Government's Response to the State of the Environment Report South Australia 2013

SOUTH
AUSTRALIA

Government of
South Australia

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Message from the Minister

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The most recent State of the Environment Report is the sixth produced in South Australia, with previous reports released in 1988, 1993, 1998, 2003 and 2008.

As expected, the findings of the State of the Environment Report 2013 are mixed, describing both positive and negative trends. The report outlines many challenges for the years ahead.

I am looking forward to working with the South Australian community to ensure South Australia remains a sustainable state for many generations to come and also a world leader in environmental management. This authoritative report is an important reference tool for the community, business and government. I invite everyone to review aspects of this report, including a concise summary, and refer you to the report, which is available online.

This State of the Environment Report is significant for a number of reasons. It draws together data and information from numerous and diverse sources to provide an objective and consolidated assessment of environmental trends and issues, provides clarity about what South Australia's environmental risks and pressures are, and sets out what is being done to protect the environment. A key recommendation of the report is the development of an environmental information strategy or plan to better drive coordinated and integrated collection and management of environmental information and knowledge.

Improved information collection and management processes are considered to be a key element of successful environmental management. Environmental information informs how we make decisions to ensure sustainability and in turn human wellbeing and economic progress.

In my response to the State of the Environment report 2013, I provide further background to the environmental information strategy and outline how we plan to implement it across the Government of South Australia.

Briefly, the strategy will be prepared to drive efficiencies by identifying key datasets, aligning data collection and management with the needs of users and by facilitating access to, and use of environmental information. The strategy will also promote a culture of free and open data access.

IAN HUNTER MLC
Minister for Sustainability, Environment and Conservation

1. Introduction

The *Environment Protection Act 1993* requires "reporting on the state of the environment on a periodic basis". Section 112 of the Act sets out how the objective is to be met and requires the Environment Protection Authority to, at least every five years:

- prepare and publish a report that includes an assessment of the state and condition of major environmental resources
- identify significant trends in environmental quality
- review significant programs, activities and achievements of public authorities relating to the protection, restoration and enhancement of the environment.

The State of the Environment Report 2013 is the sixth produced in South Australia, with previous reports released in 1988, 1993, 1998, 2003 and 2008.

This report provides the Government's response to the recommendations of the State of the Environment report 2013.

2. The previous State of the Environment Report

The Government of South Australia supported all but three of the 43 recommendations of the 2008 State of the Environment Report. Some of the highlights of the Government's response are summarised below.

- The Environment Protection Authority developed an air quality strategy and management plan to identify risks, priorities, and management objectives to minimise health risks from air pollution, while supporting population growth and economic development in South Australia.

- The Climate Change Adaptation Framework was developed to support industries, the community and the government to continue to make well informed decisions and timely actions to prepare for climate change.

- Building on several years of planning and development, a network of 19 Marine Parks was established in 2012 to support biodiversity, and improve resilience of the marine environment to pressures such as climate change, coastal development and land based pollution.

- Projects such as the Adelaide Desalination Plant and an overhaul of industry water use legislation in the *Water Industry Act 2012* have helped to improve water security for South Australia and reduced reliance on the River Murray, supporting a more sustainable environment.

- The Habitat Restoration and Planning Guide for Natural Resource Managers was produced to help individuals and groups to contribute to landscape restoration in an informed and meaningful way by supporting landscape restoration projects

3. The State of the Environment Report 2013

3.1 Summary of the report

The State of the Environment Report 2013 covers five themes:

- People and places
- Climate change
- Water
- Biodiversity
- Coastal and marine environment.

The following government agencies contributed to the State of the Environment report 2013:

- Environment Protection Authority (coordinated the content of the entire report)
- Department of Environment, Water and Natural Resources (coordinated content for Climate, Water, Biodiversity and Coastal and Marine chapters)
- Department of Planning, Transport and Infrastructure (coordinated content for People and Places chapter)
- Department of the Premier and Cabinet
- Department of Manufacturing, Innovation, Trade, Resources and Energy
- Department of Primary Industries and Regions South Australia.

As expected, the findings of the State of the Environment Report 2013 are mixed, describing both positive and negative trends. The main findings are summarised in each chapter and include:

- Growth in the State's population and economy, with resultant pressures on natural resources and environmental quality (e.g. increased waste generation and high private car use)
- Relatively good air quality in terms of national standards, with some location specific exceptions
- Increase in global concentration of greenhouse gases but a decline in per capita greenhouse gas emissions in South Australia
- Increase in state renewable energy installed – supplied and used
- Increase in variability and extremes of rainfall and temperature
- Increase in water availability through diversification of supply
- Improvements in environmental water supply and quality due to increased rainfall
- Decline in condition of native vegetation and biodiversity – terrestrial and marine
- Improvements in soil protection and land management
- Increase in pest plants and animals
- Increase in sea temperature and acidity
- Increase in noise complaints.

3.2 Recommendations of the report

The key recommendation from the report is to develop an environmental information strategy and plan to drive better coordinated and integrated environmental information management, and to improve public access to good quality environmental information.

The Government supports this recommendation, recognising that environmental information provides the environment portfolio agencies and Ministers with important tools to communicate more effectively with South Australians about the state of our natural resources, their value to the community and to be able to inform strategic investments in environmental issues. This recommendation is consistent with *'South Australia Connected'* and the '*Declaration of Open Data'*, which both commit the Government of South Australia to improving accessibility of public information.

The following sections of this report provide further background on the intent of the environmental information strategy and some of the key initiative that will contribute to its implementation.

4. Environmental information management reform

4.1 Australian Government and States and Territories

The need for changes to the South Australian Government's environmental information management is the same for the Australian Government and other state and territory governments (Morton and Tinney 2012).

The Australian Government is implementing its environmental information management reforms under the National Plan for Environmental Information; a whole-of-government program designed to coordinate and prioritise Australian Government information. The National Plan for Environmental Information is a long-term approach to building and improving Australia's environmental information base.

4.2 South Australia

The Government of South Australia supports the need for an integrated environmental information strategy, and the need for it to support a continual flow of information, where the business owner of the information is clearly identified. The Government of South Australia acknowledges that the development of an overarching environmental information strategy will help to align data and monitoring required for the State of the Environment report with existing government strategies and legislation.

The creation of the South Australian Department of Environment, Water and Natural Resources in 2012 brought together the Government of South Australia's organisations with complementary responsibilities for environmental management. Prior to this, the different agencies managed environmental information in accordance with their specific needs, capabilities and technologies. The integrated agency has created an opportunity to manage environmental information in a strategic and integrated way. The Department of Environment, Water and Natural Resources is working to set up clear governance frameworks, data standards and delivery systems for high priority environmental information.

The need for an integrated approach to information management and an information management strategy has also been identified through the Environment Protection Authority's *State of the Environment Improvement Plan*, which provides nine specific recommendations:

- Adoption of a reporting model that provides information at the most appropriate spatial scale and that coordinates and aligns reporting with that of key environmental policies and plans
- The Environment Protection Authority prepares a long-term set of indicators for future State of the Environment reports using a consultative process
- Approve and identify funding requirements for the development and implementation of a system, and ongoing programme for collecting and maintaining the data required for reporting on the indicators selected
- Enter into formal agreements with government departments and agencies with roles related to the reporting themes identified in their suggested reporting model for the collection and provision of specified data at specified intervals to support reporting against the indicators selected
- Include mechanisms and processes for community participation in the development of the system and programme of data management
- Identify specific research projects to inform State of the Environment reports as part of the annual planning and budgeting process
- Investigate alternative options for producing the next State of the Environment Report
- Prepare a communication and engagement strategy for the State of the Environment Report
- Recommend to the Minister for Sustainability, Environment and Conservation, the development of a whole-of-government environmental information strategy plan.

One of the State's key environmental plans is the State Natural Resources Management Plan 2012-2017, which establishes the direction for South Australia in its management of natural resources. The plan sets the strategic, statewide direction for the management of natural resources, noting that actions are planned for and

delivered at the regional level through regional Natural Resources Management plans, and at a state level through agency plans.

The Government of South Australia is currently trialling a new [Natural Resource Management State and Condition Reporting Framework](), which includes the development of report cards on high-priority indicators, identified as *Representative Measures* in the State Natural Resources Management Plan 2012-2017. These report cards are being used to report on the State Natural Resources Management Plan 2012-2017 and they have begun to be accessible via a new, whole of Government website ([www.NRConnect.sa.gov.au]()).

The Reporting Framework aims to report on the condition of physical and biological resources at a statewide scale. The Reporting Framework also highlights a process to incorporate relevant socio-economic information, which will provide context to the information on the condition of natural resources. The process outlined in the Reporting Framework can be followed to report on the condition of any priority natural resources at a statewide scale. The Reporting Framework was developed in collaboration with staff from the Department of Environment, Water and Natural Resources (including regional staff), the Environment Protection Authority and the Department of Primary Industries and Regions South Australia and has been endorsed by the Chief Executive Natural Resources Management group and the Natural Resources Management Council.

The Reporting Framework was developed to ensure there is flexibility for it to include representative measures that are not currently included in the State Natural Resources Management Plan. This would allow the approach outlined in the Reporting Framework to be adapted to meet the broader requirements of State of the Environment reporting. The Reporting Framework also highlights the need to use and leverage on existing monitoring collected in Natural Resources Management regions, and provides rigorous methods to scale and aggregate regional data to use at a state-level for state and condition reporting.

Many of the objectives of the State of the Environment Report Improvement Plan align with those of the Reporting Framework. These common objectives include:
- Alignment of all environmental reporting with clear links to business drivers, including legislation
- Use of existing data and monitoring wherever possible
- Recognition of the need for long term monitoring and information management to be able to report on trends or changes in status of natural resources and related issues
- Increased relevance to regional Natural Resources Management business through inclusion of regionally collected data
- Better communication products to inform the community on the status of environmental assets
- Clear links to social and economic factors.

Additional factors raised by the State of the Environment Report Improvement Plan are the agreement on a definitive set of indicators for South Australia, funding requirements to fill monitoring/data collection gaps, and formal governance and responsibility to be assigned to agencies for data collection and reporting.

The Government of South Australia supports the State of the Environment Report Improvement Plan and its relevant agencies will work with the Environment Protection Authority to define processes to address the recommendations of the plan. The Government of South Australia supports the Environment Protection Authority's

proposed approach to establish a cross agency working group to progress next steps towards improved State of the Environment reporting. The working group will initially be tasked with assessing the Natural Resources Management State and Condition Reporting Framework. This would then determine its value in continuing as a key mechanism for providing information for future State of the Environment reports.

4.3 Government initiatives that aim to improve the accessibility of environmental information

In addition to supporting the development of an overarching State Environmental Information strategy and plan, and to trialling the Natural Resource Management State and Condition Reporting Framework there are a number of government initiatives in place or planned that are aimed at improving environmental information. These initiatives will improve the available information supporting the overarching strategy. Some of these initiatives are summarised below.

4.3.1 Location SA – improving access to spatial data and services

Location SA is a collaboration between the Department of Planning Transport and Infrastructure, the Department of Environment, Water and Natural Resources, the Department of Primary Industries and Regions SA, the Department for Manufacturing, Innovation, Trade, Resources and Energy and the Environment Protection Authority South Australia to improve access and sharing of data and services. This initiative is closely aligned with the strategic direction for Information and Communications Technology in the Government of South Australia.

Location SA is built on a shared spatial data infrastructure and provides a central repository of spatial data and services, which are available to all agencies in the Government of South Australia, to support increasing demands. Location SA includes land administration, land use planning and topographic datasets and web mapping services. These datasets have been contributed by several government agencies and are widely used across the Government of South Australia.

These government agencies aim to further develop Location SA to include aerial imagery and landscape based datasets, and to improve public access to these data.

4.3.2 Air Quality Framework for South Australia

The State of the Environment Report 2008 included a recommendation to implement a statewide air quality strategy. The recommendation was supported by the government in its public response to the report. The development of the draft Air Quality Framework was driven mainly by concern about public health risks in the form of cardio-respiratory disease and related costs from especially fine particles in the air.

The draft Air Quality Framework was drafted by the Environment Protection Authority and it promotes an integrated approach to managing air quality across greater Adelaide, recognising the diversity of pollution sources, such as transport and domestic activities. It also responds to air quality issues that are specific to regional industrial and agricultural centres elsewhere in the state.

The draft Air Quality Framework follows a model that is similar to that used for State of the Environment reporting. It sets clear direction for future priorities based on identified pressures, and provides the basis for more detailed plans for specific issues and locations. As the next steps in finalising the framework, the Environment Protection Authority will consult with government agencies, followed by consultation with local government, business, industry and the broader community.

4.3.3 Water for Good Plan and Goyder Institute for Water Research

In South Australia, water use and the water quality have been at the centre of our environmental policy in recent years. The release of the Water for Good Plan (2009), which aims to ensure a secure water future, follows significant investment in water supply and reuse over the past five years.

To help the state manage its water resources, by providing research to support priority water policy development, the Government of South Australia established the Goyder Institute for Water Research in July 2010. The Government of South Australia committed $25 million over five years and this amount is being matched in-kind by the Goyder Institute's partners, namely CSIRO, University of South Australia, the University of Adelaide and Flinders University.

4.3.4 Whole of Government approach to implementing marine parks

Management Plans for 19 Marine Parks were finalised in 2012. The management plans include zoning arrangements for each park and strategies to achieve the objects of the *Marine Parks Act 2007* have been developed. The monitoring, evaluation and reporting program will measure the effectiveness of these management plans.

The monitoring, evaluation and reporting framework is being developed which outlines a coordinated approach to developing the monitoring, evaluation and reporting program in partnership with other government agencies. This approach recognises the diversity of activities that can occur within the parks and the agencies responsible for managing them. The sharing of information between agencies will be critical to the success of the monitoring, evaluation and reporting program.

4.3.5 Whole of Government approach to land use planning

The Planning Strategy for South Australia contains one volume for metropolitan Adelaide (The 30-Year Plan for Greater Adelaide) and seven volumes that cover regional South Australia. These provide the framework for the use and development of land across the state. The Planning Strategy is drafted and implemented in collaboration with other government agencies because it defines how the state balances population and economic growth with the need to protect the natural environment, and the heritage and character of our communities, while also considering infrastructure needs.

Once implemented, the draft Integrated Transport and Land Use Plan will bring together the management of transport and land use so that the development of land will be supported by transport infrastructure, and conversely ensure that transport developments will be supported by appropriate land use policy. It is proposed that the Integrated Transport and Land Use Plan will become a volume of the Planning Strategy for South Australia (alongside the Strategic Infrastructure Plan) to create an integrated approach to land use, transport and infrastructure development across South Australia.

The Strategic Infrastructure Plan for South Australia is also being updated, to provide the framework for the provision and delivery of infrastructure by both the government and private sectors. The Strategic Infrastructure Plan sets out priorities for infrastructure until 2015 across South Australia.

In all of these strategic plans, environmental issues are considered and managed in collaboration with other government agencies with an emphasis

on protecting environmental assets and minimising the environmental footprint.

4.3.6 Accessibility and utility of soils information in South Australia

The Department of Environment, Water and Natural Resources is improving the accessibility of soils data through online delivery (via Government of South Australia and national data portals) and the development of new, fine-scale, user-friendly soil mapping geographic information system layers. Efficiencies in data collation and delivery are also being sought through collaboration with CSIRO and other state agencies.

Fine-scale soil mapping products will be easier to apply at the scale of decision-making (e.g. at the paddock level) required by many in the broader community. Increased extension of soils knowledge is also necessary to improve the uptake of soil information in sustainable land use and management decisions.

4.3.7 Monitoring and management of pest animals and weeds

Significant investment is dedicated to the management of pest species, and information is recognised as a valuable asset that the agency holds and manages. There is a recognised need to improve the data capture and management systems for weeds and pest animals. A standardised approach and common data repository system will improve reporting, aid evidence-based regional planning and help track management effectiveness.

Each Natural Resources Management region currently has an internal system for pest species information that meets their own pest animal and plant compliance needs. Government agencies are currently exploring opportunities to develop a shared, statewide system.

A solution will need to conform to overarching guiding principles to the management, use, sharing and investment in the data and information, while meeting minimum data provenance requirements. To improve the uptake of the system, it will aim to utilise existing data storages and simplify data collection.

4.3.8 Improving the accessibility of the register of Aboriginal sites

The Department of the Premier and Cabinet is responsible for the administration of the Government's Register of Aboriginal sites, objects and remains. The Department is undertaking a Site Registration Project, which aims to improve the utility of the information for all users who consult the central archive for information relating to Aboriginal Heritage sites.

4.3.9 Australia's Virtual Herbarium and the Atlas of Living Australia

Australia's Virtual Herbarium links databases relating to millions of plant specimens, native and introduced, in Australia's major herbaria. Together with the Atlas of Living Australia, which is regularly updated with SA Government biological data, they are the only online databases that depict plant distributions, and make the information publicly available, for an entire continent.
Australia's Virtual Herbarium is currently being augmented with additional information from the State Herbarium of South Australia. This new information includes the addition of high resolution imagery for all type specimens in the collection, providing unprecedented levels of accessibility of information on the distribution of South

Australian vegetation.

5. Conclusion

The Government supports the recommendation of the State of the Environment Report 2013.

The Government acknowledges the significant public benefits to be realised from coordinating and integrating the range of environmental information initiatives described above and from consolidating these under an overarching South Australia Environmental Information Strategy.

The strategy will be prepared by the key agencies and will drive efficiencies by identifying key datasets, aligning data collection and management with the needs of users and by facilitating access to, and use of environmental information. The strategy will also promote a culture of free and open data access.

The plan for implementing the strategy will guide Government investment in the development of data standards, information architectures and technology to achieve the objectives of the strategy.