

**Government Response
to the
*State of the Environment
Report for South Australia 2008***



**Government
of South Australia**

Contents

A message from the Minister	1
Introduction.....	3
Our Environmental Priorities	3
I. Land Stewardship	3
II. Water Use	5
III. Climate Change Adaptation	10
IV. Governance and Evaluation	14
V. Reporting	16
1. Atmosphere	17
Air Quality	17
Climate Change	17
2. Inland Waters	20
Water Quality	20
Water Quantity	21
River Murray	21
3. Coasts and Sea	22
Water Quality and Habitats	22
Coastal and Marine Resources	24
4. Land	25
Land Use	25
Soil Erosion and Acidity	27
Dry-land Salinity	28
5. Biodiversity	29
Native Vegetation.....	29
Threatened Species	30
Introduced Species	32
6. Human Settlements	34
Population and Urban Form	34
Transport	34
Energy	37
Water	41
Material Consumption, Recovery and Waste.....	42
7. Heritage.....	47
Built Heritage	47
Cultural Heritage	48
Abbreviations.....	50

A message from the Minister

The *State of the Environment Report for South Australia 2008* marks twenty years since the first of these Reports was produced. Over the past two decades, the Reports have been an invaluable tool for us to evaluate our environment and to focus on work that will ensure our sustainable future.

The *State of the Environment Report for South Australia 2008* is no exception to this. It lays out many challenges for the years ahead.

The *2003 State of the Environment Report* identified four areas of priority that have been the focus of much of our work. And we've made real progress since the release of the previous Report.

The first of these is climate change. In 2007, South Australian became the first state in Australia to pass specific climate change legislation. Recently, we've expanded our target for renewable energy – to have 33% of our State's energy produced from renewable sources by 2020. This puts us at the forefront of international renewable energy development.

Our water use and the quality of our water have also been at the centre of our environmental policy. The recent release of *Water for Good*, our plan to ensure a secure water future, follows significant investment in water supply and reuse over the past five years. Most recently this includes a \$150 million investment in projects that will more than triple Adelaide's stormwater harvesting capability.

Losing no species from our State – maintaining our precious biodiversity – is also crucial to our future. Along with ongoing work to protect endangered species, and to expand and better manage our protected areas, we are establishing five large biodiversity corridors to maximise ecological outcomes in the face of environmental challenges such as climate change.

We are also in the process of establishing nineteen marine parks that will enable us to better manage and protect our unique marine environments.

Along with our work in these vital areas, we have created an integrated natural resource management system to care for our precious water supplies, soils and ecosystems, and we continue to lead the nation in our innovative waste management practices.

Of course there is still substantial work ahead of us if we are to have a sustainable future. The 43 recommendations of the *State of the Environment Report for South Australia 2008* recognise this, and the Government has expressed its support to all but three of these.

And, as we have done over the last five years, we'll be continuing to work on the priority areas identified by the Report.

These will be to ensure the long-term sustainability of our water use, continue to take action to mitigate and adapt to the effects of climate change and enable private landholders to increase their role in protecting our environment. All of the work we do in these vital areas will be well coordinated across both Government and the community.

And we'll make regular reports on the progress we've made on the recommendations of the *State of the Environment Report for South Australia 2008*. This will ensure that all South Australians will have access to important information about their environment.

Because Government alone cannot ensure the long term sustainability of our environment, we need the commitment and the action of everyone in the State. The progress we've made over recent years gives me confidence that we can meet the challenges ahead of us.

Hon Jay Weatherill MP

MINISTER FOR ENVIRONMENT AND CONSERVATION

Introduction

For clarity and ease of use, this response document uses the same major chapter headings as the *State of the Environment Report for South Australia 2008 (SoE)*.

The State Government's responses to the priority recommendations that appear in the Executive Summary of the **SoE** are set out below. The full list of **SoE** recommendations and responses follow.

For each of the **SoE**'s recommendations the Government's response is highlighted. Each response is supported by an overview of the major actions already in place to address the issues and/or those planned or possible strategies for responding to the recommendations.

Our Environmental Priorities

I. Land Stewardship

Recommendation 5.5 *Improve incentives and support for environmental stewardship on private land, including for the control of invasive plants and feral animals by 2012.*

Response: Supported

The development of incentives to encourage land stewardship, including for invasive plant and feral animal control, is consistent with the principles of the State Government's current major biodiversity and natural resource management policies including:

- *No Species Loss: A Nature Conservation Strategy for South Australia 2007—2017 (No Species Loss Strategy)*
- NatureLinks
- *State Natural Resources Management Plan 2006.*

The philosophy of NatureLinks – drawing together private and public land management to connect landscapes – provides the policy context for this approach.

The *State Natural Resources Management Plan 2006* recognises that pest management requires partnerships between government, industry, community and landholders, and that landholders have a direct responsibility for pest control on their land. The Government takes a leadership role in providing support for the development of such partnerships. In particular, regional Natural Resources Management (**NRM**) Board staff

Our Environmental Priorities

provide information and support to land managers to assist them in developing management strategies to control invasive plants and animals.

More generally, the Government provides support to the **NRM** Council and all regional **NRM** boards to implement environmental stewardship projects and programs on private and public land.

Examples of specific existing initiatives or proposals being investigated which support the recommendation include:

- The Heritage Agreement Program is an environmental stewardship program covering 1,420 Heritage Agreements and 600,000 hectares that has been operating since 1980. It provides technical support and builds capacity for landholders to manage land for biodiversity objectives. Grants provided under the Program are used to assist in the control of feral animals and weeds.
 - An investigation, in partnership with the CSIRO, into ways to improve the offset policy (established under the *Native Vegetation Act 2003*) with a view to improving measures to protect biodiversity. One of the options being investigated is the establishment of a Biodiversity Market to provide an incentive mechanism for engaging the community, landholders, government agencies and industry in biodiversity management for long-term, landscape scale outcomes.
 - Under the Branched Broomrape Eradication Program, land owners in the quarantine area earn grants to assist with on-property control work such as herbicide spraying and fencing-off infestations.
 - The South Australian Arid Lands **NRM** Board is one of several partners in a national Caring for Country funded project to develop a market-based mechanism to assist with the management of feral camels in the arid zone.
 - The Protected Areas on Private Land project, funded by the National Reserve System Program, is developing a State-wide framework to support conservation on private lands that will contribute to the National Reserve System in South Australia. Implementation of the framework will include partnerships between the Government, non-government organisations and landholders.
-

II. Water Use

Recommendation 2.3 *Double the capture and re-use of stormwater and wastewater by 2012.*

Response: Stormwater – Supported
 Wastewater – Supported in principle

South Australia leads the nation in water recycling and rainwater tank ownership. Initiatives outlined in South Australia's water security plan, *Water for Good*, will enable us to consolidate this leadership position as part of a balanced approach to securing our water supplies.

Stormwater re-use

The *Urban Stormwater Harvesting Options Study (USH Options Study)*, commissioned by the Stormwater Management Authority, estimates that the total stormwater harvesting capacity from existing schemes in the Adelaide region is currently 6 GL/annum.

On 2 November 2009, a \$150 million investment in eight South Australian stormwater projects was announced, comprised of contributions from the Commonwealth Government (more than \$65 million), State Government (\$45 million), Local Government and other partners.

These projects and other committed schemes will more than triple Adelaide's annual stormwater harvest to over 20 GL/annum by 2013.

The **USH Options Study** is the most detailed investigation of stormwater harvesting potential at a metropolitan scale for any Australian capital city. It has identified potential sites across the Adelaide region where large-scale stormwater capture and storage schemes could be developed to harvest a total of 60 GL/annum. *Water for Good* has committed to achieving up to 60 GL/annum of harvesting capacity in the Greater Adelaide region and a further 15 GL/annum in South Australia's regional areas for a total of 75 GL/annum recycled stormwater by 2050. Stormwater captured in these schemes will be used for purposes such as watering public parks, school ovals, in new housing and for industry.

Recent CSIRO research at the Salisbury Aquifer Storage Transfer and Recovery site in the City of Salisbury has not confirmed that the produced water is capable of use as mains water. *Water for Good* indicates that augmenting public drinking water supplies with highly treated stormwater cannot proceed without:

- adequate understanding of the risks, and confidence that they can be managed;

Our Environmental Priorities

- knowledge of significant net public benefits, especially when this type of recycling is compared to other available options, such as continued use of stormwater for non-drinking purposes through 'third pipe' systems; and
- strong community support for the option.

In addition to stormwater harvesting schemes, the State Government is seeking to facilitate water sensitive urban design (**WSUD**). **WSUD** is an approach which integrates the management of all water resources and the total water cycle into the urban development process. **WSUD** can include:

- utilising water saving measures to minimise requirements for drinking and non-drinking water supplies;
- storage, treatment and beneficial use of runoff;
- treatment and reuse of wastewater; and
- using vegetation for treatment purposes, water efficient landscaping and enhancing biodiversity and amenity.

A **WSUD** technical manual for Greater Adelaide was released by the Government in July 2009.

Water for Good includes recommended actions to drive the uptake of **WSUD** in South Australia, including:

- introduce targets for **WSUD** by 2010; and
- to develop and implement the best regulatory approach for South Australia to mandate **WSUD** by 2013.

WSUD is also supported by the proposed targets and policies contained in the *Planning the Adelaide we all want – Progressing the 30-year Plan for Greater Adelaide (Draft 30-Year Plan)* which was released for public consultation on 6 July 2009.

On 1 July 2006, the State Government introduced the Rainwater Tank and Plumbing Rebate Scheme to encourage more people to retrofit tanks into their home for uses such as toilet flushing, clothes washing or hot water supply. As at 13 November 2009 the scheme has provided 7447 grants worth more than \$4.9 million. New building rules commenced simultaneously with the introduction of the rebate that have required all new dwellings to have an additional water supply (such as a rainwater tank) to decrease demand on mains water.

Given the above initiatives are dependent on rainfall, volumes harvested will vary from year to year, however they will continue to be an important element of our future water security.

Wastewater

The increased recycling of wastewater for appropriate purposes continues to be encouraged. However, given the current very significant level of wastewater recycling, the Government considers that doubling re-use is not feasible within the proposed timeline.

The level of wastewater recycling already being achieved in South Australia is significant in a national context. Data from the *National Performance Report 2007-08: Urban Water Utilities*, released by the National Water Commission in April 2009, indicates that recycling from SA Water wastewater treatment plants is the highest percentage of any State or Territory and more than double the national average (in the 100,000 plus properties connected group).

Wastewater recycling from SA Water's wastewater treatment plants is currently averaging in the order of 30% (2006-07 and 2007-08) of the total wastewater outflow on an average annual basis. *Water for Good* targets a capability to recycle 45% of wastewater from urban areas across the State by 2013, 50 GL/annum by 2025, and a minimum of 75 GL/annum by 2050, for suitable non-drinking purposes.

Recent new initiatives include the completion of a \$6.6 million extension of the Virginia recycled water pipeline to Angle Vale, jointly announced by the Minister for Water Security and the Federal Minister for Climate Change and Energy on 25 May 2009, which increases the recycling capacity of that scheme by an additional 3 GL/annum, taking the total to 18 GL/annum.

Other projects underway include:

- The Glenelg to Adelaide Park Lands Recycled Water Project; and
- The Southern Urban Re-use Project.

Local councils are also achieving high levels of reuse from Community Wastewater Management Schemes. The Statewide Wastewater Recycling Project is an initiative of South Australian local councils with support from the Australian Government, and is expected to make more than 8 GL/annum available for re-use. The State Government supports these schemes and in July 2008 signed a long term funding agreement with local government. It is estimated that this will enable the accelerated rollout of new community wastewater management schemes in nearly 40 townships over the next 10 years. All new schemes will be designed to deliver recycled water.

As with stormwater, the amount of wastewater recycled will vary from year to year depending on climatic conditions, which impact on both sewage volumes and user requirements. Consequently, there is a need for caution in assessing annual re-use information.

Recommendation 2.4 **Use a combination of water allocation planning, pricing, incentives and water rights to ensure sustainable water use by 2012.**

Response: Supported in principle

The Government supports sustainable water use and has already implemented a number of measures such as rebates, water efficiency labelling, water conservation measures and the development and review of water allocation plans across the State.

Many actions undertaken to manage South Australia's water resources within sustainable limits will be completed or underway by 2012 and will be implemented in a manner consistent with national initiatives.

The South Australian Government is a signatory to the National Water Initiative Intergovernmental Agreement (**NWI**) which sets out an agreed approach to achieve sustainable water use including:

- returning all allocated and/or overused systems to sustainable levels of extraction;
- facilitating the operation of efficient water markets and opportunities for trading; and
- implementing best practice water pricing.

Water Allocation Plans are being developed for significant areas of the State including the Eastern Mount Lofty Ranges, Western Mount Lofty Ranges and the Central Adelaide Groundwater area. These will be ready for release in 2010- 2011. In addition, consistent with South Australia's commitment to the **NWI**, existing Water Allocation Plans are being progressively reviewed to ensure sustainable use.

The Government is also a signatory to the Murray-Darling Basin (**MDB**) Reform Intergovernmental Agreement, which was signed on 3 July 2008. The Agreement commits signatories to a package of reforms to meet the future needs of the **MDB** and to protect and enhance its social, environmental and economic values.

The **MDB** Authority has been created as a single entity that is responsible for planning the integrated management of the Basin's water resources. A Basin Plan will be prepared by 2011 to provide for the integrated and sustainable management of water resources in the **MDB**.

As part of the Agreement, all **MDB** states have passed legislation that has allowed the Australian Government to amend the *Water Act 2007* to (among other things):

Our Environmental Priorities

- enable the Basin Plan to place a priority on managing water for critical human needs and to ensure that the **MDB**'s water resources are managed in an integrated way; and
- extend the application of water market rules and water charge rules and the associated regulatory role of the Australian Competition and Consumer Commission to all entities and transactions within the **MDB** to bring about more efficient water trading across the **MDB**, and provide for any state to 'opt-in' to apply the rules outside the **MDB**.

Additionally, the process of implementing a new system of water entitlements has commenced. This will eventually replace the existing water licensing system and will ensure that the South Australian water rights system is consistent with the **NWI** and systems used in other **MDB** States. This has required amendments to the *Natural Resources Management Act 2004*, which are being progressively implemented.

The recently released *Water for Good* plan also sets out targets and actions that will contribute to sustainable water use as envisaged by this recommendation, such as:

- Complete water allocation plans and regulatory review of water allocation plans for key areas;
 - Bring additional water resources into formal management through prescription and water allocation planning, as necessary;
 - Continue programs to un-bundle water rights across South Australia and remove barriers to trading water entitlements;
 - Continue to move potable water use prices for SA Water customers towards cost-reflective prices;
 - Set water and waste water prices to encourage economically efficient use;
 - Require the independent regulator to monitor and report on the effect of state-wide pricing and request, in the medium term, an examination of price structures that may benefit economic efficiency and water security;
 - Enhance the home rebate scheme; and
 - Work with industry to encourage the uptake of stormwater and recycled water for primary production in lieu of mains water.
-

III. Climate Change Adaptation

Develop adaptation strategies based on assessed vulnerability and opportunities under different climate change and population scenarios for:

- *human health*
- *water security*
- *biodiversity and natural resources*
- *asset protection, infrastructure and emergency services, especially in relation to fire and sea level rise. (Recommendation 1.2)*

Response: Supported

South Australia is affected by climate change. A planned and strategic approach to climate change adaptation, which involves all levels of government, the private sector and the community, and that cuts across all sectors, will be an essential component of the State's response.

The Premier's Climate Change Council (**PCCC**) has conducted a stock-take and analysis of adaptation activities in South Australia.

The **PCCC** has commenced work jointly with the NRM Council on an adaptation framework for South Australia. This framework will provide a more strategic approach to adaptation, improve communication and enhance coordination across the different levels of government and across sectors.

The Government's *Tackling Climate Change: South Australia's Greenhouse Strategy 2007—2020* (**Greenhouse Strategy**) includes over 50 separate actions that relate to climate change adaptation. The actions cover sectors including health, water, biodiversity, infrastructure and emergency management. Many of the actions are currently underway or are being planned. The actions are designed to achieve the following objectives:

- increase our understanding of risks, vulnerabilities and opportunities
- build resilient and healthy communities
- improve hazard management and minimise risks
- strengthen the resilience of industries reliant on natural resources in the face of potential impacts of climate change
- incorporate the sustainable management of water resources and water supply
- increase the capacity of ecosystems to adapt to climate change.

Our Environmental Priorities

The South Australian Government has established the Sir Hubert Wilkins Chair of Climate Change at the University of Adelaide to initiate and/or support research to evaluate:

- changes in threatening processes such as climatic disturbances and extreme events, fire frequency and intensity, increased CO₂ levels, landscape fragmentation and invasive species, and
- the impact of changes in threatening processes and interrelationships between natural and production systems.

Additionally, Government agencies are involved in the development of strategies and action plans to implement the *National Climate Change Adaptation Framework*, agreed to by the Council of Australian Governments (**COAG**) in April 2007.

The **Draft 30-Year Plan** also contains policies and targets to contribute to climate change resilience and prepare for long term adaptation, in particular:

- Introduce a clear hierarchy of environmental assets to be protected;
- Create a Climate Change, Housing Affordability and Sustainable Neighbourhoods Task Force to advise on design and standards required to achieve zero carbon and energy efficient buildings and neighbourhoods to cope with climate change;
- Create more liveable urban environments through a network of greenways and open spaces and encourage developers to include green buffers and shade in work places;
- Decreasing the risk of extreme bushfires through creating buffers around growth areas adjacent to native bushland and developing other appropriate policies;
- Ensure structure plans (for State significant development planning) take into account precinct level climate change impact assessments;
- Regularly review planning guidelines to ensure rainfall average recurrence intervals are updated in response to climate change; and
- Protect water supply catchments and watersheds from inappropriate development.

Other initiatives and responses specific to the recommendation are set out below.

Human Health

The Government is conducting research on the impact of heatwaves on human health, including emergency management issues, and also on the human health impact that climate change will have on air quality.

Water Security

The Government created an Office for Water Security and appointed a Commissioner for Water Security in September 2008 to lead policy development across Government to ensure the long-term security of the State's water supplies. As a consequence, the

Government released *Water for Good*, a plan to ensure our water future to 2050, in June 2009.

In addition, the Government is working with **NRM** Boards to ensure that climate change risks and adaptation policies are included in Water Allocation Plans and **NRM** Plans.

Biodiversity and Natural Resources

The Government has developed a *Regional Climate Change Decision Framework for NRM*. The project, undertaken during 2006-08, was co-funded by the State Government and the Adelaide and Mount Lofty Ranges **NRM** Board. The project assessed the vulnerability of the region's natural resources to climate change and developed methodologies to help natural resource practitioners manage climate change risks and develop adaptation strategies.

The Premier's Science Research Fund is funding the Climate Change, Communities and Environment Research Project. This project will identify areas, land users and communities that are most vulnerable to climate change. The University of Adelaide, CSIRO and key Government agencies will work with **NRM** Boards and communities to investigate ways to improve and expand native bush areas and to improve the viability of farms and sustain vibrant local communities.

The Government is also one of the partner organisations in the Future Farm Industries Cooperative Research Centre (**FFI CRC**). The **FFI CRC** began in 2007 and will receive \$34 million over seven years from the Australian Government. The **FFI CRC** aims to substantially improve the profitability and sustainability of broad-acre agricultural systems by developing innovative farming systems and technologies based on perennial plants. The new farming systems and technologies will deliver multiple **NRM** benefits and also provide options for adaptation to climate change.

The **No Species Loss Strategy** and NatureLinks both incorporate the development of adaptation strategies for the State's biodiversity and natural resources as major goals. In addition, one of the primary objectives of South Australia's system of 19 Marine Parks is to provide opportunities for marine biodiversity to adapt and increase resilience to climate change.

The Government is also implementing the River Murray Forest Project which aims to plant regionally native species along the River Murray – Coorong NatureLinks corridor to establish 3,400 hectares of habitat to deliver carbon sequestration and biodiversity benefits. The project will contribute to climate change adaptation by re-establishing and re-connecting large areas of native vegetation.

Asset protection, infrastructure and emergency services

South Australian emergency management agencies are incorporating climate change impacts and risks into all frameworks for risk management, planning and decision-making by Government.

Under guidance from the South Australian Fire and Emergency Services Commission, Government agencies are developing a climate change hazard plan as a sub-plan of the SES Extreme Weather Hazard Plan.

In addition, a Government Prescribed Burning Program aims to increase the protection of life, property and the environment from bushfires, which are predicted to increase with climate change. The Program has a research and education component to study the impact of fire on biodiversity and ecological sustainability. Government agencies work closely with the CFS to ensure that there is an integrated approach to fire management on public land. The Government is also developing Fire Management Plans for the Protected Area System (State parks and reserves) to assist in mitigating the impact of bushfire on life, property and the environment.

With respect to sea level rise, a South Australian scoping study of coastal vulnerability to tsunami, storm surges and sea level rise is occurring as part of the Natural Disaster Mitigation Program. In particular, coastal vulnerability assessments of low lying land on the Yorke Peninsula and Port Adelaide have been conducted to identify assets, infrastructure, communities and natural systems at risk from sea level rise. These assessments will be used to develop adaptation strategies.

Recommendation 1.3 Promote public discussion and understanding of the possible consequences of climate change, with an emphasis on what South Australians can do to reduce their emissions and adapt to climate change.

Response: Supported

The Government's **Greenhouse Strategy** has as a major objective: "*To promote individual, household and community behaviour change*". Various initiatives have been implemented or are in place to achieve this objective, namely:

- Allocation of \$675,000 towards raising community awareness about climate change in 2007/08, with a further \$500,000 allocated in 2008/09. The program included the 'black balloons' media campaign which highlights the link between energy use and greenhouse gas emissions.
- The **PCCC**, established to provide high-level independent advice to the Premier on ways to reduce greenhouse gas emissions and adapt to climate change, is

disseminating information to business and other groups to encourage the uptake of practices that will reduce emissions and help South Australians adapt to climate change.

- The Government has provided funding to the Conservation Council of South Australia to pilot Green Hubs, a community engagement program, that will work through clubs, societies and charitable organisations to provide people with information that will help them to reduce their carbon footprint and adopt more sustainable living practices.
- The **PCCC** held an *Adapting to Climate Change—Meeting Scientific and Technological Challenges for South Australia* forum with the SA Division of the Australian Academy of Technological Sciences and Engineering.
- The Government has provided the Local Government Association with \$100,000 to develop a community behaviour change program for local government. As a consequence, the CSIRO has been contracted to implement the Energymark program. This funding has been provided as part of the Sector Agreement established between the Local Government Association and the State Government under the *Climate Change and Greenhouse Emission Reduction Act 2007*.
- Over 130 schools are now equipped with solar panels, provided through the Solar Schools Program. The Program encourages schools to incorporate learning about sustainable and alternative forms of energy into classroom lessons. Schools and pre-schools are also learning about energy, waste and water efficiency through the Government's Green Grants Program.
- The Sustainability Education Learning Centre has been established as an interactive website that provides advice on practical ways for South Australians to reduce their environmental impacts and improve sustainability.

IV. Governance and Evaluation

Recommendation Exec 1 Include environmental representation in strategic planning and decision making within government to ensure explicit consideration of interactions between economic, social and environmental objectives within policies and plans.

Response: Supported in principle

Environmental interests are already represented on a number of key government advisory boards, including South Australia's Strategic Plan Community Engagement

Board and Audit Committee (via the Premier's Climate Change Council). The Government will endeavour to have suitable representation of environmental issues included, where appropriate, when establishing new committees, such as inter-Ministerial councils, inter-departmental committees and task forces for specific projects.

The Government already has systems in place to consider the impacts on the community and the environment, as well as any costs to business, in order to inform decision making.

The recently released **Draft 30-Year Plan** also proposes improved coordination across state government agencies which will ensure integration of environmental considerations into major planning decisions.

Recommendation 1.5 *Develop and use measures of greenhouse gas intensity as a means to evaluate the sustainability of government policies by 2012.*

Response: Supported in principle

The State Government already has a **Strategic Plan** target which encompasses the underlying goal of this recommendation, namely **T3.5 Greenhouse gas emissions reduction: achieve the Kyoto target by limiting the state's greenhouse gas emissions to 108% of 1990 levels during 2008-2012, as a first step towards reducing emissions by 60% (to 40% of 1990 levels) by 2050.** In addition, the Government has set this greenhouse reduction target for South Australia under the *Climate Change and Greenhouse Emissions Reduction Act 2007*, namely "to reduce by 31 December 2050 greenhouse gas emissions within the State by at least 60% to an amount that is equal to or less than 40% of 1990 levels".

The measure and achievement of these reductions in greenhouse gases is a measure of the success of government policies to achieve sustainability. Consequently, the Government supports the recommendation in principle. However, there are practical and technical difficulties in developing more sophisticated intensity measures generally applicable as an evaluation tool for specific policies.

Greenhouse gas intensity is usually defined as a ratio of greenhouse gas emitted per product or output of the economy. Emissions intensity, in its traditional interpretation, is not a measure that translates readily to a reliable measure of activities that can be related to specific government policies.

The current targets have been set in absolute terms, rather than proportionally to service outputs/measures. This will remain the focus of Government activity for the immediate future, but will be kept under review. In addition, there are other actions currently

underway to explore the issues raised by this recommendation. In particular, the Government is working with post-graduate students from the Carnegie Mellon University on a project to determine economy-wide measures of sustainability that may be applicable to the assessment of Government policy, enabling consistent measurement and providing a more inclusive assessment of sustainability.

Recommendation 6.1 *Include complementary indicators to those already in South Australia's Strategic Plan to assess the interactions between targets and progress across economic, social and environmental targets, for example environmental impacts in measuring growth, by 2012.*

Response: Supported in principle

The approach taken in the **Strategic Plan** has been to focus on a suite of indicators which, taken together, give a broad picture of South Australia's progress across each of the six broad objectives. For example, targets in Objective 3 – *Attaining Sustainability* are reported on in the same timeframes and with the same level of rigour as Objective 1 – *Growing Prosperity*.

The Organisation for Economic Cooperation and Development has identified and promoted alternative indicators of progress, including quality of life indicators, that better reflect social and environmental outcomes (rather than a focus on economic outcomes, expressed by concepts such as Gross Domestic Product, as an overarching measure of progress). Government is staying abreast of these developments and is looking for opportunities to improve the measures used in the **Strategic Plan**.

V. Reporting

Recommendation Exec 2 *Introduce an annual reporting requirement to monitor progress against the recommendations made in this report by 2010. This could be integrated with reporting under the South Australia's Strategic Plan.*

Response: Supported in principle

The Government supports regular reporting on progress against the recommendations made in the **SoE**. The Government will convene a meeting of key agencies to discuss options for achieving this, the optimal frequency and the appropriate agency to manage reporting.

The State Government's responses to all the recommendations from the body of the SoE are set out below.

1. Atmosphere

Air Quality

Recommendation 1.1 ***Implement an Air Quality Strategy for South Australia that identifies current and future risks, priorities and management objectives.***

Response: Supported

The regulation and management of activities that affect air quality is distributed over several State Government agencies, local government and national bodies. The management of air quality must therefore be integrated with long-term planning over the next few years across relevant government agencies, particularly in metropolitan Adelaide.

Consequently, the Government is proposing to develop a comprehensive Air Quality Strategy/Management Plan for South Australia. Such a plan will ensure that broad community health risks from air pollution are minimised, while maintaining sustainable population growth and economic development for South Australia.

As a precursor to a state-wide strategy, the Government is planning a collaborative program to develop a pilot air quality strategy in the LeFevre Peninsula over the next two years, in conjunction with councils, industry and the local community. The program will investigate a range of approaches to long term sustainable management of air quality in Port Adelaide and environs. The LeFevre strategy will provide a model for developing a South Australian Air Quality Strategy, which will include the broader Adelaide metropolitan area and regional centres within South Australia.

Climate Change

Recommendation 1.2 ***Develop adaptation strategies based on assessed vulnerability and opportunities under different climate change and population scenarios for:***

- ***human health***
- ***water security***
- ***biodiversity and natural resources***

- **asset protection, infrastructure and emergency services, especially in relation to fire and sea level rise**

Response: Supported

Refer to the section titled '*Our Environmental Priorities*'.

Recommendation 1.3 *Promote public discussion and understanding of the possible consequences of climate change, with an emphasis on what South Australians can do to reduce their emissions and adapt to climate change.*

Response: Supported

Refer to the section titled '*Our Environmental Priorities*'.

Recommendation 1.4 *Fast-track procurement of low emission vehicles for the Government fleet (including smaller vehicles where appropriate).*

Response: Supported

The Government is committed to reducing the environmental impact of its passenger and light commercial motor vehicle fleet. A priority action in the Government's **Greenhouse Strategy** is to reduce emissions from the government vehicle fleet by converting 50% of state government cars to lower emission fuels by 2010. At the end of the 2008/09 financial year, 48% of the vehicles in the Government fleet were classed as lower emission fuelled 'environmentally friendly' vehicles.

The Government is also committed to a more environmentally sustainable Adelaide Metro bus fleet. Compressed Natural Gas is currently used to power 27% of the Adelaide Metro bus fleet. Bio-diesel is also being used in a 5% and 20% blend with diesel (from a whole-of-life perspective, bio-diesel blends reduce greenhouse emissions).

Around 300 extra new buses will be added to the bus fleet over the next ten years as part of the Government's ongoing program of vehicle replacement. These diesel powered buses will exceed the most stringent emission standards currently set anywhere in the world and will utilise the Euro 5 with Enhanced Environmentally-friendly Vehicle (**EEV**) engine technology, which does not come into force in Australia until 2011.

Electrification of the metropolitan rail system is planned to commence operating in 2013. Design and planning work has commenced. In addition, re-sleepering of the rail lines commenced in April 2009, in preparation for electrification, and will be completed in

December 2012. Operation of an electrified rail fleet is due to commence in 2013, with the full electrified fleet delivered in 2016.

Extension of the electric tram network, currently underway, will also add to the public transport system and assist in reducing greenhouse gas emissions.

Recommendation 1.5 ***Develop and use measures of greenhouse gas intensity as a means to evaluate the sustainability of government policies by 2012.***

Response: Supported in principle

Refer to the section titled '*Our Environmental Priorities*'.

Recommendation 1.6 ***Progress work on the 'developmental' South Australia's Strategic Plan target for adaptation to climate change with a view to incorporating it into the 2010 update of the Plan.***

Response: Supported

A recommendation was made during the last review of the Strategic Plan to include a target around climate change adaptation. One of the reasons this was not included in the current iteration of the Plan was that the development of a single target relating to adaptation would be very difficult. Adaptation crosses a wide range of sectors including:

- Coastal regions
- Infrastructure
- Primary industries
- Planning
- Emergency management
- Biodiversity
- Tourism
- Human health

The Government, in conjunction with the **PCCC** and the **NRM** Council, is developing a more strategic and coordinated approach to adaptation in South Australia. As part of this process work will be undertaken on a possible adaptation target for consideration in the next update of the **Strategic Plan**, scheduled for 2010.

2. Inland Waters

Water Quality

Recommendation 2.1 *Streamline government management of water by rationalising overlapping responsibilities and improving coordination, in particular for water quality monitoring.*

Response: Supported

South Australia is an active participant in the **NWI**, which aims to achieve a more cohesive national approach to the way Australia measures, plans for, prices and trades water. Furthermore, the **MDB** Authority has been created to implement co-operative, efficient and more streamlined water management arrangements in the **MDB**.

At the State level the Government, in consultation with key agencies and **NRM** boards, is developing a Monitoring, Evaluation and Reporting Operational Plan and Implementation Strategy to improve the coordination of **NRM** monitoring, evaluation and reporting, including water quality. This will increase the capacity of **NRM** managers to:

- Identify monitoring requirements and coordinate activity between State agencies, regional **NRM** Boards and other groups to deliver the most effective outcomes;
- Identify emerging risks to aquatic and coastal ecosystems;
- Evaluate the effectiveness of management interventions; and
- Report to stakeholders and the community on the impact of **NRM** investments.

In addition, *Water for Good* includes a specific action to undertake a comprehensive review of current management and protection of the Mount Lofty Ranges Watershed with a view to developing an agreed vision, targets and responsibilities for its future management by the end of 2010.

Recommendation 2.2 *Identify key freshwater assets and set maximum targets for sediment, nutrient and water discharges.*

Response: Supported in principle

The Government is currently engaged in developing a consistent approach for reporting on aquatic health across the State, including the identification of priority and high conservation value aquatic ecosystems. This work is funded as part of the State **NRM** Program to carry out the Strategic Assessment of South Australian Aquatic Ecosystems project.

In addition, the regional **NRM** planning process and the Water Allocation Planning process provide the opportunity to identify key **NRM** assets and to describe targets and strategies for their management, including freshwater assets.

However, the setting of maximum targets for sediment, nutrient and water discharges is only likely to be needed and can be justified for those key inland waters where water pollution effects are evident and contribute or risk contributing to some degree of environmental harm.

Water Quantity

Recommendation 2.3 *Double the capture and re-use of stormwater and wastewater by 2012.*

Response: Stormwater – Supported
 Wastewater – Supported in principle

Refer to the section titled ‘*Our Environmental Priorities*’.

Recommendation 2.4 *Use a combination of water allocation planning, pricing, incentives and water rights to ensure sustainable water use by 2012.*

Response: Supported in principle

Refer to the section titled ‘*Our Environmental Priorities*’.

River Murray

Recommendation 2.5 *Pursue environmental water sharing provisions in the Murray-Darling Basin Plan that include allocation of flood flows to South Australia sufficient to generate appropriate watering regimes for key wetlands.*

Response: Supported

The Commonwealth *Water Act 2007* establishes mandatory content for the **MDB** Plan, which must include, amongst other things, an environmental watering plan to:

- protect and restore the wetlands and other environmental assets of the **MDB**; and

- protect biodiversity dependent on the **MDB** water resources and achieve other environmental outcomes for the **MDB**.

As a consequence, the Government will pursue the inclusion of environmental water sharing provisions for key South Australian wetlands in the **MDB** Plan.

The new independent **MDB** Authority will be responsible for developing, implementing and monitoring the Basin Plan, which will include a sustainable cap on surface and groundwater diversions across the **MDB**.

In the meantime, the South Australian Government is taking steps to ensure that much-needed water is available for the environment. The Government purchased 50 GL of water for the lower lakes in 2009, and is securing a further 120 to 170 GL over summer 2009/10. The Government has also allocated 10 GL for critical environmental needs including priority wetlands along the River.

Within South Australia, the Minister for the River Murray established the South Australian River Murray Environmental Manager function to oversee and coordinate all River Murray environmental flow decisions and actions in the State (delivery, allocation, management, monitoring, reporting and accounting). This includes negotiating for environmental water from The Living Murray and the Commonwealth Environmental Water Holder. It also includes developing partnerships with trusts to allocate environmental water donations to stressed sites.

3. Coasts and Sea

Water Quality and Habitats

Recommendation 3.1 *Provide adequate buffer zones to facilitate the retreat of coastal ecosystems (e.g. mudflats, mangroves and samphire) in response to sea level rise induced by climate change.*

Response: Supported

Coastal ecosystems that are tide-dependent, such as mudflats, mangroves and salt marshes, will need to be able to migrate in order to survive if there is a rise in sea level. Where topography, buildings, flood levees or other infrastructure such as roads prevent this, these habitats risk being lost.

The Government has recognised the important role that these ecosystems play and the threats they face by implementing the following planning policies and principles:

- The Metropolitan and Outer Metropolitan volumes of the Planning Strategy include policies which provide for the retreat of mangrove and samphire communities in response to predicted sea level rise and land subsidence to sustain the overall marine and estuarine environment and commercial fisheries.
- The Regional volume of the Planning Strategy includes policies which identify and protect ecologically sensitive and vulnerable coastal and marine habitats including native vegetation, estuaries, seagrasses, mangroves, tidal salt marshes, rocky reefs and important fish breeding grounds.
- Regional Planning Strategies (Regional Land Use Frameworks) are progressively being developed with provisions which are consistent with the above policies.
- Coastal Area provisions of current Development Plans allow for a 0.3 metre sea level rise over the next 50 years and include the following policy:

Development should not preclude the natural geo-morphological and ecological adjustment to changing climate, sea level or other conditions. For example landward migration of coastal wetlands should not be prevented by embankments. Development should be designed to allow for new areas to be colonised by mangroves and wetland species and for removal of existing embankments where practical.

In addition, the **Draft 30-Year Plan** includes a policy to integrate coastal management requirements, including coast protection policies under the *Coast Protection Act 1972*, into Development Plans. This is already underway through conversion of all Development Plans affecting coastal areas by inclusion of the relevant **BDP** policy.

The State Government has also provided in principle support for the following recommendation of the South Australian Parliament's Environment, Resources and Development Committee following the Committee's Inquiry into Coastal Development:

"That the Minister for Planning amends Development Plans to allow for the sea level rise induced erosion of beaches and retreat of mangroves and salt marshes."

Coastal and Marine Resources

Recommendation 3.2 *Move towards managing commercial and recreational fisheries on a full cost-recovery basis.*

Response: Commercial – Supported
 Recreational – Not supported

Commercial fisheries in South Australia are already managed on a full cost-recovery basis.

Recreational fisheries are not managed on this basis although partial costs are recovered for registration of recreational rock lobster pots.

A move to fully recover costs for managing recreational fisheries would likely require the introduction of a recreational fishing licence. The State Government's position is that it will not introduce general recreational fishing licences.

Recommendation 3.3 *Incorporate mutually supportive sustainable management principles for the coastal zone into Natural Resources Management Plans, Council Development Plans, and Marine Park Management Plans.*

Response: Supported

The Government agrees that **NRM** Plans, Council Development Plans¹ and Marine Park Management Plans should be consistent and mutually supportive, not only in relation to the coastal zone but for all relevant areas. Various mechanisms have been put in place to ensure this occurs as effectively as possible, namely:

- The *Natural Resources Management Act 2004* seeks to ensure that Development Plans and **NRM** Plans support each others goals. The Act also provides for the State **NRM** Plan to recommend changes to the Planning Strategy and to Development Plans. As a consequence, formal and informal processes are in place for the ongoing mutual consideration of Development Plans in the preparation of regional **NRM** Plans and vice versa.
- The *Better Development Plans Planning Policy Library (BDP PPL)* includes model principles for use in Development Plans. The Government is introducing **BDP** policies into all Development Plans affecting coastal areas. The **BDP PPL** is

¹ Note that Development Plans do not generally include 'management principles' and that they relate only to development as defined under the *Development Act 1993*

- reviewed against **NRM** Plans as they are released. In particular, the Coastal Areas policy module of the **BDP** project incorporates sustainable management principles for environment protection, maintenance of public access, hazard risk minimisation, erosion buffers, land division, protection of economic resources and development in appropriate locations.
- The *Marine Parks Act 2007* amended the *Natural Resources Management Act 2004* to provide consistency between marine park management plans and **NRM** Plans, and also amended the *Development Act 1993* to include *Marine Parks Act 2007* objects in the Planning Strategy.

This principle is also applied to other relevant statutory instruments related to the coastal zone where appropriate. For example, in preparing aquaculture policies under the *Aquaculture Act 2001*, consideration must be given to consistency with Development Plans, relevant environment protection policies (under the *Environment Protection Act 1993*) and other relevant plans or policies. In addition, pursuant to the *Aquaculture Regulations 2005*, draft policies must be referred to relevant **NRM** Boards.

4. Land

Land Use

Recommendation 4.1 *Preserve suitable land for economic agricultural production and biodiversity conservation, recognising that land supply is finite and the demand for housing is growing.*

Response: Supported

The existing Planning Strategy highlights both the economic benefits of protecting key primary industry areas and the sustainability benefits of protecting environmentally significant land. Consequently, the Planning Strategy currently supports the designation of high priority primary production areas. In response, the Government is considering the means available within existing policy and legislative frameworks to protect these high priority primary production areas. It is proposed that Designated Primary Production Zones (DPPAs) be established, in areas where farming or primary production is already nominated as the intended future use of the land, to protect such areas from conflicting development. A trial of this approach has successfully been undertaken by the Government in conjunction with Alexandrina Council.

In addition, the Primary Production Zone policy module of the **BDP** project has been strengthened and will continually be reviewed and strengthened where appropriate.

The Planning Strategy also supports protecting and restoring biodiversity. As a consequence, the **BDP PPL** includes policy measures and a Conservation Zone module for protecting valued natural areas.

In addition, the State Government is working closely with **NRM** Boards and the Local Government Association to determine the most effective, efficient and cost effective way to protect biodiversity, including native vegetation, while also providing certainty to the development industry and the community about the future of such resources.

The **Draft 30-Year Plan** includes policies and targets to support this recommendation. The Plan will form part of the State's Planning Strategy. Examples of policies and targets include:

- Protect at least 115,000 hectares of environmentally significant land and up to 375,000 hectares of primary production land;
- Investigate significant primary production areas for designating in Development Plans and introduce a standard set of planning controls to protect their use;
- Prevent the fragmentation of primary production land by restricting subdivision to maintain viability;
- Introduce a clear hierarchy of environmental assets to be protected, in particular areas of high environmental significance;
- Where possible, avoid any impact on biodiversity and, if unavoidable, minimise the impact through offsets; and
- Develop Structure Plans for new growth areas that will determine and assess environmental significance.

Recommendation 4.2 ***Ensure that any potential expansion of commercial tree planting does not compromise natural resources, including local biodiversity, and is accounted for within water allocation planning.***

Response: Supported

Regions in South Australia where the impacts of commercial plantation forestry are identified as a significant issue for sustainable water resource management are the higher rainfall areas (greater than 600mm) of the Lower South East, Kangaroo Island and the Western and Eastern Mount Lofty Ranges.

A policy framework for managing the impacts of commercial plantation forests on water resources has been developed by the State Government. This will be implemented through regional **NRM** Plans and Water Allocation Plans. It provides direction and guidance to Government agencies, regional **NRM** Boards and industry groups to assist

them in the development of regional Plans that will ensure sustainable water resource management.

Soil Erosion and Acidity

Recommendation 4.3 *Continue to improve soil conservation through appropriate crop selection, fertiliser use and good land management practices.*

Response: Supported

The Government supports this recommendation which is consistent with **Strategic Plan** target **T3.3 Soil Protection:** *by 2014, achieve a 20% increase in South Australia's agricultural cropping land that is adequately protected from erosion.*

The Government is assisting regional **NRM** Boards to develop **NRM** Plans, including targets, strategies and actions, to improve soil conservation. This is a key step in the process to improve soil conservation across the state.

In partnership with industry groups and regional **NRM** Boards, the Government is developing and implementing projects to encourage the adoption of best practice farming methods (such as no-tillage and direct drill farming systems and appropriate crop selection and fertiliser use) to improve soil conservation and sustainable land management.

The Government also conducts a program to monitor and evaluate the condition of agricultural land and to measure changes in the adoption of land management practices. The data is provided to **NRM** Boards and industry groups to improve their capacity to develop and implement appropriate soil conservation programs. Assessments include the level of protection of cropping land from soil erosion, the single largest soil conservation issue in the agricultural areas of South Australia. To assess the level of protection from erosion, data is collected from field surveys conducted across 5,500 sites four times per year.

In addition, the Government is introducing policies into all relevant Development Plans by inclusion of the **BDP** module which includes policy in a Hazards module to minimise the disturbance of acid sulphate soils.

Dry-land Salinity

Recommendation 4.4 *Use targeted revegetation to better manage surface water and groundwater and achieve both economic and biodiversity benefits.*

Response: Supported

The State Government is assisting regional **NRM** Boards to develop strategies to manage rising saline groundwater associated with dryland salinity, including targeted revegetation strategies.

The Government is also a partner in the **FFI CRC**, which aims to improve the profitability and sustainability of broad-acre agricultural systems by developing innovative farming systems and technologies based on perennial plants. These will help to reduce salinity on a large scale and provide other NRM benefits. The **FFI CRC** has also developed investment frameworks and principles for salinity management which will assist natural resource managers to be more explicit in identifying:

- the highest-value assets in their regions;
- the degree of salinity threat;
- the technical feasibility of reducing that threat; and
- the most suitable policy response(s) to tackle the problem.

Additionally, the Upper South East Dryland Salinity and Flood Mitigation Program – Levy and Biodiversity Offset Scheme has provided landholders with the option of off-setting their drainage levy payment by entering into a management agreement to improve the protection and enhancement of biodiversity values on their properties. A number of landholders have expressed interest in the Scheme since its inception, with more than 70 agreements executed and a further 40 under negotiation. These management agreements have secured over 4,400 hectares of land for conservation management.

5. Biodiversity

Native Vegetation

Recommendation 5.1 *Improve revegetation and restoration through detailed information on techniques and selection of species.*

Response: Supported

The Government, in partnership with other organisations, is undertaking projects to develop improved planning processes and techniques for revegetation and habitat restoration. The projects aim to identify and test practical methods for restoration and revegetation that have long-term ecological benefits. They include the development of a Habitat Restoration Guide and delivery of regional restoration workshops to improve revegetation and restoration practices on the ground.

The Government is also continuing the work of the former FloraSearch research project through its involvement in the **FFI CRC**. The FloraSearch project was initiated in 2002 and involved the selection and development of native plant species for large-scale revegetation in the wheat-sheep belt of southern Australia. The work involves the screening of native woody species to determine their potential for producing wood products, pulp and fodder. Native woody perennials offer great promise for the plant-based management of dryland salinity, as well as for the development of large-scale, commercially viable and ecologically sustainable industries. The work is also examining the economics and logistics of potential new products, markets and production systems.

Recommendation 5.2 *Incorporate the protection of important ecosystems into land use planning.*

Response: Supported

The Government agrees that the protection of important ecosystems should be incorporated into land use planning. The robust agency and stakeholder consultation processes required to develop the Planning Strategy and Development Plans ensures that this issue continues to be addressed.

Utilising the land use planning system to protect ecosystems also provides certainty to developers about where development may or may not occur.

Regional **NRM** Boards are identifying important ecosystems as they develop their regional **NRM** Plans. As regional **NRM** Plans are adopted, relevant local Development

Plans are assessed to ensure alignment between the plans and to ensure that important ecosystems are reflected in local Development Plans.

In addition, the Government is undertaking mapping of native vegetation areas (12,000 HA) identified in growth areas over the next 3 years in line with the recent Planning Review recommendations to fast-track this work to feed into regional land use and planning processes.

The **Draft 30-Year Plan** also includes the following policies and targets:

- Introduce a clear three tier hierarchy of environmental assets to be protected and incorporate the protection of these areas into Development Plans;
- Where possible, avoid any impact on biodiversity and, if unavoidable, the impact to be minimised and offset;
- Integrate environmental regulatory assessments with planning assessments to streamline the development approval process;
- Develop Structure Plans for new growth areas that will determine and assess environmental significance;
- Integrate into Development Plans coastal management requirements, including marine parks and aquatic reserves;
- Protection of 115,000 hectares (13% of Greater Adelaide) of existing natural areas identified as areas of high environmental significance; and
- Increase the extent of functional ecosystems (coastal, estuarine, terrestrial and riparian) to 30% of the region, excluding urban areas, consistent with the regional **NRM Plan**.

The policies in the **BDP PPL** and the Conservation Zone Module, for protecting valued natural areas (which the Government is introducing into all relevant Development Plans), will be updated as needed to achieve the above policies and targets.

Threatened Species

Recommendation 5.3 *Develop conservation legislation to protect and restore threatened species and communities.*

Response: Supported in principle

The Government has commenced a review to explore simplifying, improving and clarifying policy and legislative arrangements for the protection and conservation of the State's biodiversity. This review is consistent with policy commitments in the **Strategic Plan** and the **No Species Loss Strategy**.

Discussions have commenced with a range of Government and non-government stakeholders as part of the review to explore options and ensure that all relevant issues from Government, community and industry perspectives are considered.

Recommendation 5.4 Increase investment in landscape-scale habitat reconstruction to achieve South Australia's Strategic Plan target T3.1 (Lose no species) and to facilitate adaptation of ecosystems and species to climate change.

Response: Supported

Minimising the future loss of native biodiversity will require a broad range of restoration activities on a range of scales including efforts planned and implemented at the landscape scale. Reconstructing habitat requires staged planting and the strategic management of plantings over many years. It also requires partnerships and collaboration between a wide range of stakeholders and property owners.

Strategic Plan target T3.2 Land biodiversity requires that: *“by 2010 have five well-established biodiversity corridors aimed at maximising ecological outcomes particularly in the face of climate change”*. NatureLinks is the Government initiative that will deliver this target through planning and developing five biodiversity corridors across the State: Arid Lands, Cape Borda to Barossa, East meets West, Flinders-Olary, and the River Murray-Coorong.

Landscape-scale habitat restoration, including habitat reconstruction, is a key component of NatureLinks, which is being implemented in consultation with landholders and conservation organisations. Restoration planning is currently occurring to ensure that NatureLinks activities and priorities are determined with climate change in mind.

In addition to NatureLinks, a range of other habitat reconstruction and restoration projects are underway. Many of these projects feature multiple partners, including the State and Australian Governments, **NRM** Boards, universities and regional communities. They include:

- The River Murray Forest Project, which aims to create a native forest habitat using native species over more than 3,400 hectares along the River Murray - Coorong NatureLink corridor. The project will deliver large-scale habitat reconstruction and carbon sequestration outcomes on both private and public land from the South Australian/Victorian border to the southern extent of the River Murray – Coorong NatureLink corridor.
- Ecological Restoration Project – which aims to determine habitat restoration priorities for the temperate zone of South Australia to ensure the best return on investment.

- The Kangaroo Island Nationally Threatened Plant Project – to date more than 40 hectares of nationally threatened plant habitat has been restored.
 - Landscape restoration in the northern Murray Mallee – current activity focuses on restoring Woorinen Mallee communities on dunes in the northern Murray Mallee through revegetation and fire management.
 - The Para Woodlands Project – which aims to restore woodland vegetation across several hundred hectares on property in the northern Mount Lofty Ranges.
 - The Nature Conservancy's Conservation Action Planning Tool – this is being used by groups on the Eyre Peninsula and the Flinders Ranges to develop on-ground restoration programs.
 - Investigations into the implications of the emerging market for carbon as a potential source of investment for landscape-scale habitat reconstruction. In particular, investigations are in progress to evaluate and predict carbon sequestration rates from revegetated areas.
 - Investigating opportunities to establish a Biodiversity Market to provide a mechanism to increase investment and engage the community, landholders, government agencies and industry in biodiversity management for long-term, landscape scale outcomes.
-

Introduced Species

Recommendation 5.5 Improve incentives and support for environmental stewardship on private land, including for the control of invasive plants and feral animals by 2012.

Response: Supported

Refer to the section titled '*Our Environmental Priorities*'.

Recommendation 5.6 Promote a national weed labelling scheme that identifies the weed potential of species to plant buyers and sellers.

Response: Not supported

Although proposed in 2004 and 2007 by World Wildlife Fund Australia, the national weed labelling proposal remains conceptual and has not been adopted by any jurisdiction or supported by the Australian Weeds Committee.

Labelling at a national level is considered impractical as almost any plant species is capable of escaping from cultivation in some part of the country that is as diverse as Australia. As a consequence, the State Government currently uses a weed risk analysis

protocol to determine which species should be prohibited from sale in South Australia and does not currently support this recommendation.

Recommendation 5.7 ***Include the regulation of introduced freshwater fish species under natural resource management legislation.***

Response: Supported in principle

State fishery agencies are represented on the national Vertebrate Pests Committee (**VPC**) which reports to the Natural Resource Management Standing Committee and Primary Industries Standing Committee. The **VPC** has established a national Pest Fish Working Group to consult with key stakeholders and develop a strategy for managing freshwater pest fish.

In addition, the regulation of activity associated with freshwater fish in South Australia is primarily managed by the *Fisheries Management Act 2007*, which is one of a suite of natural resource management legislation in the State. This legislation deals with commercial and recreational fishing, aquatic reserves and the handling of exotic or noxious fish. However the Act does not specifically deal with the management of inland waters already containing introduced fish which are adversely impacting on the aquatic environment.

As a consequence, there may be value in strengthening natural resource management legislation in relation to existing populations, in particular the exploration of management objectives and obligations in relation to introduced freshwater fish management.

Therefore the Government supports the recommendation in principle and will review the current suite of natural resource management legislation in the context of introduced freshwater fish species.

Recommendation 5.8 ***Improve the early identification of pest incursions to reduce their impacts and the cost of eradication.***

Response: Supported

South Australia's Biosecurity Strategy is currently being finalised following a public consultation process.

The draft strategy covers all aspects of biosecurity, including the prevention or surveillance of, preparedness for, emergency response to, and recovery from outbreaks of pests and diseases. Goal 3 of the draft Strategy was for incursions of new pests and

diseases to be detected early and eradicated.

It is proposed that existing passive and active pest surveillance systems will be improved and new systems developed to enable the timely detection of new pest species when they can still be eradicated. Rapid response procedures for assessment, containment and eradication are proposed to be developed and implemented when required.

In addition, a new intergovernmental agreement is currently being developed to frame the way States and the Commonwealth work together and share the cost of future eradication programs.

6. Human Settlements

Population and Urban Form

Recommendation 6.1 *Include complementary indicators to those already in the South Australia's Strategic Plan to assess the interactions between targets and progress across economic, social and environmental targets, for example environmental impacts in measuring growth, by 2012.*

Response: Supported in principle

Refer to the section titled 'Our Environmental Priorities'.

Transport

Recommendation 6.2 *Reduce transport related greenhouse gas and other emissions through land use planning policies, stricter emission standards for vehicles, investment in public transit options, and registration and stamp duty concessions for lower emission vehicles.*

Response: Supported

The State Government has recognised the need to reduce transport related greenhouse gas and other emissions and has set relevant targets in the **Strategic Plan**, namely:

- **T3.5 Greenhouse gas emissions reduction:** *achieve the Kyoto target by limiting the state's greenhouse gas emissions to 108% of 1990 levels during 2008-12, as a first step towards reducing emissions by 60% (to 40% of 1990 levels) by 2050; and*
- **T3.6 Use of public transport:** *increase the use of public transport to 10% of metropolitan weekday passenger vehicle kilometres travelled by 2018.*

Reducing transport related emissions is also included in the Government's **Greenhouse Strategy**. The Strategy has a specific transport-related Goal that "*South Australia will substantially reduce transport related greenhouse emissions while maintaining accessibility and economic development*".

The Government is implementing a range of initiatives to reduce emissions from transport, some of which are set out below.

Land use planning

The existing Planning Strategy includes a metropolitan-wide policy of Land Use and Transport Integration. The facilitation of transit oriented development (**TOD**) around selected high service public transport routes was supported as part of the \$2 billion investment in public transport over 10 years announced as part of the 08/09 budget. The first sites are expected to be available for development in early 2011.

In 2006 the Government released *Safety in Numbers: A Cycling Strategy for South Australia 2006–2010*. In addition, the *Road Safety Strategy 2003–2010* fosters safe walking and infrastructure provision. Both initiatives will contribute to achieving a reduction in transport related greenhouse gas and other emissions.

The **Draft 30-Year Plan** includes a range of policies and targets to reduce transport related greenhouse gas and other emissions through land use planning policies which are summarised as follows:

- Implement a new urban form to promote a compact and efficient city;
- A metropolitan-wide spatial strategy giving priority to land use and transport integration, protection of transit corridors and concentrating higher densities around public transport stations;
- Locate about 60% of metropolitan Adelaide's new housing growth within 800 metres of current or extended transit corridors;
- Deliver 13 high-order **TODs** and facilitate the delivery of an additional 20 other transit-oriented-style developments;
- Provide and extend a connected bicycle network across Greater Adelaide with bike and walking paths integrated into transit corridors; and
- Create new and upgrade existing park and ride facilities at transport interchanges.

In addition, the Government is updating the Better Development Plans Planning Policy Library to include policies that support **TOD**.

Vehicle performance

Australian Design Rules for new heavy vehicles, light commercials and passenger vehicles are being progressively introduced. These mandate engine designs that assist in reducing greenhouse gas tailpipe emissions.

The South Australian Government has been collaborating with other jurisdictions and the Australian Government to develop a range of vehicle fuel efficiency measures as national reforms. Recommendations arising from the completed *Vehicle Fuel Efficiency Report* have been endorsed by **COAG**, subject to regulatory impact statements, and will be progressed through both the National Strategy on Energy Efficiency and the Henry Tax Review.

The national in-service emission standards are being investigated for adoption in South Australia's *Road Traffic (Vehicle Standards) Rules 1999* as a new rule to complement the existing smoke emissions standard (Rule 147).

Investment in public transit options

The State Government is aiming to reduce emissions from the public transport fleet through a cost-effective combination of low emission fuels, bio-diesel, natural gas, biosequestration and the purchase of more efficient vehicles.

With the support of the Australian Government, the State Government has continued and accelerated its 10 year, \$2 billion commitment to redevelop and extend public transport infrastructure including the electrification of the metropolitan passenger rail network. The public transport initiative has expanded to \$2.6 billion, including \$1.5 billion over the next 4 years to 2011/12, and includes capacity improvements, delivery of faster and better connected public transport services and system improvements.

As well as the major upgrade of the Belair line delivered in August 2009, the raft of public transport improvements includes:

- electrification of the metropolitan rail network, from Noarlunga in the south to Outer Harbor and Gawler in the north;
- concrete re-sleepering of the Noarlunga line ahead of the electrification program;
- purchase of 64 new electric trains;
- conversion of over 50 of the existing rail fleet from diesel to electric operation;
- a 5.5km electrified rail extension from Noarlunga to Seaford;
- purchase of additional trams;
- extending the tramline from City West to the Adelaide Entertainment Centre;
- acquiring 80 buses, 20 new buses a year to 2011/12, that use the latest European technology – Euro 5 with **EEV** engine technology;
- rail station and interchange upgrades, such as refurbishment of the heritage Blackwood Railway Station on the Belair line; and

- improved city access for the Adelaide O-Bahn to help reduce congestion.

Registration and stamp duty concessions for lower emissions vehicles

Registration fees are currently tiered with different rates applied depending on the number of cylinders. This encourages the use of smaller vehicles which generally have a lower rate of tailpipe greenhouse emissions and fuel consumption.

Energy

Recommendation 6.3 Increase energy efficiency and renewable energy requirements for all economic sectors.

Response: Supported in principle

Energy Efficiency

The Government is a signatory to the *National Partnership Agreement on Energy Efficiency*, agreed at the July 2009 **COAG** meeting. States and Territories have agreed to work with the Commonwealth Government to improve energy efficiency in a number of key sectors including commercial and residential buildings, industrial and government sectors. This agreement will support an Australia transition to a carbon constrained world and adjust to the anticipated changes under the Carbon Pollution Reduction Scheme.

The State Government has focussed on the following programs and initiatives to improve energy efficiency across a range of sectors:

- The **Strategic Plan** includes two targets that focus on increasing energy efficiency, namely:
 - **T3.13 Energy efficiency – government buildings:** *improve the energy efficiency of government buildings by 25% from 2000-01 levels by 2014;* and
 - **T3.14 Energy efficiency – dwellings:** *increase the energy efficiency of dwellings by 10% by 2014.*
- A \$2 million Building Innovation Fund to improve the energy performance of existing commercial building stock through implementation of innovative, renewable energy and energy efficiency technologies.
- The National Strategy on Energy Efficiency, which includes initiatives to increase energy efficiency across a range of economic sectors.

The **Draft 30-Year Plan** includes the following policies and targets:

- The distribution of 43,000 energy efficiency kits through Adelaide Solar City;

- Implementation of a six star rating for new buildings, set building standards and design guidelines to create more thermally and energy efficient buildings (including high-rise developments), and implement new efficiency standards for air-conditioning; and
- Set baseline energy efficiency targets for all new developments over a particular threshold; implement a more compact urban form; and promotion of alternative energy supplies, such as embedded generation, to drive neighbourhood level energy efficiency.

In addition, the Government is introducing policies into all relevant Development Plans by inclusion of the **BDP PPL** policy that addresses renewable energy facilities.

Renewable Energy

Target **T3.12 Renewable energy** in the **Strategic Plan** is to: “*support the development of renewable energy so that it comprises 20% of the state's electricity production and consumption by 2014*”. This target includes broad coverage across all economic sectors.

For the 2008-09 year, the production of renewable energy within South Australia, as a proportion of the total energy produced and consumed in the State, amounted to 14.8% and 16.4% respectively².

South Australia has been so successful with renewable energy investment that it is expected that this target will be achieved before the legislated 2014 deadline. As a consequence of this, the Government has announced that it intends to set a higher target of 33% of generation to come from renewable sources by 2020.

To assist in the achievement of this aspirational target, the Government has established the RenewablesSA Board and the Commissioner for Renewable Energy along with a \$20 million Renewable Energy Fund to help foster innovation and investment in renewable technology to create green jobs in a renewable energy industry.

Recommendation 6.4 ***Include all government enterprises within South Australia's Strategic Plan Government energy efficiency targets.***

Response: Supported in principle

The Government supports the principle of Government-controlled entities meeting energy efficiency targets alongside Government departments. These entities include SA Water, TransAdelaide, SA Housing Trust, and the Land Management Corporation.

² As reported in the SASP Objective 3: Attaining Sustainability, Energy T3.12 Renewable Energy Factsheet.

Currently, Government controlled entities can voluntarily participate in the *Government Energy Efficiency Action Plan*, and SA Water is already participating.

Because there are cost and practical issues (including being required to provide baseline data dating to 2000-2001 and being in a position to collect ongoing energy and emissions data) the Government is yet to mandate this.

This matter is due for review as part of the next update of the SASP scheduled for 2010 and this recommendation will be considered further at the time.

Recommendation 6.5 ***Increase thermal performance minimum standard from 5 stars to 7.5 stars in the short term.***

Response: Supported in principle

The Government supports an increase in the minimum thermal performance standard for new houses. However, there is a question of degree and timing.

COAG has developed a *National Strategy for Energy Efficiency* which sets the new level for the next version of the Building Code of Australia (**BCA**) in 2010 at 6 stars with a commitment to regularly review and potentially increase the minimum standards every 3 years thereafter subject to satisfactory regulatory impact assessments. New provisions for 6 stars are contained in the draft **BCA** 2010 that has been released for public consultation. Any new initiatives for improving the thermal performance of buildings will need to be consistent with that strategy.

A departure from that standard by South Australia would affect national consistency and impose unacceptable compliance costs on industry. In the interim, the most effective action that the Government can take is to lead by example and work within the national strategies.

The Government is continuing to urge developers to go beyond the current 5 star minimum requirements. Current initiatives that address the energy performance of housing include:

- Setting a target for 25% of residential houses in its residential land releases to meet a 6 star standard (the developer approved for Seaford Heights has committed to 100% 6 star houses);
- Setting a minimum 7.5 star rating for the Lochiel Park Project;
- Working with builders in the Playford Alive Project to determine the exact costs of moving from 5 star to 6 star houses; and

- Commitment to a minimum 6 star standard for the Light'sview Project (Northgate 3) in a joint venture with the Canberra Investment Corporation, and targeting 7 stars.

In addition, the **Draft 30-Year Plan** includes the following policies and targets:

- Formation of a Climate Change, Housing Affordability and Sustainable Neighbourhoods Task Force to undertake detailed work on policies and advise on the design and building standards required to achieve zero carbon and energy efficient buildings and neighbourhoods while maintaining housing affordability;
- 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 for Energy Efficiency; and
- Set building standards and design guidelines to create more thermally and energy efficient buildings.

Recommendation 6.6 ***Introduce a domestic scale gross (currently net) feed-in tariff and extend 'feed-in' tariffs to all renewable energy sources (not just solar).***

Response: Gross Feed-in Tariffs – Not supported
 Extending feed-in tariffs – Supported in principle

Gross Feed-in Tariffs

In the current policy context the Government considers that a net feed-in tariff remains the most appropriate scheme for rewarding householders who install solar panels in South Australia.

Net feed-in tariffs have a number of benefits compared to gross feed-in tariffs, including:

- Net feed-in tariffs strike the best balance between costs for general consumers and benefits for solar owners;
- Net metering supports household attitudes and behaviours in reducing their energy use; and
- There is no need to change existing meters in households with solar panels. Such change would be necessary if the system was changed to a gross feed-in tariff.

There is a misconception that net feed-in tariffs cannot provide adequate benefits to households with solar panels. However Government analysis on 1,500 households in metropolitan Adelaide shows that an average of 50% of electricity generated by solar panels is returned to the grid. This is the only study in Australia of this magnitude. The Government has emphasised this in submissions to the Federal Senate Inquiry on Feed-in Tariffs and to the Garnaut Review.

A switch from a net to a gross feed-in tariff would double the costs of the scheme to consumers at large. It is considered that cost impacts of this level are unacceptable.

Extending feed-in tariffs

The Australian Government's Carbon Pollution Reduction Scheme, the expanded Mandatory Renewable Energy Target and the State Government's own **Strategic Plan** renewable energy target (T3.12) will drive significant uptake of renewable technologies. While supporting an extension of the feed-in scheme in principle, an extension of the scheme so that it covered all technologies and large-scale systems (providing even further incentive to deploy large scale projects) would result in a significant increase in costs for the scheme. South Australia's feed-in Scheme is currently under independent review and this review will include issues such as the eligibility of other technologies; impact of prices paid by retailers; and continued eligibility of larger solar systems.

Water

Recommendation 6.7 Move to a user pays system that reflects the true cost of water and provides an incentive for reduced demand.

Response: Supported

This recommendation is broadly consistent with the **COAG** provisions which require the adoption of pricing regimes that are based on the principles of consumption-based pricing, full cost-recovery and, desirably, the removal of cross-subsidies that are not consistent with efficient and effective service, use and provision.

This recommendation is also consistent with the requirements of the **NWI** for metropolitan water and wastewater businesses to move towards upper revenue bound pricing³. Under the **NWI**, which South Australia signed in 2004, water pricing is to be: (i) based on the principles of full cost recovery and consumption-based pricing; (ii) is to recover at least the lower bound; and (iii) is to move towards the upper bound.

In its 2008-09 pricing decision, the State Government confirmed its commitment to move towards full cost-recovery over time by aiming to recover costs in the metropolitan area for all new investment (i.e. investment after 30 June 2006) and to maintain, as a minimum, existing returns on legacy investments. This position is outlined in the 2008-09 Transparency Statement. Community service obligation funding ensures full cost-recovery is achieved for regional operations.

³ Upper bound pricing is the level at which, to avoid monopoly rents, a water business should not recover more than the operational, maintenance and administrative costs, externalities, taxes or tax equivalent regimes, provision for the cost of asset consumption and cost of capital, the latter being calculated using a weighted average cost of capital.

The Government is already committed to consumption-based pricing through the application of a two-part tariff⁴. Furthermore, in its 2008-09 and 2009-10 pricing decisions, the Government modified its water tariff structures to further strengthen the application of consumption-based pricing principles, and hence provide further incentive to reduce demand. These tariffs are applied on a state-wide basis consistent with the Government's Statewide Pricing Policy.

In addition, *Water for Good* includes the following actions:

- Continue to move potable water use prices for SA Water customers towards cost-reflective prices and initiate a transition to a single potable water use price for SA Water's non-residential customers;
- Transition SA Water customers to water supply charges based on the number and size of the customers' meters;
- Appoint the Essential Services Commission of SA as the independent economic regulator and to monitor and report on the effect of state-wide pricing, and request that it examine price structures that may benefit economic efficiency and water security;
- Develop State-based recycling water pricing principles to ensure competitive pricing of these emerging water sources; and
- Set water and wastewater prices to encourage economically efficient use.

Material Consumption, Recovery and Waste

Recommendation 6.8 Expand use of existing waste and recycling infrastructure to enable collection of a broader range of waste types e.g. 'e-waste' and improve access to collection facilities for hazardous wastes.

Response: Supported

The Government and the community place a high priority on managing electronic and hazardous wastes.

A number of voluntary industry take-back schemes are already in operation. These include Mobile Muster (used mobile phones), and local retail collection points for fluorescent light globes.

To support its highly successful beverage container deposit scheme, South Australia has established a network of over 120 waste and recycling depots across metropolitan and regional areas. These depots accept beverage containers and a wide range of other

⁴ Two-part tariff consists of a service availability charge and a water usage charge.

products for re-processing. Their accessibility to most community members contributes to South Australia's 'culture of recycling'. The depots would provide a strong foundation for the introduction of future recycling initiatives such as extended producer responsibility schemes.

To this end, discussions with the existing network of waste and recycling depots have commenced to identify a wider range of materials that could be accepted for recycling, for example electronics waste, batteries and compact fluorescent light-globes. The Government is also working with the waste and recycling depots to explore options that would enable the community to deposit electronic waste and other types of hazardous waste such as water and solvent-based paints, used oil, and lead acid batteries at convenient and accessible locations.

In addition, an Environment Protection (Waste to Resources) Policy is currently being developed which proposes a ban to landfill for a range of electronic and electrical waste.

The Zero Waste SA Household Hazardous Waste and Farm Chemical Collection Program has been reviewed. The Program offers periodic collections in all South Australian council areas and has been highly successful. It complements the services provided by other facilities and programs such as the Dry Creek Waste Depot and the Used Oil Collection Program. The review recommended that collections continue, supported by adequate infrastructure.

During 2008-2009, the Collection Program was expanded to accept electronic wastes which resulted in increased volumes of materials collected, and groups of local Councils working together to facilitate joint e-waste collections across several Council areas. The collection of e-waste has also enabled the Government to collect valuable data about the age, brand and type of electronics being presented for collection. This will assist in identifying opportunities for targeted stakeholder discussions in future extended producer responsibility initiatives.

South Australia is also an active participant in national negotiations to manage waste issues via the Environment Protection and Heritage Council forum. A *National Waste Policy* is currently being developed, which will establish a framework for responding to issues of national priority. In particular, at their meeting on 5 November 2009, the nation's environmental ministers agreed to the implementation of a product stewardship scheme for television screens and computers, to commence in 2010/11.

The South Australian Government has focussed its industry support on developing infrastructure that can respond to emerging and problematic waste streams. Several Zero Waste SA grant funding rounds have targeted problematic waste streams such as electronics waste. A notable innovation arising from this futures-based infrastructure

support was the provision of funding for the Southern Hemisphere's first Cathode Ray Tube Recycling Facility, which opened at Kilburn in 2009.

Recommendation 6.9 *Improve information systems for better management of different waste types.*

Response: Supported

Zero Waste SA has historically collected a range of waste and recycling/resource recovery data. A new data management system, Zero Waste Environmental User System (**ZEUS**), has just been developed which will standardise the input of data and improve the efficiency of storing data, modelling and reporting. **ZEUS** will include data on municipal solid waste, illegal dumping, hazardous household waste and waste generated by the commercial and industrial, and the construction and demolition sectors. **ZEUS** will also include a Grants and Incentives module to record the grants made to industry to encourage recycling and re-use.

ZEUS is based on an off-the-shelf software package that is already used in industry. Users will include Zero Waste SA, other State Government agencies, local government and industry.

Recommendation 6.10 *Adjust South Australia's Strategic Plan Target 3.8 – Zero Waste, applying a target for reduced waste generated per capita by, say, 25% by 2018.*

Response: Supported in principle

The Government supports this recommendation, subject to further consideration of the assumptions on which a per capita target would be based.

The current **Strategic Plan** target **T3.8 Zero waste: Reduce waste to landfill by 25% by 2014** refers to the diversion of waste away from landfill. Avoiding the creation of waste (and therefore the need for disposal options) is the highest aspiration on the waste hierarchy. A per capita target could help stimulate individual efforts and assist in raising awareness of waste as an issue that affects the entire community.

Before a target for waste reduction per capita could be formalised, several issues would need to be resolved including:

- Defining which types of waste would be included, e.g. a 'household-only' target would be simpler to measure, as existing data for kerbside bin wastes are reasonably sound;
- Defining which waste streams are included in the definition of 'waste generated' (i.e. re-used, recycled, disposed to landfill) and implementing rigorous reporting procedures to accurately measure waste generated in both metropolitan and rural areas⁵; and
- Considering whether the target should include wastes generated by South Australian industries where the products made are subsequently exported.

All Zero Waste SA programs include a component that avoids waste, as well as improving collection and reprocessing systems for waste. Current initiatives to avoid and minimise waste include:

- The Resource Efficiency Assistance Program (**REAP**) offers advice and guidance to the Commercial and Industrial sector to implement sustainability and lean manufacturing principles and improve supply chain efficiencies. Enterprises that produce food waste are a current target for **REAP** assistance; e.g. Zero Waste SA is working closely with Regency Centre of TAFE and Adelaide Convention Centre to minimise kitchen food waste.
- The SA Government introduced legislation that has led to a ban on check-out style plastic shopping bags from May 2009. This will help prevent around 400,000,000 plastic bags entering the waste stream every year.
- A household food waste pilot to raise awareness of food waste issues. The diversion of food waste from pilot areas into the green organics collection will ensure that unused food is recycled into soil conditioners, mulch and other organic products.
- Zero Waste SA Grant Programs are directed towards identifying materials that can be diverted away from landfill and into re-use or recycling programs. Grant programs include support for additional infrastructure in schools, community groups and businesses.

The State Waste Strategy is currently being reviewed. This will identify potential changes in the way that waste-related programs are managed. Consequently, a target for reduced waste will be reviewed as part of the review of the **Strategic Plan** scheduled for next year.

⁵ For example, waste to landfill data is collected; data on waste generated that is subsequently recycled is obtained through specific industry surveys; data on waste generated that is subsequently re-used is not collected at all.

Recommendation 6.11 ***Make state government support for major events contingent upon a waste management plan based on the waste hierarchy.***

Response: Supported in principle

The Government agrees that major events should incorporate a waste management plan. To this end, Zero Waste SA has developed a *Zero Waste Events Guidelines* to provide assistance to event managers for developing and implementing an appropriate waste management strategy. Use of the Guidelines will be voluntary at this stage. However, consideration will be given to the practicalities and logistics of making State Government support for events contingent upon a waste management plan or adherence to the Guidelines.

Recommendation 6.12 ***Improve enforcement of litter legislation.***

Response: Supported in principle

Litter-free environments contribute to an improved sense of community as well as to amenity, safety, hygiene, and broader objectives including species conservation.

Litter enforcement is primarily the responsibility of Local Government. In addition, the State Government currently provides funds towards the KESAB litter programs, which focus on community action, litter cleanups and education rather than enforcement. There may be opportunities for the State Government to broaden its assistance with respect to enforcement.

The Government will consider options for improving litter enforcement including:

- Providing support and assistance to Local Government and/or relevant administering bodies to enforce litter provisions in public areas e.g. community reserves, National Parks, shopping precincts and fast food precincts;
 - Allocating funding to community engagement and training;
 - Liaising with the South Australian Police to secure greater enforcement of existing offences; and
 - Review of penalties and the regulatory regime.
-

7. Heritage

Built Heritage

Recommendation 7.1 **Provide Councils with a simplified process, with appropriate safeguards, for listing and removal of places from a local heritage schedule.**

Response: Supported in principle

The State Government has recognised community concern with the current process for local heritage listing. The current process has been in place, largely unchanged, since inception of the *Development Act 1993*, which introduced criteria for the recognition of local heritage places in January 1994. These criteria are not consistent with national criteria in the National Heritage Convention (HERCON) and the South Australian Heritage Council is to provide advice on how the criteria can achieve consistency. The guidance on local heritage listing and thresholds in the *Planning Bulletin: Heritage (2001)* is also due for review.

Improvement of processes for local heritage listing requires careful consideration, as over-simplification of the process could jeopardise owner and development certainty and increase the likelihood of *ad-hoc* listings and de-listings.

The Government is currently clarifying planning policy relating to both heritage and character matters. This work will, of necessity, impinge on guidance to councils and update the **BDP PPL**, including the *Planning Bulletin: Heritage*. While this work is initially aimed at improving policy for development assessment, there is a logical flow through to reviewing the framework for heritage listing proposals and what this means for local heritage designations in Development Plans and the heritage listing process more generally. The production of a revised Planning Guide covering the topics of both heritage and character is proposed as a first step.

Recommendation 7.2 **Consolidate heritage legislation**

Response: Supported in principle

The primary pieces of State legislation that deal with the conservation and management of non-indigenous built heritage in South Australia are the *Development Act 1993*, the *Heritage Places Act 1993* and the *Historic Shipwrecks Act 1981*.

Some rationalisation and/or consolidation of legislation is an option to assist with the coordination and management of built heritage in South Australia.

As mentioned in the previous recommendation, the Government is currently reviewing planning policy relating to both heritage and character matters as administered under the *Development Act 1993*. This work may eventually flow through to reviewing the administrative and legislative framework for heritage listing proposals and the heritage listing process more generally under both the *Heritage Places Act 1993* and the *Development Act 1993*.

In addition, consolidation of the *Historic Shipwrecks Act 1988* and the *Heritage Places Act 1993* may create a more streamlined process for registering and managing significant maritime objects. The South Australian Heritage Council is currently reviewing Heritage Directions, a strategy for the future directions of built heritage in South Australia. As part of this process, the Council will consider the integration of maritime heritage, including the *Historic Shipwrecks Act 1988*, with the *Heritage Places Act 1993*. This will be undertaken within the context of a Commonwealth review of its own maritime heritage legislation, namely the *Historic Shipwrecks Act 1976*. This review is currently underway as a result of requirements arising from the UNESCO 2001 Convention for the Protection of the Underwater Cultural Heritage.

Cultural Heritage

Recommendation 7.3 ***Review the Aboriginal Heritage Act 1988 to improve the recording and protection of cultural heritage.***

Response: Supported

Aboriginal heritage is a unique and irreplaceable part of South Australia's history and heritage that requires effective protection and management.

The objects of the *Natural Resources Management Act 2004* provide that:

“Consideration should be given to Aboriginal heritage and to the interests of the traditional owners of any land or other natural resource”.

In addition, indigenous access to water resources is a component of the **NWI**. In 2007-08, the Government commenced a Cultural Access to Water for Aboriginal People Across South Australia Project. The findings of this project are being used to inform the development of a state-wide implementation plan to ensure that future access to cultural water for Aboriginal people is achieved in line with and in consideration of other **NWI** priorities.

Since the *Aboriginal Heritage Act 1988* was proclaimed there have been a number of legislative and policy developments which impact on Aboriginal heritage administration and legislation. Such developments include the enactment of the *Native Title Act 1993* (Commonwealth), the Government's Native Title Claims Resolution Process and the widespread use of agreements negotiated directly between Aboriginal people and land developers.

In December 2008, the Minister for Aboriginal Affairs and Reconciliation announced the commencement of a review of the *Aboriginal Heritage Act 1988* to take account of the changed legislative and policy context, as well as changing community attitudes and expectations around Aboriginal heritage.

The review will be informed by the following principles:

- Recognising Aboriginal custodianship of cultural heritage;
- Creating a strong framework for long term protection and management of Aboriginal heritage;
- Enabling Aboriginal negotiation of agreements about heritage;
- Embedding Aboriginal heritage considerations into the development and land management process;
- Creating timely and efficient processes;
- Creating certainty for all parties; and
- Complementing the *Native Title Act 1993*.

A scoping paper for public comment was released in December 2008 and public consultation on the Review commenced early in 2009. The Government is consulting widely with all parties, particularly the Aboriginal community, to ensure that the new legislation improves the recording and protection of Aboriginal heritage and provides for Aboriginal people to effectively participate in decision-making about their heritage. It is expected that the review will be completed during 2010.

Abbreviations

COAG	Council of Australian Governments
BCA	Building Code of Australia
BDP	Better Development Plans
BDP PPL	Better Development Plans Planning Policy Library
EEV	enhanced environmentally-friendly vehicle
FFI CRC	Future Farm Industries Cooperative Research Centre
Greenhouse Strategy	Tackling Climate Change: South Australia's Greenhouse Strategy 2007—2020
Draft 30-Year Plan	Planning the Adelaide we all want – Progressing the 30-Year Plan for Greater Adelaide
MDB	Murray-Darling Basin
No Species Loss Strategy	No Species Loss: A Nature Conservation Strategy for South Australia 2007—2017
NRM	natural resources management
NWI	National Water Initiative Intergovernmental Agreement
PCCC	Premier's Climate Change Council
REAP	Resource Efficiency Assistance Program
SoE	State of the Environment Report for South Australia 2008
Strategic Plan	South Australia's Strategic Plan 2007
TOD	transit oriented development
USH Options Study	Urban Stormwater Harvesting Options Study
VPC	Vertebrate Pests Committee
WSUD	water sensitive urban design
ZEUS	Zero Waste Environmental User System