
Activity centres provide concentrations of business, administrative, civic, retail, entertainment, employment, research, education and community uses, and—increasingly—residential development. The purpose of activity centres is to cluster commercial and employment activity to improve accessibility, productivity and the efficient use of infrastructure. Many of the traditional activity centres in metropolitan Adelaide, which are adjacent to major public transport access, will become transit-oriented developments through the inclusion of more residential development over the life of the Plan. The Adelaide City centre, encompassing the central business district, is the pre-eminent activity centre in the Greater Adelaide region.

### Policies

- 25 Adopt a typology of activity centres, as set out in the Activity centre typology table in Appendix 3 and represented in Map D6.
- 26 Designate specialist centres that contain clusters of key economic and service activity where appropriate. For example, clusters of defence, innovation, export, legal and educational services.
- 27 Focus collocated government services and facilities in higher-order activity centres, which are the Adelaide City, regional and major district centres.
- 28 Provide retail and other services outside designated activity centres where development will contribute to the principles of accessibility; a transit-focused and connected city; world-class design and vibrancy; and economic growth and competitiveness.
- 29 Ensure activity centres promote mixed-use development rather than separate residential, commercial and retail developments.
- 30 Develop higher-density residential developments within and adjacent to activity centres.
- 31 Minimise the impact of commercial activities on residential communities by ensuring mixed-use centres comply with Structure Plan guidelines.

### Targets

- Designate 17 higher-order activity centres as a focus for the delivery of services and employment (of which nine will also be transit-oriented developments).





## New metropolitan and township growth areas

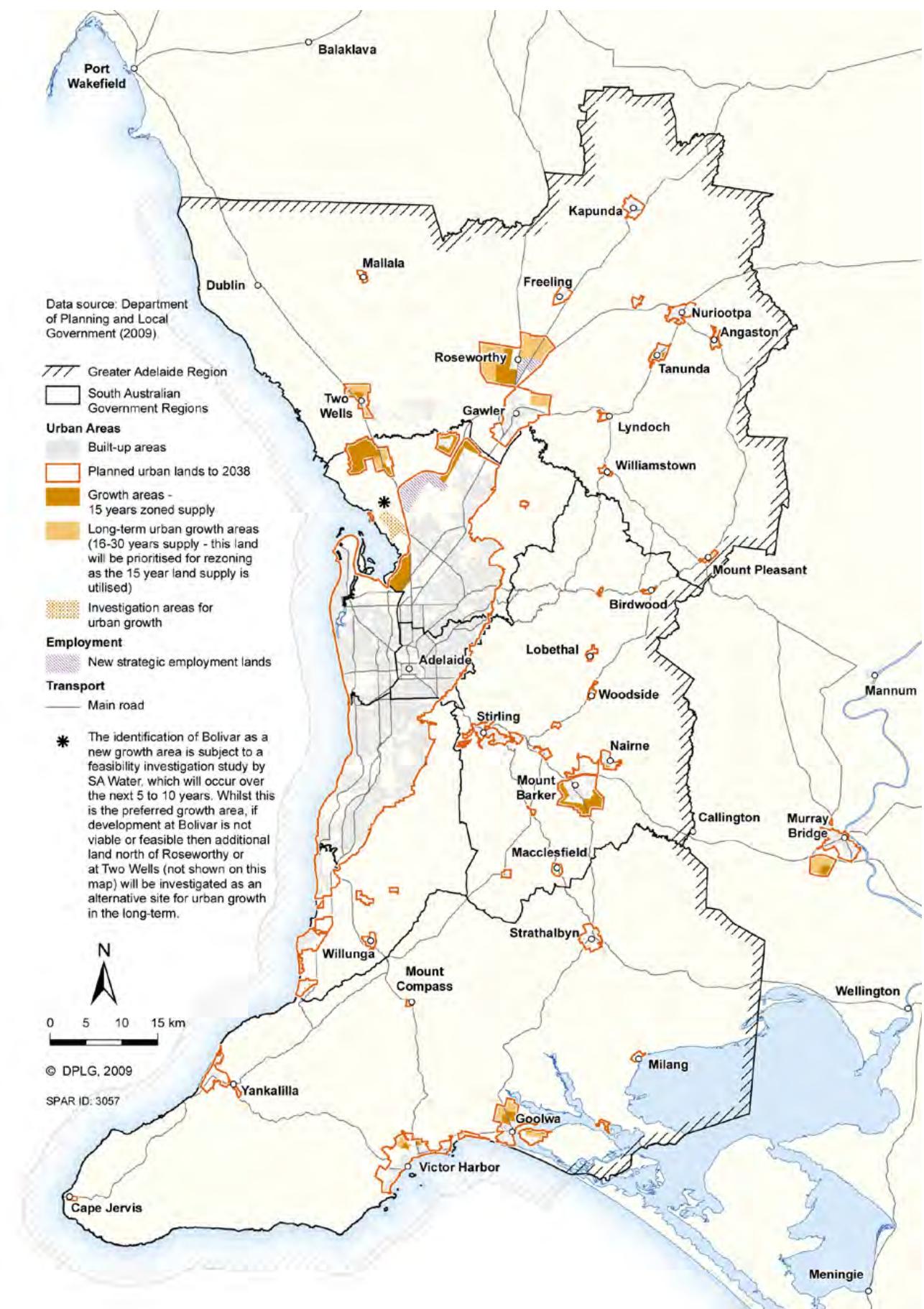
New growth areas and township expansions are identified on Map D7. These will be subject to further intensive investigations and public consultation.<sup>70</sup> The final boundaries of areas rezoned may vary slightly from the boundaries identified in Map D7 as a result of the investigation and consultation process. It is also anticipated that not all land will be rezoned for residential use and may alternatively be considered for employment, institutional or community use or as open space.

### Policies

**32** Ensure new urban growth occurs in designated urban and township expansion areas shown on Map D7. This map shows the indicative areas of land that will be considered for urban growth. The actual boundaries of land will be identified for public consultation when the process of updating the relevant Development Plan is undertaken.

- 33** Provide sufficient other new growth areas for a 25-year rolling supply of land, of which 15 years is zoned for urban development.
- 34** Subject new growth areas designated in the Plan to Structure Plans, which will:
  - ▶ require the provision of services and higher-density residential areas, as well as a mixture of retail and support services, around transport interchanges
  - ▶ specify the amount of open space and parklands to be provided
  - ▶ clearly designate land requirements for infrastructure in new growth areas. This includes services such as health and education and utilities such as waste, water, power, ICT, transport and community services.
- 35** Base the planning of greenfield growth areas on the principles of self-contained, mixed-use development that is contiguous to transport services where possible.
- 36** Base the selection of new urban areas on minimising bushfire risks and minimising impacts on watershed and high-value environmental areas, and avoiding areas where service provision is constrained.
- 37** Design new growth areas to avoid exposure to bushfire risk, and minimise impacts on watershed, biodiversity and high-value environmental areas. Growth areas adjacent to areas of high environmental significance (see Biodiversity) should provide a suitable buffer to reduce potential impacts. Buffers should be located on land outside that identified as highly significant.
- 38** Ensure new growth areas provide a mixture of dwelling types and an increased supply of smaller dwellings, and continue to cater for families by providing the bulk of new detached family homes.
- 39** Designate employment lands and specific job targets for each new growth area.
- 40** Make specific provision for employment lands in other townships to encourage self-contained communities and reduce the reliance on car travel.

<sup>70</sup> The 30-Year Plan for Greater Adelaide does not remove the need for a proponent of a development to take into account the requirements of the Environment Protection and Biodiversity Conservation Act 1999 (Cwlth).





- 41** Maintain the distinct scale, character and heritage of townships not identified for urban expansion by encouraging development that recognises and complements their various roles and functions.
- 42** Restrict ad hoc construction of isolated rural dwellings and subdivision of rural lands through the planned expansion of townships, density increases within township boundaries, and appropriate intensification of existing Rural Living Zones, and strategic designation of new Rural Living Zones, outside areas of primary production significance.
- 43** Prevent the expansion and/or inappropriate intensification of existing, or the creation of new, Rural Living Zones in areas of primary production significance.
- 44** Manage the interface between primary production activities and urban areas and townships through the identification of appropriate separation buffers, screening vegetation and appropriate alignment of allotment boundaries.

### Targets

- P** Plan for strategic new growth areas, comprising a net land supply of 10,650 hectares (gross total of 14,200 hectares, including the 25 per cent buffer identified in Target R). These areas include:
- ▶ Angle Vale
  - ▶ Bolivar<sup>71</sup>
  - ▶ Buckland Park/Buckland Park South
  - ▶ Cheetham (Dry Creek)/Globe Derby Park
  - ▶ Concordia
  - ▶ Goolwa/Hindmarsh Island
  - ▶ Mount Barker
  - ▶ Murray Bridge
  - ▶ Playford North extension/Munno Para Downs
  - ▶ Roseworthy
  - ▶ Two Wells
  - ▶ Victor Harbor
  - ▶ Virginia/Virginia North
  - ▶ Yankalilla/Normanville/Carrickalinga.
- Q** Provide for 124,000 dwellings and 44,500 jobs in these areas as well as the existing urban land supply and other fringe growth opportunities.
- R** Provide for a buffer of 25 per cent of the total land mass to allow for land that will remain undeveloped for various reasons (for example, due to landowner decisions, environmental constraints, buffer requirements or policy decisions).
- S** Provide 40–60 per cent of the total land mass to be developed for non-residential purposes (for example, roads, open spaces, commercial, retail, utilities and local employment).
- T** Ensure that fringe developments and development involving township growth provide a net contribution of active and passive open space to the local area.

<sup>71</sup> The identification of Bolivar as a new growth area is subject to a feasibility investigation study by SA Water, which will occur over the next five to 10 years. Whilst this is the preferred growth area, if development at Bolivar is not viable or feasible, additional land north of Roseworthy or at Two Wells will be investigated as an alternative site for urban growth in the long term.



## Adelaide City centre

### Rationale

The Adelaide City centre is the hub of peak services, including financial, legal and educational facilities, and is the heart of cultural, retail and entertainment facilities, including the renowned Adelaide Central Market.

The Adelaide City centre is the pre-eminent transit-oriented development in the region and will be the first and most important place for the new urban form to be implemented. This will include increasing the amount of residential accommodation in the heart of the city, strengthening the character of key precincts across the CBD, and encouraging further investment in key sectors such as financial services and regional administrative headquarters.

The City already has a compact footprint and a wide range of mixed and complementary uses, which are necessary for a sustainable and dynamic future.

Managed growth in the central business district and mixed-use zones (such as the north-west and eastern sectors of the city centre) will reflect broad transit-oriented development principles. These principles will provide more space for new jobs, new forms of housing, and new and improved entertainment and recreation facilities, which will add to the already high quality of life associated with those precincts.

Many cities around the world with a similar history of rapid suburban growth since the 1960s—such as Melbourne, Vancouver and Seattle—have experienced a resurgence of activities in their traditional heart.

### Policies

- 1 Strengthen the primacy of the Adelaide City centre as the cultural and economic focus of Greater Adelaide and enhance its role as the centre for peak services, such as legal, financial and banking, speciality health and medical, educational, the arts and high-quality speciality retail.
- 2 Focus high-rise residential, commercial and retail growth in the central business district and mixed-use zones.
- 3 Define broad precincts in the city centre that harmonise day-time and night-time amenity and efficient clustering of commercial activities.
- 4 Increase the amount and diversity of residential accommodation in the central business district and mixed-use zones to support a variety of household types for various age and income groups, including students, professionals and the aged.
- 5 Strengthen the built-form edge of the City facing the Park Lands with medium-rise mixed-use development. Encourage medium-rise residential development throughout the City.
- 6 Frame the outer edge of the Park Lands with medium-rise mixed-use development in appropriate locations.
- 7 Conserve the heritage, character and scale of the valued residential precincts of North Adelaide and the south-east and south-west corners while allowing sympathetic and complementary development.
- 8 Build on the strengths of existing key public spaces, such as revitalising Rundle Mall, creating a restaurant precinct on the Torrens River bank, delivering later stages of the North Terrace project and activating the laneways in the core precinct.



- 9** Regenerate Victoria Square/Tandanya into a dynamic focal point for the community and a space to celebrate culture and identity, which is accessible, enjoyable and people-focused.
- 10** Reinforce the role of the Park Lands as a major recreational, sporting, natural and open-space asset servicing metropolitan Adelaide.
- 11** Activate the Park Lands to increase their appeal and safety through increased passive surveillance. Encourage events that are sited and managed to minimise the impact on the Park Lands.
- 12** Prepare, in partnership with the City of Adelaide, an integrated design strategy that provides an urban design vision for the City centre.

#### Targets

- A** Provide for an extra 15,040 dwellings and 50,000 jobs in the Adelaide City centre.
- A well-designed network of open-space precincts linked by greenways, tree-lined streets, and green roofs and walls will contribute significantly to the liveability and attractiveness of neighbourhoods and the region as a whole. The greening and cooling effect of a linked network will also help to mitigate higher temperatures.

## Urban design

### Rationale

Greater Adelaide requires a new built form that will provide more appropriate forms of housing in more accessible locations. This will underpin the creation of a new, more compact and efficient urban environment to achieve the principles and objectives of the Plan.

World-class design is an essential element of the new urban form. The design must incorporate world-leading innovation in sustainability and energy and water efficiency. The Plan is also a unique opportunity to design the built form to ensure that buildings and public spaces are more liveable in the face of hotter temperatures as a consequence of climate change. A well-designed network of open-space precincts linked by greenways, tree-lined streets, and green roofs and walls will contribute significantly to the liveability and attractiveness of neighbourhoods and the region as a whole. The greening and cooling effect of a linked network will also help to mitigate higher temperatures.

The Plan sets specific policies and targets for increasing densities and increasing the supply of smaller housing to meet the needs of a changing population. The Plan also sets policies and targets for the creation of mixed-use precincts and the location of employment-generating activities close to where people live. These policies demand a renewed emphasis on world-class, creative and innovative design. This design must:

- ensure that the new built form is integrated with and complements the existing character of Greater Adelaide
- create unique and beautifully designed buildings and public spaces which attract residents and businesses
- create precincts with a unique character through providing an urban form that builds on the distinct character of many of the villages and neighbourhoods of Greater Adelaide
- create public spaces that promote vibrancy, a sense of place, safety and connectedness



- create opportunities for people at different stages of life, particularly children and the aged, to be physically active in their neighbourhood
- create a robust urban ecology across Greater Adelaide by providing a network of open spaces, greenways, tree-lined streets, and green roofs and walls to help sustain an urban ecology and mitigate the urban heat island effect
- create an urban environment that demonstrates water efficiency through the application of water-sensitive urban design principles.

In other places in the world it is the attention to design that differentiates new cities and new urban forms. In some cases, design has become a drawcard not only for residents and business, but also for tourists and visitors.

The new urban form and the new built form will not emerge overnight. The policies and targets that are set out below need comprehensive, careful and long-term application.

### Policies

- 1 Establish a Commission for Integrated Design to advise on quality design in the built environment, including a position of Government Architect as part of a multidisciplinary Commission team.
- 2 Maximise and increase the quality of public spaces, and require excellent design in the public realm.
- 3 Require new mixed-use medium- and high-rise developments to provide active street frontages (such as shops, services and restaurants) to encourage connectivity and increase public safety.
- 4 Protect and strengthen the identity of agreed character areas by enhancing the valued elements of the existing streetscape.
- 5 Set, through the planning controls, very high standards for urban character and quality of design in consultation with the Commission for Integrated Design.
- 6 Structure Plans for greenfield developments, urban infill and transit-oriented developments will set objectives and guidelines for the quality of building performance outcomes in terms of:
  - climate response (for example, solar orientation and ventilation)
  - energy use
  - water use and recycling
  - noise attenuation and air quality
  - improving the aesthetics of the public realm.
- 7 Ensure building design can be adapted in the future to minimise new building requirements and maximise the re-use and redevelopment of existing infrastructure.
- 8 Develop guidelines in Structure Plans to help create unique characteristics and identity across different neighbourhoods, suburbs and precincts.
- 9 Reinforce the historical grid structure of metropolitan Adelaide through the development of built form at major nodes and intersections, structural plantings along key arterial roads and protection of important view corridors.
- 10 Promote a highly permeable and connected grid street structure in new growth areas and transit-oriented developments to encourage walking and cycling.
- 11 Provide safe and attractive streetscapes in growth areas and transit-oriented developments through street tree plantings and lighting.



- 12** Develop and promote a distinctive range of building typologies for residential housing density, which responds to metropolitan Adelaide's existing character and climate.
- 13** Create a clear transition between new higher-density development (near shops and railway stations) and existing detached housing precincts, such that housing densities will decrease in line with the distance from transport thoroughfares and railway stations.
- 14** Ensure local heritage places and areas of heritage value are identified and incorporated into planning policy.
- 15** Capitalise on the role heritage places and areas play in creating a sense of place through techniques such as adaptive re-use and clearly described desired character statements in Structure Plans.

### Targets

- A** Develop design principles for multi-unit and mixed-use developments, to be incorporated in Structure Plans. These will determine setbacks, height transitions, and scale principles based on existing character, ensuring that consistent rules apply for building renewal across Greater Adelaide. Some adaptation will be required in heritage areas. This work will include:
  - ▶ a description of a range of residential building typologies for changing demographics and preferences in higher-density areas, for all identified Structure Plan areas
  - ▶ responsive building design on busy corridors (including measures to address noise and air quality)
  - ▶ built-form and structural planting to reinforce the visual identity of the arterial grid system in the metropolitan area
- B** Develop guidelines for safe, attractive residential streetscapes that provide for vegetation, lighting and, potentially, water-sensitive urban design techniques.
  - ▶ planting to enhance the existing natural and cultural landscape character in new developments and in new greenways
  - ▶ place-making principles
  - ▶ water and energy efficient design for buildings and public spaces
  - ▶ the allowance of sufficient space for and access to waste management and recycling infrastructure.



## Communities and social inclusion

### Rationale

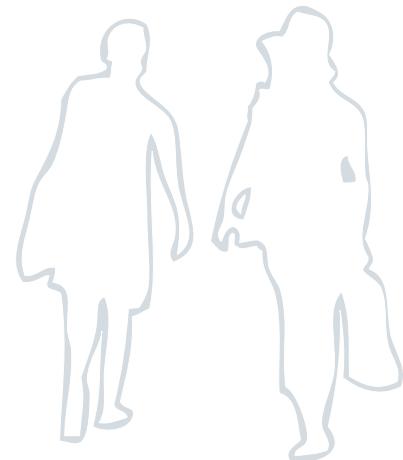
The Plan will proactively prepare for anticipated population change and growth in a way that promotes sustainable and inclusive communities. A central platform of the Plan is that well managed and sustainable population growth is essential to South Australia's ongoing economic and social prosperity. Attracting and retaining a working-age population in Greater Adelaide is necessary to underpin future economic growth, to meet the demand for skilled labour and to support the provision of services for the growing proportion of aged people.

Patterns of living in Greater Adelaide are undergoing significant changes. Household sizes are becoming smaller, as family structures change and the population ages. The Plan's policies will ensure that Greater Adelaide can meet its citizens' needs, whatever their age. The policies will create environments that encourage social inclusion, giving people an opportunity to participate in social and economic activities in their community. For example, a greater proportion of new housing will be located close to public transport, recreation, shops and services. This will give people the option of catching public transport, walking or cycling to reach these services, and make it easier for people, as they age, to stay living in their own neighbourhood, surrounded by their support networks.

The Plan will reduce journey-to-work times by setting jobs targets in areas close to residential areas and existing and planned transport infrastructure. The development of mixed-use activity centres along public transport routes will allow more people to live close to work, services and community facilities. The Plan will also open up additional residential development opportunities close to the Adelaide City centre.

Concentrating growth in the existing metropolitan area of Adelaide will involve developing new communities alongside established neighbourhoods. Infill developments will be designed for easy movement between neighbourhoods so that facilities and services can be shared by residents of both. New, planned communities may offer improved open space and other amenities, such as community gardens, to residents of older suburbs nearby.

The Plan emphasises the importance of shared spaces that can be used for activities and cultural events to help build community cohesion. Walkable neighbourhoods, active street frontages and the establishment of community gardens, particularly in higher-density housing precincts, will help facilitate social interaction.



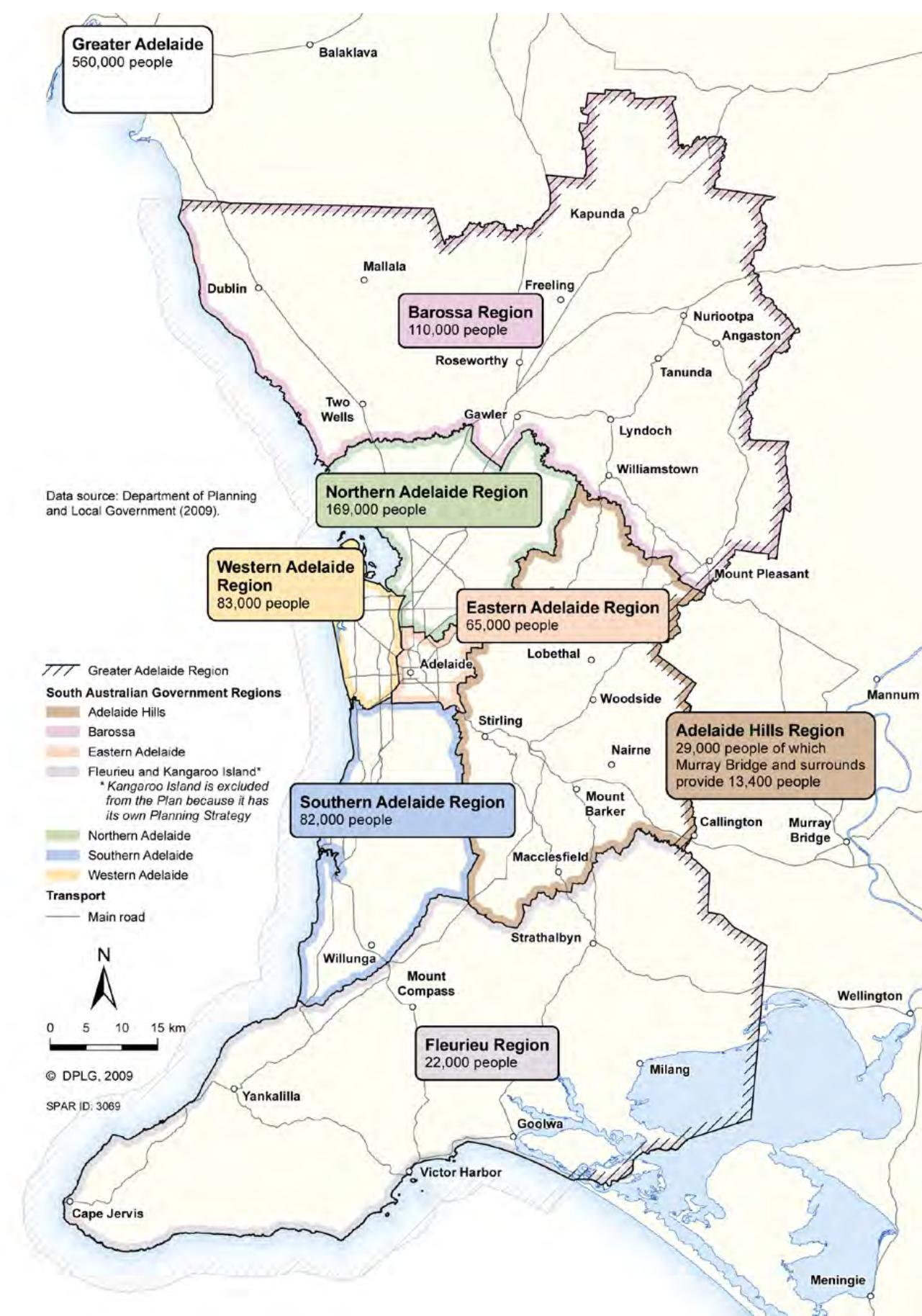
### Policies

- 1 Plan for population growth of 560,000 people over 30 years.
- 2 Actively encourage inward interstate migration and reduce outward migration of working-age people by maintaining a supply of housing at competitive prices.
- 3 Retain 'regional migration status' to attract a higher proportion of overseas skilled migrants.
- 4 Plan for the growing number of young families.
- 5 Plan for the projected increase in the number and proportion of elderly people and respond to their preference to remain living in their existing community.

### Targets

- A Provide for an additional 560,000 people over 30 years.
- B Plan for regional distribution of projected population growth as shown in Map D8.

- 6 Specify in the Housing and Employment Land Supply Program requirements for housing for older people. Planning policies should encourage new models of service provision that allow people to remain living in their community throughout their life.
- 7 Create safe and inviting public spaces that will encourage community participation by a wide range of people.
- 8 Provide engaging spaces where young people can congregate for social activities in a positive setting.
- 9 Give priority to pedestrian, wheelchair, gopher and cycle movement in neighbourhoods, which will ensure greater access for people with less mobility, particularly children, the elderly and people with prams.
- 10 Ensure urban renewal activity focuses on place making and building stronger communities.







## Aboriginal heritage and culture

### Rationale

This Plan recognises Greater Adelaide's first people, the Kurna, Ngarrindjeri, Ngadjuri and Peramangk tribes, and respects their ongoing relationship with their traditional land.

The Plan supports the development of protocols between state and local government and the traditional owners of the land to increase cultural awareness of a continued connection to land, respect for 'Dreaming' sites, and protection of Aboriginal sites, objects and remains. The Plan also promotes and encourages inclusion of these matters in planning and development processes.

### Policies

- 1** Identify and protect (consistent with the *Aboriginal Heritage Act 1988*<sup>72</sup>) Aboriginal cultural heritage sites and areas of significance, including those associated with the marine, estuarine and coastal environment, and incorporate these where appropriate into Development Plan policies, Structure Plans and development processes.
- 2** Identify early in planning processes requirements for facilities to be appropriately located to support and encourage the education and training of Aboriginal people in aspects of Aboriginal culture.
- 3** Develop protocols between Aboriginal traditional owners and state and local government to ensure consultation during planning processes.
- 4** Protect the Tjilbruke Dreaming Trail as a place of Aboriginal cultural and heritage significance.

<sup>72</sup> The *Aboriginal Heritage Act 1988* is currently under review by the South Australian Government.



## Housing mix, affordability and competitiveness

### Rationale

Like most Australian cities, Greater Adelaide is vulnerable to rising costs for domestic fuel, power and transport as a proportion of its residents' incomes. Although Greater Adelaide remains one of the most affordable places to live in Australia in recent years, this competitive advantage has been eroded. One of the key objectives of the Plan is to arrest this erosion and strengthen Greater Adelaide's competitive advantage as one of the most affordable and liveable residential destinations in Australia.

The Plan will maximise housing choice and mobility for current and future residents of Greater Adelaide. It will also support a vibrant labour market by attracting and maintaining working-age people and a diverse population.

The Plan has two key strategies to increase access to housing that is affordable. The first (set out in this section) is to increase the volume of supply and match the rate of supply with population growth and change. The second (outlined in Affordable housing) has policies to create affordable housing for low-income and vulnerable households.

The policies and targets in this section recognise that appropriate housing is a key determinant of physical, social and economic wellbeing. They will:

- ensure sufficient zoned land supply is provided for housing in new growth areas and transit corridors to reduce upward pressure on land prices
- distribute new housing to take advantage of existing infrastructure and transport to support affordable living
- provide greater diversity in housing types, sizes and densities, which will also make houses more affordable
- preserve existing neighbourhood character by ensuring appropriate redevelopment in existing suburban areas and directing the majority of infill housing to transit corridors and transit-oriented developments

- cater for the needs of an ageing population and the growth in the number of smaller households, including lone-person households
- promote adaptable housing principles that are recognised in the State Government's *Improving with age: Our ageing plan for South Australia*<sup>73</sup> and *State of ageing in South Australia* reports.<sup>74</sup>

### Policies

- 1 Set specific targets at a regional level for the amount of housing that is needed over 30 years.
- 2 Ensure housing affordability is a key input to annual and long-term housing supply targets.
- 3 Integrate a mixture of competitive housing styles, types, sizes and densities into the wider housing market, including medium-density low-rise and attached dwellings.
- 4 Ensure Structure Plans and Development Plans reflect the definitions of low-, medium- and high-density housing provided in Box 1 and the definitions of low-, medium- (or mid-) and high-rise development provided in Box 2.

<sup>73</sup> Office for the Ageing, *Improving with age: Our ageing plan for South Australia*, Office for the Ageing, Government of South Australia, 2006.

<sup>74</sup> G Hugo, M Luszcz, E Carson, J Hinsliff, P Edwards, C Barton & P King, *State of ageing in South Australia*, Report for the Office for the Ageing, Government of South Australia, 2009.

- 5** Increase the total share of smaller housing, particularly around transport interchanges and collocated with services such as health and retail.
- 6** Ensure Structure Plans and Development Plans provide for new retirement housing and residential aged care facilities, and protect and allow for appropriate redevelopment of such existing facilities. This will increase the opportunities for older people to remain living in and connected to their communities as their needs for support increase.
- 7** Ensure Structure Plans consider the need for retirement housing, residential aged care and other supported living facilities to be located close to public transport.
- 8** Identify urban regeneration areas outside transit corridors that are suitable for redevelopment to achieve economic, social and environmental improvements.

#### **Box 1 – Housing density**

The following density ranges apply to net residential site density and define the housing densities referred to in the Plan. These definitions should be used in planning policy to guide individual developments.

- Low density = less than 35 dwelling units per hectare (du/ha)
- Medium density = 35–70 du/ha
- High density = more than 70 du/ha

Net residential site density is calculated using the residential site area only and excludes all other land from consideration. Gross density is a different measurement that includes non-residential land uses. Given variation in the amount of non-residential land uses and styles of development in different areas, consistent ranges for gross density cannot be calculated for planning policy.

#### **Box 2 – Building height**

The following ranges define the terms used in the Plan regarding building height. These definitions should be used in planning policy to guide individual developments, whether residential, commercial or mixed use.

- Low rise = 1–3 storeys
- Medium rise = 4–10 storeys
- High rise = more than 10 storeys



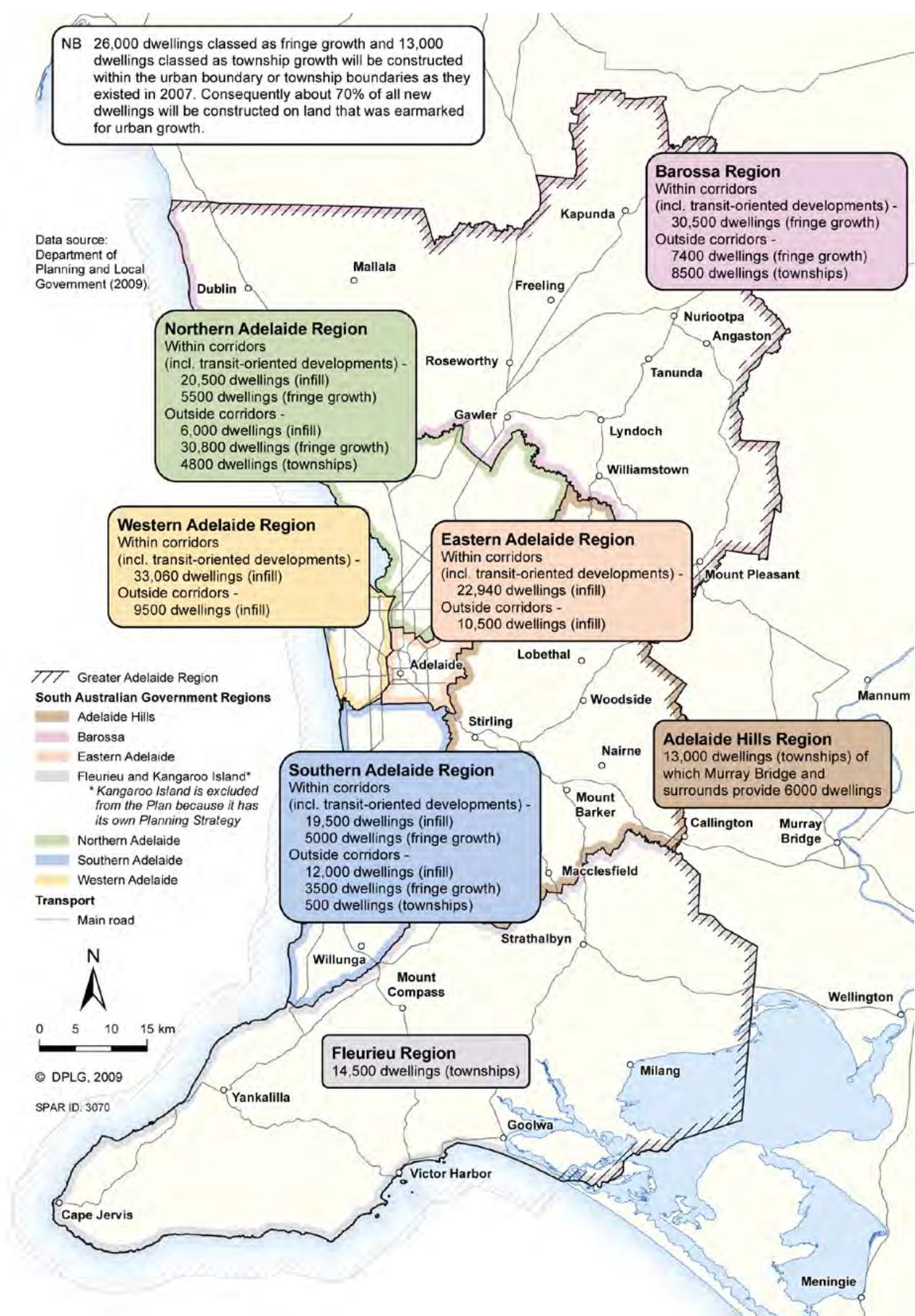
### Targets

- A** Plan for net growth of 258,000 dwellings over 30 years, or an annual average construction target of about 10,100 dwellings a year (allowing for dwellings lost due to demolition).
- B** Plan for the regional distribution of these new dwellings as identified in Map D9.
- C** At least 30 per cent of new housing is available at competitive house prices (that is, at or below the median house sale price in its market) to ensure affordability

### Efficient planning of land supply and the Housing and Employment Land Supply Program

#### Policies

- 9** Identify sufficient land for residential purposes to lock in a 25-year rolling supply of land in both the established areas and new growth areas (the 25-year rolling supply recognises the long lead times associated with bringing land to market).
- 10** Identify, through the Housing and Employment Land Supply Program, the total amount of land needed and set annual rolling targets to reflect changes in the market and changes to the rate of population growth.
- 11** Use regional house price indicators and benchmarks to trigger state government decisions to zone more land or to review infill investment strategies, as part of the governance for the implementation of the Plan.
- 12** Allow for four factors in the amount of land that needs to be set aside for residential purposes and the management of the Housing and Employment Land Supply Program. They are:
  - ▶ the total amount of housing that will need to be provided over 30 years
  - ▶ the projected annual rate of new housing that needs to be produced
  - ▶ the amount of land that needs to be zoned at any given time to achieve the housing production, factoring in the long lead times for land development
  - ▶ the amount of land that is not likely to get to market because of fragmented ownership, lack of interest by the owner to bring the land to market, and loss of residential capacity due to provision for open space and infrastructure.





## Affordable housing

### Rationale

This section contains policies and targets to provide affordable housing for people whose household incomes are described as low to moderate (that is, up to 120 per cent of gross annual median income). The indicative affordable house purchase price for these groups is determined by the affordability indicators gazetted by the Minister for Housing<sup>75</sup> or as amended from time to time under the *Development Act 1993* and the South Australian Housing Trust (General) Regulations 1995.

The provision of affordable housing is a specific subset of the overall housing market and should not be confused with the more general discussion about housing affordability, which is concerned with the ‘average’ price of housing across the wider market (see Housing mix, affordability and competitiveness).

### Policies

- 1 Reinforce the state government policy that at least 15 per cent of new dwellings should meet the criteria for affordable housing (of which five per cent is specifically for high needs housing) in significant new developments and growth areas, including:
  - ▶ State Significant Areas
  - ▶ areas subject to Structure Plans and precinct planning, in particular new transit-oriented developments and transit corridors
  - ▶ rezoning that substantially increases dwelling potential (including new greenfield growth areas)
  - ▶ residential developments with Major Development status
  - ▶ residential developments on surplus government land.
- 2 Set targets for affordable housing in transit corridors and transit-oriented developments.

<sup>75</sup> The current indicative affordable house purchase price is \$255,000. Department of the Premier and Cabinet, *The South Australian Government Gazette*, No.72, 8 October 2009, p. 4818, <[www.governmentgazette.sa.gov.au](http://www.governmentgazette.sa.gov.au)>.



- 3** Provide higher price points for affordable housing in transit corridors and transit-oriented developments, in recognition of potentially lower living costs, such as reduced energy and transport costs. The housing cost may be offered under financing arrangements such as shared equity products.
- 4** Provide for the integration of new affordable housing with other new dwellings in developments to avoid inappropriate concentrations of social housing.
- 5** Ensure that the standard of affordable housing is at least consistent with other dwellings in a development, for example, in appearance, construction, materials, energy efficiency and water conservation measures.

**Table D1 – Affordable housing targets**

Region	Number of new dwellings
Northern Adelaide	10,150
Southern Adelaide	6075
Eastern Adelaide (excl. City)	2750
City	2250
Western Adelaide	6400
Barossa	6950
Fleurieu	2175
Adelaide Hills (incl. Murray Bridge)	1950
<b>TOTAL Greater Adelaide</b>	<b>38,700</b>

- 6** Facilitate partnerships between the private sector and Housing SA by designating the Development Assessment Commission as the relevant authority for assessment of targeted Housing Trust developments. (This does not remove the responsibility for Housing SA to work in partnership with local government.)

### Targets

- A** Provide for at least 15 per cent of housing in all new significant developments to be affordable housing, including five per cent for high-needs people.
- B** At least 38,700 new dwellings (15 per cent of all dwelling growth) should be affordable housing (see Table D1).



## Health and wellbeing

### Rationale

The development of a new urban form for Greater Adelaide will support improvements in community health and wellbeing. There is growing evidence of a link between current health epidemics such as obesity and depression and the built environment. Development that supports healthy lifestyles can improve both physical health and mental wellbeing.<sup>76</sup>

In particular, the Plan sets out policies and targets aimed at reducing car use by promoting a more compact and diverse urban form with integrated public transport and pathways for walking and cycling. Reliance on car travel has been shown to be associated with overweight and obesity,<sup>77</sup> while physical inactivity is now second only to tobacco as the leading risk factor associated with ill health in Australia.<sup>78</sup>

The provision of open space and infrastructure for people to be physically active is critical to a healthy community. The combination of higher densities with a mixture of land uses and world-class urban design has been shown to encourage people to adopt healthier lifestyles and reduce levels of obesity.<sup>79</sup> A United States study found that an average white male living in a walkable community with nearby shops and services is expected to weigh 4.5 kilograms less than a similar white male living in a low density, residential-only cul-de-sac subdivision.

Designing Greater Adelaide to be a more walkable city will contribute to business activity, benefit the environment and improve access to services for people who cannot drive or access public transport. Evidence shows that accessible local facilities (when combined with a safe and attractive street system with an appropriate degree of connectivity) enhance social equity by reducing the need to own a car to get access to services. There is also increased social connection and interaction with benefits for both physical and mental health.<sup>80</sup>

The Plan also acknowledges that a key determinant of people being able to age at home or in their community with good quality of life is the extent to which they can independently access services and facilities locally.

<sup>76</sup> M Burke, E Hatfield and J Pascoe, 'Urban planning for physical activity and nutrition: A review of evidence and interventions', Research paper 22, Urban Research Program, Griffith University, Brisbane, 2008.

<sup>77</sup> LM Wen, N Orr, C Millett and C Rissel, 'Driving to work and overweight and obesity: Findings from the 2003 New South Wales Health Survey, Australia', *International Journal of Obesity*, vol. 30(2), 2006, pp. 782–786.

<sup>78</sup> ibid.

<sup>79</sup> LD Frank, MA Andresen and TL Schmid, 'Obesity relationships with community design, physical activity, and time spent in cars', *American Journal of Preventive Medicine*, vol. 27(2), 2004, pp. 87–96.

<sup>80</sup> ibid.



### Policies

- 1 Design pedestrian- and cycle-friendly areas in growth areas and existing neighbourhoods to promote active communities.
- 2 Ensure health and wellbeing requirements are incorporated into Structure Plans. Structure Plans will:
  - ▶ require urban regeneration projects to provide links to adjoining areas to maximise the shared use of services and facilities
  - ▶ incorporate cultural initiatives, such as public art, to stimulate revitalisation of communities and social cohesion
  - ▶ ensure that pedestrian areas in activity centres are direct, convenient, safe, well-signposted, sheltered and shaded, and offer disabled access
  - ▶ ensure that neighbourhood street environments and open spaces maximise access for all users, including the disabled, elderly, those who use small personal motorised transport such as gophers, people with prams or dogs, and emergency or other service vehicles

- ▶ incorporate principles of Crime Prevention Through Environmental Design in all public areas (such as open space and streets) and activity centres
  - ▶ incorporate guidelines to protect homes along major transport corridors from noise and air pollution
  - ▶ promote active communities, which may include provision of playing fields, indoor sports facilities and public space
  - ▶ promote the development of community gardens for social interaction and physical wellbeing.
- 3 Protect Greater Adelaide's high-quality food bowl areas (for example, Virginia) to ensure a supply of affordable fresh food.
  - 4 Increase housing density and encourage a variety of high-quality shops to locate near railway stations and major bus stops so people can buy groceries and fresh food on their way home, rather than making a separate car journey.

### Targets

- A Closely connect new dwellings to shops, schools, local health services and a variety of destinations within a walking range of 400 metres. Residents will have easy access to open space for physical activity and recreation.
- B Closely connect new dwellings to local parks within walking range.
- C Provide by the end of 2011, through a model Design Code, a range of measures to attenuate the effects of noise and air pollution. These guidelines may include:
  - ▶ locating housing away from major intersections where vehicle emissions are higher
  - ▶ orientating some housing away from the street
  - ▶ planting trees to improve air quality and amenity.



## The economy and jobs

### Rationale

The key rationale for the policies and targets relating to the economy and jobs is to create the conditions for strong economic performance through land-use arrangements that support the growth of existing industries, the change in existing industries and the emergence of new industries.

The policies and targets aim to provide greater certainty for investment by signalling where major economic activity will be located.

Finally, the policies and targets recognise the need to achieve a key objective of the Plan, which is to attract and maintain working-age people through a strong, vibrant and diverse labour market.

### Employment distribution

#### Policies

- 1 Plan for high jobs growth and set a high jobs target to encourage interstate net migration of working-age people into Greater Adelaide.
- 2 Set specific jobs targets at a regional level, which will:
  - ▶ reflect where people are going to live to minimise journey-to-work times<sup>81</sup>
  - ▶ take advantage of existing infrastructure, such as transport
  - ▶ take account of the likely regional growth of key sectors
  - ▶ plan for employment activities near major educational institutions
  - ▶ ensure sufficient land is available for commercial, industrial, retail, primary production, mining and other activities.
- 3 Concentrate jobs in the designated transit corridors and the 14 transit-oriented developments. Specific targets for jobs will be set as part of planning for these areas. This includes setting aside designated employment lands in transit corridors, new growth areas, transit-oriented developments and higher-order activity centres.
- 4 Promote mixed-use development in the transit corridors, activity centres and transit-oriented developments to ensure jobs are situated close to where people live. Consideration should be given to setting specific targets for the types of services (such as retail) provided around transport interchanges to ensure job availability in major residential centres.

<sup>81</sup> The Plan aims to distribute as many jobs as possible within 15–20 minutes travel time of where people live. Jobs located within this distance from residences are designated as local jobs regardless of whether they are occupied by people living in the same region or local government area.



- 5** Promote, through the planning and design guidelines for the five fixed-line transit corridors, transit-oriented developments and higher-order activity centres, a compatibility of uses by setting standards for noise and creating buffer distances between potentially incompatible activities. Although the theme of the Plan is mixed-use development and easy access to jobs, it is recognised that some activities are potentially incompatible. Design guidelines will need to ensure that mixed-use communities are of a high quality and are liveable.
- 6** Continue to promote the City of Adelaide as the centre for peak services such as legal, financial, medical, educational, the arts, banking and high-quality speciality retail.

- 7** Focus business clusters around key transport infrastructure such as road, air, rail and sea terminals, particularly intermodal facilities to maximise the economic benefits of export infrastructure.
- 8** Merge the existing State Government Industrial Land Program and Metropolitan Development Program to integrate the planning of housing and employment and create a new Housing and Employment Land Supply Program.
- 9** Review and update the Housing and Employment Land Supply Program regularly in line with forecast changes to industry sectors and the sectors' land-use requirements in relation to volume, location, and necessary separations and buffers.
- 10** Secure industrial land for materials recovery and processing, and quarantine it from encroachment by non-compatible uses.

### Targets

- A** Provide for 282,000 additional jobs during the next 30 years. The regional distribution of additional jobs is:
- ▶ 50,000 in the City of Adelaide
  - ▶ 6500 in Eastern Adelaide
  - ▶ 40,500 in Western Adelaide
  - ▶ 79,000 in Northern Adelaide
  - ▶ 43,000 in Southern Adelaide
  - ▶ 38,500 in the Barossa
  - ▶ 13,000 in the Adelaide Hills and Murray Bridge
  - ▶ 11,500 in the Fleurieu.

- B** Distribute jobs across Greater Adelaide as:
  - ▶ 94,000 in transit-oriented developments and transit corridors
  - ▶ 15,000 in key regeneration areas and in activity centres that are outside corridors
  - ▶ 44,500 in growth areas
  - ▶ 128,500 broadly distributed across the region.
- C** Plan for 15,900 green-collar jobs<sup>82</sup> during the Plan's first 15 years.<sup>83</sup>
- D** Plan for net growth of at least 2 million square metres of extra employment floor space.

Map D10 shows the regional distribution of jobs and designated employment lands in Greater Adelaide.

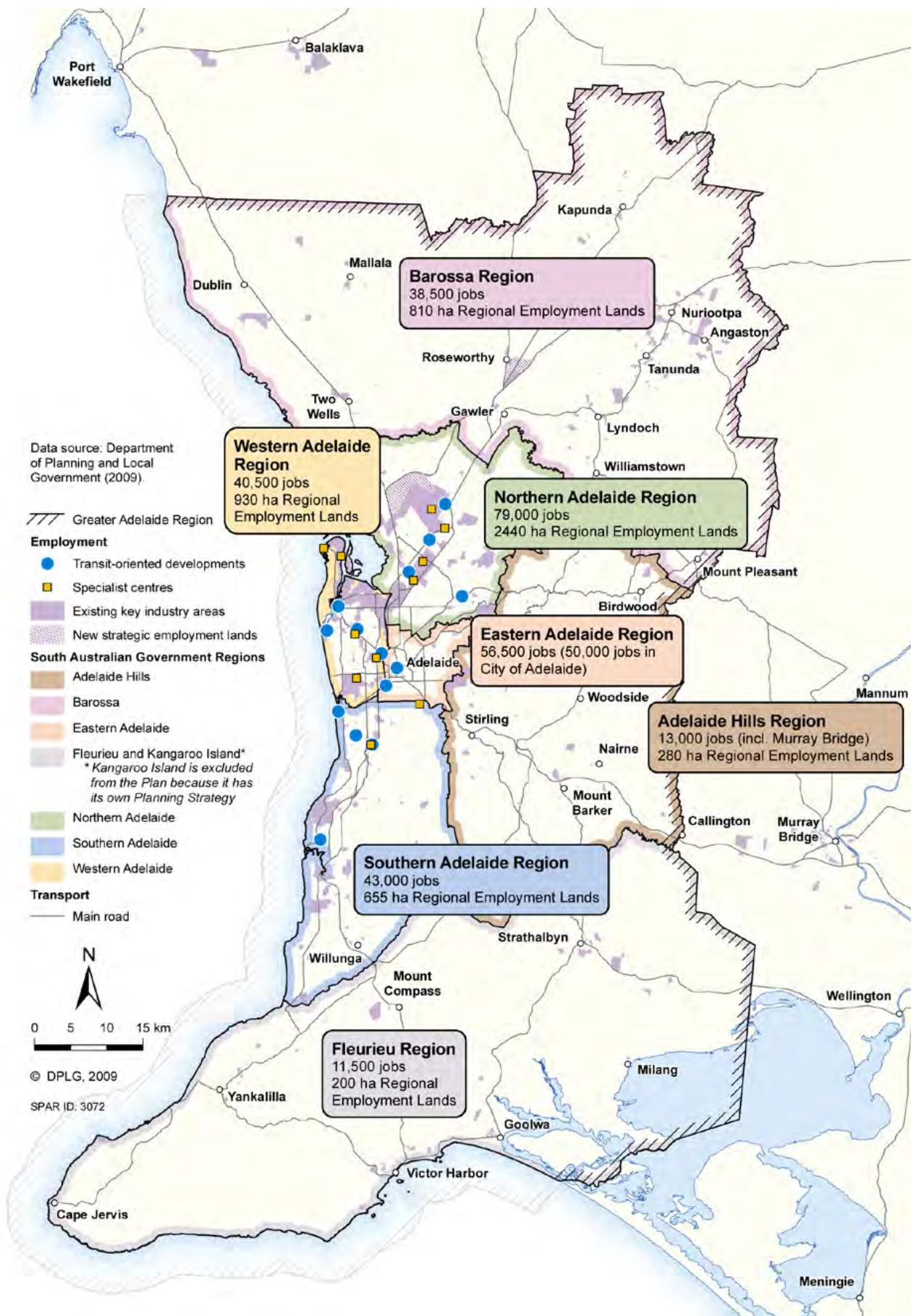
Table D2 shows where the additional jobs will be by key industry sector.

Table D2 – Greater Adelaide additional job totals by key industry sector

Industry sector	Industry employment
Services	84,900
Community	52,400
Manufacturing	52,400
Retail	44,100
Transport/logistics/warehousing	25,200
Construction	20,000
Primary production	2000
Mining	700
<b>Total</b>	<b>281,700</b>

<sup>82</sup> 'Green jobs are defined as positions in agriculture, manufacturing, R&D, administrative, and service activities aimed at alleviating the myriad environmental threats faced by humanity. Specifically, but not exclusively, this includes jobs that help to protect and restore ecosystems and biodiversity, reduce energy consumption, decarbonise the economy, and minimize or altogether avoid the generation of all forms of waste and pollution.' United Nations Environment Programme, *UNEP Background Paper on Green Jobs*, United Nations Office at Nairobi, Publishing Services Section (UNON), 2007, p. 7.

<sup>83</sup> KMPG modelling has projected that most of these jobs will be accrued in the services sector (8870 jobs), retail sector (2950), manufacturing sector (2884 jobs), and construction sector (729 jobs).





## Primary production

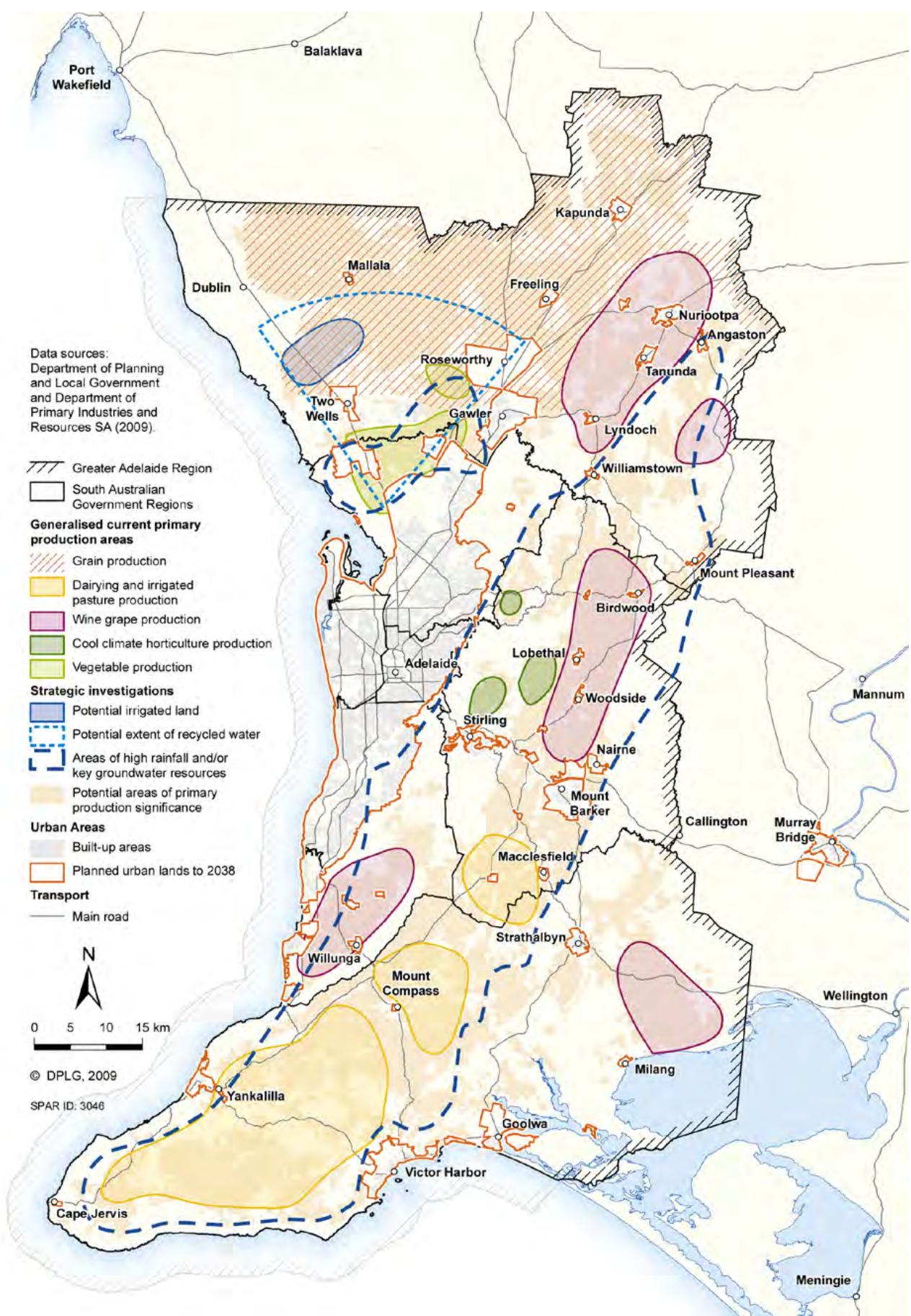
Areas of primary production significance will be identified on the basis of land capability, industry investment and land use, climatic considerations (including anticipated climate change), access to water, and any other local conditions that give rural land special significance for primary production. The process of identifying these areas will be restricted to land zoned rural, general farming, primary production or similar, where agriculture or primary production is already nominated as the intended future use of the land.

### Policies

- 11 Improve primary production's share of economic activity in Greater Adelaide through the protection of strategic areas for horticulture, viticulture, dairying and grain production (see Map D11).
- 12 Provide opportunities for expansion of horticultural production north of the Gawler River using recycled water as appropriate from existing sources and new growth areas.
- 13 Designate areas of primary production significance (see Map D11) in Development Plans and introduce a standard set of planning controls to protect the areas' use.
- 14 Use measures, including planning controls, to protect important primary production areas such as the Barossa Valley, Willunga Basin and Northern Adelaide Plains.
- 15 Prevent the fragmentation of primary production land by restricting land subdivision to maintain viable and productive land-use activity. These planning controls will differ across Greater Adelaide, depending on the dominant activity of a particular area and the appropriate minimum lot size of that type of agricultural activity.
- 16 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.
- 17 Encourage the development of small-scale value-adding activity that complements local primary production. Large-scale value-adding activity should be located outside areas of primary production significance.
- 18 Collocate 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, bio-security, infrastructure and rural amenity issues.

### Targets

- E Protect up to 375,000 hectares of significant primary production areas.
- F Plan for an additional 2000 primary production jobs in Greater Adelaide.





## Mining and resources

The mining and resources sector's land-use requirements include having good access to transport and freight corridors, maintaining access to any known mineral deposits, and preventing the encroachment of sensitive or incompatible uses.

The Plan seeks to position Greater Adelaide to achieve the greatest advantage from expanded mining activity by making Adelaide the main location for peak support services to the mining industry. Mining employment is characterised in some other jurisdictions, such as Western Australia, by fly-in/fly-out arrangements to the mining sites. For Greater Adelaide to fully capitalise on the substantial economic flow-on effects from a booming mining sector, fly-in/fly-out operations will need to occur from Adelaide (rather than from other capital cities).

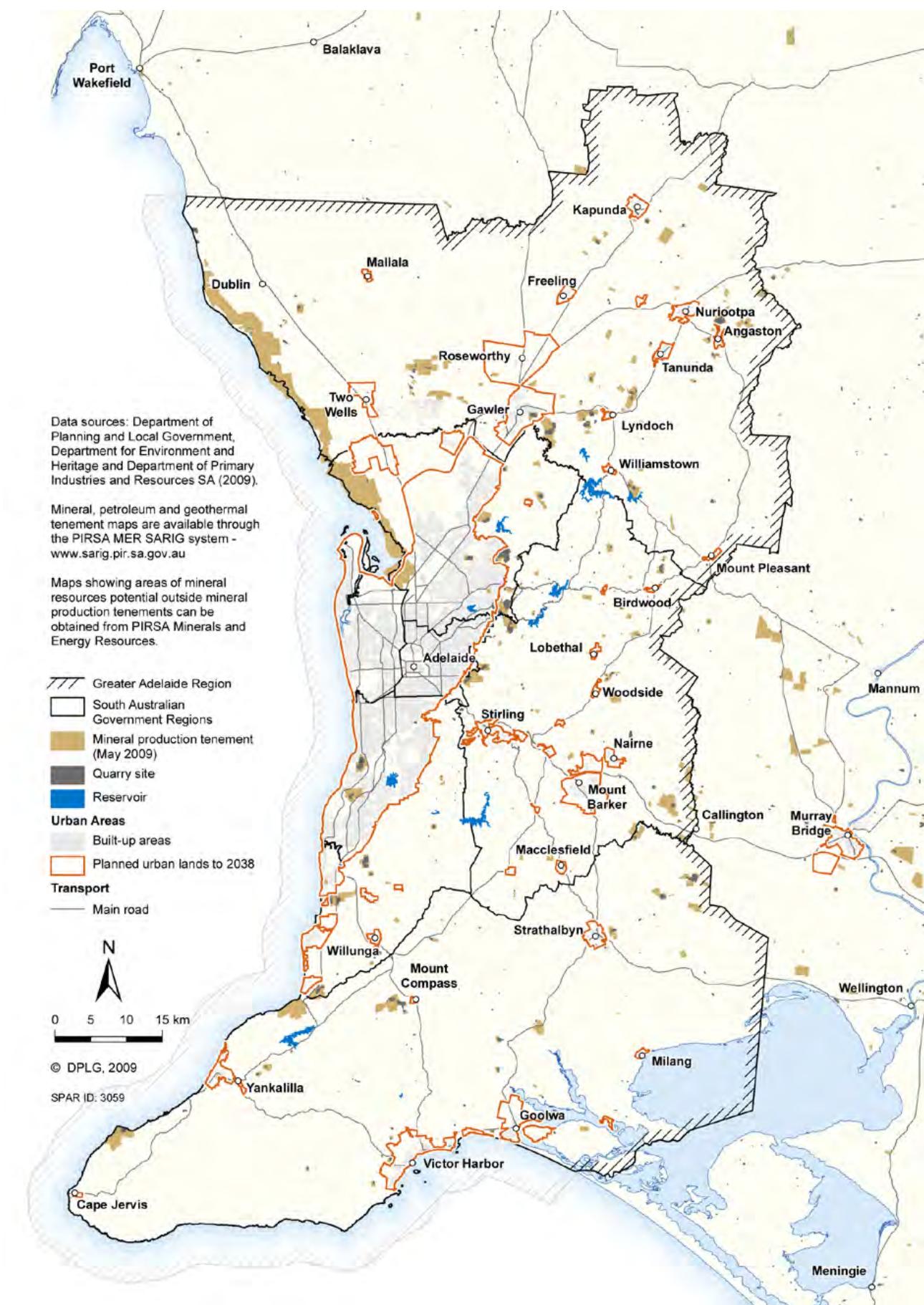
### Policies

- 18** Maintain adequate access to known mineral deposits and minimise potential land-use conflicts between incompatible uses, particularly residential. Preserve appropriate separation distances between mining activities and residential areas and other incompatible developments.
- 19** Protect the major transport and freight corridors that support the mining and resources sectors.
- 20** Designate and protect the high-pressure gas pipelines and ensure they are incorporated into Development Plans and Structure Plans.
- 21** Create a speciality minerals precinct in the metropolitan area to encourage mining companies to locate their administrative and support functions in Adelaide.

### Targets

- G** Protect 23,200 hectares of land for extraction.
- H** Plan for 700 additional mining jobs in Greater Adelaide.

Map D12 shows the extent of mining activities in Greater Adelaide.





## Manufacturing

Manufacturing's land-use requirements include being located near key transport and freight corridors, and within recognised industry clusters. The sector requires the prevention of encroachment by sensitive or incompatible uses and land-use controls that are flexible enough to adapt to new industry structures.

### Policies

- 22** Designate specific employment lands for manufacturing purposes and protect their long-term use.
- 23** Ensure planning controls are flexible enough to adapt to new industry structures.
- 24** Locate major manufacturing hubs near key freight and transport corridors.

**25** Create sufficient buffer activities and design guidelines to prevent manufacturing lands being lost to encroachment by residential activities and to prevent land-use conflicts between residential and manufacturing activities.

- 26** Maintain manufacturing industry clusters at:
- ▶ Greater Edinburgh Parks—automotive
  - ▶ Tonsley Park (former Mitsubishi site)—clean technology
  - ▶ Kingsford—light industry
  - ▶ Wingfield—cast metals, waste resource recovery
  - ▶ Thebarton—biotechnology/advanced technology.

### Targets

- I Plan for 52,400 additional manufacturing jobs in Greater Adelaide.
- J Protect 2580 hectares of employment land for manufacturing purposes.

## Defence

The defence sector's land-use requirements include being located around Adelaide's three defence precincts, near key transport and freight corridors, and where there is minimal conflict with incompatible uses. The sector needs to be linked to universities by world-class telecommunications infrastructure.

### Policies

- 27** Support and promote defence, science and technology clusters, linked by world-class road, rail and telecommunications infrastructure and to universities.
- 28** Foster the development of defence companies and the winning of defence projects by securing land for defence jobs around Adelaide's three distinct defence precincts:
  - ▶ Greater Edinburgh Parks—technology and electronics
  - ▶ Techport Australia (Osborne)—maritime
  - ▶ Technology Park Adelaide (Mawson Lakes).
- 29** Provide for appropriate buffers to residential developments to minimise conflicts between defence developments and incompatible land uses.



### Targets

- K** Plan for 9100 additional defence jobs in Greater Adelaide.<sup>84</sup>
- L** Protect more than 1800 hectares of land in defence hubs.

### Services

Services include government activities, retail, hospitality, tourism, finance, legal, and science and innovation. These sectors require being located in activity centres, transit corridors, transit-oriented developments, and recognised science and technology clusters.

### Policies

- 30** Integrate services sector jobs into new growth areas, activity centres, transit corridors and transit-oriented developments.
- 31** Ensure Structure Plans clearly designate the types of services that need to be provided in a particular corridor, for example, retail. Once Structure Plans are approved, separate Development Plan Amendments (DPAs) for individual activities will not be required.
- 32** Set specific targets for the types of retail activity and services to be situated in higher-order activity centres and transit-oriented developments.

**33** Locate government services in the higher-order activity centres and transit-oriented developments to create viable clusters of activities to minimise unnecessary car trips.

**34** Support and promote science and technology clusters at:

- ▶ Adelaide City centre (Florey innovation precinct, University city precinct)
- ▶ Bedford Park (Flinders University/Medical Centre precinct)
- ▶ Mawson Lakes (Technology Park Adelaide, University of South Australia campus)
- ▶ Roseworthy (Adelaide University Campus)
- ▶ Thebarton (biotechnology/advanced technology precinct)
- ▶ Urrbrae (CSIRO Adelaide University Waite Campus).

**35** Provide for sustainable tourism developments across Greater Adelaide, in line with the *South Australian Tourism Plan 2009*, including:

- ▶ protecting, enhancing and promoting the qualities that attract tourism and are of value to the whole community

- ▶ providing appropriate support infrastructure for tourism
- ▶ facilitating sustainably designed tourism accommodation in suitable locations
- ▶ facilitating tourism-related developments, such as restaurants, speciality retail and accommodation, that add value to existing enterprises.

**36** Identify the required hotel and tourist accommodation needs of the Adelaide City centre in the Housing and Employment Land Supply Program.

### Targets

- M** Plan for 84,900 additional services sector jobs in Greater Adelaide.

Map D13 shows the Greater Adelaide manufacturing hubs, defence precincts and specialist centres.

<sup>84</sup> This increase relates to direct employment as the flow-on employment impacts are captured in relevant sectors, predominantly manufacturing. KPMG, 'Economic modelling methodology and results', prepared for DPLG, 2009, in *Background technical report*, <[www.plan4adelaide.sa.gov.au](http://www.plan4adelaide.sa.gov.au)>.



## Green industries

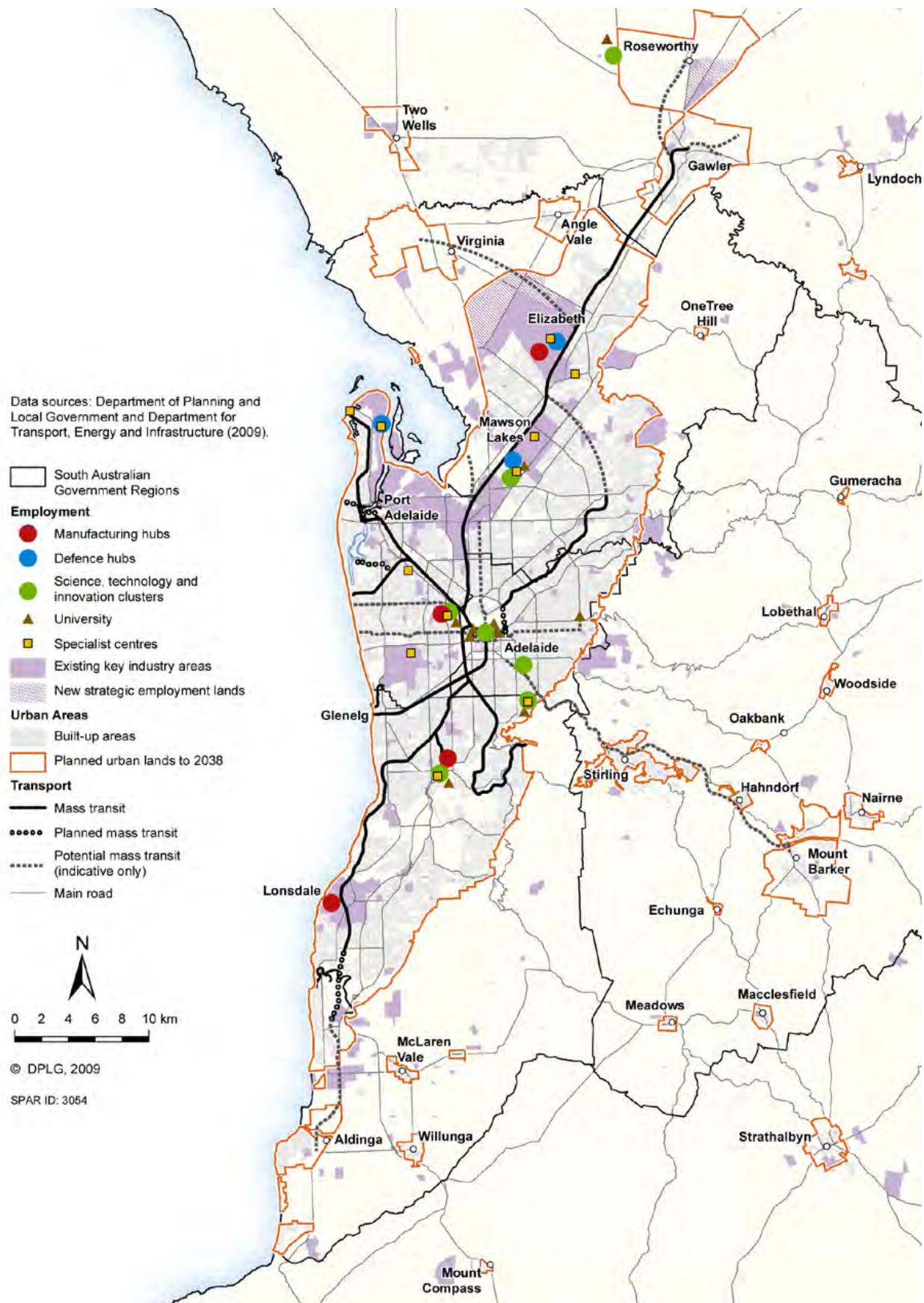
Green industries require land that has good access to transport and freight corridors, is clustered around key educational institutions, and is protected from encroachment by sensitive or incompatible uses. The sector also needs land-use controls that are flexible enough to allow new green industries to emerge.

### Policies

- 37** Support the growth of renewable energy and green technologies by setting aside employment lands, possibly clustered around key educational institutions.
- 38** Ensure planning controls for employment lands are flexible enough to allow new green technologies and industries to emerge.
- 39** Designate the former Mitsubishi site at Tonsley Park as a clean technology and renewable energy hub.

### Target

- N** Plan for 15,900 new green-collar jobs in Greater Adelaide during the Plan's first 15 years.





## Transport

### Rationale

The integration of transport and land-use planning is essential to achieve the new urban form. The intention of the Plan is to create a transit-focused city for the efficient movement of people and of goods and services. Access to affordable and accessible public transport is also a critical issue for many people, particularly the elderly as it can assist them to remain independent, sustain social networks and gain access to health care.

The transport policies and targets seek to:

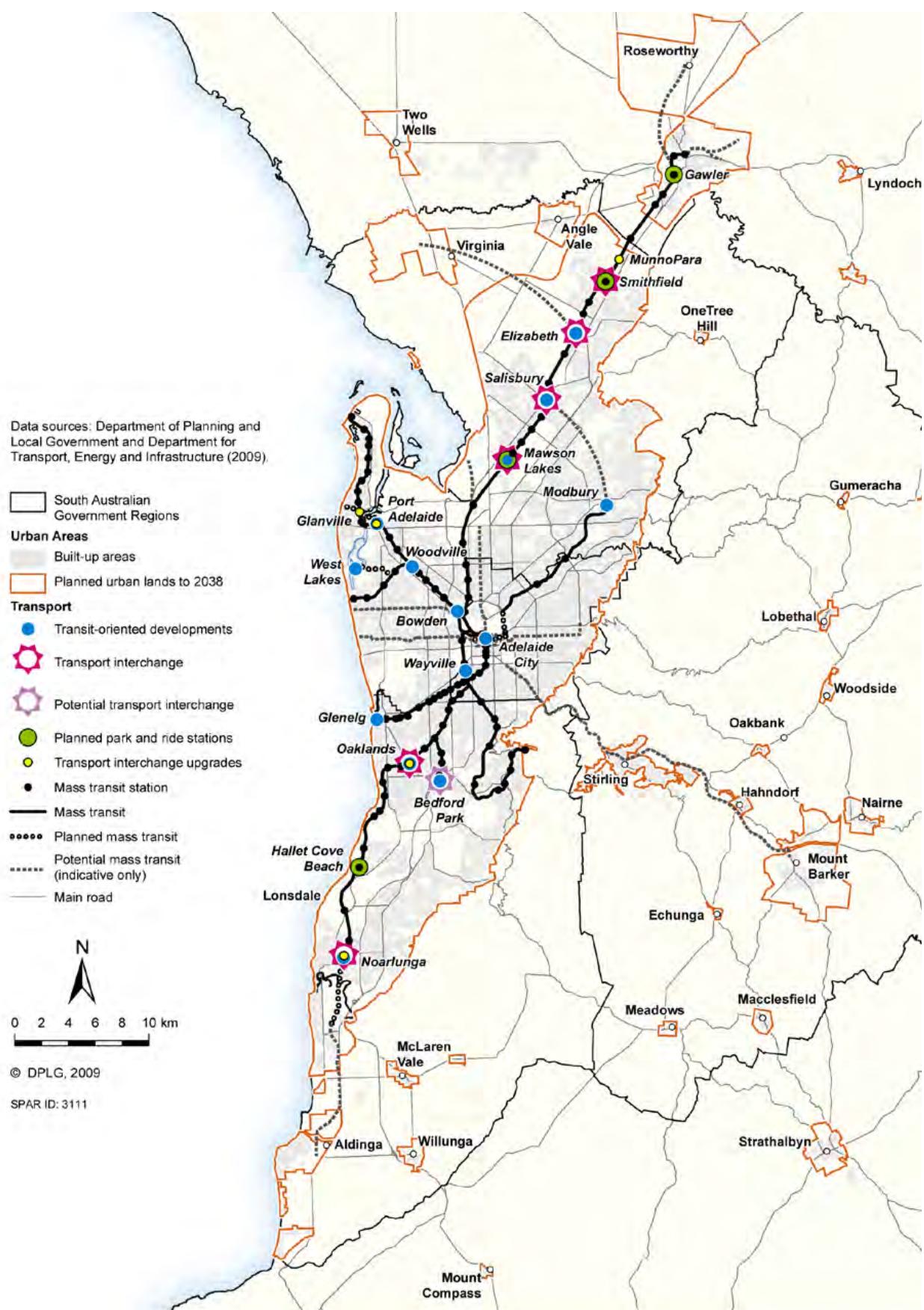
- take advantage of existing transport networks
- align the land-use priorities for housing and jobs with the proposed expansion of the public transport network during the next 20 years. This will ensure there is a critical mass of people and economic activity to financially support the upgrading and extension of the network (see Map D14).

These objectives are linked to the decision to strengthen governance during the Plan's implementation. It is essential that planning for transport and land use is integrated in perpetuity. If not, there are substantial risks and costs associated with creating new housing and commercial developments that are poorly serviced by transport.

Map D15 shows the major freight corridors and major road capital works planned for Greater Adelaide.

### Policies

- 1 Protect the transport functionality of road and rail corridors through planning policy in Development Plans.
- 2 Designate and protect strategic freight corridors as identified on Map D15.
- 3 Designate major freight routes in Structure Plans and protect their transport functionality through design guidelines that specify buffer zones, access points and setbacks from the thoroughfare. The Plan seeks to avoid compromising major freight routes by the inappropriate location of residential development.
- 4 Identify and protect land for planned upgrades of major transport networks in Structure Plans.
- 5 Increase the amount of new residential housing in those transit corridors earmarked for network expansion and upgrade.
- 6 Give priority to increasing densities and designating types of services, such as retail, around existing interchanges and planned upgrades of railway and tram stations and bus interchanges.
- 7 Plan for park and ride facilities at Mawson Lakes, Hallett Cove Beach, Smithfield and Gawler stations, to ensure outlying areas can be serviced by upgraded transport networks.
- 8 Reinforce the role of bus interchanges in key strategic locations and centres (for example, Elizabeth, Mawson Lakes, Mount Barker, Paradise and Salisbury).





- 9** Ensure planning policy protects airport sites by restricting incompatible uses of land in surrounding areas. Development Plans should identify areas adjacent to airports and under flight paths where new development is inappropriate due to building height restrictions and aircraft noise impacts.
  - 10** Require new housing and other noise-sensitive developments permitted in locations adjacent to airports and under flight paths to incorporate appropriate noise attenuation measures to minimise the impact of aircraft noise and airport activities.
  - 11** Develop, in cooperation with the Australian Government, a clear policy on the definition of public safety zones around airports for incorporation in Development Plans.
  - 12** Provide and extend a connected bicycle network across Greater Adelaide, using bike lanes and cycle ways as shown on Map D16.
  - 13** Integrate into Structure Plans for major transit corridors off-road shared-use paths, on-road bicycle lanes, footpaths and cycling friendly streets to promote walking and cycling.
  - 14** Provide direct and safe cycling links to public transport stations and interchanges.
  - 15** Provide for non-stop travel along the strategic north–south corridor, linking the Northern Expressway, the proposed Northern Connector, the Port River Expressway, South Road, and the Southern Expressway.
  - D** Create new, and upgrade existing, park and ride facilities to support access to transport interchanges.
  - E** Protect primary and secondary freight roads that are gazetted for use by restricted access vehicles (identified on Map D15).
  - F** Create dedicated walking and cycling corridors along major transit corridors to improve access to activity centres, public transport nodes, and local walking and cycling routes.
  - G** Maintain, extend and improve Adelaide's Bikedirect network, including the development of greenways.
- Targets**
- A** Reduce car dependency and increase public transport to 10 per cent of all transport use by 2018 (*South Australia's Strategic Plan*, target T3.6).
  - B** Prioritise residential and employment growth in areas where transport infrastructure is planned (see Table D3).
  - C** Upgrade stations to support higher densities around major transport interchanges, including stations at Noarlunga, Elizabeth, Munno Para, Port Adelaide and Glanville.

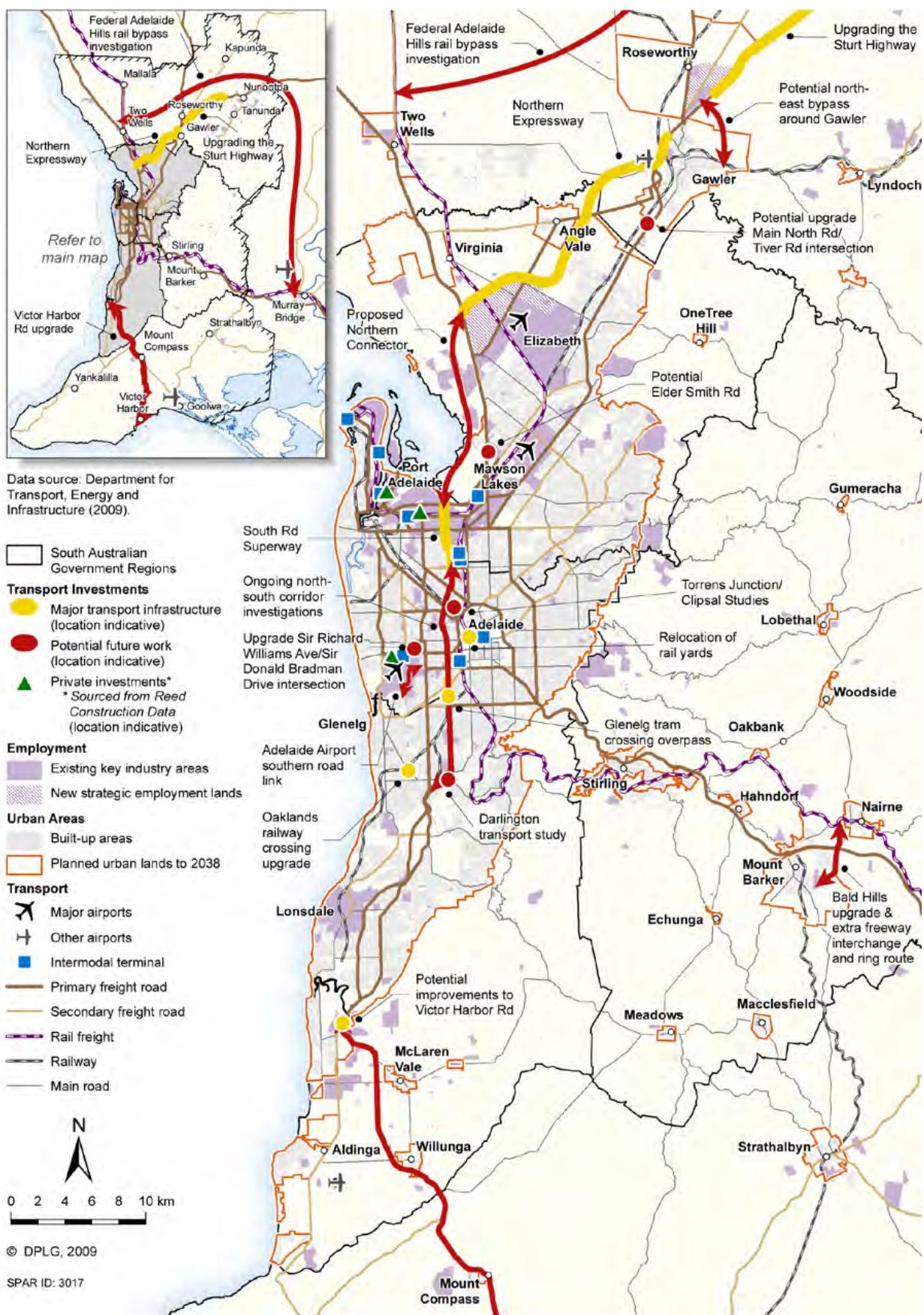
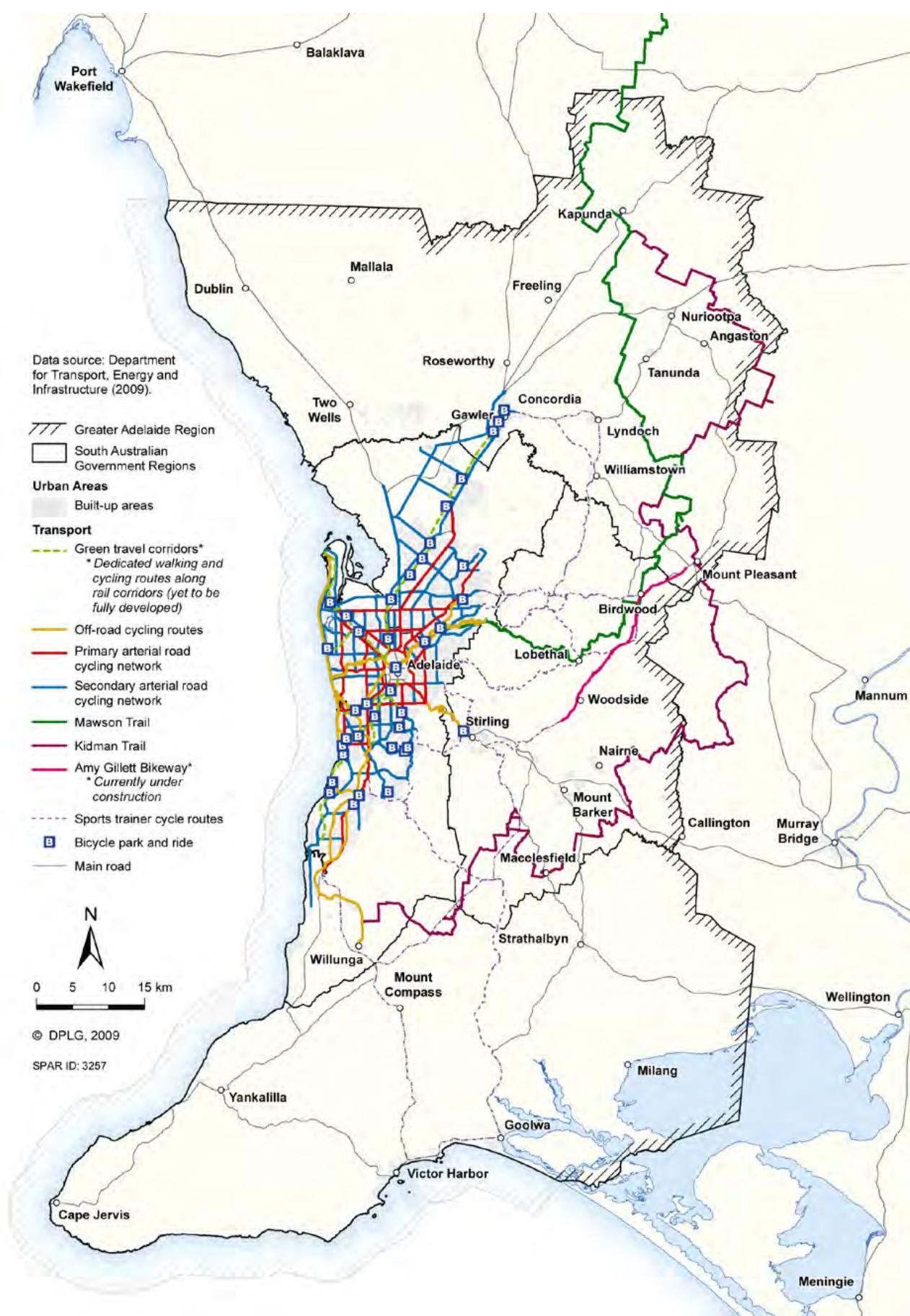
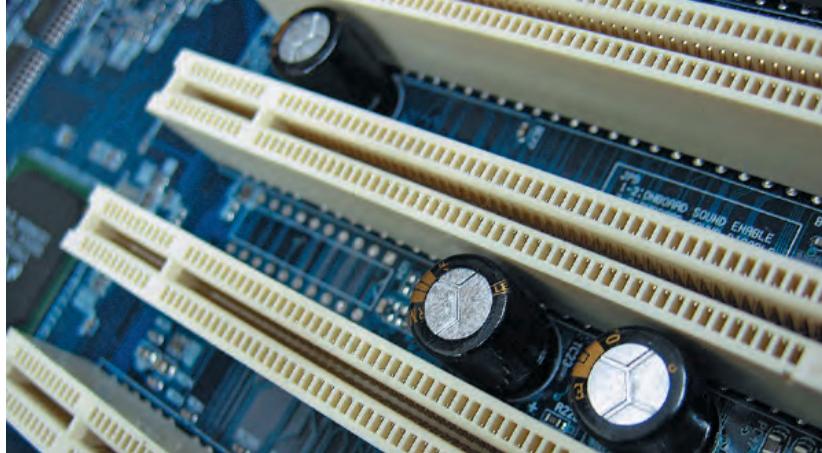


Table D3 – Major transport improvements

Activity	Planned	Possible
<b>Buses</b>		
Additional buses	✓	
Adelaide O-Bahn extension	Complete in 2012	
<b>Rail</b>		
Re-sleepering	✓	
Noarlunga and Belair	Complete in 2011	
Gawler	Complete in 2012	
<b>Electrification</b>		
Noarlunga (including railcars)	Complete in 2014	
Outer Harbor (including railcars)	Complete in 2015	
Gawler Line (including railcars)	Complete in 2015	
<b>Land acquisition</b>		
Aldinga	Complete in 2012	
<b>Extension</b>		
Rail to Seaford	Complete in 2013	
Rail line to Flinders precinct		✓
<b>Road</b>		
South Road overpass at Wingfield	Complete in 2014	
Work on the Adelaide–Melbourne corridor	Complete in 2014	
Northern Expressway	Complete in 2010	
Sturt Highway	Complete in 2010	
<b>Tram</b>		
South Road overpass at Everard Park	Complete in 2010	
City West to Adelaide Entertainment Centre	Complete in 2010	
West Lakes	Complete in 2016	
Port Adelaide and Semaphore	Complete in 2018	
<b>Ticketing</b>		
Ticketing system	Complete in 2013	
<b>Extension of mass transit</b>		
Prospect Road		✓
Modbury to Salisbury		✓
City to Magill via The Parade		✓
Seaford to Aldinga		✓
Henley Beach Road		✓
Grange Road		✓
City to Mount Barker		✓
City of Adelaide loop		✓
Dry Creek to Cheetham		✓
Gawler to Concordia		✓
Gawler to Roseworthy		✓
Elizabeth to Buckland Park via Virginia		✓





## Infrastructure

### Rationale

The Plan has separated transport from broader infrastructure that is important for sustainable and integrated communities, such as educational, health, water, waste, energy, sporting and other major civic facilities.

Communications infrastructure is now fundamental and forms a central part of any comprehensive metropolitan plan. The Australian Government's decision to roll out broadband across Australia represents a major investment in modern infrastructure and will affect land-use planning because it allows more flexibility in locating key industries.

As with transport, it is essential that infrastructure planning and expenditure is integrated and scheduled with land-use planning. This will maximise the value of existing infrastructure spending and provide long-term clarity about the need for augmenting existing infrastructure (see Map D17).

The state's *Strategic Infrastructure Plan* will use the Plan's policies and targets for the distribution of housing and jobs as key inputs to prioritising future infrastructure.

### Policies

- 1** Maximise the location of economic and social infrastructure by:
  - ▶ collocating government services in higher-order activity centres and transit-oriented developments
  - ▶ locating new housing growth in proximity
  - ▶ integrating health and educational facilities with transport services and locating them near retail centres
  - ▶ emphasising the planning for human services in new growth areas
  - ▶ integrating community sporting hubs and links with transport services.
- 2** Identify major infrastructure requirements (including communications technology, sporting hubs and embedded generation) and integrate them with Structure Plans to ensure that new infrastructure to support new residential and employment precincts is effectively coordinated.
- 3** Provide, where appropriate, service roads in transit corridors, which should be the primary location for common trenches for utility services such as water, energy and communications technology.
- 4** Identify and preserve critical infrastructure corridors (including major transmission lines, substations, water and gas pipelines, and new utility corridors) through Structure Plans for new growth areas, transit corridors and transit-oriented developments.
- 5** Ensure Structure Plans and Development Plans identify and preserve buffer zones around water treatment plants.
- 6** Prioritise the rollout of new growth areas (where practical) to areas that are contiguous to existing infrastructure, to ensure that infrastructure augmentation can be delivered at least cost to the community.
- 7** Require state government agencies to use the Plan as their key tool for identifying infrastructure priorities, such as health services and schools. Agencies will be encouraged to identify clear trigger points, such as population growth in a particular area, to indicate when new infrastructure will be needed.



- 8 Coordinate the provision of key infrastructure for new growth areas, transit corridors and transit-oriented developments through the Government Planning and Coordination Committee (see Chapter F).
- 9 Develop Regional Implementation Strategies that clearly designate infrastructure priorities to support housing and employment growth.
- 10 Continue to take measures to protect coastal development, maintain beach amenity and manage stormwater discharges.
- 11 Identify locations and plan for new cemeteries to accommodate future demand.

## Infrastructure initiatives

The planned rollout by the Australian Government, the South Australian Government and the private sector of the following key infrastructure initiatives will support the policies and targets of the Plan.

### Health

The health initiatives include:

- the Flinders Medical Centre expansion of capacity and redevelopment of several existing facilities
- The Queen Elizabeth Hospital redevelopment stage 2, which includes completing the research building and demolition works
- the Lyell McEwin Hospital redevelopment, which includes the provision of new inpatient accommodation, the expansion of support facilities to meet increasing demand, and the construction of a new mental health facility
- a public-private partnership arrangement to construct the new Royal Adelaide Hospital
- the Glenside Hospital redevelopment, which includes a new hospital, supported accommodation and specialist mental health services
- site infrastructure works at Modbury Hospital, including upgraded plumbing, sewage and hot water and cooling systems.

## Education and children's services

The education and children's services initiatives include:

- 20 Children's Centres, which will provide 'one-stop shop' family, education and health services for families with young children
- up to 10 trade schools. These schools-based centres will connect high schools to TAFE and local industry to deliver practical job and career opportunities in areas of skills shortage
- six new super schools. They will include state-of-the-art schools offering a 'birth to secondary' education, and schools that specialise in subject areas including science, arts, sport and special education. The schools will be located at:
  - ▶ Woodville Gardens
  - ▶ Blair Athol
  - ▶ Playford North
  - ▶ Munno Para West
  - ▶ Gepps Cross (Multi Campus Secondary School)
  - ▶ Regency Park (Special Education School).
- a new Victor Harbor TAFE campus.

# Map D17

## Freight & Roads

- 1** Upgrading the Sturt Highway
- 2** Potential north-east bypass around Gawler
- 3** Northern Expressway
- 4** Potential upgrade Main North Rd / Tiver Rd intersection
- 5** Proposed Northern Connector
- 6** Potential Elder Smith Rd
- 7** South Road Superway
- 8** Ongoing north-south corridor investigations
- 9** Upgrade Sir Richard Williams Ave and Sir Donald Bradman Drive intersection
- 10** Adelaide Airport southern road link
- 11** Glenelg tram crossing overpass
- 12** Oaklands Railway Crossing Upgrade
- 13** Darlington Transport Study
- 14** Bald Hills upgrade and extra freeway interchange and ring route
- 15** Potential improvements to Victor Harbor Rd

## Mass Transit

- 1** Rail revitalisation - Gawler line upgrade
- 2** Port Adelaide light rail extension
- 3** Semaphore light rail extension
- 4** Dry Creek rail yard
- 5** West Lakes light rail extension
- 6** Light rail extension
- 7** Relocation of rail yards
- 8** O-Bahn city access
- 9** Rail revitilisation - Belair line upgrade
- 10** Rail revitilisation - Noarlunga line electrification
- 11** Lonsdale rail yard
- 12** Noarlunga to Seaford passenger rail line extension
- 13** Seaford to Aldinga rail corridor investigations

## Electricity

- 1** Future Redbanks-Templers 275 kV transmission line
- 2** 275 kV transmission line connection and new distribution line Molculta-Nuriootta
- 3** New Molculta substation
- 4** Corridor protection for future upgrades
- 5** Future Yatala Vale 275-66 kV substation and transmission line
- 6** 275 kV Paracombe substation
- 7** Doubling circuiting of the Para-Magill 275 kV circuit
- 8** Western suburbs 275 kV reinforcement, new substation and transmission line connection
- 9** Second 275 kV cable Torrens Island-City West substation (route to be determined)
- 10** Panorama 275kV substation development with transmission line connection
- 11** 275 kV supply from north into Mt Barker
- 12** Corridor for a double circuit 275 kV line and a 500-275 kV substation
- 13** Strategies for urban growth to allow for Tailem Bend-Cherry Gardens transmission line upgrade
- 14** Cherry Gardens-Morpeth Vale East transmission line upgrade and additional easement acquisition
- 15** Study area for high voltage electricity reinforcement, Fleurieu Peninsula

## Education

- 1** Gawler High School
- 2** Munno Para West School
- 3** Playford North School, Smithfield Plains
- 4** Playford Primary School
- 5** Salisbury High School
- 6** Regency Park Special School
- 7** Ocean View College - Stage 2
- 8** Sports Park Multi-Campus Secondary School, Gepps Cross
- 9** Inner North School, Blair Athol
- 10** Inner West School, Woodville Gardens
- 11** Woodville High School
- 12** Blair Athol Primary School
- 13** Nazareth Catholic College redevelopment
- 14** St Michael's College
- 15** University of Adelaide, North Tce
- 16** St Peters College Junior School
- 17** Kensington Centre
- 18** Concordia College
- 19** Willunga High School
- 20** Victor Harbor TAFE - new campus

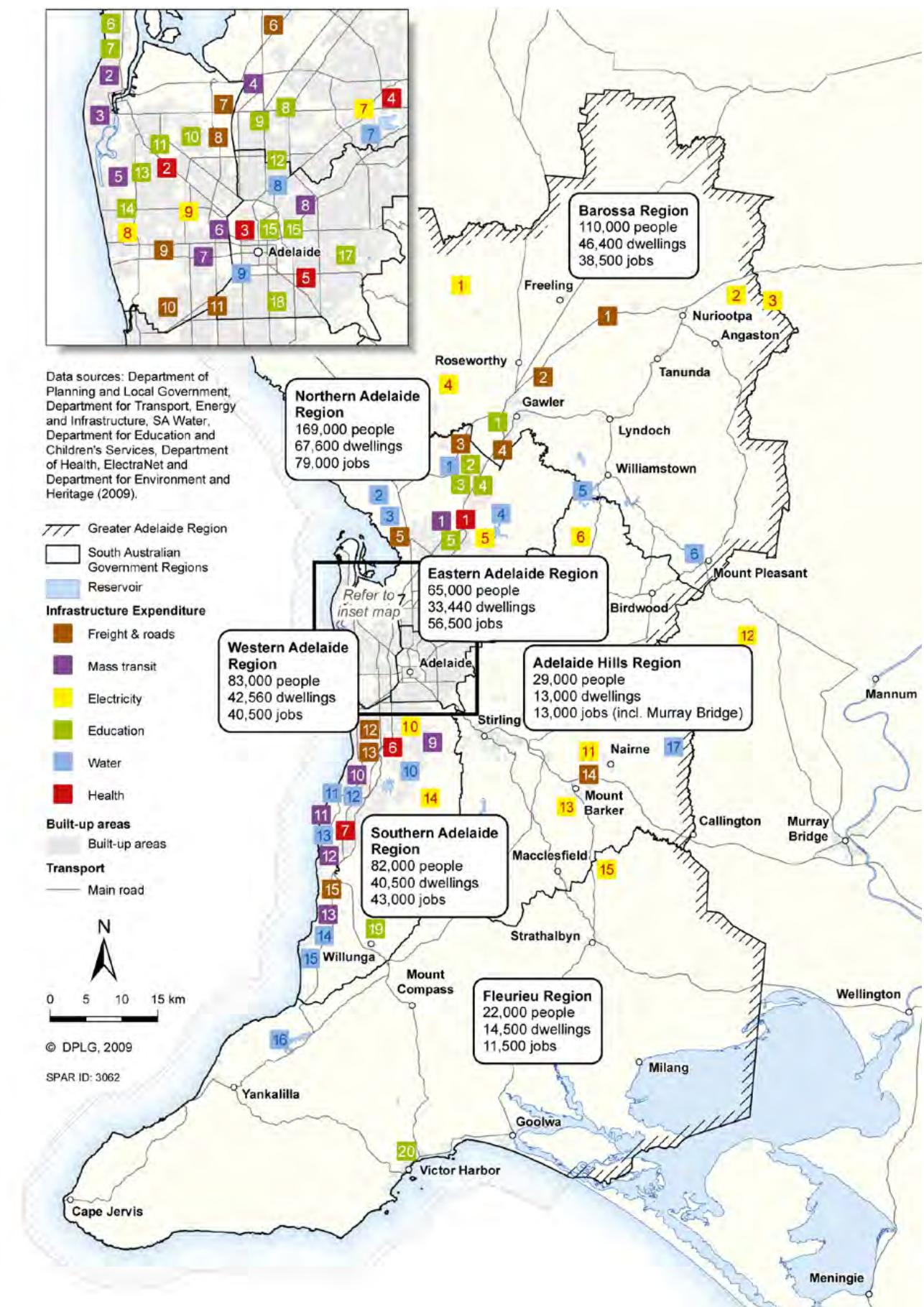
## Water

- 1** Virginia Angle Vale re-use extension
- 2** Bolivar Wastewater Treatment Plant energy use option
- 3** Bolivar Wastewater Treatment plant main pump station
- 4** Little Para Reservoir dam safety
- 5** South Para Reservoir dam safety
- 6** Mt Pleasant Water Treatment Plant increase capacity
- 7** Torrens System upgrade
- 8** Greenacres - Mullers Road water trunk main relay
- 9** Glenelg to Adelaide Park Lands project
- 10** Southern and northern water systems integration
- 11** Desalination plant
- 12** Desalination transfer pipeline
- 13** Christies Beach Wastewater Treatment Plant
- 14** Southern urban - Re-use project
- 15** Aldinga Wastewater Treatment Plant capacity upgrade
- 16** Myponga Water Treatment Plant - water quality
- 17** Bird-in-Hand Wastewater Treatment Plant upgrade

See Map D22 for stormwater harvesting projects.

## Health

- 1** Lyell McEwin Hospital (stages B & C)
- 2** The Queen Elizabeth Hospital (stage 2 & mental health unit)
- 3** Royal Adelaide Hospital (proposed)
- 4** Modbury Hospital upgrades
- 5** Glenside Campus redevelopment
- 6** Flinders Medical Centre redevelopment
- 7** Noarlunga Hospital mental health unit





## Water

The water initiatives include:

- diversifying and securing Adelaide's water supply by:
  - ▶ building the Adelaide desalination plant, which will deliver up to 100 GL of rainfall independent water each year. This will ensure that drinking water is available even in times of severe drought
  - ▶ providing treatment facilities and new networks to increase SA Water's capability to supply recycled non-drinking water to the southern suburbs
  - ▶ expanding wastewater recycling from the Glenelg Wastewater Treatment Plant to improve the sustainability of water resources and reduce discharge of wastewater into the Gulf.

- upgrading the capacity at Christies Beach Wastewater Treatment Plant to provide for population growth and improved environmental outcomes.
- increasing the capacity of the Aldinga Wastewater Treatment Plant to meet the demands of population growth.

Planning is currently underway to fully integrate the northern and southern parts of our water system by enabling the transfer of water between the Happy Valley and Hope Valley water treatment plants. Works will also be required to transfer water north of Hope Valley into the existing Anstey Hill, Little Para and Barossa water treatment plant supply systems.

New stormwater projects across metropolitan Adelaide will more than triple the state's annual stormwater harvest from six gigalitres to over 20 gigalitres. These projects are described on page 144 and shown on Map D22.

## Energy<sup>85</sup>

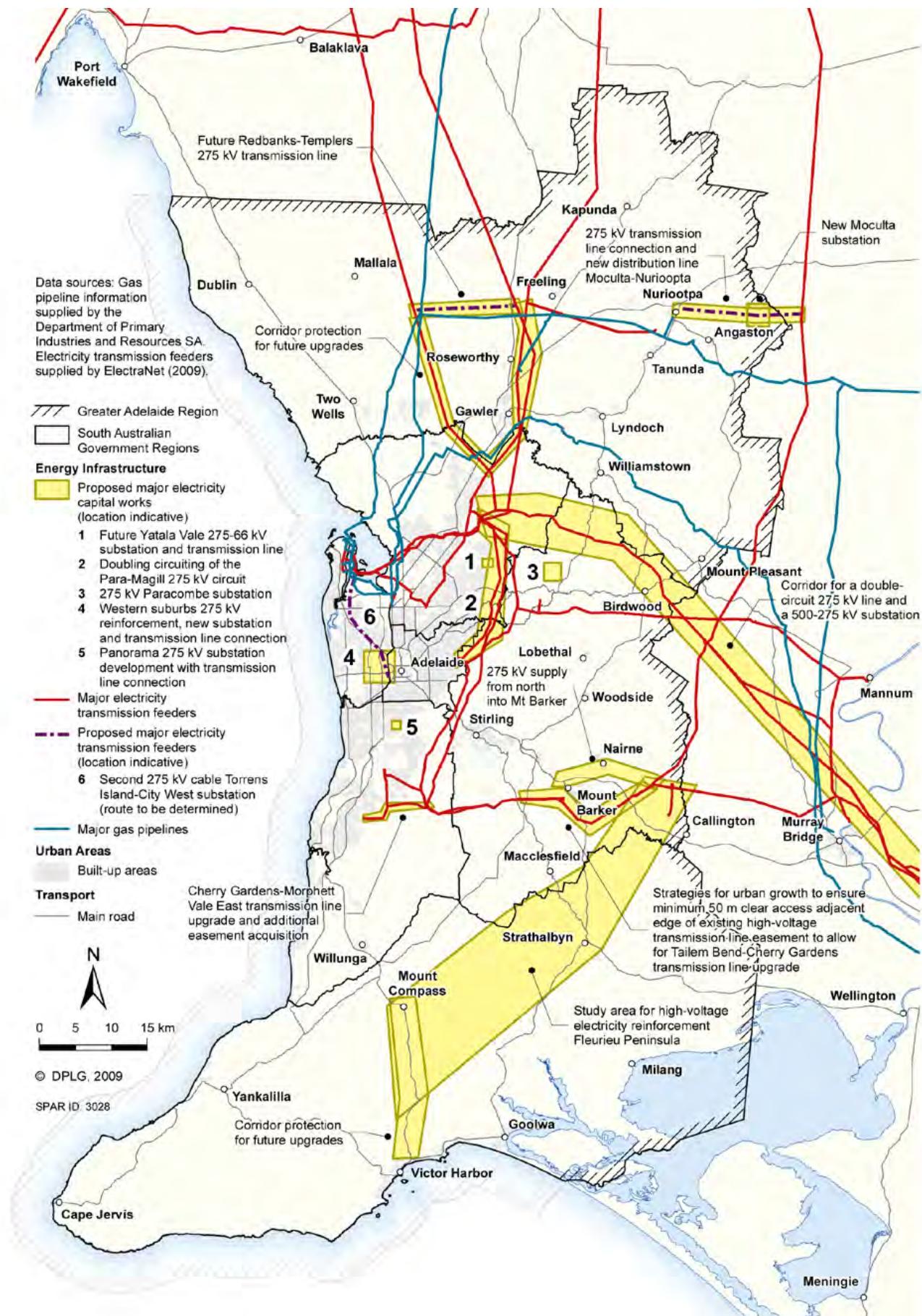
The energy initiatives include:

- Adelaide Solar City, which involves five solar photovoltaic installations on 'iconic' buildings; installation of solar photovoltaic systems on 1740 homes (new and retrofit); installation of 7000 smart meters with new energy pricing products; and the distribution of 43,000 energy efficiency kits
- line upgrades and capacity increases to the following 66 kilovolt lines in the metropolitan region: Burnside–Linden Park, Magill–Burnside, Blackpool–Fulham Gardens, Woodville–Queenstown, Croydon–Kilkenny, Adelaide Brighton Cement–Port Adelaide
- new substations in Mount Barker, Templers, Playford, City-West, Glynde, Hackham West, Salisbury South and Munno Para

<sup>85</sup> Note: South Australian energy infrastructure is privately owned.

## Major gas and electricity transmission infrastructure and proposed electricity capital works

**Map D18**





- Adelaide Central reinforcement—to offset expected 275/66 kilovolt transformer capacity and 66 kilovolt distribution network limitations due to continued load growth forecast in the broader Adelaide Metropolitan Supply Area, which includes the eastern and southern suburbs and the Adelaide CBD, during the next few years
- transmission lines to connect major new substations to the network, as identified on Map D18
- infrastructure renewal in the Torrens Island and Para substations
- installation of new transformers to supply the Adelaide Central region and southern suburbs.

### ICT

The ICT initiatives include:

- the National Broadband Network, which will
  - ▶ connect 90 per cent of all Australian homes, schools and workplaces to broadband services with speeds up to 100 megabits per second—100 times faster than those currently used by many households and businesses
  - ▶ connect all other premises in Australia with next-generation wireless and satellite technologies that will deliver broadband speeds of 12 megabits per second
  - ▶ directly support up to 25,000 local jobs every year, on average, during the eight-year life of the project
- the Vocational Education Broadband Network, which will provide the infrastructure to allow TAFE colleges access to a high-quality broadband network that is tailored to the training sector<sup>86</sup>
- the proposed provision of fibre optic infrastructure to the home and workplace in new greenfield estates across Australia to be mandated by the Australian Government<sup>87</sup>
- extending the SABRENet network to Techport Australia. This will maximise opportunities for organisations heavily focused on defence-related research and education to relocate to Techport.

Map D18 shows the major gas and electricity transmission infrastructure and proposed electricity capital works for Greater Adelaide.

<sup>86</sup> On 22 April 2009, the Australian Government announced funding of \$81.9 million for a high speed broadband network, the Vocational Education Broadband Network, see <[www.deewr.gov.au/Skills/VEN/Pages/VocationalEducationBroadbandNetwork.aspx](http://www.deewr.gov.au/Skills/VEN/Pages/VocationalEducationBroadbandNetwork.aspx)>, viewed 15 May 2009.

<sup>87</sup> Department of Broadband, Communications and the Digital Economy, *Exposure draft: Telecommunications Legislation Amendment (Fibre Deployment) Bill*, DBCDE, Australian Government, December 2009, <[www.dbcde.gov.au/broadband/national\\_broadband\\_network/fibre\\_in\\_greenfield\\_estates](http://www.dbcde.gov.au/broadband/national_broadband_network/fibre_in_greenfield_estates)>.



## Biodiversity

### Rationale

The protection and enhancement of environmental assets and the region's overall biodiversity are essential platforms of the Plan.

A healthy ecology and rich biodiversity not only achieve environmental protection in their own right, but also create a more liveable city, which strengthens the region's competitive advantage.

Climate change will severely affect the health of the natural environment. It is critical to intervene now to protect and enhance the region's environmental assets so that they are more resilient to the risks of climate change.

Protecting and enhancing these assets will also increase the overall capacity of the region to respond to the effects of climate change.

### Box 3 – Environment Protection and Biodiversity Conservation Act 1999

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

Furthermore, the development of Greater Adelaide has significantly affected biodiversity and environmental health. Since European settlement, the region's vegetation has been subject to broad-scale clearance and disturbance. Today, only 13 per cent of the region retains native vegetation cover. Global studies across a variety of environments have shown that native vegetation cover of less than 30 per cent appears inexorably linked to significant species loss, especially in birds and mammals.

Due to habitat loss, fragmentation and disruption to natural systems, a significant loss of biodiversity has occurred in urban areas. Despite this, Adelaide is rare in world terms because it is a capital city in the middle of a very biologically diverse area.

Re-establishing biodiversity throughout the urban areas of Greater Adelaide is important for restoring functioning ecosystems, minimising species loss and helping to mitigate the effects of climate change. This puts an additional onus on the planning system to appropriately contain development and ensure development impacts are minimised in sensitive areas.

Over time the new urban form will result in a significant increase in residential densities in designated areas, especially around transport hubs. Strategically located, well designed and linked open spaces, greenways, tree-lined and landscaped residential streets and commercial areas will be essential to a future healthy urban ecology.



## Policies

- 1 Introduce a clear hierarchy of environmental assets to be protected to improve development certainty and transparency—these are represented in Map D19. Incorporate the protection of these areas into Development Plans. The three categories in the hierarchy, which will be managed through Structure Plans and Development Plans, are:

**Areas of high environmental significance** include protected public lands (for example, National Parks and Conservation Parks), areas of 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.

**Areas of environmental significance** include areas of habitat as well as lands that have human uses (such as primary production) but support biodiversity because they are of lower environmental impact. Higher impact land uses in these areas should be avoided. However, if development cannot be avoided, environmental impacts will be minimised and offsets provided.

**Areas designated for human use** include areas where human use is the principal consideration. Development is to be consistent with the Development Plan and existing legislation.

- 2 Contain growth where possible to areas inside identified urban lands.
- 3 Avoid where possible any impact on biodiversity. If unavoidable, the impact will be minimised and offset. A comprehensive offset scheme will be developed, based on existing offset provisions and drawing on models such as bio-banking. The scheme will provide for a net gain to biodiversity through flexible offsets. The offsets could be made across regions or by funding designated rehabilitation programs.

4 Integrate environmental regulatory assessments with planning assessments to streamline the development approval process. The Planning Reforms of 2008 adopted a recommendation that an integrated assessment occur early in the planning process to improve development certainty, rather than in the development approval process. Structure Plans will give effect to this recommendation, underpinned by the comprehensive offset scheme.

- 5 Develop Structure Plans for new growth areas (as designated in Map D7) that will determine and assess environmental significance, thereby removing the need for end-of-process assessment or referral under schedule 8 of the Development Regulations 2008 or legislation such as the *Native Vegetation Act 1991*. Structure Plans will aim to avoid any impact on biodiversity, and where this is unavoidable, they will coordinate the minimisation of impact and appropriate offsets.



**6** Enhance the urban biodiversity of metropolitan Adelaide by supporting the development of urban forests, restoring watercourses, establishing linked networks of open space and encouraging the use of local indigenous species.

**7** Create greenways in transit corridors and along major watercourses and the coast to enhance and connect urban biodiversity (see Open space, sport and recreation). Greenways will take into consideration and complement *South Australia's Strategic Plan* biodiversity corridors (target T3.2).

**8** Protect coastal features and biodiversity by establishing coastal zones that incorporate:

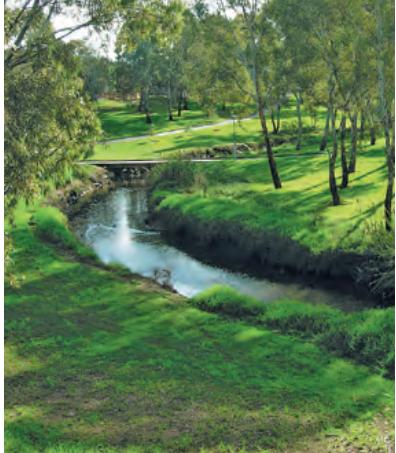
- ▶ habitats that are highly sensitive to the direct impacts of development
- ▶ important geological and/or natural features of scientific, educational or cultural importance
- ▶ landscapes of very high scenic quality.

**9** Integrate into Development Plans coastal management requirements including:

- ▶ coast protection policies under the *Coast Protection Act 1972*
- ▶ marine parks under the *Marine Parks Act 2007*
- ▶ the Adelaide Dolphin Sanctuary under the *Adelaide Dolphin Sanctuary Act 2005*
- ▶ aquatic reserve areas under the *Fisheries Management Act 2007*
- ▶ relevant provisions of the *River Murray Act 2003*
- ▶ relevant provisions of the *Natural Resources Management Act 2004*.

### Targets

- A** Protect 115,000 hectares (13 per cent of Greater Adelaide) of existing natural areas identified as areas of high environmental significance in Map D19.
- B** Maintain the existing range of lower intensity land uses, such as primary production, across 156,500 hectares (identified as areas of environmental significance in Map D19). Where the retention of lower intensity land use cannot be achieved, impacts will be minimised and offset.
- C** Increase the extent of functional ecosystems (coastal, estuarine, terrestrial and riparian) to 30 per cent of the region, excluding urban areas, consistent with regional NRM Plans.
- D** Protect state Marine Parks (see Map D19).
- E** Minimise the discharge of stormwater, pollution and nutrients to freshwater, coastal and marine environments through the adoption of appropriate water-sensitive urban design (WSUD) and *Adelaide Coastal Water Quality Improvement Plan* policies and targets into Development Plans.



- F** Lose no known native species as a result of human impacts.
- G** Contribute to the ongoing development of the Cape Borda to Barossa NatureLink corridor to help achieve *South Australia's Strategic Plan* target T3.2 to have five well-established biodiversity corridors across the state.
- H** Assist biodiversity restoration initiatives throughout the region by supporting the establishment of urban forests, linked networks of open space, greenways, restored urban watercourses and the SA Urban Forests—Million Trees Program. Through these measures, target 300 hectares of plantings per year to achieve 7800 hectares of plantings by 2036.

## Open space, sport and recreation

### Rationale

Open space is an essential part of Greater Adelaide and a key component of a liveable, healthy city.

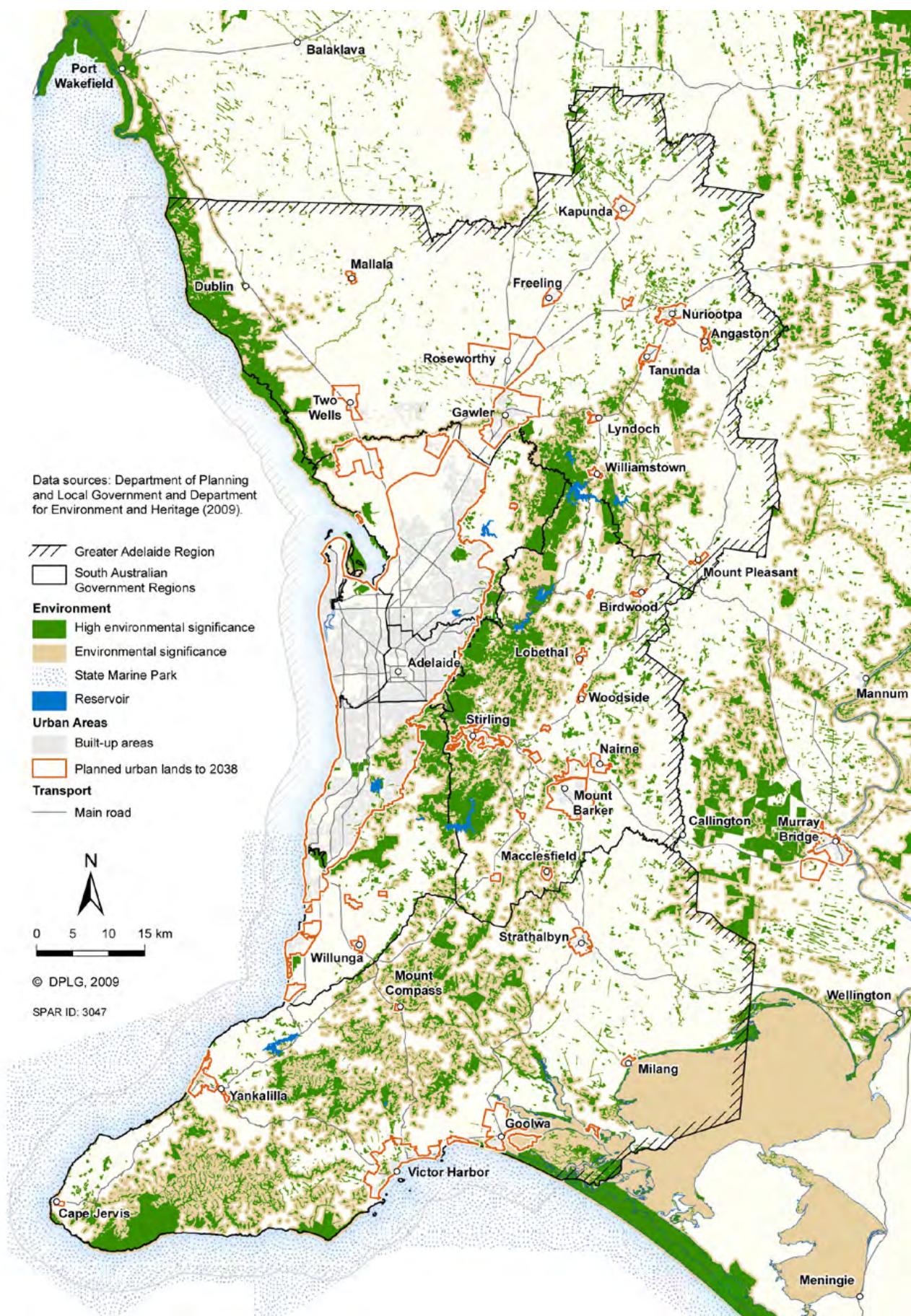
Open space also:

- provides a visual contrast to the built environment
- contributes to a sense of place and character
- contributes to the protection and enhancement of the environment
- provides opportunities for biodiversity conservation and sustainability
- underpins opportunities for the health, fitness and general wellbeing of communities
- provides safe walking and cycling links between communities and land uses (for example, off-road links between residential areas and activity centres).

A well-designed network of linked open space has two primary purposes. The first is to give people the opportunity to increase their physical activity levels, which will improve the overall health of the community and the liveability and attractiveness of the region. The second is to cause a greening and cooling effect on residential and commercial areas, which is one of the key adaptation responses to increased temperatures; more frequent, extreme heat events; and urban heat islands resulting from climate change.

The Plan provides for a Greater Adelaide Open Space System that:

- expands on the Metropolitan Open Space System (MOSS), which consists of the Hills Face Zone, the northern (Gawler) and southern (O'Halloran Hill) urban buffers, the major watercourses crossing the metropolitan area (Linear Parks), the coastal foreshore (Coast Park) and the Adelaide Park Lands
- provides a network of walking, cycling and horse riding trails
- introduces a new generation of open space through the adoption of greenways, which will integrate with transit corridors, transit-oriented developments and cycle ways
- recognises the importance of integrated sporting facilities that are accessible by all communities.



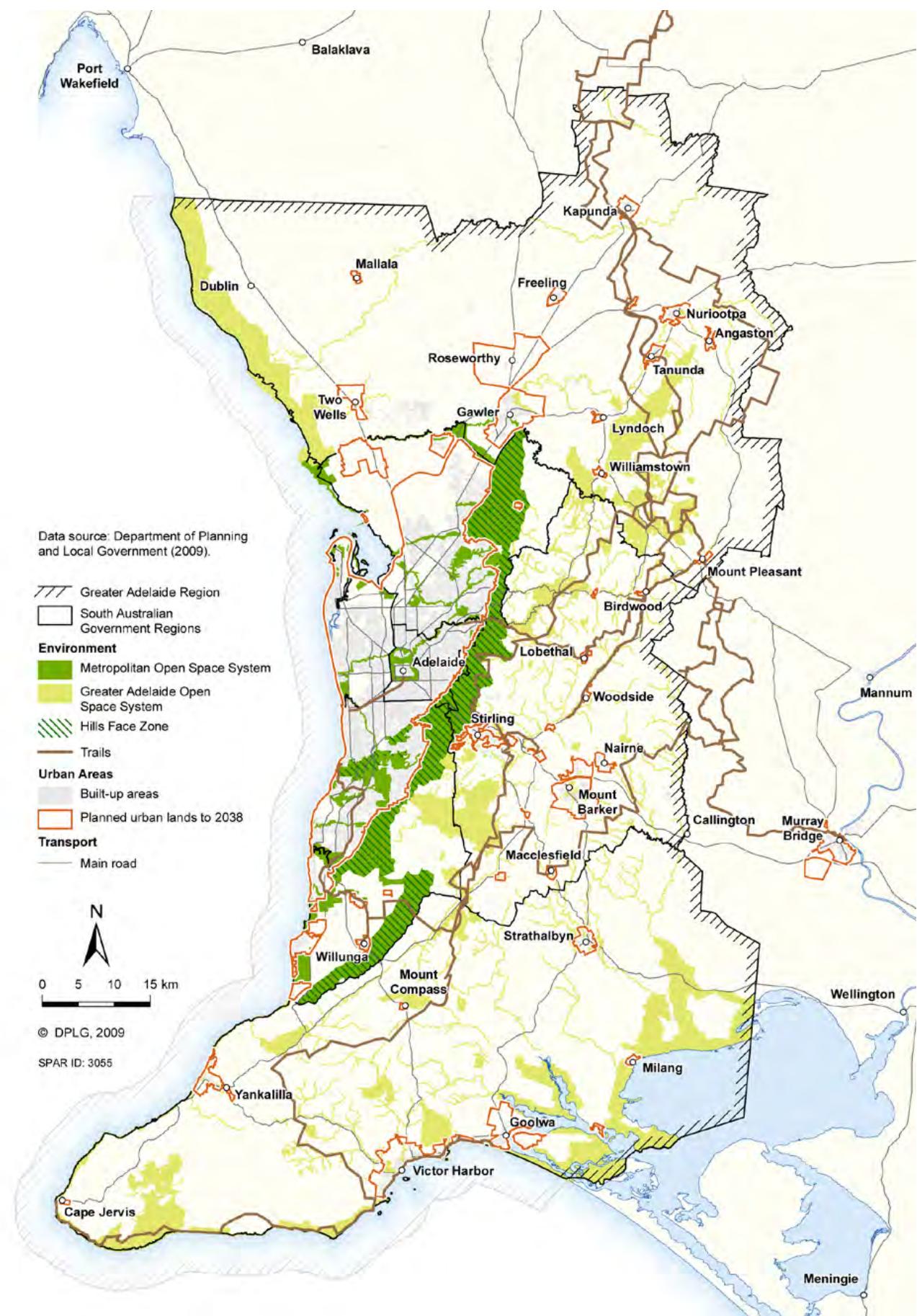


## Greater Adelaide Open Space System

### Policies

- 1 Provide for a Greater Adelaide open-space framework that builds on MOSS to create quality open space across the region. The open space will feature urban forests and parks, watercourse and coastal linear parks, trails, greenways and green buffers, and sustainable recreation and sporting facilities (see Map D20).
- 2 Ensure open space is accessible by all communities and will:
  - ▶ link, integrate and protect biodiversity assets and natural habitats
  - ▶ provide linkages to encourage walking and cycling to local activities, local activity centres and regional centres
  - ▶ be multi-functional, multi-use (including the shared use of strategically located school facilities) and able to accommodate changing use over time

- ▶ incorporate the principles of Crime Prevention Through Environmental Design for safety and amenity
- ▶ contain appropriate and low-maintenance species and locate trees to maximise access to shade
- ▶ encourage passive recreation opportunities such as provision of a variety of paths and children's play equipment.
- 3 Provide neighbourhood open spaces within safe, comfortable walking distances of residents in new growth areas.
- 4 Protect and improve the amenity, accessibility and useability of the National Heritage listed Adelaide Park Lands to ensure they function as a highly valued green belt for the City of Adelaide and as a focal point for community activity.
- 5 Provide open space in the new Northern Adelaide and Barossa regions' growth areas by:
  - ▶ reinforcing the 'Gawler Buffer' as a defining area between the northern suburbs and the entrance to the town of Gawler, and planning for a buffer between Gawler and new growth areas.
  - ▶ developing a linear park along the Gawler River
  - ▶ developing a defined and linked system of open space in and around Gawler, with the Gawler, South Para and North Para rivers as its core elements.
- 6 Continue to protect the natural and rural landscape character of the Hills Face Zone as a defining feature of metropolitan Adelaide.
- 7 Ensure that land uses in the Hills Face Zone contribute to conserving the zone's role as a landscape backdrop and an area of significant biodiversity.
- 8 Identify and reserve land in new growth areas for the development of major recreation and sport facilities.





City  
VIA  
A13 South Road

City  
VIA  
A14 Marion Road



## Targets

- A** Ensure the Greater Adelaide Open Space System will consist of at least 160,000 hectares by 2012.<sup>88</sup>
- B** Provide a minimum of 12.5 per cent open space in all new developments.
- C** Prioritise the following activities for the Greater Adelaide open space framework:
  - ▶ greening the Gawler Buffer as an urban forest, which will consist of about 230 hectares by 2014
  - ▶ developing the Gawler River linear park, which will link a system of open space in and around Gawler with the Gawler, South Para and North Para rivers, by 2036
  - ▶ rezone 130 hectares in the Gawler buffer as open space by 2012.
- D** Locate public open spaces within walking distance of new housing to ensure equitable distribution of open space in an area.

## Greenways

### Policies

- 9** Plan and develop a system of greenways across Greater Adelaide to link the open space system, enhance urban biodiversity and encourage walking and cycling.
- 10** Establish greenways along the major transit corridors, watercourses and linear parks.
- 11** Plan and develop greenways to link parks, reserves and public facilities to provide walking and cycling access.
- 12** Identify, as part of the Structure Planning process, opportunities for the development of greenways in transit-oriented developments, transit corridors, activity centres and new growth areas to link to local and regional open spaces, provide local biodiversity, and provide walking and cycling linkages.
- 13** Ensure that greenways are landscaped with local indigenous species where possible and incorporate water-sensitive urban design techniques.

## Targets

- E** Incorporate greenways in all transit-oriented developments and along major transit corridors.
- F** Complete fully connected and sealed cycling and walking routes with safe road crossings along rail transit corridors by 2025 as the walking and cycling component of greenways.
- G** Develop and enhance waterway linear parks as open-space greenways and biodiversity corridors along the fixed-line public transport corridors and the River Torrens, Gawler River, Little Para River, Dry Creek, Sturt River, Pedlar Creek, Onkaparinga River, Port Willunga Creek, Christies Creek and Field River by 2036.
- H** Complete the coastal linear park from Sellicks Beach to North Haven by 2020.
- I** Develop a greenway along the length of the Adelaide to Glenelg tram corridor by 2020.

<sup>88</sup> Conservation parks and reserves are included in existing natural areas/environmental lands.



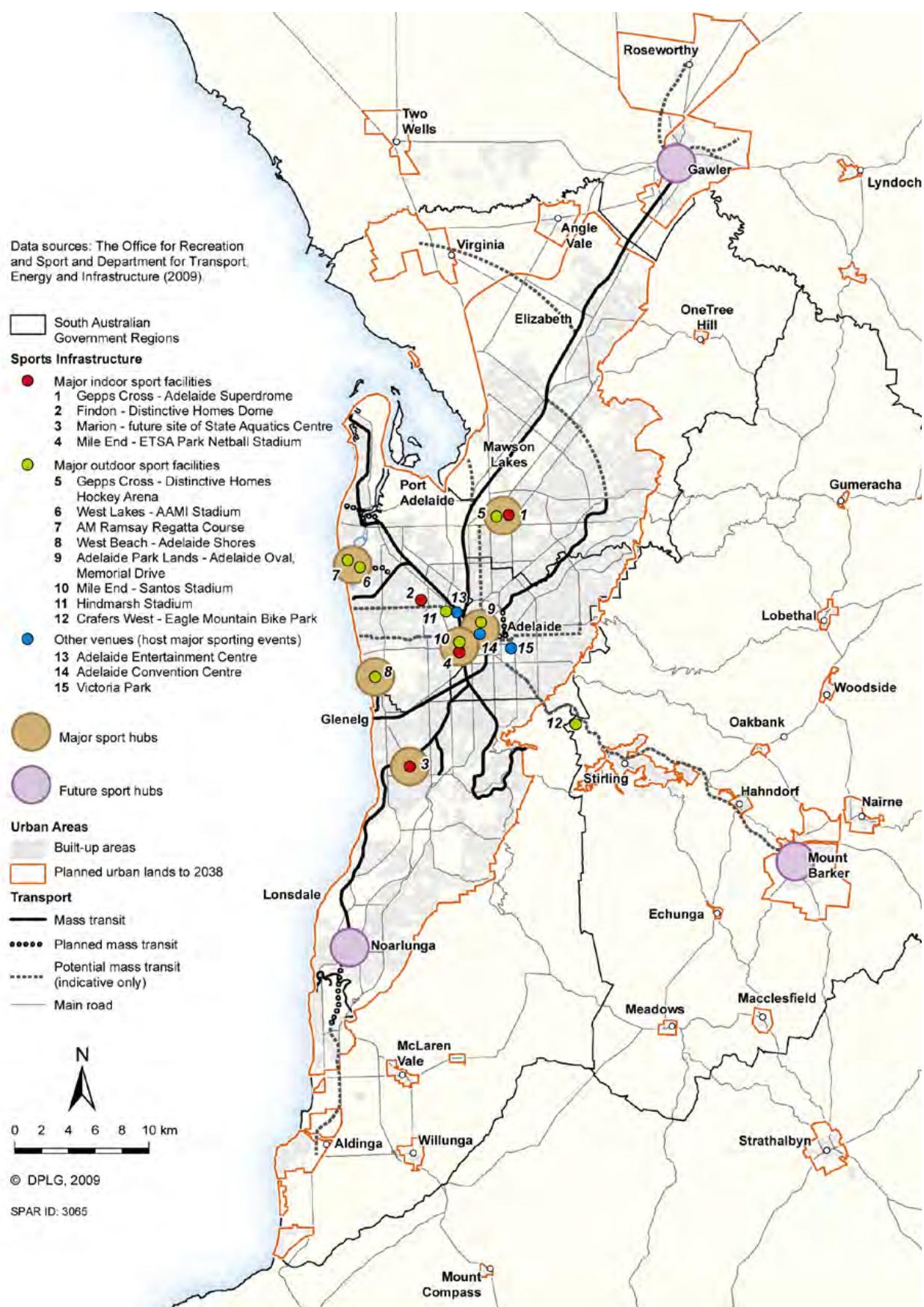
## Sporting facilities

### Policies

- 14** Reinforce the role of the region's high-quality major sporting facilities.
- 15** Integrate Greater Adelaide's major sporting facility hubs and major sports facilities.
- 16** Provide organised sporting facilities in transit corridors, transit-oriented developments and higher-order activity centres.
- 17** Establish major community sporting hubs that are linked to other community infrastructure and transport services.
- 18** Integrate water-sensitive urban design (WSUD) into sporting facilities to increase water use efficiency, reduce mains water use, and maximise on-site water re-use.

### Targets

- J** Major sporting facility hubs will be developed in appropriately identified locations. Potential locations (identified on Map D21) could include, but would not be limited to:
- ▶ the Adelaide Park Lands—Adelaide Oval/Memorial Drive
  - ▶ Mile End—Santos Stadium/ETSA Park
  - ▶ West Lakes—AAMI Stadium/AM Ramsay Regatta Course
  - ▶ Gepps Cross—State Sports Park
  - ▶ West Beach—Adelaide Shores
  - ▶ Noarlunga, Mount Barker and Gawler/Barossa—future growth precincts.
- K** Ensure there is a net increase in passive and active open space over five-yearly intervals.





## Climate change

### Rationale

An effective response to the risks and impacts of climate change is a critical part of the Plan. The Plan outlines specific policies and targets to address the impacts of climate change in Greater Adelaide and to prepare the groundwork for long-term adaptation; however, many other components of the Plan will also contribute to the region's climate change resilience.

The new urban form will make one of the most important contributions to both reducing the growth of greenhouse gas emissions and creating environments that are more liveable in the likely event of hotter temperatures.

The analysis that underpins the Plan demonstrates three things. Firstly, that Greater Adelaide is particularly vulnerable to changes in temperature, extreme weather events, and sea level rise and associated storm surges. Second, that the urban form offers governments one of the most important opportunities to mitigate, and adapt to, the impacts of climate change. Third, that South Australia is better positioned than most states to gain a competitive advantage from the growth of new industries, which will be driven by national and global action to place a price on carbon.

The specific policies and targets that are outlined in this section seek to complement the shift to an urban form that will result in:

- a reduction in emissions generated by population growth through the introduction of new distributed and renewable energy, more energy efficient building design, increasing densities, avoiding sprawl and locating jobs and housing closer to public transport to reduce car travel

- an opportunity for significant innovation in design of the built form, initiatives such as embedded generation and co-generation through transit-oriented developments and multi-unit buildings, and promotion of systems such as a smart grid/green grid
- an improved capacity to adapt to climate change by reducing the cost of energy to households and businesses, and creating more liveable environments
- a reduction in the vulnerability of critical infrastructure, such as hospitals, telecommunications and transport systems, and energy and water services
- continued protection of coastal development at risk from seawater inundation, including risks associated with sea level rise, coastal erosion and storm surges.

### Policies

- 1 Contribute to South Australia's target of a 60 per cent reduction of greenhouse gas emissions by 2050 through the implementation of the policies in the Plan that will lead to a more compact and less carbon-intensive urban form.



### Formation of a Climate Change, Housing Affordability and Sustainable Neighbourhoods Task Force

- 2 Form a Climate Change, Housing Affordability and Sustainable Neighbourhoods Task Force, made up of representatives from the housing industry and leading sustainability experts, to undertake the detailed work on the policies set out below. The task force will advise on the design and building standards required to achieve zero carbon<sup>89</sup> and energy efficient buildings and neighbourhoods, without compromising housing affordability.

### Mitigation

- 3 Implement the key actions that promote a more compact city, including collocation of services with transport and mixed-use developments in transport corridors and around transport interchanges.
- 4 Promote short distance passenger travel through the introduction of a new urban form.
- 5 Increase energy efficiency of buildings through the implementation of a six star rating for new buildings, and new efficiency standards for air conditioning, which is in line with the COAG National Strategy on Energy Efficiency.

6 Provide the opportunity for neighbourhood level energy efficiency through the promotion of alternative energy supplies, which may include initiatives such as embedded generation and co-generation and broadening the renewable energy feed-in tariff.

7 Ensure the majority of new housing is carbon-efficient. As part of this policy, the proportion of low-rise medium-density apartments and attached dwellings will be increased.

8 Confine high-rise buildings to the 14 transit-oriented developments. Set design standards that reduce greenhouse gas emissions and improve energy efficiency for high-rise developments (for example, provide incentives for embedded generation and the use of renewable energy). The Climate Change, Housing Affordability and Sustainable Neighbourhoods Task Force will prepare these standards with regard to maintaining housing affordability.

9 Set a baseline energy efficiency target for all new developments over a particular threshold. The target will be incorporated into Structure Plans and Precinct Requirements, and will be modified to reflect the fact that not all areas have the same capacity to achieve uniform targets.

10 Ensure targets at a Structure Plan and Precinct Requirement level factor in any impacts on housing affordability before they are set. This analysis should consider the capital costs to developers (and the likely pass-on costs to consumers) as well as the improved cost of living from reducing the total life cycle costs to consumers.

### Adaptation

11 Set building standards and design guidelines to create more thermally and energy efficient buildings. This will improve the liveability of housing in the likely event of increased temperatures. Structure Plans for greenfield developments, urban infill and transit-oriented developments will set objectives and guidelines for the quality of building performance outcomes in terms of climate response (such as solar orientation) and energy use.

12 Reduce energy costs through the introduction of improved energy efficiency standards for new buildings.

<sup>89</sup> For the purposes of the Plan, zero carbon is defined as no net carbon created by people living and working in a defined area.



- 13** Create a more liveable urban environment through the establishment of a network of greenways, tree-lined streets and open spaces, which will have a cooling effect on nearby new neighbourhoods and new buildings.
- 14** Encourage commercial and industrial developers to include green buffers and shady areas in their developments, to make workplaces more liveable.
- 15** Reduce the risk of damage from predicted sea level rise and associated storm surges and coastal erosion by continuing to incorporate adaptation measures (such as location, construction and design techniques) into relevant Development Plans based on the recommended sea level rise allowances adopted by the South Australian Government from time to time.
- 16** Require new development and/or land divisions in areas at risk from predicted sea level rise to provide for protection and/or adaptation measures (such as appropriate siting and construction techniques, seawalls and/or levee banks).
- 17** Ensure critical infrastructure (such as hospitals, telecommunications and transport systems, and energy and water services) is protected from inundation from predicted sea level rise.
- 18** Sustain the marine and estuarine environment by providing, where appropriate, for the retreat of the beach, dune, mangrove and saltmarsh communities in response to predicted sea level rise and land subsidence.
- Gaining a competitive advantage in a carbon-constrained economy**
- 19** Work with the Australian Government, the Adelaide City Council and industry to pursue smart grid/green grid technologies. This will assist with the rollout of electric vehicle infrastructure in the City and encourage increased community use of electric vehicles.
- 20** Deem embedded and distributed renewable energy<sup>90</sup> and smart grid/green grid technology as complying or exempt development. The Climate Change, Housing Affordability and Sustainable Neighbourhoods Task Force will develop standards for complying renewable energy projects.
- 21** Develop the former Mitsubishi site at Tonsley Park as a national demonstration site for clean technology and renewable energy.
- 22** Introduce planning policies to encourage large-scale renewable energy projects to serve the region.

### Targets

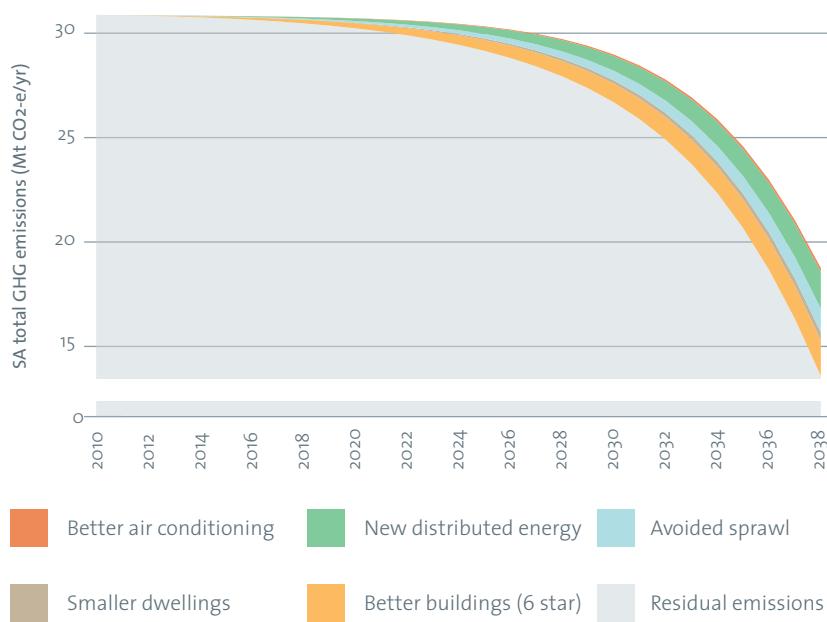
- A** Implementation of the Plan results in a reduction in South Australia's overall greenhouse gas emissions of around 17 per cent over the Plan's 30-year life (see Figure D1 and Appendix 2).
- B** Establish an energy-use database for non-residential buildings by 2013, which will use actual energy-use data<sup>91</sup> to inform the design and modelling of energy consumption in new buildings.
- C** Achieve a per capita reduction in vehicle kilometres travelled (VKT) over five-yearly intervals.
- D** Create 15,900 new green jobs in the first 15 years of the Plan.
- E** Increase the state's renewable energy production to 33 per cent of all energy production by 2020 in line with the State Government's recent announcement.<sup>92</sup>

<sup>90</sup> DPLG is developing a definition of what constitutes a renewable energy project for schedule 4 of the Development Regulations 2008.

<sup>91</sup> Data to be sourced from the implementation of the mandatory disclosure measures for commercial buildings in the National Strategy on Energy Efficiency adapted by COAG in July 2009, <[www.coag.gov.au/coag\\_meeting\\_outcomes/2009-07-02/docs/Energy\\_efficiency\\_measures\\_table.pdf](http://www.coag.gov.au/coag_meeting_outcomes/2009-07-02/docs/Energy_efficiency_measures_table.pdf)>.

<sup>92</sup> South Australia, House of Assembly, Hansard, 2 June 2009, p. 2930.

**Figure D1 – Emission reduction estimates with total SA emissions (Mt/yr)**



Source: KPMG modelling for DPLG, November 2009

## Water

### Rationale

Water is a vital element in underpinning sustainable economic development, population growth, primary production, food security and healthy urban ecology. The urban form can be one of the most important contributors to improving water security. Measures such as smaller housing choices, better building standards, and more medium-density housing can often provide opportunities for stormwater capture and recycling and are fundamental to reducing the rate of water consumption.

Innovative water security projects are already occurring in the region, from the cities of Salisbury, Playford and Tea Tree Gully in the north to the City of Onkaparinga in the south. Partnerships are a key component of delivering improved water security as shown through the Water Proofing Northern Adelaide and Water Proofing the South programs, which involve federal, state and local governments working with local communities and the private sector, including universities and the Willunga Basin Water Company.

The Plan will implement *Water for Good—A Plan to Ensure our Water Future to 2050* to provide sufficient water to meet the needs of Greater Adelaide's growing population and economy. An important part of *Water for Good* is to ensure that we all use our water more efficiently.

The policies and targets set out in this section both complement the urban form and seek to decouple population, economic and housing growth from unsustainable water resource consumption.

### Policies

- 1 Incorporate water-sensitive urban design (WSUD) techniques in new developments to achieve water quality and water efficiency benefits (see Box 4 for examples of WSUD techniques).
- 2 Require WSUD techniques to be incorporated in Structure Plans and Precinct Requirements for State Significant Areas.
- 3 Mandate WSUD for new developments (including residential, retail, commercial, institutional, industrial and transport developments) by 2013 (consistent with *Water for Good*). The Climate Change, Housing Affordability and Sustainable Neighbourhoods Task Force will advise the State Government on the most effective way to implement this policy without compromising housing affordability.



- 4** Require new greenfield developments that are subject to Structure Plans from 2011 to source water for outdoor use from non-mains water supplies. This recognises the need to plan alternative water sources at the commencement of new large greenfield developments, rather than retrofit these sources for latter stages of the development.
- 5** Protect water supply catchments and the watershed by preventing high-risk development in catchments and watershed areas that are considered vulnerable, consistent with the water quality risk hierarchy<sup>93</sup> (see Box 5) associated with the Mount Lofty Ranges Watershed priority areas, and ensure that new developments have a beneficial, or at least neutral, impact on water quality in the watershed.
- 6** Incorporate the protection of relevant coastal and riparian areas and Ramsar wetlands in Structure Plans and Development Plans.

#### Box 4 – Water-sensitive urban design (WSUD) techniques

There are a wide range of WSUD techniques that can be incorporated into development projects and individual homes. These include, but are not limited to:

- permeable paving of footpaths, common areas and parking spaces (can be used above open underground water storage facilities)
- water efficient fittings and appliances
- maintaining fixtures (for example, fixing leaks and drips from plumbing and taps)
- green roofs and living walls (for example, plantings on roofs and down walls)
- appropriate landscaping (for example, efficient irrigation, mulching, wind and sun protection, minimising lawn area, and selecting suitable plants)
- wetlands to capture and treat run-off water
- capture and storage of rainwater and stormwater for re-use for residential purposes, or to irrigate parks, sporting fields and other open space
- capture, treatment, and re-use of wastewater.

WSUD can be incorporated across a range of development types and scales, including individual homes, streets, vehicle parking areas, subdivisions and multi-units, commercial and industrial areas, and public land. WSUD helps to improve water quality and quantity, reduces flood risk in urban areas, and enhances biodiversity.<sup>94</sup>

- 7** Identify and protect locations for potential stormwater harvesting schemes, including those areas identified in Map D22.
- 8** Ensure appropriate policy links and consistency between Stormwater Management Plans, Structure Plans and Development Plans to address stormwater and flood management matters.

<sup>93</sup> Office for Water Security, *Water for good—A plan to ensure our water future to 2050*, Office for Water Security, Government of South Australia, 2009.

<sup>94</sup> More detailed principles and techniques for WSUD can be found in *Water sensitive urban design technical manual for Greater Adelaide*, Department of Planning and Local Government, Government of South Australia, 2009, <[www.planning.sa.gov.au/go/wsud](http://www.planning.sa.gov.au/go/wsud)>.



#### Box 5 – Mount Lofty Ranges Watershed water quality risk hierarchy

The Mount Lofty Ranges Watershed has been divided into three subregions (see Map D23) based on the relative potential of land uses/activities in those areas to generate pollutants that could threaten drinking water quality. Ninety per cent of land in the watershed is privately owned, unlike watersheds for Melbourne (10 per cent) and Sydney (20 per cent). Priority area 1 poses the greatest risks, area 2 presents intermediate water quality risks, and area 3 poses the least risks. The difference in water quality risks between the three areas is largely due to the presence or absence of large barriers such as the Kangaroo Creek and Mt Bold reservoirs to detain and slow the transport of pollutants to downstream reservoirs and water filtration plants.<sup>95</sup>

#### Targets

- A** Reduce demand on mains water supply from new development through the introduction of water-sensitive urban design.<sup>96</sup>
- B** Require all new dwellings to be connected to alternative water sources, which must supply at least 15 per cent of the internal water needs of these households.
- C** Achieve independence from mains water supplies for new public open spaces in transit corridors through WSUD techniques.
- D** Achieve alternatives to mains water for outdoor use through WSUD techniques in all new greenfield developments that are subject to Structure Plans and Precinct Requirements after 2011.
- E** Protect and maintain the water supply catchment of the Mount Lofty Ranges, which comprises 159,000 hectares as identified in Map D23.
- F** Protect and maintain the water reservoirs as identified in Map D23.
- G** Protect from inappropriate development and maintain prescribed water resources, as identified in Map D24.

<sup>95</sup> SA Water, Catchment Research Centre for Water Quality and Treatment, and Environment Protection Authority, *Protecting drinking water quality into the future*, report for the EPA, Government of South Australia, 2007, <[www.epa.sa.gov.au/xstd\\_files/Water/Report/watershed\\_par.pdf](http://www.epa.sa.gov.au/xstd_files/Water/Report/watershed_par.pdf)>.

<sup>96</sup> This target will be quantified once the WSUD mandating scheme is determined.

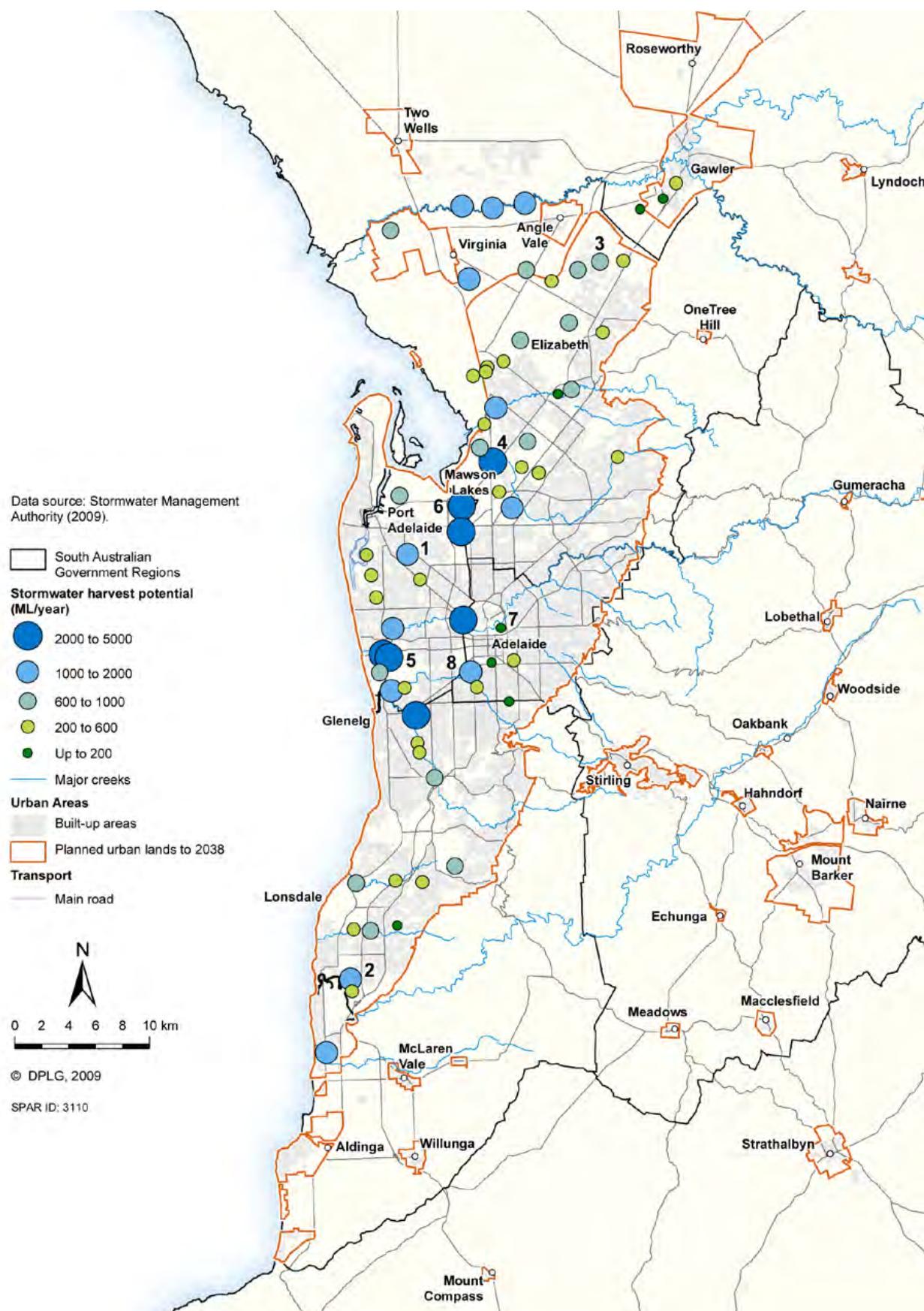
### Committed stormwater harvesting projects, as shown on Map D22

On 2 November 2009 the Australian Government announced funding towards new stormwater harvesting projects in conjunction with local councils and relevant state government agencies:

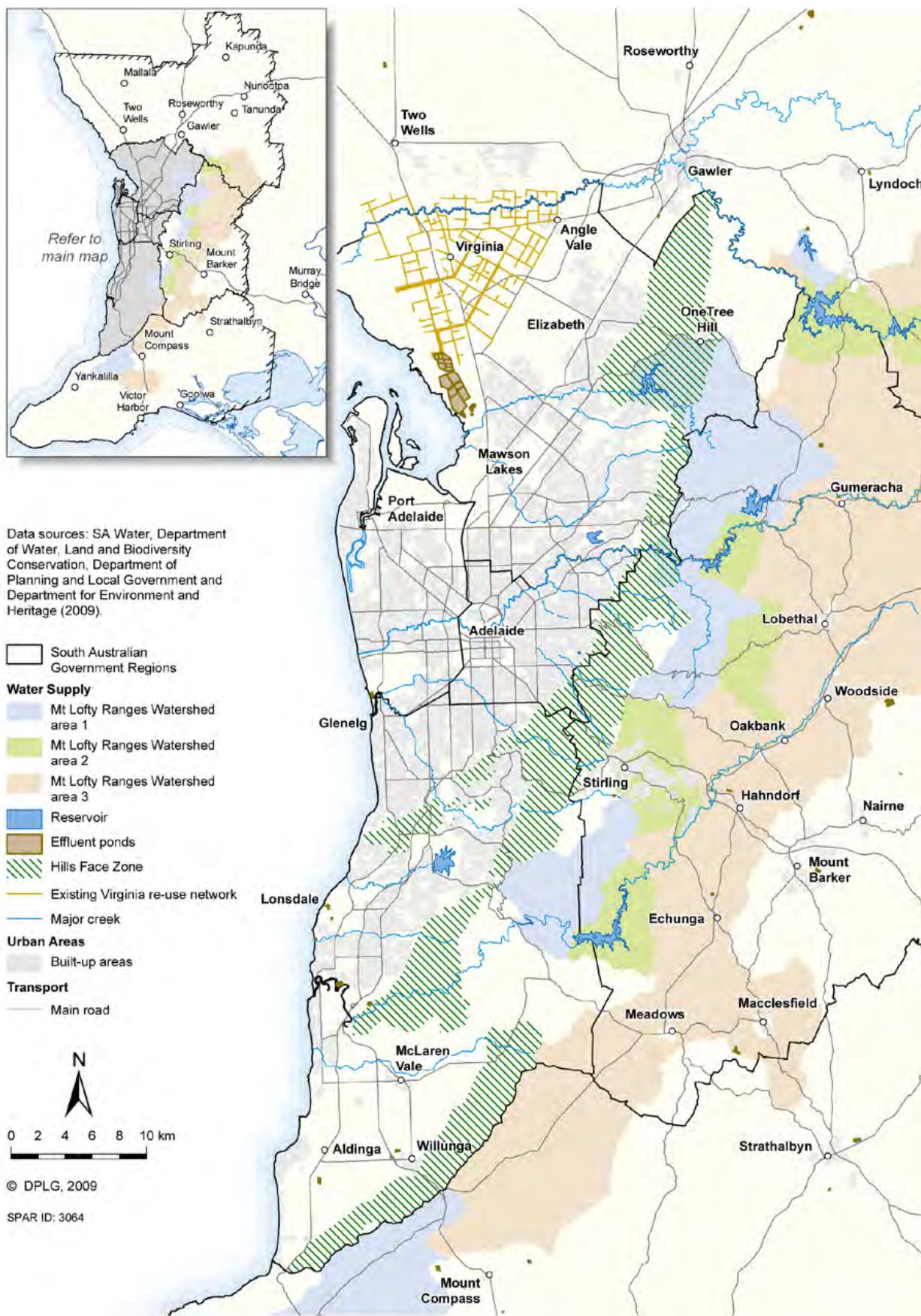
- 1 Water Proofing the West –** Involves developing infrastructure capable of capturing, treating and supplying stormwater to replace potable water for irrigation and industrial use. To harvest 2.4 gigalitres a year.
- 2 Water Proofing the South stage 2 –** Will harvest stormwater by diverting water at five sites into off-stream wetlands, treating it and then injecting it into the aquifer for storage. To harvest 2.2 gigalitres a year for parklands, playing fields and trees.
- 3 Water for the Future project –** Will harvest 640 megalitres a year of stormwater from within the Smith Creek drainage system for irrigating sporting fields, reserves and other uses.
- 4 Unity Park biofiltration and re-use project –** Will harvest stormwater from the Dry Creek catchment for treatment through six biofiltration cells and storage in the aquifer for later recovery. Will trial the use of biofiltration cells on a larger scale than previously tried in Australia. To harvest an extra 1.3 gigalitres a year.
- 5 Adelaide Airport stormwater scheme –** Will source water from the Brownhill/Keswick Creek system. A storage basin will capture flows, which will then be treated using biofiltration and media filtration. To initially harvest about 400 megalitres a year.
- 6 Barker Inlet stormwater re-use scheme –** Will supply treated stormwater as an alternative to the mains water currently sourced from the River Murray and used for industrial, commercial and public open spaces in the Regency Park area. To harvest about 350 megalitres a year.
- 7 Adelaide Botanic Gardens ASR scheme –** Will create an ‘offline’ wetland for the treatment of harvested stormwater and develop an aquifer storage and recovery (ASR) scheme. To harvest about 100 megalitres a year to meet most of the gardens’ irrigation needs.
- 8 City of Unley, stormwater harvesting and re-use project –** Involves the capture and storage of stormwater for re-use at several local sports grounds, reserves and the Adelaide Showgrounds to reduce demand on mains water supplies, restore and improve natural creek systems and reduce the impact of urban flooding. To offset about 98 megalitres a year.

## Committed and potential stormwater harvesting projects in metropolitan Adelaide

Map D22



## Map D23 Water supply catchments and water reservoirs







## Emergency management and hazard avoidance

### Rationale

Governments and planning authorities around the world are increasingly anticipating risk and the need to plan for a range of natural, biological, technological, industrial and human-induced events that could have significant social and economic costs.

The Greater Adelaide Region comprises a diverse range of living environments within natural areas of coast, plains and hills. As the region develops during the next 30 years and built environments change, it will be increasingly important to identify and plan to reduce the risks and likelihood of hazardous events. This will ensure the ongoing liveability and resilience of the region and the safety of the community.

The main natural hazards that threaten the region are bushfires, floods, landslides, earthquakes and extreme weather. Climate change is expected to increase the severity and frequency of extreme weather events in the region, resulting in increased frequency of bushfires, heavy and sustained rainfall, high winds, sustained heatwaves and coastal inundation.

Unnatural hazards include the storage and management of hazardous materials, contamination of land, crime and terrorism.

Mitigating the likelihood and consequences of any of these events depends on disaster reduction strategies, the activities of emergency services agencies, and the resilience of affected communities, infrastructure and economic sectors.

The Insurance Council of Australia reports that 19 of the 20 largest property losses in the past 40 years have been related to extreme weather, and in South Australia between 1967 and 1999 severe storms resulted in 35 per cent of all disaster related costs.<sup>97</sup> As a result, investment in disaster mitigation is conservatively estimated to provide a 15 per cent rate of return.

Planning for new urban areas and critical infrastructure in the Greater Adelaide Region, such as telecommunications and transport systems, and energy and water services, should aim to reduce our exposure to hazardous events and protect our resources.

The policies and targets in this section aim to complement the move beyond emergency response and reaction towards cost-effective, evidence-based disaster mitigation.

### Policies

- 1** Decrease the risk of loss of life and property from extreme bushfires through creating buffers around new growth areas that are adjacent to native bushland.
- 2** Develop other policies to minimise the impact of extreme bushfires in line with the findings of the 2009 Victorian Bushfires Royal Commission.
- 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.

<sup>97</sup> Insurance Council of Australia, 'Historical disaster statistics', 1967–May 2009, <[www.insurancecouncil.com.au/IndustryStatisticsData/CatastropheDisasterStatistics/tabid/1572/Default.aspx](http://www.insurancecouncil.com.au/IndustryStatisticsData/CatastropheDisasterStatistics/tabid/1572/Default.aspx)>, viewed 21 December 2009.



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

- ▶ reduce the social, environmental and economic impacts 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 and protect natural areas and biodiversity
- ▶ protect human health and the environment where contamination is identified to have 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.

**5** Minimise risk to people, property and the environment from exposure to hazards (including bushfire, flooding, erosion, dune drift and acid sulphate soils) by designing and planning for development in accordance with the following risk hierarchy:

- ▶ Avoidance—avoid permanent development in and adjacent to areas at significant risk from hazards unless it can be demonstrated that there is an overriding social, economic or environmental benefit.
- ▶ Adaptation—design buildings and infrastructure to minimise long-term risk.
- ▶ Protection—undertake works to protect existing development or facilitate major new developments; such works include stormwater discharge management to accommodate higher tide levels.

**6** Identify and rehabilitate areas and sites where land is contaminated as part of development processes.

**7** Ensure new development is appropriately sited to minimise the risk to people and property from landfill gas emissions. Continue to monitor gas emissions from landfill sites to ensure development is not placed at unnecessary risk.

**8** Identify, through Structure Plans, facilities to specifically support emergency services functions and stations. This will assist in minimising response times and meeting state government and community expectations.

### Targets

- A** Early adoption of emergency management and climate change national adaptation research plans and other hazard guidance and standards in land-use planning strategies and statutory plans.
- B** Development of partnerships (particularly with emergency services agencies) and agreements between state and local government to manage identified risks and hazards and address emergency management.
- C** Land identified and set aside for facilities in Structure Plans and Precinct Requirements to specifically support emergency services functions.
- D** Appropriate assessment and remediation of contaminated land, and rezoning in keeping with the land's suitability for new uses.





## REGIONAL TARGETS AND DIRECTIONS

### Chapter E



# REGIONAL TARGETS AND DIRECTIONS

## Chapter E

This section outlines the population, housing (including affordable housing) and jobs targets at a regional level and represents them spatially in associated schematic maps. This detail will support local government in its critical role to guide growth and change in local communities.

The schematic maps in this section will guide the Regional Implementation Strategies, which will reflect the ongoing partnership between councils and the State Government for guiding regional growth. These schematic maps are intended for ongoing local discussion and planning. They should not be interpreted as a definitive outcome. They reflect both current plans and possible future options.

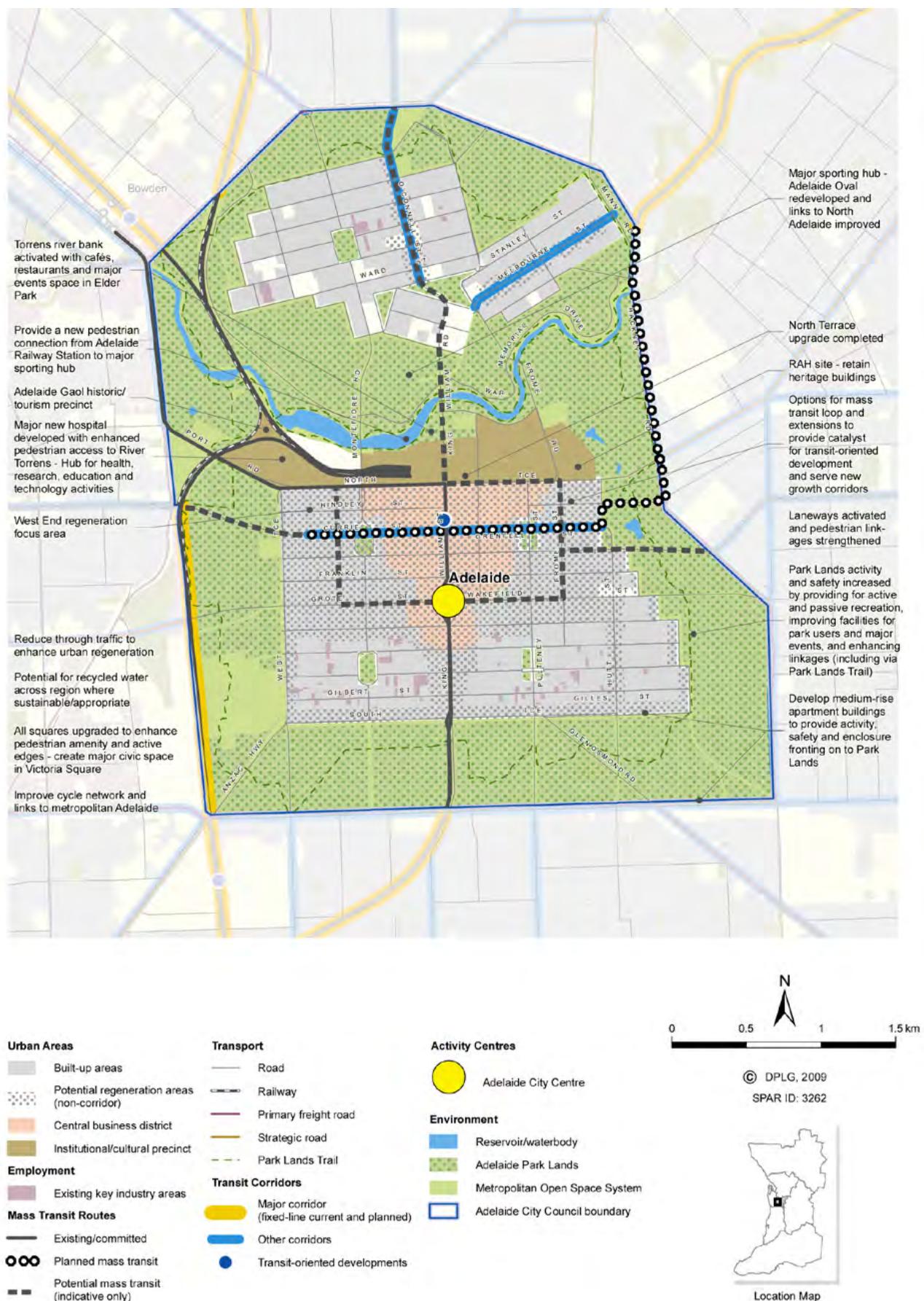


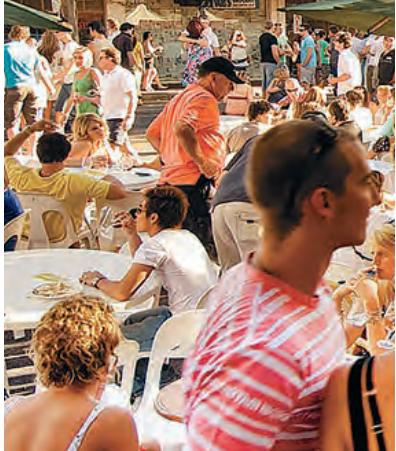


## Adelaide City

Table E1 – Adelaide City targets

Population and dwellings	Net additional dwellings	Net additional population
	15,040	27,300
<b>Affordable housing</b>	<b>Net additional dwellings</b>	
	2250	
<b>Employment</b>	<b>Net additional jobs</b>	
	50,000	
<b>Gross land supply</b>	<b>Hectares</b>	
<b>Up-zoning (residential and employment)</b>	330	

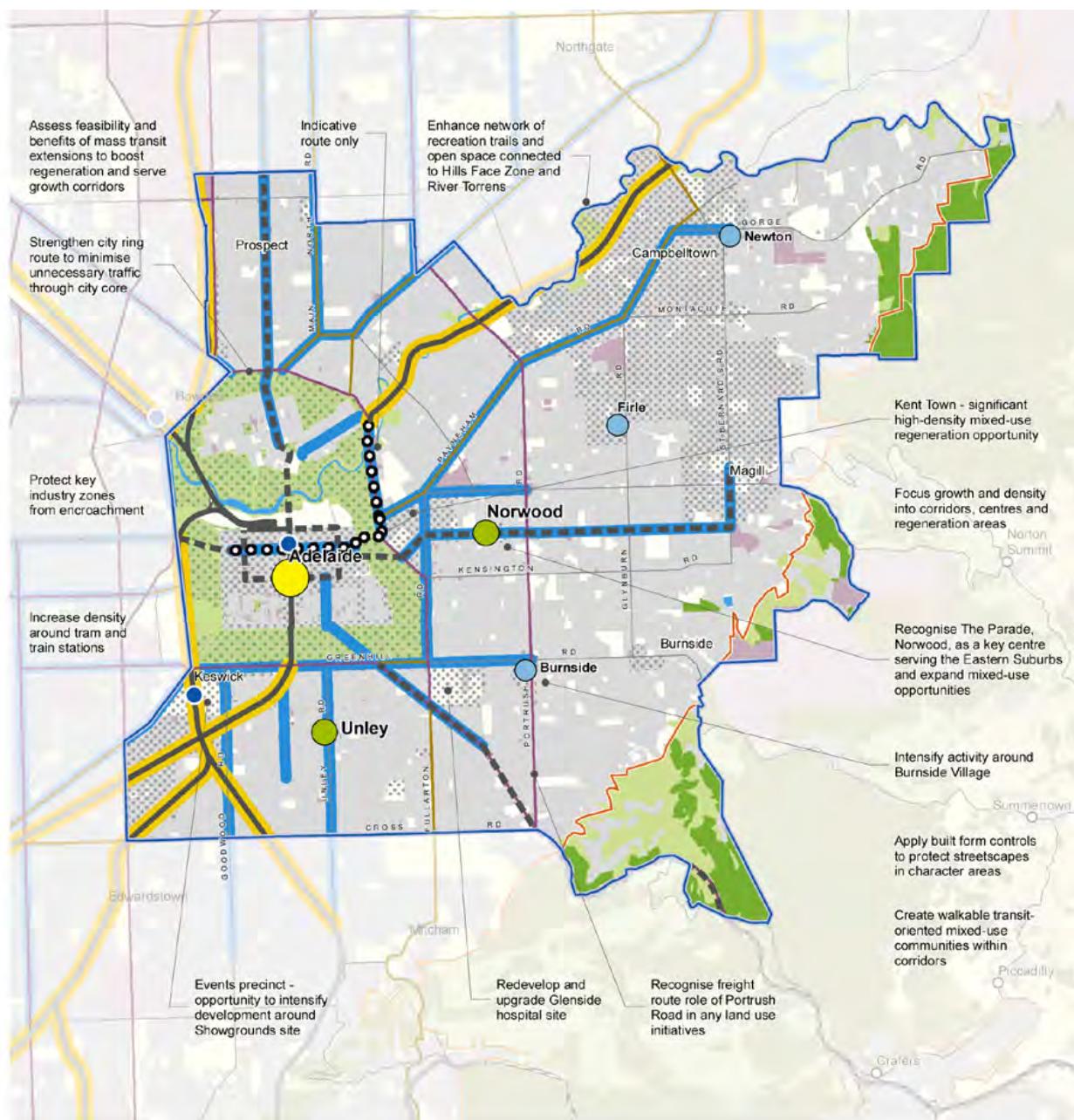




## Eastern Adelaide

Table E2 – Eastern Adelaide targets (excludes Adelaide City)

Population and dwellings	Net additional dwellings	Net additional population
Within corridors (incl. transit-oriented developments)	7900	14,600
Outside corridors	10,500	23,100
<b>TOTAL</b>	<b>18,400</b>	<b>37,700</b>
<b>Affordable housing</b>	<b>Net additional dwellings</b>	
	2750	
<b>Employment</b>	<b>Net additional jobs</b>	
	6500	
<b>Gross land supply</b>	<b>Hectares</b>	
Infill up-zonings (residential and employment)	2230	

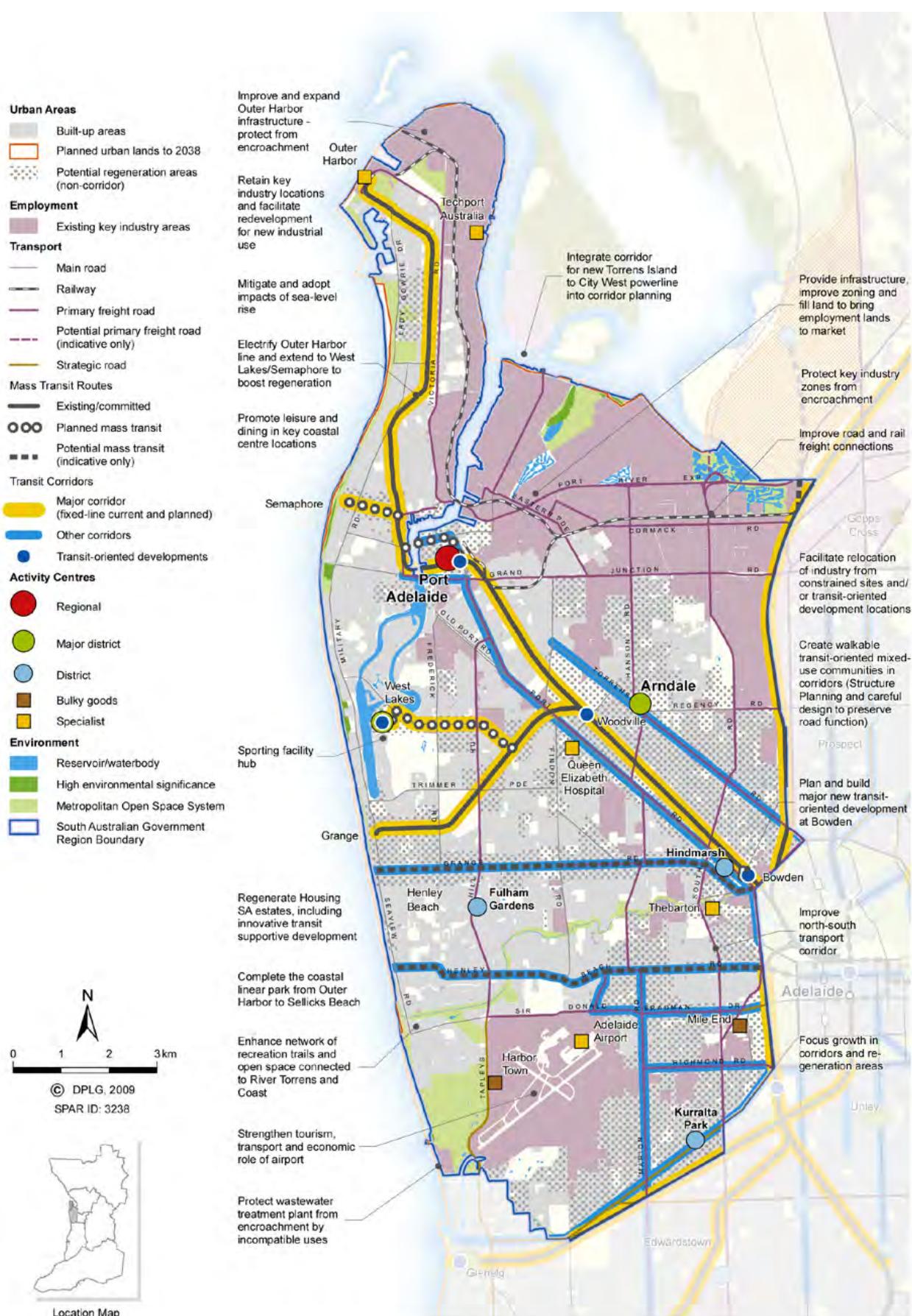




## Western Adelaide

Table E3 – Western Adelaide targets

Population and dwellings	Net additional dwellings	Net additional population
Within corridors (incl. transit-oriented developments)	33,060	62,100
Outside corridors	9500	20,900
<b>TOTAL</b>	<b>42,560</b>	<b>83,000</b>
<b>Affordable housing</b>	<b>Net additional dwellings</b>	
	6400	
<b>Employment</b>	<b>Net additional jobs</b>	
	40,500	
<b>Gross land supply</b>	<b>Hectares</b>	
Infill up-zonings (residential and employment)	4650	

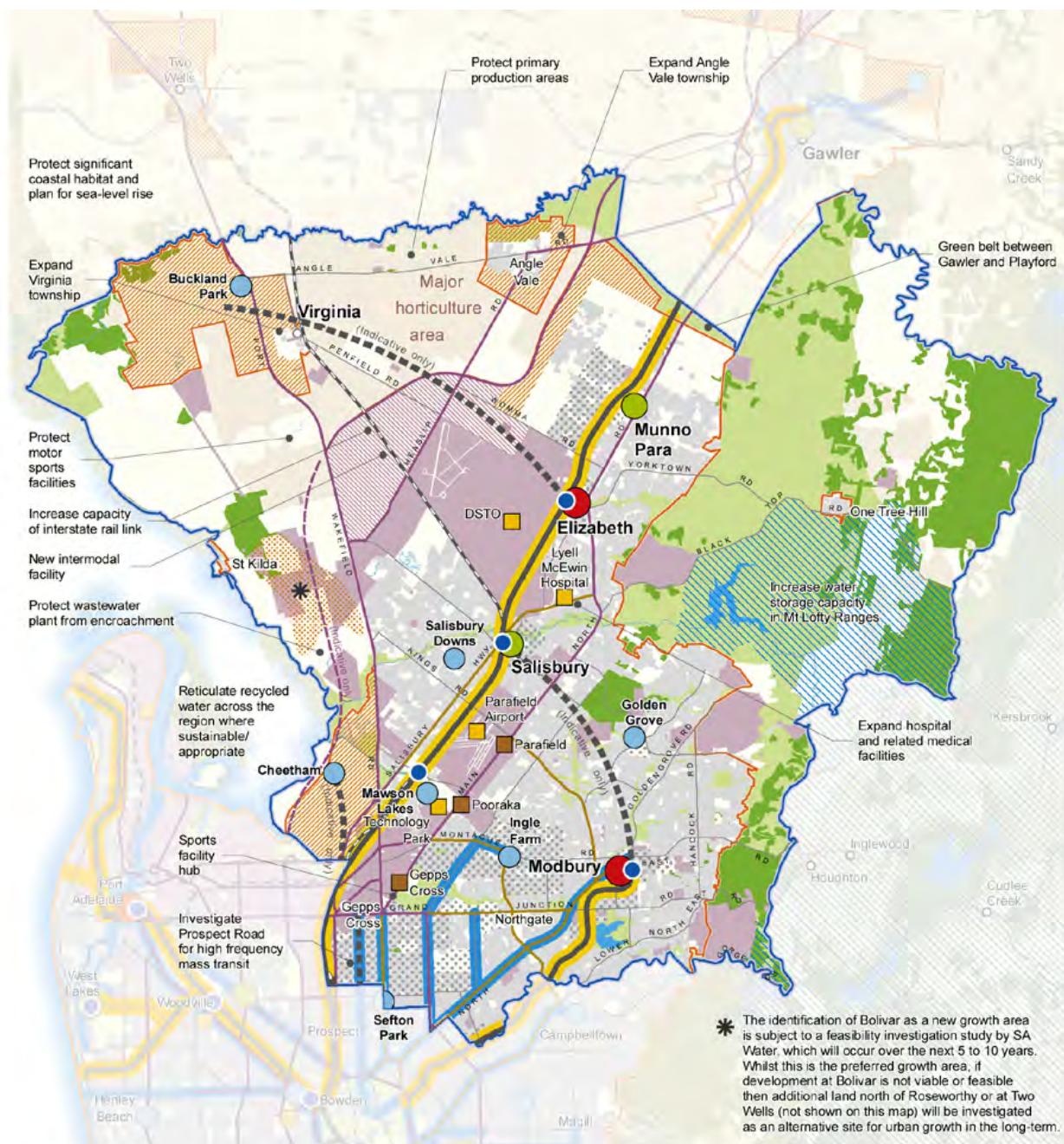




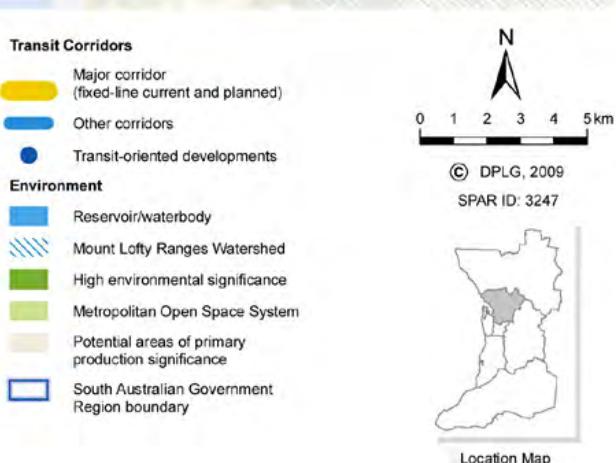
## Northern Adelaide

Table E4 – Northern Adelaide targets

Population and dwellings	Net additional dwellings	Net additional population
Within corridors (incl. transit-oriented developments)		
► infill	20,500	46,300
► fringe growth	5500	14,300
Outside corridors		
► infill	6000	14,400
► fringe growth	30,800	81,300
► townships	4800	12,700
TOTAL	67,600	169,000
<b>Affordable housing</b>		
	10,150	
<b>Employment</b>		
	79,000	
<b>Gross land supply</b>		
Infill up-zonings (residential and employment)	3380	
Fringe (incl. local employment)	4290	
Townships (incl. local employment)	730	
New regional employment lands	1550	



Urban Areas	Transport	Transit Corridors
Built-up areas	Main road	Major corridor (fixed-line current and planned)
Future urban growth areas	Railway	Other corridors
Investigation areas for urban growth	Primary freight road	Transit-oriented developments
Planned urban lands to 2038	Potential primary freight road (indicative only)	
Potential regeneration areas (non-corridor)	Strategic road	
Employment	Activity Centres	Environment
Existing key industry areas	Regional	Reservoir/waterbody
New strategic employment lands	Major district	Mount Lofty Ranges Watershed
Mass Transit Routes	District	High environmental significance
Existing/committed	Bulky goods	Metropolitan Open Space System
Potential mass transit (indicative only)	Specialist	Potential areas of primary production significance

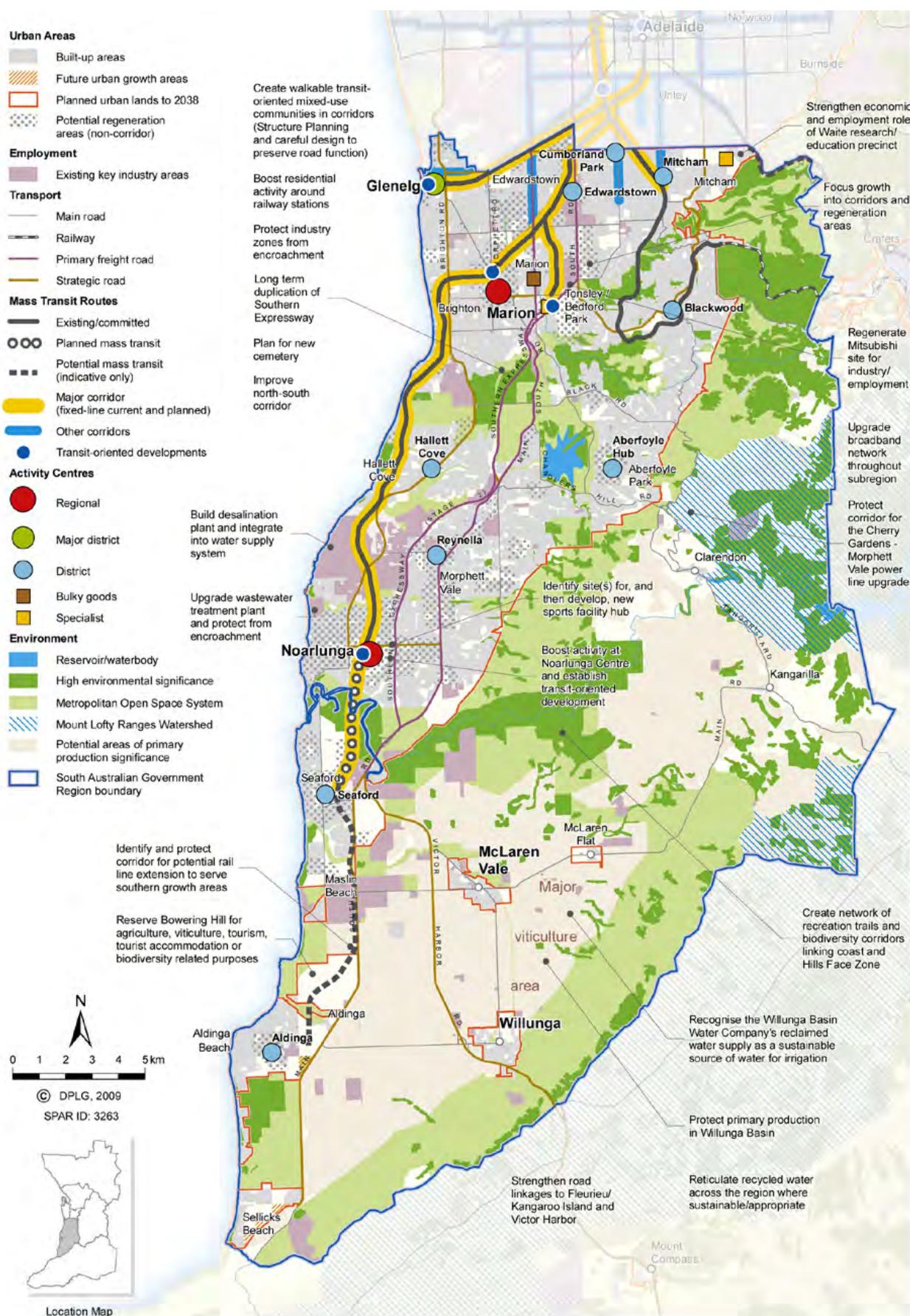




## Southern Adelaide

Table E5 – Southern Adelaide targets

<b>Population and dwellings</b>	<b>Net additional dwellings</b>	<b>Net additional population</b>
<b>Within corridors (incl. transit-oriented developments)</b>		
► infill	19,500	36,400
► fringe growth	5000	12,000
<b>Outside corridors</b>		
► infill	12,000	24,000
► fringe growth	3500	8400
► townships	500	1200
<b>TOTAL</b>	<b>40,500</b>	<b>82,000</b>
<b>Affordable housing</b>	<b>Net additional dwellings</b>	
	6075	
<b>Employment</b>	<b>Net additional jobs</b>	
	43,000	
<b>Gross land supply</b>	<b>Hectares</b>	
Infill up-zonings (residential and employment)	4840	
Fringe (incl. local employment)	70	
Townships (incl. local employment)	60	
New regional employment lands	115	

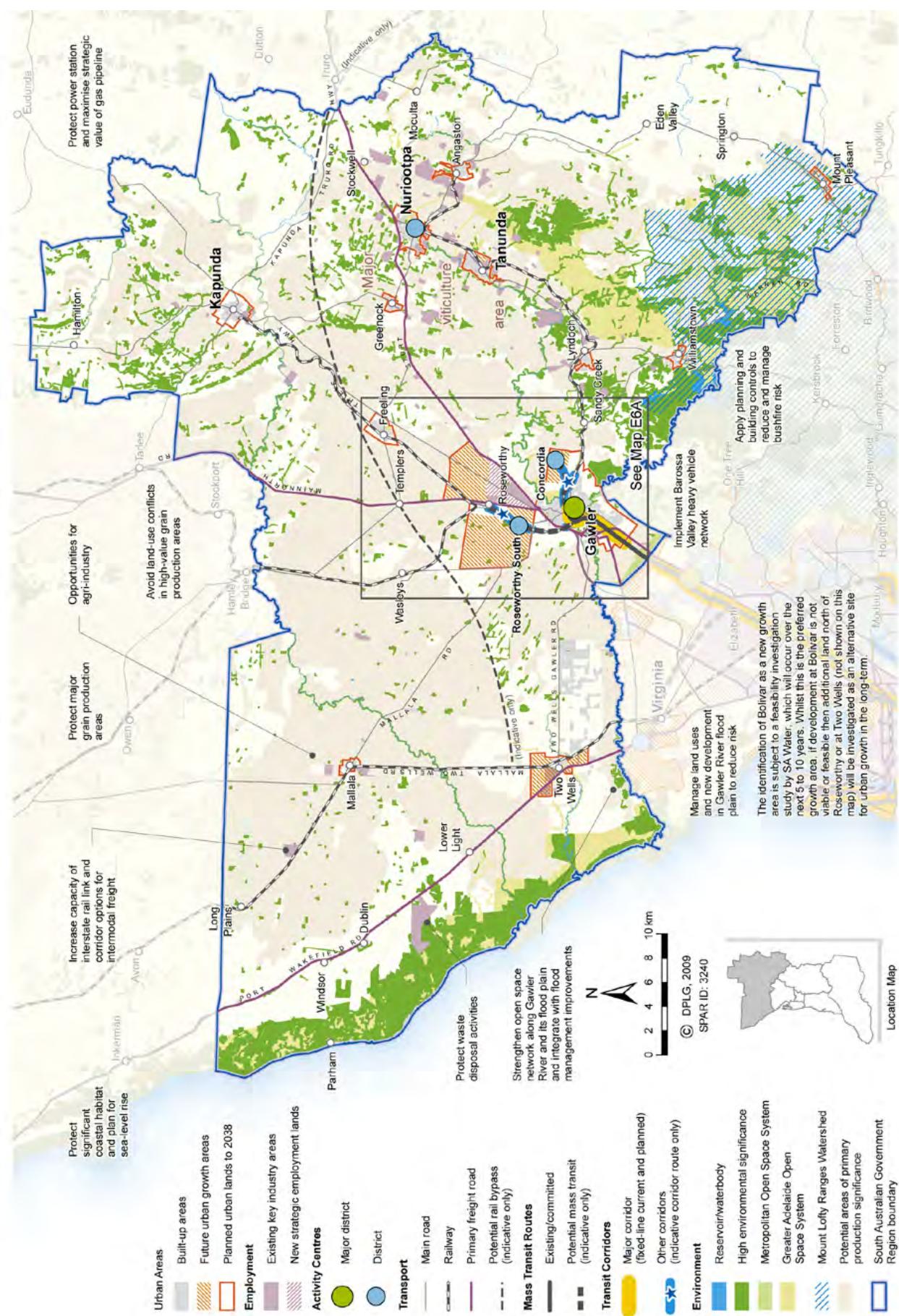




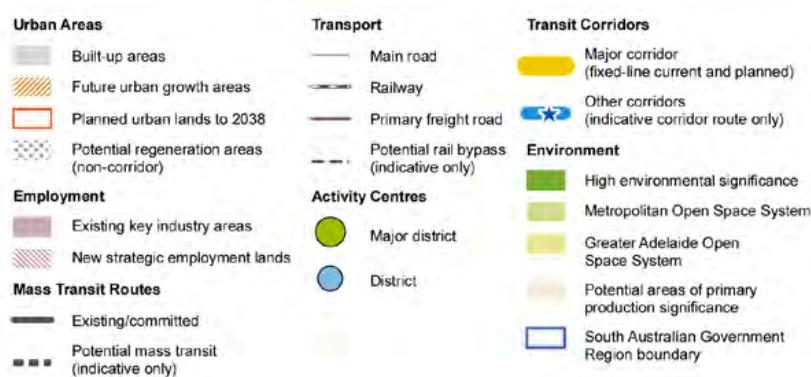
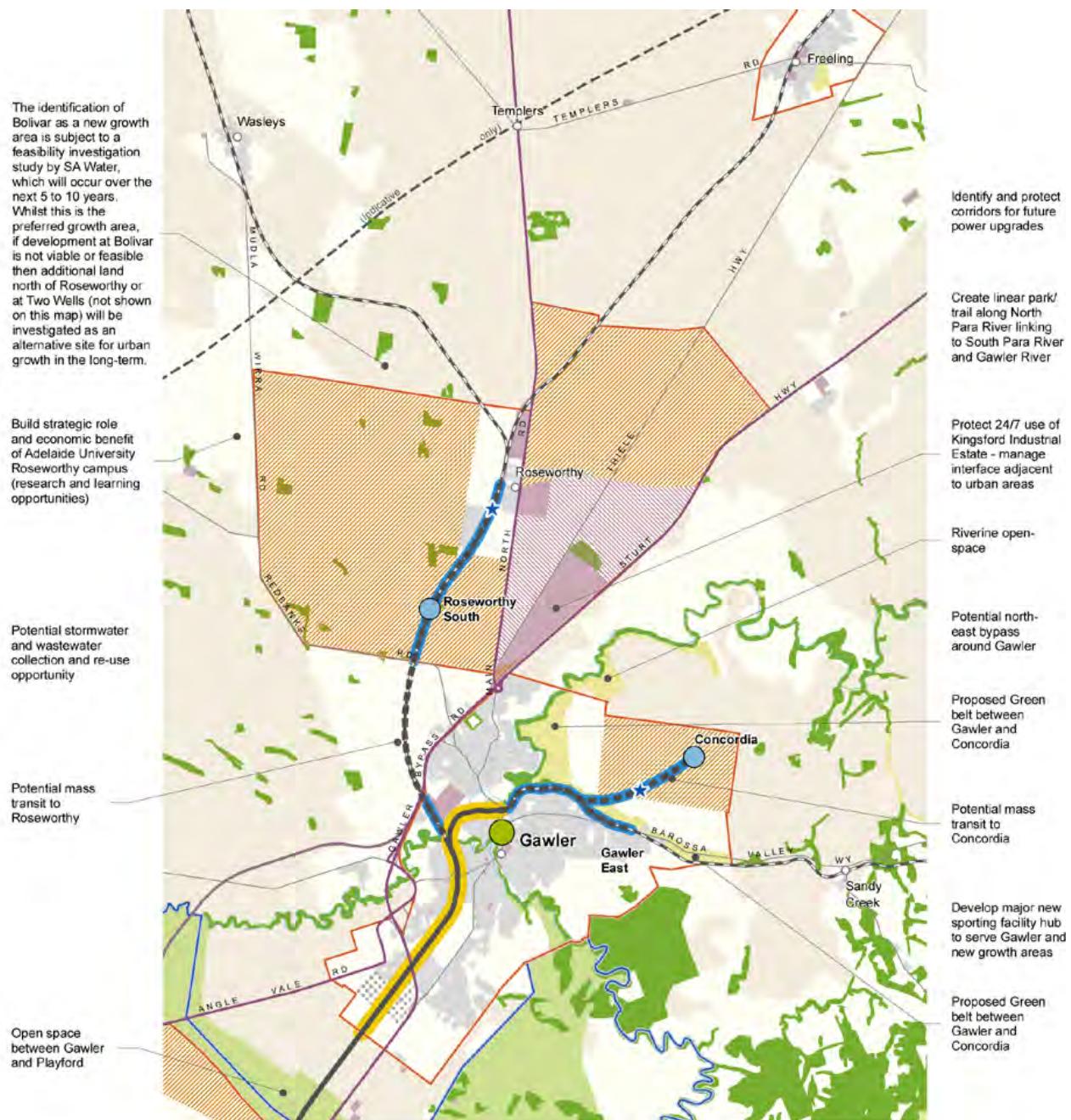
## Barossa

Table E6 – Barossa targets

Population and dwellings	Net additional dwellings	Net additional population
Within corridors (incl. transit-oriented developments)		
► fringe growth	30,500	74,400
Outside corridors		
► fringe growth	7400	14,800
► townships	8500	20,800
TOTAL	46,400	110,000
Affordable housing	<b>Net additional dwellings</b>	
	6950	
Employment	<b>Net additional jobs</b>	
	38,500	
Gross land supply	<b>Hectares</b>	
Fringe (incl. local employment)	4440	
Townships (incl. local employment)	1000	
New regional employment lands	600	







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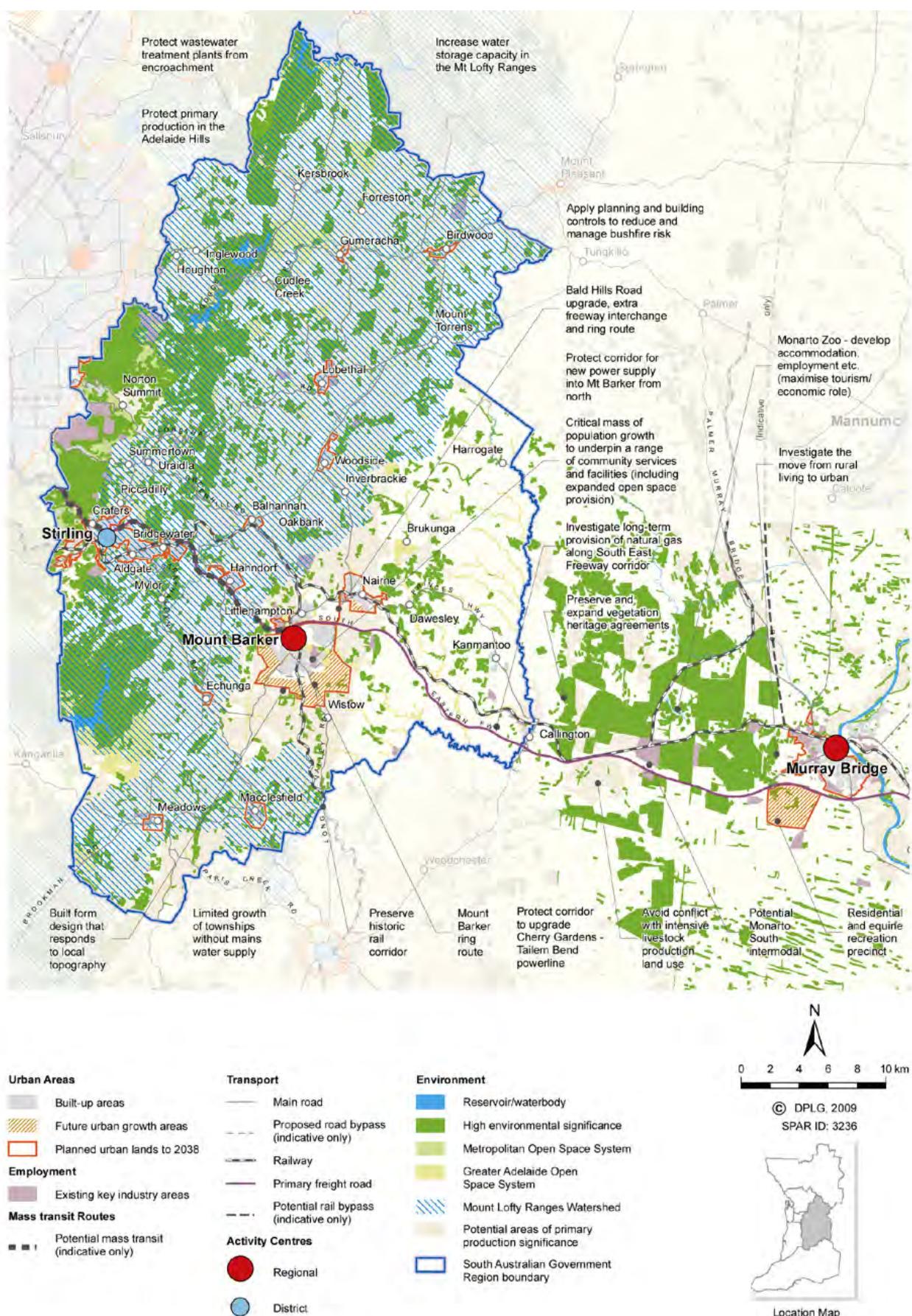




## Adelaide Hills and Murray Bridge

Table E7 – Adelaide Hills and Murray Bridge targets

Population and dwellings	Net additional dwellings	Net additional population
	13,000	29,000
Affordable housing	<b>Net additional dwellings</b>	
	1950	
Employment	<b>Net additional jobs</b>	
	13,000	
Gross land supply	<b>Hectares</b>	
Townships (incl. local employment)	2010	

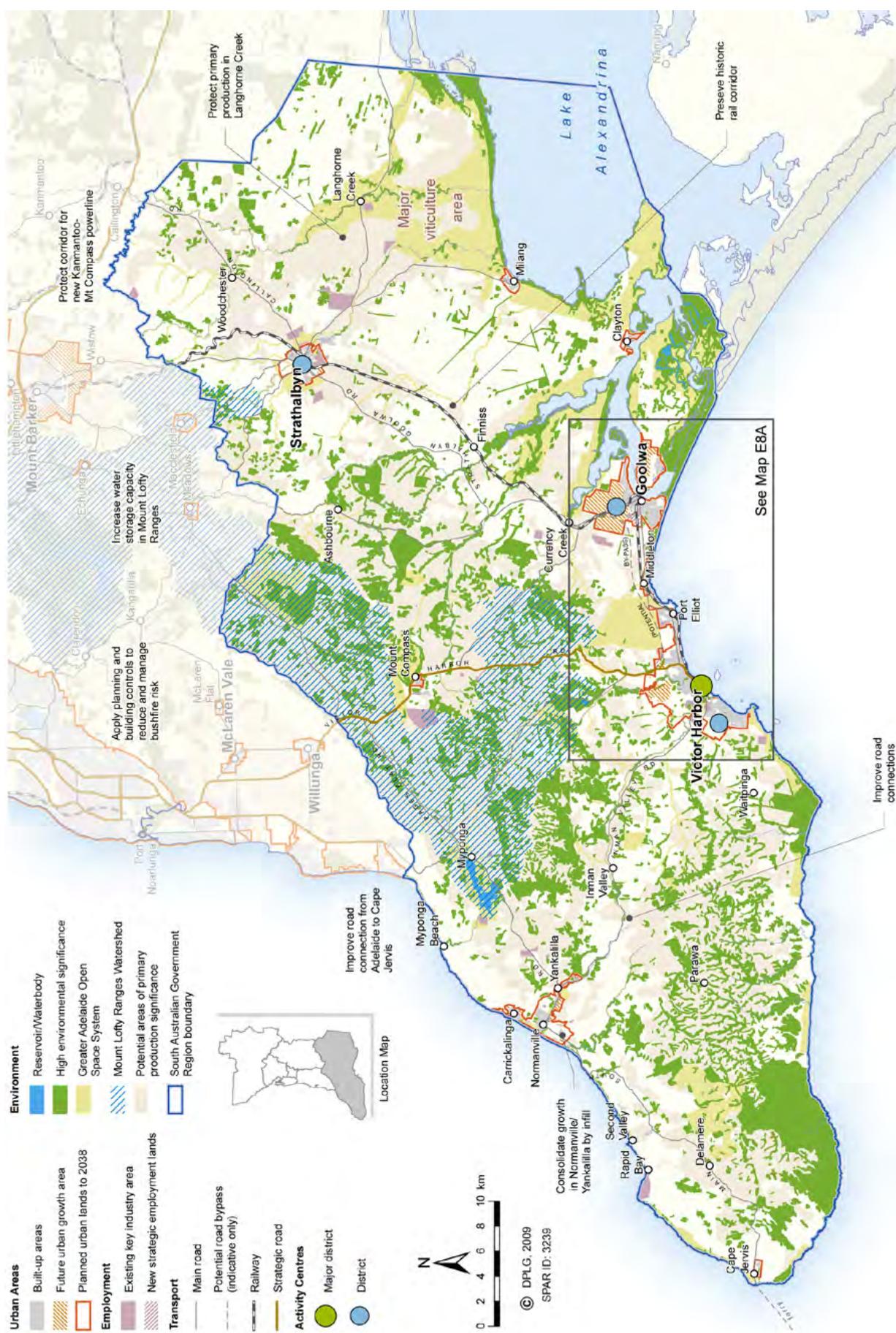




## Fleurieu

Table E8 – Fleurieu targets

Population and dwellings	Net additional dwellings	Net additional population
	14,500	22,000
<b>Affordable housing</b>	<b>Net additional dwellings</b>	
	2175	
<b>Employment</b>	<b>Net additional jobs</b>	
	11,500	
<b>Gross land supply</b>	<b>Hectares</b>	
Townships (incl. local employment)	1570	
New regional employment lands	120	











## GOVERNANCE AND IMPLEMENTATION

### Chapter F



# GOVERNANCE AND IMPLEMENTATION

## Chapter F

### Introduction

This chapter outlines how *The 30-Year Plan for Greater Adelaide* will be implemented by the South Australian Government and local government.

The Plan's proposed governance arrangements are intended to provide:

- a collaborative whole-of-government approach to the execution of policies and achievement of targets
- a capacity to update the policies and targets annually so that the Plan can respond to changes such as the rates of population growth and climate change, as well as major shifts in the housing market, economy and environment
- an implementation approach that recognises that different parts of Greater Adelaide require different land-use solutions that reflect the need to complement the character and diversity of Greater Adelaide
- a commitment to a continuous dialogue with local government, business, industry and the community.

To achieve this, the Plan will have two central implementation features:

- Regional Implementation Strategies, which will be developed by local government and state government agencies to reflect the policies, targets and key infrastructure priorities for a particular region. Regional Implementation Strategies will support a partnership between the State Government and local government in the implementation of the Plan.
- Structure Plans and Precinct Requirements, which will be developed to set out the spatial dimensions and the land-use objectives for corridors and growth areas (Structure Plans) and transit-oriented developments and activity centres (Precinct Requirements).



## National objectives for the future planning of Australian cities

The Council of Australian Governments (COAG) has established a set of objectives to guide the planning of Australia's major cities. The Plan's proposed governance and implementation arrangements complement and build on these objectives. It addresses national policy issues (such as climate change, efficient infrastructure development and housing affordability) and provides for an integrated whole-of-government approach to urban development. The Plan also establishes a sequenced land release program that supports private sector investment and innovation to deliver an appropriate balance between infill and greenfield development. The following implementation mechanisms will guide the development of Greater Adelaide in line with COAG's objectives to produce globally competitive, productive, sustainable, liveable and socially inclusive cities. These mechanisms also contribute to more efficient development assessment practices, consistent with COAG's regulatory reform agenda to support economic growth.

## Key elements of the proposed governance and implementation arrangements

There are seven key elements to the proposed governance and implementation arrangements. These are:

- improved coordination across state government agencies and local government through the newly established Government Planning and Coordination Committee (see Coordination across South Australian Government agencies)
- integration with the state's infrastructure planning and budget strategy (see Coordination across South Australian Government agencies)
- the Department of Planning and Local Government will be the lead agency facilitating the implementation of the Plan and driving the partnership arrangements with state government agencies and local government (see The role of the Department of Planning and Local Government)
- the use of Local Government Regional Partnership Forums and Regional Implementation Strategies to drive the partnership with local government (see Partnering with local government)
- the use of planning instruments, namely Structure Plans and Precinct Requirements, to drive the efficient implementation of the Plan's land-use policies (see Planning instruments to execute the Plan).
- activation of the Housing and Employment Land Supply Program to effectively manage land supply and land-release targets for the production of housing stock and employment lands (see Effective management of land supply)
- the use of a report card—as a component of the monitoring, evaluation and reporting process—to monitor policies and targets and, importantly, major changes to the economy, housing market and environment that would trigger state government policy intervention. These report cards will be used to inform the Minister's annual reports on the implementation of the Plan required under section 22(6) of the *Development Act 1993*. They will also inform councils' Strategic Management Plans (see Monitoring and reporting).

## Coordination across South Australian Government agencies

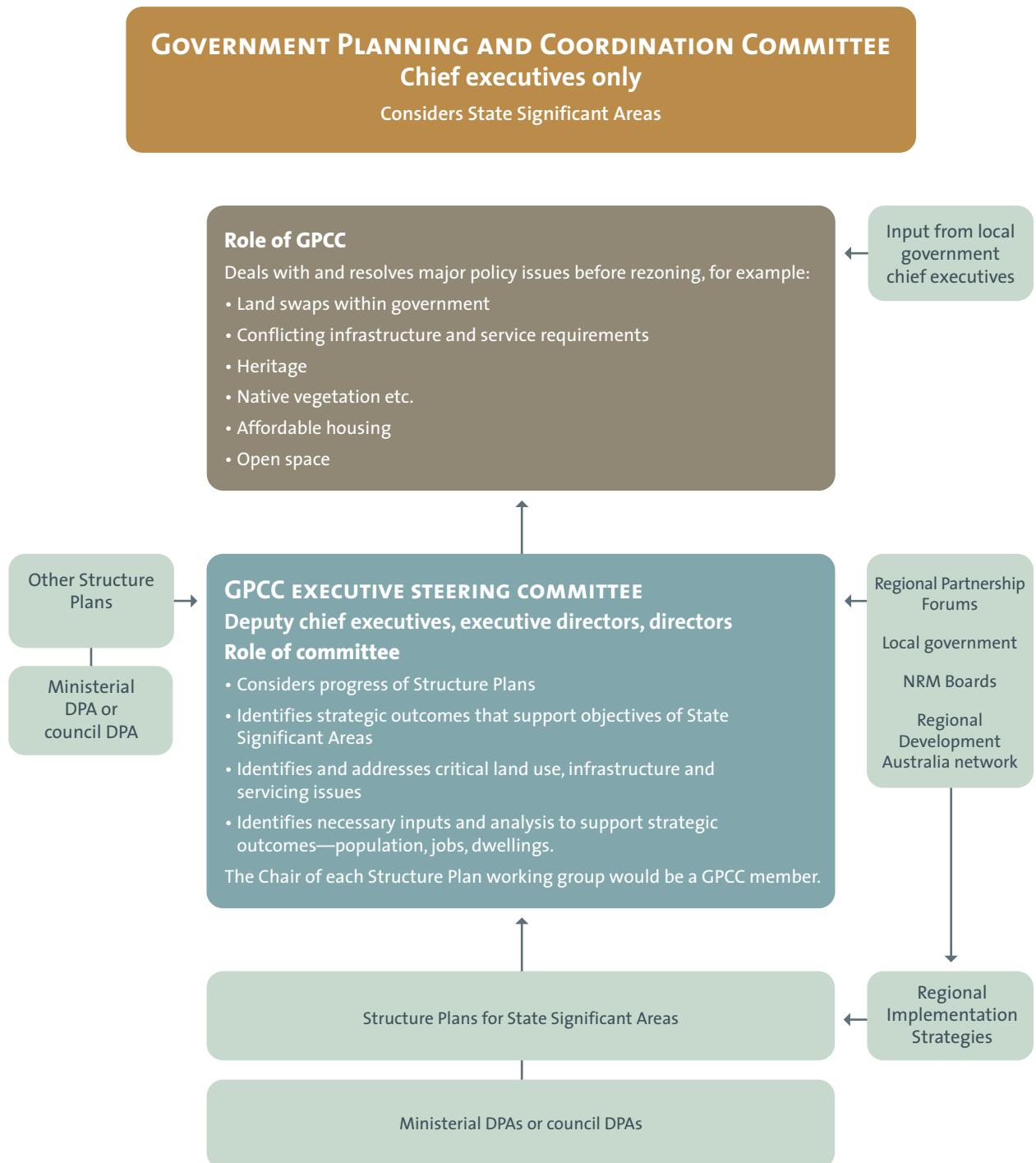
*The 30-Year Plan for Greater Adelaide* is one of the key policy instruments of the South Australian Government to effectively manage population and economic growth and change, and to respond to many of the challenges confronting jurisdictions across Australia. As such, it is proposed to strengthen whole-of-government coordination in the implementation of the Plan. This will involve the coordination of major decisions that need to be taken through the life of the Plan; the monitoring of the achievement of policies and targets; and the annual revision of policies and targets to reflect changes in the external environment or changes to government policy.

The recently established Government Planning and Coordination Committee (GPCC) will be the key mechanism to achieve the whole-of-government coordination required to give effect to the Plan. The GPCC brings together and replaces two committees, the Chief Executives' Planning and Development Forum and the Government Urban Coordination Committee, to streamline the decision-making process in state government and ensure greater accountability of individual agencies in the delivery of the Plan's policies and targets.

The GPCC will be made up of state government agency chief executives who will work with chief executives of affected councils to:

- identify State Significant Areas
  - provide clear planning principles and objectives for the future development of these areas
  - resolve issues between agencies that relate to the achievement of these objectives
  - secure and coordinate the delivery of human services and infrastructure required for the development of these areas
  - monitor the implementation of the Plan and facilitate the achievement of specific policies and targets
  - elevate strategic issues and/or decision making to the Cabinet level where relevant.
- As the role of the GPCC will be of a high-level-strategic nature, the committee will be supported by an executive steering committee, made up of senior executives from state government agencies (see Figure F1). The steering committee will be responsible for:
- identifying key strategic outcomes that support the objectives developed for State Significant Areas
  - identifying the level of input and analysis required to meet these strategic outcomes
  - addressing critical infrastructure, servicing and land-use issues associated with the development of new growth areas and transit corridors
  - integrating the outcomes of Local Government Regional Partnership Forums and Regional Implementation Strategies into Structure Plans
  - overseeing and approving the Structure Planning priorities for new growth areas and transit corridors.

Figure F1 – Government Planning and Coordination Committee and executive steering committee structure



By engaging agencies and local government at the senior executive level at an early stage in the planning process, the GPCC and its executive steering committee will efficiently resolve many of the key policy issues (for example, heritage, native vegetation and affordable housing) arising from proposed land-use changes in transit corridors and new growth areas.

The proposed arrangements will also allow state government agencies to better align their own service and infrastructure plans with *The 30-Year Plan for Greater Adelaide*. These plans include providing new infrastructure/services in new growth areas, as well as the upgrade and maintenance of infrastructure/services by public and private service providers in urban areas targeted for infill development.

### Linking planning with infrastructure

As part of the whole-of-government approach to implementing the Plan, it is proposed to formalise the link between *South Australia's Strategic Plan*, the long-term strategic planning contained in the Plan, and state and local government infrastructure planning and investment. This approach has been adopted in other Australian jurisdictions and is intended to provide a clear direction for state planning and investment consistent with the state's strategic objectives. The approach also aligns with COAG's objective to establish best-practice principles for strategic land-use and infrastructure planning across jurisdictions to facilitate timely and efficient investment in economic and social infrastructure.

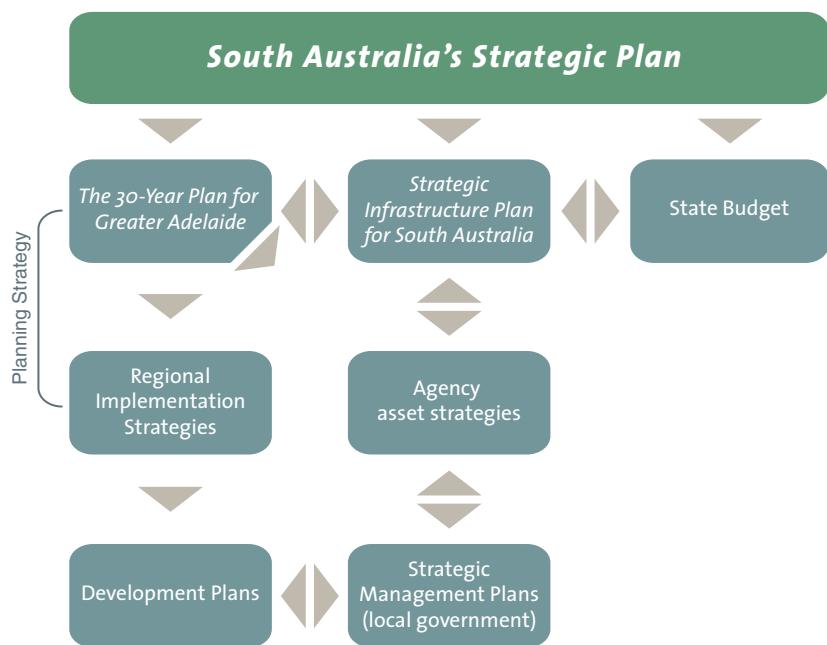
To achieve this link, it is proposed that *The 30-Year Plan for Greater Adelaide* be a key input to major infrastructure and government investment decisions. That is, the Plan will be used to shape the following decision-making processes:

- Infrastructure planning—the *Strategic Infrastructure Plan for South Australia* and local government Strategic Management Plans
- Asset management—provisions of Premier and Cabinet Circular 114, *Government real property management*, as well as individual agency asset strategies
- Project evaluation processes—the five-phase evaluation process set out in Treasurer's Instruction 17, *Guidelines for the evaluation of public sector initiatives*, and the *Strategic Infrastructure Plan for South Australia*
- Spending priorities—the State Budget.

It is envisaged that the *Strategic Infrastructure Plan*, individual agency asset strategies and major infrastructure business cases will be developed in a way that demonstrate their contribution to, and spatial relationship with, the Plan. Similarly, the State Budget will report on those spending priorities consistent with the growth priorities contained in the Plan.

In addition, each local government is required to provide assessments of strategic and infrastructure planning and investment in their Strategic Management Plans (required under section 122 of the *Local Government Act 1999*). The Strategic Directions Reports prepared by councils under section 30 of the *Development Act 1993* are also required to address each council's strategic planning issues with particular reference to the South Australian Planning Strategy. These Strategic Directions Reports and Strategic Management Plans will be informed by Regional Implementation Strategies developed by regional groupings of councils, in partnership with the Department of Planning and Local Government and relevant state government agencies (see Planning instruments to execute the Plan).

**Figure F2 – Relationship of *The 30-Year Plan for Greater Adelaide* with South Australia’s strategic and project planning and investment**



## The role of the Department of Planning and Local Government

The Department of Planning and Local Government is the lead agency for the implementation of *The 30-Year Plan for Greater Adelaide*. The department has primary carriage for the Plan's implementation and will be the main point of contact for state agencies, local government and the community more generally.

Its specific role will be to:

- coordinate the partnership with local government for the execution of the Plan. This will involve working with councils to prepare and maintain Regional Implementation Strategies, and manage and coordinate Local Government Regional Partnership Forums. The department will establish clear points of accountability and contact to ensure local government participates in the Structure Planning process while having access to state government advice to implement the Plan
- work with state government agencies and local government to secure the necessary infrastructure commitment and service provision to support the development of transit corridors, activity centres, transit-oriented developments and new growth areas
- prepare Structure Plans for State Significant Areas in collaboration with state government agencies and local government, including
  - ▶ the five major transit corridors
  - ▶ major new growth areas
- assist local government in the preparation of Structure Plans for other designated transit corridors
- assist local government with relevant amendments to Development Plans that arise from the implementation of the Plan. These include ensuring alignment of the Plan's policies and targets with Development Plan policies and targets
- provide opportunities for ongoing community engagement in the implementation of the Plan

- manage the Housing and Employment Land Supply Program to ensure
  - ▶ the timely release of land for housing in established areas and new growth areas
  - ▶ the synchronisation of industrial and other employment land with the provision of residential housing and associated infrastructure
- develop and maintain the report card to monitor the implementation of the Plan and use it to inform the annual report<sup>98</sup> from the Minister on the implementation of the Planning Strategy
- regularly liaise with COAG to ensure that the delivery of the Plan continues to align with the national objectives and criteria for the strategic planning of Australia's major cities.

### Community engagement

It is imperative that the community supports the Plan if its policy objectives and housing and employment targets are to be met. For this reason, a key requirement of the proposed implementation arrangements will be for the Department of Planning and Local Government to organise opportunities for people to have meaningful input into the ongoing development of neighbourhoods, activity centres, transit corridors and new growth areas.

Opportunities for community engagement will be provided through the various planning instruments used to execute the Plan (see Planning instruments to execute the Plan), in addition to the opportunities currently prescribed by legislation through the *Local Government Act 1999* and the *Development Act 1993*. It is envisaged that community and stakeholder groups will have input into the development of Regional Implementation Strategies and Structure Plans. It is also intended that state government agencies, local councils and regional bodies (including Natural Resources Management Boards and relevant bodies of the Regional Development Australia network) will properly engage the community in initiatives shaping the development of Greater Adelaide.

<sup>98</sup> Pursuant to section 22(6) of the *Development Act 1993* (see Appendix 1).

## Partnering with local government

### The role of local government

The Plan has been prepared in close consultation with local government. The proposed governance and implementation arrangements seek to build on these consultative relations to ensure ongoing local government participation and collaboration in the realisation of the Plan's policies and targets.

The specific role of local government, in partnership with the Department of Planning and Local Government, will be to:

- participate in Local Government Regional Partnership Forums, which will prepare and maintain Regional Implementation Strategies
- participate as required in the GPCC and GPCC executive steering committee to resolve critical infrastructure, servicing and land-use issues associated with the development of new growth areas, activity centres, transit-oriented developments and transit corridors
- collaborate with state government agencies and key stakeholders to prepare Structure Plans
- prepare Development Plan Amendments (DPAs) that arise from the implementation of the Plan
- develop Precinct Requirements in State Significant Areas, transit-oriented developments, significant growth precincts and activity centres
- assist proponents in the preparation of Precinct Development Applications
- provide opportunities for community engagement in shaping transit corridors, activity centres and new growth areas.

It is recognised that local government will play a pivotal role in the successful implementation of the Plan. In particular, Local Government Regional Partnership Forums will drive the partnership with state government, key stakeholders (such as the Natural Resources Management Boards and relevant bodies of the Regional Development Australia network) and the broader community in planning for the sustainable and efficient spatial distribution of the Plan's policies and targets.

## **The role of Local Government Regional Partnership Forums**

It is proposed that Local Government Regional Partnership Forums, made up of the same regional groupings of councils that were consulted during the development of the Plan, will become permanent features of the implementation and governance arrangements giving effect to the Plan. These forums will meet biannually (or as recommended by the GPCC) with the Department of Planning and Local Government and other key stakeholders to ensure a continuous dialogue about the implementation of the Plan.

Specifically, the forums will contribute to:

- annual reviews and updates of housing and employment targets
- preparing Regional Implementation Strategies

- coordinating implementation at a regional level
- coordinating participation in and preparation of Structure Plans
- identifying major infrastructure priorities to support housing and employment growth
- coordinating consistency of Development Plans with the Plan
- aligning council Strategic Management Plans with the regional policies and targets of the Plan.

It is anticipated that the Local Government Regional Partnership Forums will drive the development of Regional Implementation Strategies, and facilitate an agreed approach between local government and state government agencies on how the Plan's population, housing and employment targets should be distributed across the relevant region.

The forums also will assist in integrating natural resources management and economic development priorities into the new planning system. The involvement of relevant bodies of the Regional Development Australia network will be an important way of encouraging balanced economic and employment growth across the regions of Greater Adelaide. Similarly, the involvement of Natural Resources Management Boards will assist in maintaining and enhancing biodiversity.

## Planning instruments to execute the Plan

### Rationale

To achieve the new urban form in a way that complements and builds on the existing character of Greater Adelaide while supporting economic growth, social equity and environmental sustainability objectives, the South Australian Government will implement a new approach to land-use planning. This is intended to achieve several objectives, including:

### Fast-track delivery of housing in transit corridors and transit-oriented developments

A critical element of the Plan's success will be the ability to fast-track changes to urban form and the planning of new housing, new jobs and related services in transit corridors and major transit-oriented developments. This is essential to ensure that these areas are not subject to unplanned and ad hoc urban development, which may result in poor design, poor outcomes and a missed opportunity to provide for increased housing densities and mixed-use activities around railway stations, activity centres and transport interchanges.

Similarly, if additional densities in the transit corridors and transit-oriented developments are not achieved early, there is a risk that pressure will be put on the State Government to release more land on the fringe—beyond what is estimated in the Plan to maintain housing affordability. This will compromise the Plan's objectives to preserve primary production and environmentally significant lands. It will also place an unsustainable demand on the state's capacity to provide quality infrastructure in a timely manner.

Structure Plans and Precinct Requirements will be the key instruments used to fast-track the delivery of housing and associated activities, services and infrastructure in transit corridors and transit-oriented developments.

### Support the existing character of Greater Adelaide

A key theme of the Plan is the need to preserve and complement the existing character of neighbourhoods and regions of Greater Adelaide. This requires a different approach to delivering some of the elements of the Plan, such as transit corridors and transit-oriented developments. It is proposed that individual Structure Plans and Precinct Requirements will be used to set specific objectives for key corridors and transit-oriented developments (see descriptions of Structure Plans and Precinct Requirements).

### **Improved coordination of transport and infrastructure**

A key rationale for the proposed approach to land-use planning is the recognition that transit corridors will cross multiple local government boundaries. It will be important to achieve a consistent urban form and character for these areas. This is more likely to be achieved through a coordinated whole-of-government planning approach than through separate local government planning instruments, which would unnecessarily increase the workload of local government.

Coordinating the delivery and timing of major infrastructure such as transport, health and education in corridors and growth areas will be an essential task of the Department of Planning and Local Government in partnership with state government agencies and local government through the new Government Planning and Coordination Committee.

### **Providing communities that are connected and promote a sense of place**

Importantly, key areas for growth, such as transit-oriented developments, activity centres and new growth areas, will be subject to specific design requirements to ensure they are community focused and provide both residents and workers with a sense of place. Design requirements will be used to ensure that each site has a distinct character and is developed in a way that promotes connectivity with adjacent land uses and is an easy walk to services, shops and recreational areas. Precinct Requirements will be the key instrument used to plan for well connected, well designed and well serviced communities that promote a sense of place.

### **Economic efficiency and predictability of land use**

The Plan delivers two of the main recommendations of the State Government's Planning Reforms (2008). The first is to fast-track the rezoning of land for residential and employment purposes through the use of Structure Plans. The second is to identify State Significant Areas (such as transit corridors, activity centres, transit-oriented developments and new growth areas) where the State Government, in partnership

with local government, takes responsibility for achieving important social, environmental and economic outcomes. These recommendations are an essential component of reducing red tape, improving certainty and supporting sustainable and economically efficient outcomes.

The fundamental purpose of producing Structure Plans for new growth areas and transit corridors and Precinct Requirements for transit-oriented developments and other activity centres is to make the major policy and zoning issues and main objectives and outcomes for an area clear at the start of the planning process. This will not only speed up the land development process, but will also give certainty to investors about the types of activities that are allowed in a corridor, activity centre, growth area, or transit-oriented development. It is anticipated that this predictability and certainty will be a drawcard for investment and job creation and provide opportunities for more innovative approaches to planning for sustainable and cohesive communities across Greater Adelaide.

## The proposed hierarchy of planning instruments to implement the Plan

Six key planning instruments will be used to implement the policies and targets of the Plan. These are:

- the Plan itself, which forms part of the South Australian Planning Strategy and is the main document to guide state and local government decision-making.
  - Regional Implementation Strategies, which will bring together land-use policies, targets and a description of major infrastructure at a regional level.
  - Development Plans, which are the land-use policy documents of local government.
  - Structure Plans, which will guide planning in transit corridors and new growth areas by setting out the broad objectives, priorities, land-use activities and key infrastructure in each area.
  - Precinct Requirements, which will guide planning for transit-oriented developments, activity centres and other designated areas by setting the framework for proponents to prepare Precinct Development Applications and individual development applications.
  - the development of Structure Plans for State Significant Areas
  - the distribution of housing and employment growth
  - the location of human services and infrastructure
  - areas of primary production and mining activities
  - areas of environmental and biodiversity significance.
- These planning instruments and their roles, functions and relationship to one another are described in detail below.

### **The Plan**

The South Australian Planning Strategy, under section 22 of the *Development Act 1993*, will include *The 30-Year Plan for Greater Adelaide* and the five regional volumes for country South Australia being prepared by the Department of Planning and Local Government.

The Plan will be the primary spatial and land-use policy document to guide development decisions for Greater Adelaide. It will provide the primary land-use framework for:

- the location of major transit corridors, transit-oriented developments, activity centres and new growth areas

The Plan effectively provides the spatial expression of *South Australia's Strategic Plan*. The spatial development of Greater Adelaide, in particular the objective to achieve a compact and carbon-efficient city where the majority of new development is to occur in the existing urban area, will make a significant contribution to the realisation of *South Australia's Strategic Plan* targets. The Plan is therefore a key instrument in achieving the State Government's vision for South Australia by strengthening the state's competitive advantage and capacity to meet future environmental, economic and social challenges.

## **Regional Implementation Strategies**

Regional Implementation Strategies are intended to give spatial expression to the Plan's policies, targets and major infrastructure priorities at the regional level. These strategies will be used by state and local government agencies to guide the development of the seven Government Administrative Regions in Greater Adelaide, to coordinate the distribution of land uses and delivery of infrastructure to support growth, and to integrate natural resources management objectives into the regional planning framework by identifying:

- objectives and guiding principles for the future development of the region
- individual corridor targets and priorities for population, housing and employment growth
- key infrastructure provision and service requirements to support growth
- important biodiversity areas and corridors for protection
- State Significant Areas.

Regional Implementation Strategies will be accessible to the community, with local government acting as the key contact for community consultation and engagement about the future development of transit corridors, activity centres and new growth areas.

The Regional Implementation Strategies will be prepared by regional groupings of councils and relevant state government agencies in partnership with the Department of Planning and Local Government. They should be read alongside, and be reflected in, the Strategic Management Plans prepared by councils.

## **Development Plans**

All Development Plans will need to be consistent with the Plan's policies and targets pursuant to the *Development Act 1993*. Under section 30 of the Act, the Minister can require a review of the Development Plan when inconsistencies arise. This approach to the relationship between the Plan and Development Plans was endorsed by the state's Planning Reforms (2008) to ensure that local Development Plans are regularly updated to be consistent with and complement the objectives of *The 30-Year Plan for Greater Adelaide*.

Development Plans will continue to be the main document for planning controls in local government areas and will be aligned with the South Australian Planning Strategy within three years. In areas where a Structure Plan is adopted, Development Plans will be made consistent with the Structure Plan within 12 months of its adoption. Consultation on Structure

Plans in priority corridors and Structure Plan Development Plan Amendments (DPAs) may occur simultaneously in some cases to enable fast-tracked reform.

## **Structure Plans**

Structure Plans will be used to set the land-use directions for transit corridors and new growth areas. Structure Plans will determine the range of complying uses in an area. These plans will also contain key land-use objectives and design principles.

## **Structure Plans for State Significant Areas**

The key role of Structure Plans for State Significant Areas will be to determine the range and location of land-use activities in an area, and the economic and social infrastructure required to support those activities. In addition, Structure Plans will identify major precincts, such as transit-oriented developments, activity centres, transport interchanges and open-space areas, while establishing the key land-use objectives and policies for a given area including:

- broad objectives and performance standards to reflect the proposed growth pattern for the area
- the location, type and density of activities that complement the proposed growth pattern for the area

- the major infrastructure that will be needed to support the proposed growth pattern for the area
- the major transport routes, transport thoroughfares and transport interchanges, such as stations and bus depots
- targets for water and energy efficiency and, where appropriate, targets for stormwater capture and re-use
- areas that require precinct planning and where development may be able to occur under a Precinct Development Application
- design guidelines and desired outcomes for an area, including built form, orientation and height limits
- areas to be set aside for heritage and conservation.

An important function of Structure Plans will be to acknowledge the spatial context in which development is to occur and so avoid a one-size-fits-all approach. The level of policy detail incorporated into Structure Plans for new growth areas, for instance, will be different to that for transit corridors, where interface issues with adjoining development may require particular design responses.

**Structure Plans for State Significant Areas**

Significant Areas will be prepared in two stages. The first will be a high-level objective statement that will be considered by state government agencies and affected local governments through the GPCC and then considered by Cabinet. This will resolve the major land-use priorities and infrastructure priorities across agencies. The second stage will involve detailed planning by the Department of Planning and Local Government in partnership with councils, relevant state government agencies and private sector proponents.

**Structure Plans for State Significant Areas**

Significant Areas will be gazetted as volumes of the South Australian Planning Strategy pursuant to section 22 of the *Development Act 1993*.

The major land-use changes and zoning requirements that arise from the Structure Plans for State Significant Areas will be used by the Minister to change the relevant Development Plans. This will be done via a Ministerial DPA under section 26 of the *Development Act 1993*. As such, an approved Structure Plan will lead to rezoning of land for uses deemed complying through the Structure Plan DPA. This rezoning will occur on a staged basis with priority given to major precincts such as transit-oriented developments or mixed-use activity centres.

**Structure Plan DPAs**

Structure Plan DPAs which rezone major sites will be prepared by the Department of Planning and Local Government in partnership with affected local councils. These DPAs will set the zoning, performance criteria and key outcomes for remaining lands within the Structure Plan area, enabling local councils to play a stronger role in the detailed structure planning of these remaining areas.

#### *Other Structure Plans*

Structure Plans will also be used to give effect to Regional Implementation Strategies by establishing the land-use priorities and directions for large areas of a region, such as transit corridors and new growth areas. Structure Plans for these areas will be prepared by local councils with assistance from the Department of Planning and Local Government and supported by decisions about critical infrastructure and servicing requirements made by public and private service providers.

## Precinct Requirements and Precinct Development Applications

Precinct Requirements will be developed by the Department of Planning and Local Government in consultation with affected councils for State Significant Areas, transit-oriented developments, significant growth precincts and activity centres. Broad performance criteria will be set for specific precincts in the Structure Plan (including areas within precincts). These criteria will be incorporated into the relevant Development Plan through the Structure Plan DPA and will include requirements for infrastructure provision, density, building form and orientation, water and energy efficiency and a range of urban design quality thresholds.

Precinct Development Applications could then be made by a proponent for either one or multiple areas in the Precinct. In order to be approved, Precinct Development Applications will need to address both the Development Plan provisions established through the Structure Plan DPA and the requisite Precinct Requirements. It is envisaged that private developers willing to make the necessary infrastructure investment and/or amalgamate sites to create the pre-conditions for a developable Precinct will benefit from the faster approvals process proposed.

Depending on the type and location of development, Precinct Requirements will specify a range of criteria that will need to be addressed in the Precinct Development Application, such as:

- numbers of dwellings and densities
- detailed design parameters of the precinct, including building height, activation of street frontages, urban design and desired character, and building orientation, siting and setbacks
- public realm design requirements (including criteria for connectivity and interface management)
- detailed designs and elevations for significant buildings (a set of threshold criteria, including size, will be set by the Precinct Requirements)
- heritage and conservation areas
- open-space areas
- relevant easements and provision for utilities
- walkways and cycle ways
- roads and transport thoroughfares (where relevant)
- types of services, for example, retail, health, education and employment, and the broad location of these services.

Precinct Development Applications will need to contain enough detail to enable an adequate independent assessment by the relevant development authority (either council or the Development Assessment Commission) regarding compliance with the Precinct Requirements. Where the Precinct Development Application is consistent with both the Development Plan provisions and Precinct Requirements, it will be approved as a complying development by the relevant authority.

In this way, multiple applications will not be required for individual components of a development, provided these individual components are consistent with the approved Precinct Development Application. For example, a Precinct Development Application may set out detailed proposals for mixed residential and retail use around a railway station. Once this Precinct Development Application is approved, there will be no need to submit an individual development application for one of the residential buildings, so long as the building reflects what is specified in the approved Precinct application. In cases where the building does not reflect the approved Precinct Development Application, the proponent will need to prepare and lodge a variation to the application.

The proponent may also have the option of having particular details that are not considered fundamental to the development considered as ‘reserved matters’ to be approved at a later date if consistent with the approved Precinct Development Application.

It is important to note that this process refers to the planning assessment only and not building rules consent, as all buildings must comply with the Building Code of Australia.

Precinct Development Applications will operate under the same principles as applications under the Residential Development Code. They will need to be assessed for their compliance against the Structure Plan DPA and the Building Code of Australia. The purpose of the assessment, as with the Residential Development Code, is to check compliance with a codified set of criteria contained in the Structure Plan DPA and the Precinct Requirements, and so mitigate the need for a full merit assessment of individual development applications. As the Structure Plan DPA will have already rezoned the land, a proponent will not have to seek spot rezoning.

The intent of amending Development Plans through Structure Plans and using Precinct Development Applications as large-scale development applications is to:

- minimise delays in the assessment process by requiring matters to be dealt with up-front or early during the Structure Planning phase rather than revisiting strategic policy issues for each major development (such as a transit-oriented development), or for components of a major development (such as individual buildings) on a case-by-case basis
- allow the proponent flexibility to vary the proposal over time in response to market changes provided it remains within the Precinct Requirements and the parameters set by the approved Precinct Development Application
- provide the proponent with sufficient certainty to secure the necessary finance for the large-scale development of precincts and key activity centres
- complement the regulatory and development assessment reforms being promoted through COAG to facilitate and support economic growth.

### **Development applications for small subdivisions**

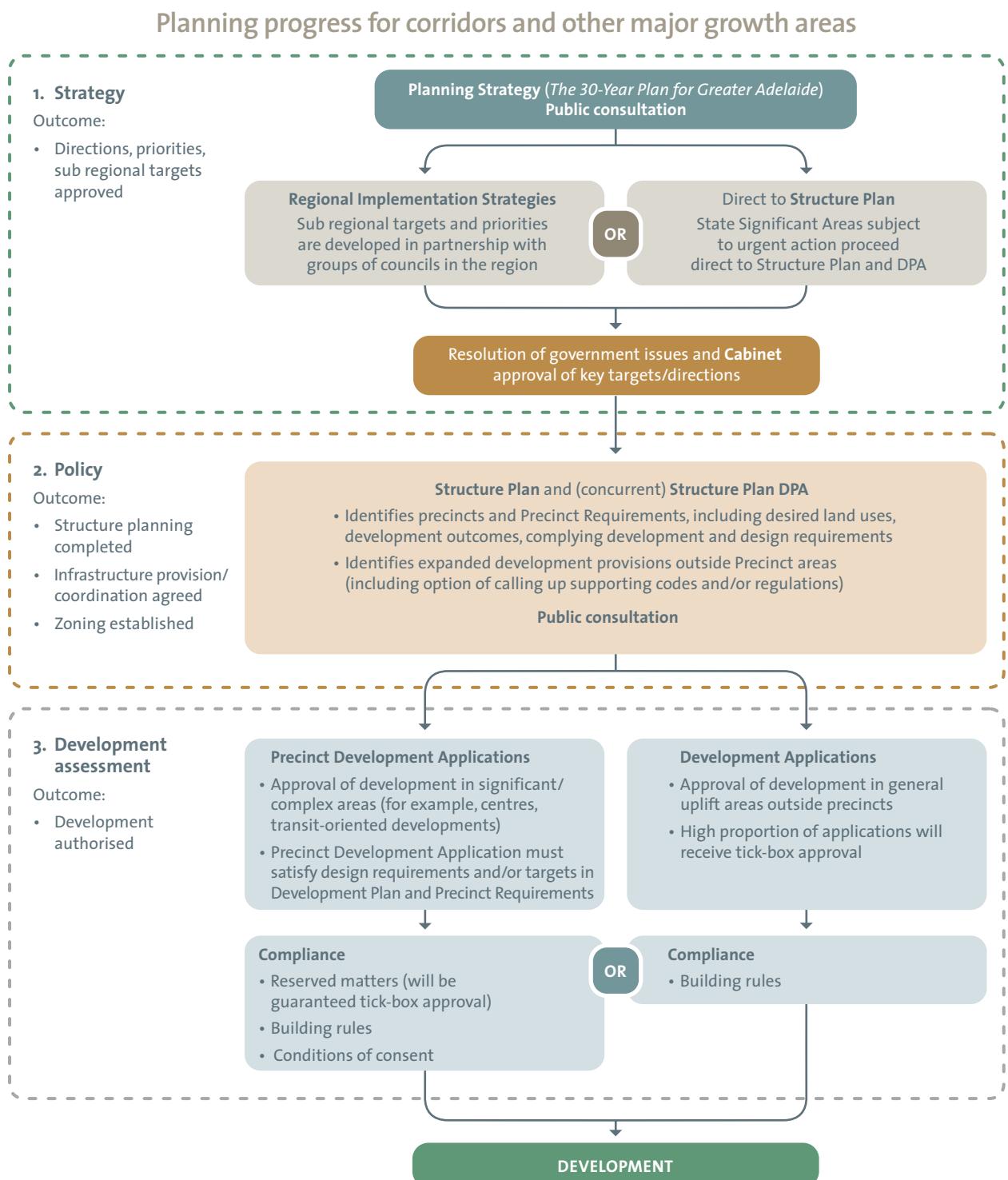
In a transit corridor or growth area that is subject to a Structure Plan, small-scale redevelopment or construction will be given the same status as development prepared under Precinct Requirements. This recognises that not all development in a transit corridor will be on a large scale of the type characteristic of a transit-oriented development.

Instead, many developments in a transit corridor will be limited to less than 20 residential dwellings or small-scale commercial and retail activities. Normally these would be dealt with as merit applications and would require full merit assessment. If the development was not consistent with the zoning, a request for rezoning could also be needed.

Under the proposed implementation arrangements for the Plan, developments of this nature will be treated as complying development provided they are consistent with the objectives and broad performance criteria of the Structure Plan. That is, merit assessment will not be necessary, although building rules consent will be.

Figure F3 shows the proposed planning instrument governance under the Plan.

Figure F3 – Planning instrument governance



## Effective management of land supply

A critical element of the successful governance of the Plan will be improving the effectiveness of the management of land supply for residential and employment (commercial and industrial) purposes.

This will be a significant program of work and is a complex task. As stated, Greater Adelaide's land supply system should produce 10,100 new residential dwellings and land for an average increase of 9000 jobs a year over the life of the Plan to meet population, housing and employment growth targets.

The Plan proposes that the Metropolitan Development Program and the Industrial Land Program are brought together to form the Housing and Employment Land Supply Program to cover Greater Adelaide.

The program's fundamental role is to ensure that there is sufficient land capacity to meet the annual housing and employment targets and that capacity is spread equitably across the region to avoid market volatility. The South Australian Government has determined through the Planning Reforms (2008) that at any given time there needs to be a 25-year supply of land identified, which includes a 15-year supply of zoned land. The key task of the program is to ensure that there is enough supply to achieve annual targets.

The Housing and Employment Land Supply Program is an important tool to deliver the housing and employment targets articulated in the Plan and the State Government's policy on land supply. To achieve this, the specific functions of the Department of Planning and Local Government in administering the program will be to:

- set an annual dwelling production target (by subregion) to provide potential developers with information about land that has been or is to be rezoned for employment and residential purposes
- provide maps of available land for housing and employment showing the links between lands identified for residential and employment purposes and major transport connections (including transport upgrades)
- trigger the requirement for Structure Plans to be prepared for transit corridors and new growth areas
- prepare an annual report on land availability, housing affordability and region-wide housing and employment land targets.



## Monitoring and reporting

Effective monitoring of the Plan's policies and targets is essential to ensure that the objectives and principles are achieved. Monitoring will also ensure that the Plan is responsive to changes in population and the economy, housing market and environment. In this way the Plan will be adaptive to better inform and manage changes to the competitiveness, liveability and sustainability of Greater Adelaide.

A decision to update the Plan annually rather than conducting a full review every five years was one of the key reforms in the 2008 Planning Reforms.

An annual monitoring, evaluation and reporting system will be implemented to assess the progress and result of implementing the Plan. This system will adopt a report card format modelled on international best practice, such as the London Plan.

The report card (see Appendix 4) will be used by Cabinet and the GPCC to track the progress of the implementation of the policies and targets. It will also be used to monitor major demographic, economic and environmental changes (for example, climate change), which may trigger a change in policies and/or targets. For example, the deterioration of housing affordability may trigger the fast-tracking of additional residential land supply.

While the key performance indicators will remain relatively constant for the life of the Plan, the targets may need to be adjusted to meet changing conditions. The monitoring indicators will be continuously developed and refined to provide the most accurate, timely and relevant measures for evaluating the success of the Plan.

These monitoring arrangements align with COAG's objective to provide for evaluation and review cycles that identify any requirement for a change in policies and targets.



# APPENDICES

## Appendix 1 – Legislative requirements

The South Australian Planning Strategy is the main strategic tool of the South Australian *Development Act 1993*. The Planning Strategy has a statutory effect in that land-use zoning and development policies in local Development Plans must be consistent with it.

*The 30-Year Plan for Greater Adelaide* is part of the South Australian Planning Strategy.

*The 30-Year Plan for Greater Adelaide* has been prepared in accordance with section 22 of the *Development Act 1993*.

### **Section 22—The Planning Strategy**

- (1) In this section—  
*the appropriate Minister* means the Minister to whom the Governor has from time to time, by notice in the Gazette, assigned the functions of appropriate Minister for the purposes of this section.
- (2) The appropriate Minister must ensure that a Planning Strategy for development within the State is prepared and maintained.
- (3) The Planning Strategy may incorporate documents, plans, policy statements, proposals and other material designed to facilitate strategic planning and co-ordinated action on a State-wide, regional or local level.
- (3a) The Planning Strategy will be taken to include—
- (a) the *Objectives for a Healthy River Murray* under the *River Murray Act 2003* (as in force from time to time); and
  - (b) the objectives of the *Adelaide Dolphin Sanctuary Act 2005*; and
- (c) the objects of the *Marine Parks Act 2007*, and the appropriate Minister may, as the appropriate Minister thinks fit, make textual alterations to the Planning Strategy to incorporate those objectives into the Planning Strategy.
- (3b) The Minister must ensure that the various parts of the Planning Strategy are reviewed at least once in every 5 years.
- (3c) Different parts may be reviewed at different times but any review must include—
- (a) an assessment of relevant trends in the strategies of the Government; and
  - (b) an assessment of the consistency between the part or parts under review and other major policy documents and strategies of the Government that are relevant to the material under review (as determined by the Minister),
- (and may include other matters as the Minister thinks fit).

# APPENDICES

## Appendix 1 – Legislative requirements

- (4) The appropriate Minister must, in relation to any proposal to create or alter the Planning Strategy—
  - (a) prepare a draft of the proposal; and
  - (b) by public advertisement, give notice of the place or places at which copies of the draft are available for inspection (without charge) and purchase and invite interested persons to make written representations on the proposal within a period specified by the Minister.
- (4a) Subsection (4) does not apply with respect to an alteration of the Planning Strategy pursuant to subsection (3a).
- (5) The appropriate Minister must—
  - (a) make appropriate provision for the publication of the Planning Strategy; and
  - (b) ensure that copies of the Planning Strategy are reasonably available for inspection (without charge) and purchase by the public at places determined by the Minister; and
- (6) The appropriate Minister must, on or before 31 October of each year in respect of a preceding financial year, prepare a report on—
  - (a) the implementation of the Planning Strategy;
  - (b) any alteration to the Planning Strategy (including the general effect or implications of any such alteration);
  - (c) community consultation on the content, implementation, revision or alteration of the Planning Strategy;
  - (d) such other matters as the Minister thinks fit.
- (7) The appropriate Minister must, within six sitting days after completing the report, cause copies to be laid before both Houses of Parliament.
- (7a) The report required under subsection (6) may be incorporated into (and presented as part of) the annual report of the Minister under section 21.
- (8) The Planning Strategy is an expression of policy formed after consultation within government and within the community and does not affect rights or liabilities (whether of a substantive, procedural or other nature).
- (9) The Planning Strategy is not to be taken into account for the purposes of any application, assessment or decision under Part 4 (other than Division 2 of that Part).
- (10) No action can be brought on the basis—
  - (a) that a Development Plan, or an amendment to a Development Plan, approved under this Act is inconsistent with the Planning Strategy; or
  - (b) that an assessment or decision under this Act (including an assessment or decision under Division 2 of Part 4) is inconsistent with the Planning Strategy.

# APPENDICES

## Appendix 2 – Assumptions and sources for greenhouse gas emissions reduction forecasts

This appendix contains the assumptions and sources of the data used in the modelled emissions reduction forecasts in Figures C3, C4 and D1.

Measure	Name	Value	Source/comment
Implementation rate for each greenhouse gas reduction measure		Implementation starting level	
	Smaller dwellings	10%	This measure is forecast to be implemented gradually, starting at 10% of full performance in 2010 and moving to 100% implementation by 2038.
	Better buildings (six star)	100%	This measure is forecast to operate at 100% implementation to start no later than 2011, when it is expected.
	Avoided sprawl	10%	These measures are forecast to be implemented gradually, starting at 10% of full performance in 2010 and moving to 100% implementation by 2038.
	Better air conditioning	10%	
	New distributed energy	10%	
	Business as usual emission reductions for SA in a low-carbon economy	1.3%	The national and state low-carbon policy measures are assumed to hold emissions constant until 2015 and then reduce them by 1.3% a year (based on Commonwealth Treasury modelling estimates for CPRS-5 scenario). From <i>Australia's low pollution future: The economics of climate change mitigation</i> , Commonwealth of Australia, 2008, at < <a href="http://www.treasury.gov.au/lowpollutionfuture/">www.treasury.gov.au/lowpollutionfuture/</a> >.

# APPENDICES

## Appendix 2 – Assumptions and sources for greenhouse gas emissions reduction forecasts

Measure	Name	Value	Source/comment
<b>Smaller dwellings</b>	Projected new buildings under the Plan:		<i>The 30-Year Plan for Greater Adelaide</i> forecasts. High density = average floor area of 147m <sup>2</sup> ; medium density = average floor area of 147m <sup>2</sup> ; detached = average floor area of 197m <sup>2</sup> .
	High density housing types	36,000 (14%)	
	Medium density housing types	93,000 (36%)	
	Detached housing types	129,000 (50%)	
	Business as usual:		Building and valuations data supplied by DPLG. ‘High density’ area estimates include allowances for common areas.
	High density housing types	10,000 (4%)	
	Medium density housing types	52,000 (20%)	
	Detached housing types	196,000 (76%)	
	Based on energy star rating of	5	NatHERS performance for new buildings accessed at < <a href="http://www.nathers.gov.au/about/pubs/starbands.pdf">www.nathers.gov.au/about/pubs/starbands.pdf</a> >.

# APPENDICES

## Appendix 2 – Assumptions and sources for greenhouse gas emissions reduction forecasts

Measure	Name	Value	Source/comment
Better buildings (six star)	Base case energy star rating	5	Proposed NatHERS performance for new buildings accessed at < <a href="http://www.nathers.gov.au/about/pubs/starbands.pdf">www.nathers.gov.au/about/pubs/starbands.pdf</a> >.
	Proposed energy star rating	6	
	Heating and cooling energy sources	Share of energy use	
	Gas	75%	KPMG estimate adapted from energy billing data in <i>Energy task force—Bill data analysis and reporting 2006</i> , Sustainability Victoria, 2006, and on industry knowledge. The Victorian ratio of 78:22 gas to electricity usage in homes was adjusted to 75:25 for South Australia to reflect the state's lower gas availability. These are conservative estimates and any further reduction in usage would improve the impact of this measure.
	Electricity	25%	
	Energy source	Cost	
	Gas	\$0.009/MJ	KPMG estimates based on industry knowledge.
	Electricity	\$0.170/kWh	
	Emission factor	kg CO <sub>2</sub> -e	
	Gas	0.05133 kg CO <sub>2</sub> -e/MJ	National Greenhouse and Energy Reporting (Measurement) Amendment Determination 2009 (No. 1), available at ComLaw, Attorney-General's Department, Australian Government, 2009, < <a href="http://www.comlaw.gov.au/ComLaw/Legislation/LegislativeInstrument1.nsf/asmade/bytitle/F9F9C00E4F78EC03CA2575E000014EB6?OpenDocument">www.comlaw.gov.au/ComLaw/Legislation/LegislativeInstrument1.nsf/asmade/bytitle/F9F9C00E4F78EC03CA2575E000014EB6?OpenDocument</a> >.
	Electricity	0.77 kg CO <sub>2</sub> -e/kWh	

# APPENDICES

## Appendix 2 – Assumptions and sources for greenhouse gas emissions reduction forecasts

Measure	Name	Value	Source/comment
<b>Avoided sprawl</b>	Proportion of transport emissions from residential travel	40%	Adapted from National Greenhouse Gas Inventory, Department of Climate Change, Australian Government, 2007, for SA transport emissions, < <a href="http://www.ageis.greenhouse.gov.au/">www.ageis.greenhouse.gov.au/</a> >.
	Saving per house from more compact city	25%	Professor Peter Newman forecasts a 50% reduction in car travel from transit-oriented developments in his presentation 'Resilient cities: Responding to the crash, peak oil and climate change', < <a href="http://www.sustainability.curtin.edu.au/local/docs/Resilient_cities.pdf">www.sustainability.curtin.edu.au/local/docs/Resilient_cities.pdf</a> > accessed on 4 January 2010. This was discounted by 25% for Adelaide to account for the limited mass transit opportunities.
	Current proportion of houses within 500 m of transit node	30%	Estimate based on Department of Planning and Local Government estimates.
	Proposed proportion of houses within 500 m of transit node	60%	Forecast as a result of implementing <i>The 30-Year Plan for Greater Adelaide</i> .
<b>Better air conditioning</b>	Baseline (star level)	6	Proposed minimum standards for new dwellings based on COAG, <i>National strategy on energy efficiency</i> , Commonwealth of Australia, 2009, < <a href="http://www.coag.gov.au/coag_meeting_outcomes/2009-07-02/docs/Energy_efficiency_measures_table.pdf">www.coag.gov.au/coag_meeting_outcomes/2009-07-02/docs/Energy_efficiency_measures_table.pdf</a> >.
	Cooling as a percentage of heating and cooling load in a six-star dwelling	9%	Savings modelled on evaporative units specified in new dwellings only. Savings from mandatory standards in existing dwellings are not included. Adapted from DEWHA 2008, Energy use in the Australian residential sector 1986–2020, DEWHA, Commonwealth of Australia, 2008 (pp 42, 48-49), < <a href="http://www.environment.gov.au/sustainability/energyefficiency/buildings/publications/energyuse.html">www.environment.gov.au/sustainability/energyefficiency/buildings/publications/energyuse.html</a> >.

# APPENDICES

## Appendix 2 – Assumptions and sources for greenhouse gas emissions reduction forecasts

<b>Measure</b>	<b>Name</b>	<b>Value</b>	<b>Source/comment</b>
<b>Better air conditioning</b>	Increased energy demand as a result of climate change (more hot days)	20%	A conservative estimate from CSIRO and Australian Bureau of Meteorology, <i>Climate change in Australia: Technical report 2007</i> , CSIRO, 2007, 'Appendix B—City summaries', Table B1—Projected climate change for Adelaide, < <a href="http://www.climatechangeinaustralia.gov.au/documents/resources/TR_Web_AppendixB.pdf">www.climatechangeinaustralia.gov.au/documents/resources/TR_Web_AppendixB.pdf</a> >. The projections for Adelaide use the low case (A1B) and are discounted by 20% for a discomfort factor.
	Saving from using evaporative cooling instead of refrigerated cooling	75%	Adapted from DEWHA, Energy use in the Australian residential sector 1986–2020, DEWHA, Commonwealth of Australia, 2008, and Choice appliance testing for evaporative coolers and air-conditioning units, < <a href="http://www.choice.com.au/Reviews-and-Tests/Household/Heating-and-cooling/Home-cooling/Portable-evaporative-coolers-review-and-compare/Page/Introduction.aspx">www.choice.com.au/Reviews-and-Tests/Household/Heating-and-cooling/Home-cooling/Portable-evaporative-coolers-review-and-compare/Page/Introduction.aspx</a> > and < <a href="http://www.choice.com.au/Reviews-and-Tests/Household/Heating-and-cooling/Home-cooling/Portable-air-conditioners-2009-review-and-compare/Page.aspx">www.choice.com.au/Reviews-and-Tests/Household/Heating-and-cooling/Home-cooling/Portable-air-conditioners-2009-review-and-compare/Page.aspx</a> > accessed on 4 January 2010.
	Current proportion of refrigerated cooling installed in new dwellings	50%	
	Emissions factor for saving electricity for cooling (tonnes CO <sub>2</sub> per MWh)	0.55	Based on the assumption that peak load electricity demand is met by gas-fired energy rather than the average state-based factor (similar to the Victorian Energy Efficiency Target scheme).

# APPENDICES

## Appendix 2 – Assumptions and sources for greenhouse gas emissions reduction forecasts

Measure	Name	Value	Source/comment
<b>New distributed energy</b>	Carbon savings compared to electricity grid	Contribution to household demand	
	Solar photovoltaics at household scale	25%	The estimated savings per household from using these cleaner technologies compared with business-as-usual emissions have been selected by KPMG based on industry knowledge. These savings are available using current residential-scale technology, but price differences between grid sources are a limiting factor in the technology's uptake.
	On-site geothermal heating and cooling	25%	
	Urban wind generation on high points of new buildings	25%	
	Gas cogeneration (more feasible with higher densities)	50%	
	The Plan (impact on new builds)		
	Solar photovoltaics at household scale	0%	Likely take-up of this technology beyond business as usual, such as Renewable Energy Target (RET) and solar feed-in tariffs. Conservative KPMG estimate based on industry knowledge.
	On-site geothermal heating and cooling	5%	Conservative KPMG estimate based on industry knowledge.

# APPENDICES

## Appendix 2 – Assumptions and sources for greenhouse gas emissions reduction forecasts

<b>Measure</b>	<b>Name</b>	<b>Value</b>	<b>Source/comment</b>
<b>New distributed energy</b>	Urban wind generation on high points of new buildings	3%	Likely take-up of this technology beyond business as usual. Conservative KPMG estimate based on industry knowledge and the Alternative Technology Association's <i>Urban Wind atlas</i> , < <a href="http://www.ata.org.au/news/ata-report-launch-the-victorian-urban-wind-resource-assessment">www.ata.org.au/news/ata-report-launch-the-victorian-urban-wind-resource-assessment</a> >, accessed on 4 January 2010.
	Gas cogeneration (more feasible with higher densities)	20%	Likely take-up of this technology beyond business as usual. Conservative KPMG estimate based on industry knowledge.
	Residential component of SA electricity emissions	20%	KPMG estimate from Garnaut Review, 2008, and <i>Carbon pollution reduction scheme: Australia's low pollution future</i> , White Paper, Department of Climate Change, Australian Government, 2008.
	Star rating of existing housing stock	2.5	Estimated average NatHERS star rating of all existing housing stock.
	Discomfort factor	20%	KPMG estimate based on industry knowledge.
	New house energy star rating	6	Proposed minimum standards for new housing in the implementation of the COAG <i>National strategy on energy efficiency</i> .
<b>Household energy cost saving estimates</b>	Annual savings per house from six-star standards	More than \$400	NatHERS gives a difference of 120 MJ/m <sup>2</sup> per year for an average dwelling size of 186 m <sup>2</sup> . Energy cost estimates per MJ are outlined in <b>Better buildings</b> . Savings are discounted by 20% to allow for a discomfort factor.

# APPENDICES

## Appendix 3 – Activity centre typology

<p>Activity centres provide concentrations of business, administrative, civic, retail, entertainment, employment, research, education and community uses, and—increasingly—residential development. The purpose of activity centres is to cluster commercial and employment activity to improve accessibility, productivity and the efficient use of infrastructure. Many of the traditional activity centres in metropolitan Adelaide, which are adjacent to major public transport access, will become transit-oriented developments through the inclusion of more residential development over the life of the Plan. The Adelaide City centre, encompassing the central business district, is the pre-eminent activity centre in the Greater Adelaide region.</p>	
Adelaide City centre	Provides the primary cultural and economic hub for South Australia and the Greater Adelaide region. The centre for peak services, such as legal, financial and banking, specialist health and medical, educational, the arts and high-quality specialty retail.
Regional centres	Major strategic centres that provide a full range of retail, commercial, administrative, entertainment, recreational and regional community facilities. Priority centres for major investments in significant uses that serve regional catchments.
Major district centres	Major shopping and business centres serving immediate subregional residential population. A more limited range of facilities and less opportunity for major expansion compared with regional centres. Outside metropolitan Adelaide, major district centres contain a broad mixture of activities that serve the surrounding regional hinterland.
District centres	Large centres that provide a range of retail, office, community and entertainment facilities. Shopping usually provides the most significant role, with associated civic, community, commercial and recreational services. Outside metropolitan Adelaide, district centres provide local offices, and health, welfare, entertainment and community facilities.
Bulky goods centres	Centres usually containing large stores selling DIY and household goods (such as carpets, furniture and electrical items) and other specialty retail such as brand outlets. The centres cater mainly for car-borne customers and are located on main roads to ensure exposure to a large catchment.
Specialist centres	Specialist centres include major airports, ports, hospitals, universities, and research and business centres that perform vital economic and employment roles.
Neighbourhood centres	Neighbourhood centres serve local residential communities and incorporate a mixture of services for their daily to weekly needs.
Local centres	Local centres provide for the daily needs of local neighbourhoods, encouraging communities to walk, and also cater for passing traffic.

# APPENDICES

## Appendix 4 – Report card

Below is a sample report card that will be used to report progress on the Plan's implementation (see Monitoring and Reporting in Chapter F).

No.	Key performance indicator	Plan target	Monitoring indicators
1	Increase population growth for Greater Adelaide and by region	560,000 people over 30 years	Net population growth by Greater Adelaide and by region: <ul style="list-style-type: none"><li>■ Net interstate migration</li><li>■ Net overseas migration</li><li>■ Net natural increases</li></ul>
2	Increase the share of Greater Adelaide's urban growth in the existing urban areas of the region	By the end of the Plan's 30 years, 70 per cent of metropolitan Adelaide's new housing will be being built in established areas	Number of infill Structure Plans prepared and approved Number of new dwelling starts in infill areas as a total proportion of housing starts
3	Optimise the density of residential development	Densities around transit corridors and transit-oriented developments are on average 25–35 dwellings per hectare	The proportion increase in attached dwellings in transit corridors, transit-oriented developments and growth areas as a share of total housing growth
4	Mixture of housing supply achieves medium- and long-term forecast household formation	Diversifying stock based on forecast demand and keeping pace with household formation change	Household formation in Greater Adelaide New dwelling types construction

# APPENDICES

## Appendix 4 – Report card

No.	Key performance indicator	Plan target	Monitoring indicators
<b>5</b>	Increase the supply of public open space	A net increase in public open space in transit corridors, transit-oriented developments and growth areas over five-yearly intervals	Number of transit corridor greenways identified and proportion of greenways under development Total amount of public open space provided in transit corridors, transit-oriented developments and growth areas
<b>6</b>	Increase the supply of new net additional dwellings	Land capacity to deliver an average of 8500 dwellings a year	Land capacity to deliver an average of 8500 dwellings a year House movement by dwelling type in Greater Adelaide and by region
<b>7</b>	Increase the supply of affordable dwellings Maintain and improve competitive house prices	At least 15 per cent of all new dwellings in significant new developments and growth areas are accessible to low- to medium-income households and, of this, five per cent is specifically for high-needs people  At least 30 per cent of new housing is at or below the median house price in its market	Proportion of affordable housing products in significant new developments and growth areas  Proportion of new dwellings by region at or below the median house price for the region

# APPENDICES

## Appendix 4 – Report card

No.	Key performance indicator	Plan target	Monitoring indicators
<b>8</b>	Increase the supply of employment lands	Land capacity to deliver an average of 9400 jobs a year	<p>Land capacity to deliver employment lands</p> <p>New jobs starts in:</p> <ul style="list-style-type: none"> <li>■ Greater Adelaide</li> <li>■ transit-oriented developments and transit corridors</li> <li>■ major industry sectors such as manufacturing, defence, ICT, mining, services, clean technology</li> </ul> <p>Price per hectare for industrial land by region in comparison to Australian capital cities</p>
<b>9</b>	Increase labour market participation in Greater Adelaide	282,000 additional jobs over 30 years	An average net increase in the number of jobs of 9400 a year in Greater Adelaide (contingent on the increase in the population)
<b>10</b>	Achieve reduced reliance on the private car and a more sustainable modal shift for journeys	The use of public transport grows faster than the use of private cars per head of population over five-yearly intervals	Vehicle kilometres travelled per person compared to business as usual and other capital cities

# APPENDICES

## Appendix 4 – Report card

No.	Key performance indicator	Plan target	Monitoring indicators
<b>11</b>	Protect and enhance environmental assets	No net loss of biodiversity over five-yearly intervals	Percentage of regional vegetation maintained and improved Number of species lost
<b>12</b>	Increase in energy generated from renewable sources	A net increase in energy generated from renewable sources over five-yearly intervals	Proportion of renewable energy as a percentage of total electricity generation
<b>13</b>	Reduce greenhouse gas emissions through the implementation of the Plan	The implementation of the Plan results in 20 per cent of South Australia's overall greenhouse gas emission reductions over the life of the Plan	Reduction of Greater Adelaide's greenhouse gas emissions
<b>14</b>	Reduce mains water consumption through new developments  Reduce reliance on climate-dependent water resources	Achieve alternatives to mains water for outdoor water use through water-sensitive urban design techniques in all new greenfield developments that are subject to Structure Plans and Precinct Requirements after 2010  Reduce demand for mains water supply from new development through the introduction of water-sensitive urban design and higher-density dwellings	Number of new dwellings with no outdoor taps connected to the mains water supply  Number of dwellings that have implemented water-sensitive urban design  Number of stormwater harvesting schemes preserved in Structure Plans

# APPENDICES

## Appendix 5 – Contribution of the Plan to *South Australia’s Strategic Plan* targets

The new urban form for Greater Adelaide will contribute significantly to *South Australia’s Strategic Plan* (SASP) objectives and targets. These positive impacts on the SASP targets will be, in part, the means for measuring the success of the Plan’s implementation.

SASP target	Plan target
<b>Objective 1—Growing prosperity</b>	
T1.1 Economic growth	Exceed the national economic growth rate by 2014  The Plan is projected to contribute \$11.1 billion to GSP over the life of the Plan over and above a business-as-usual approach to planning, providing a positive contribution to the state’s economy
T1.2 Competitive business environment	Maintain Adelaide’s rating as the least costly place to set up and do business in Australia and continue to improve our position internationally  The Plan is a world-class competitive planning strategy that is projected to underpin jobs growth of 282,000 over the next 30 years in a low emissions economy. Along with attractive and liveable new communities, it will contribute to improving a competitive business environment
T1.6 Labour productivity	Exceed Australia’s average labour productivity growth rate in trend terms by 2014  The Plan is projected to increase South Australia’s productivity growth by 4.6 per cent more than business-as-usual planning over the next 30 years
T1.10 Jobs	Better the Australian average employment growth rate by 2014  The Plan’s share of employment growth is projected to contribute just under 0.2 percentage points a year to the Australian average growth rate

# APPENDICES

## Appendix 5 – Contribution of the Plan to *South Australia's Strategic Plan* targets

SASP target	Plan target
T1.12 Employment participation	Increase the employment-to-population ratio, standardised for age differences, to the Australian average
T1.13 Defence employment	Increase defence industry employment from 16,000 to 28,000 by 2014
T1.21 Strategic infrastructure	Match the national average in terms of investment in key economic and social infrastructure
T1.22 Total population	Increase South Australia's population to two million by 2050, with an interim target of 1.64 million by 2014
T1.23 Interstate migration	Reduce annual net interstate migration loss to zero by 2010, after which sustain a net inflow to 2014

# APPENDICES

## Appendix 5 – Contribution of the Plan to South Australia’s Strategic Plan targets

SASP target	Plan target
<b>Objective 2—Improving wellbeing</b>	
T2.2 Healthy weight	<p>Increase the proportion of South Australians aged 18 years and over by 10 per cent by 2014</p> <p>The spatial organisation of new communities will promote self-containment for housing, jobs and recreation, and encourage walking and bike riding. This will contribute to more active and healthier lifestyles</p>
<b>Objective 3—Attaining sustainability</b>	
T3.1 Lose no species	<p>Lose no known native species as a result of human impacts</p> <p>The Plan will increase the extent of functional ecosystems consistent with the <i>State Natural Resources Management Plan</i></p>
T3.2 Land biodiversity	<p>By 2010 have five well-established biodiversity corridors aimed at maximising ecological outcomes particularly in the face of climate change</p> <p>The Plan will identify and preserve high-value biodiversity lands and seek to protect 115,000 hectares of land</p>
T3.5 Greenhouse gas emissions reduction	<p>Achieve the Kyoto target by limiting the state’s greenhouse gas emissions to 108 per cent of 1990 levels during 2008–12, as a first step towards reducing emissions by 60 per cent (to 40 per cent of 1990 levels) by 2050</p> <p>The Plan’s spatial organisation, combined with transit-oriented developments, mixed-density living and improved building performance, has the capacity to reduce greenhouse gas emissions by around 17 per cent</p>
T3.6 Use of public transport	<p>Increase the use of public transport to 10 per cent of metropolitan weekday passenger vehicle kilometres travelled by 2018</p> <p>The Plan will increase the use of public transport and transfer trips from road to public transport through increased housing and jobs in activity centres and transit corridors, and the development of transit-oriented developments</p>

# APPENDICES

## Appendix 5 – Contribution of the Plan to *South Australia's Strategic Plan* targets

SASP target	Plan target
T3.7 Ecological footprint	Reduce South Australia's ecological footprint by 30 per cent by 2050 During the next 30 years about 70 per cent of Greater Adelaide's net dwellings growth will occur in the existing urban footprint or proposed transit corridors to create an efficient urban form
T3.9 Sustainable water supply	South Australia's water resources are managed within sustainable limits by 2018 The Plan decouples population growth from reliance on rainfall-dependent sources of water by applying water-sensitive urban design to buildings and new growth precincts, and promoting alternative sources of water supply for domestic non-potable use
T3.12 Renewable energy	Support the development of renewable energy so that it makes up 20 per cent of the state's electricity production and consumption by 2014 The combination of Commonwealth and state climate change policies will stimulate the renewable energy industry. South Australia is projected to have a competitive advantage based on its early policy intervention into renewable development
T3.14 Energy efficiency—dwellings	Increase the energy efficiency of dwellings by 10 per cent by 2014 The Plan's spatial organisation, combined with the development of transit-oriented developments, mixed-density living and improved building performance, has the capacity to reduce energy consumption

# APPENDICES

## Appendix 5 – Contribution of the Plan to *South Australia’s Strategic Plan* targets

SASP target	Plan target
<b>Objective 4—Fostering creativity and innovation</b>	
T4.8 Broadband usage	Broadband usage in South Australia to exceed the Australian national average by 2010, and be maintained thereafter  The Plan seeks to expand broadband usage and other emerging forms of communication by enabling access to this infrastructure through the Structure Planning process
<b>Objective 5—Building communities</b>	
T5.9 Regional population levels	Maintain regional South Australia's share of the state's population (18 per cent)  The Plan seeks to provide for 82 per cent of the state's population in Greater Adelaide
<b>Objective 6—Expanding opportunity</b>	
T6.7 Affordable housing	Increase affordable home purchase and rental opportunities by five percentage points by 2014  The Plan seeks to provide for 38,700 affordable dwellings across Greater Adelaide by 2038  The Plan will also drive housing affordability through new governance arrangements, which will deliver a strong land supply program and fast-track rezoning  More compact, transit-connected communities will contribute to reducing the cost of living, giving people more income to pay for the cost of housing



# GLOSSARY

Activity centres	Activity centres are concentrations of business, administrative, civic, retail, entertainment, employment, research, education and community uses and, increasingly, residential development. The purpose of activity centres is to cluster commercial and employment activity to improve accessibility, productivity and the efficient use of infrastructure. Many of the traditional activity centres in metropolitan Adelaide, which are adjacent to major public transport services, will become transit-oriented developments through the inclusion of more residential development over the life of the Plan. The Capital City centre, encompassing the central business district, is the pre-eminent activity centre in the Greater Adelaide region.
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 \$255,000—is determined by the affordability indicators gazetted on 8 October 2009 (p. 4818) or as amended from time to time under the <i>Development Act 1993</i> 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.
Business as usual	The normal course of activity (for example, how urban form would develop) if not for the intervention of new policies or programs as outlined in this Plan.
Carbon Pollution Reduction Scheme	An emissions trading scheme that includes a cap on carbon pollution and the ability to trade as defined in the Commonwealth Government's <i>Carbon pollution reduction scheme: Australia's low pollution future White Paper</i> on 15 December 2008.
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 (Garnaut Review, 2008).
Density	Density is a measure of the population (persons) or the number of dwelling units in a given area (see Gross density and Net residential site density, below).

# GLOSSARY

<b>Development Plan reviews (S.30 reviews)</b>	Development Plan reviews (required under section 30 of the <i>Development Act 1993</i> ) provide an important opportunity for local government councils to ensure the entire Development Plan is relevant and appropriate, both in terms of the South Australian Planning Strategy and local strategic directions. Development Plan reviews help to ensure that a holistic approach is taken to resolving planning issues and problems.
<b>Development Plans</b>	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.
<b>Distributed or embedded generation</b>	Where a generating unit is connected to a distribution network and not having direct access to the transmission network.
<b>Employment lands</b>	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.
<b>Freight corridors</b>	Road or rail corridors for the movement of freight.
<b>Greater Adelaide Open Space System (GAOSS)</b>	The Greater Adelaide Open Space System underpins open space in Greater Adelaide. The system is designed to provide a regional system of open space and includes land to be investigated and considered as part of an open-space zone when rezoning occurs.
<b>Greenhouse gas emissions</b>	Polluting carbon substances released into the atmosphere.
<b>Green industry</b>	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.

# GLOSSARY

<b>Greenways</b>	A network of green corridors that links open spaces across the Greater Adelaide region. Greenways will promote liveability and sustainability by creating safe opportunities for walking and cycling and enhance biodiversity through the planting of local indigenous species.
<b>Gross density</b>	Density of a given area calculated by dividing the total number of dwellings by the total land area (in hectares) that they occupy (no land is excluded from the calculation) and expressed as dwelling units per hectare (du/ha).
<b>Gross state product (GSP)</b>	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.
<b>Growth areas</b>	Areas identified for urban expansion that will be subject to further intensive investigations and public consultation.
<b>Housing and Employment Land Supply Program</b>	The program combines the Metropolitan Development Program and the Industrial Land Program. The program's fundamental role is to ensure that there is land capacity to meet the annual housing and employment targets, and that capacity is spread equitably across the region to avoid market volatility.
<b>ICT</b>	Information and communication technology.
<b>Intermodal</b>	The movement of goods in one and the same loading unit or road vehicle, which uses successively two or more modes of transport without handling the goods themselves in changing modes. By extension, the term 'intermodality' has been used to describe a system of transport whereby two or more modes of transport are used to transport the same loading unit or truck in an integrated manner, without loading or unloading, in a door-to-door transport chain.
<b>Mass transit</b>	Regular and significant public transportation facilities and vehicles such as trains, trams and buses.

# GLOSSARY

<b>Metropolitan Adelaide</b>	For the purposes of <i>The 30-Year Plan for Greater Adelaide</i> , metropolitan Adelaide is specifically defined as all urban areas physically or functionally contiguous with Adelaide's urban area. For other purposes, metropolitan Adelaide is defined in the <i>Development Act 1993</i> and a plan deposited in the General Registry Office by the Minister.
<b>Metropolitan Open Space System (MOSS)</b>	The Metropolitan Open Space System underpins open space in metropolitan Adelaide. The system is an integrated network of public open space and private land designed to provide a regional system of interconnected open space (for example, coastal areas and watercourses linking the coast and hills environments) to be set aside for existing and future generations. MOSS includes land zoned as open space and open space related uses (for example, the Hills Face Zone) and land to be investigated and considered as part of a MOSS zone when rezoning occurs.
<b>Mixed uses</b> <b>Mixed-use living</b>	Mixed uses include a combination of major land-use types, such as residential, retail, office, commercial, civic and light industrial. The mixture of uses can be both vertical and horizontal, but not necessarily in the same building or site. Activity centres, transit nodes, the areas surrounding major employment nodes and parts of the city centre, and urban regeneration areas are considered to be ideal locations for mixed-use development.
<b>Net residential site density</b>	Density of a development site calculated by dividing the total number of dwellings by the area (in hectares) of residential land that they occupy (excludes all other land uses, including roads, open space, etc.) and expressed as dwelling units per hectare (du/ha).
<b>Precinct Requirements</b>	Developed for Areas of State Significance, transit-oriented developments, significant growth precincts and activity centres. Sets broad performance criteria for development for incorporation into Development and Structure Plans.
<b>Regional Implementation Strategy</b>	A Regional Implementation Strategy gives a spatial expression to the Plan's policies, targets and major infrastructure priorities at the regional level. It distributes the overall growth targets for a region between various growth areas (for example, transit corridors, transit-oriented developments, redevelopment sites).

# GLOSSARY

Residential Development Code	The Code has expanded the categories for complying development by essentially providing a 'tick-box' assessment for a proposal against a set series of criteria known as 'performance controls'. These include issues such as location, height, setback and site coverage. One of the benefits is simpler, faster and cheaper planning and building approvals for home construction and renovation.
Revitalisation	Improving the amenity and character of existing neighbourhoods and suburbs through several initiatives. These initiatives may include improved open-space provisions, better street lighting, increased public transport, new shopping centres, community services, quality urban design guidelines and increased residential densities.
Social inclusion	Social inclusion means drawing on our community's shared values and aspirations to achieve a sustainable future through the elimination of all forms of unlawful discrimination and the promotion of equality of opportunity and the means to participate for all citizens.
State Significant Areas	Areas that the Minister determines are significant for state development and which will be subject to structure planning led by the State Government.
Strategic Management Plans	The <i>Local Government Act 1999</i> 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 <i>The 30-Year Plan for Greater Adelaide</i> .
Structure Plan	A Structure Plan describes the broad development outcomes that the State Government wants to achieve in a growth area (for example, a transit corridor) and distributes the growth target from the Regional Implementation Strategy in this growth area between, for example, transit-oriented developments and areas that require precinct planning.
Sustainable development	Forms of development that meet the needs of the present without compromising the ability of future generations to meet their needs.

# GLOSSARY

<b>Transit corridors</b>	<p>The Plan is based on concentrating urban development around access to public transport. For the purposes of the Plan, there are two types of transit corridors:</p> <ul style="list-style-type: none"> <li>■ major transit corridors, which are characterised by fixed-line mass transit (rail, tram and O-Bahn). Future opportunities for development will generally be within 800 metres either side of these fixed-line transit corridors. The Plan identifies five major transit corridors</li> <li>■ other transit corridors, which are characterised by main road access and either have, or are earmarked for, mass transit such as frequent bus or light rail.</li> </ul> <p>Structure Plans will identify where, when and how transit corridors will be developed. Most development in transit corridors will be concentrated around activity centres and major public transport access points.</p>
<b>Transit-oriented developments</b>	<p>Transit-oriented developments comprise mixed-use, higher-density development centred on a major public transport access point. They accommodate residential, high-order retail services and employment activities as well as high quality open space. They will be attractive and walkable places for people to live, work, shop and recreate in an accessible and self-contained community.</p> <p>Delivery of the 14 transit-oriented developments will be supported by direct state and local government involvement and/or infrastructure provision. Other smaller developments around transit nodes will also incorporate transit-oriented development principles.</p>
<b>Urban footprint</b>	<p>Identifies the extent of the urban area allocated to accommodate urban development.</p>
<b>Urban regeneration</b>	<p>Urban regeneration is the process of improving the economic, social and environmental sustainability of a particular urban area. It typically involves urban redesign, infrastructure renewal and investment, and increased residential densities.</p>
<b>Water demand</b>	<p>Water demand is taken to be the measurement of all water uses in the Greater Adelaide region from all water sources for the purposes of essential human needs, the economy and the environment.</p>

# GLOSSARY

<b>Water infrastructure</b>	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.
<b>Water security</b>	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.
<b>Water-sensitive urban design (WSUD)</b>	<p>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:</p> <ul style="list-style-type: none"><li>■ the integrated management of groundwater, surface run-off (including stormwater), drinking water and wastewater to protect water-related environmental, recreational and cultural values</li><li>■ the storage, treatment and beneficial use of run-off</li><li>■ the treatment and re-use of wastewater</li><li>■ using vegetation for treatment purposes, water-efficient landscaping and enhancing biodiversity</li><li>■ using water-saving measures inside and outside domestic, commercial, industrial and institutional premises to minimise requirements for drinking and non-drinking water supplies.</li></ul> <p>WSUD incorporates all water resources, including surface water, groundwater, urban and roof run-off, and wastewater.</p>

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## Eastern Region

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