

**Environment Protection Authority**

# **Environment Protection Authority Annual Report**

**1 July 2010 to 30 June 2011**

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# LETTER OF TRANSMITTAL

The Hon. Paul Caica, MP  
Minister for Environment and Conservation  
Parliament House  
North Terrace  
ADELAIDE SA 5000

Dear Minister

It is with pleasure that I present you with the Annual Report of the Environment Protection Authority for the period 1 July 2010 to 30 June 2011. This report has been prepared in accordance with requirements of the *Environment Protection Act 1993* and the *Public Sector Act 2009*.

The two annual reports representing the carriage of the *Environment Protection Act 1993* and administration of the *Radiation Protection and Control Act 1982* are combined as one within this annual report.

Yours sincerely

A handwritten signature in black ink, appearing to read 'H. Fulcher', with a stylized initial 'H'.

Helen Fulcher  
Chief Executive  
Environment Protection Authority

31 August 2011

# STATEMENT FROM PRESIDING MEMBER AND CHIEF EXECUTIVE

We are delighted to present the Environment Protection Authority (EPA) Annual Report for 2010–11. The past 12 months have again presented the EPA and its Board with both challenges and opportunities in its role as the state's leading environment protection regulator in its work to protect, restore and enhance the South Australian environment.

The cornerstone of the EPA's operation is firm but fair regulation, informed by a strong science and evidence-based approach and good policy. The EPA's preference is to relate to its partners and licensees by collaborating and building a relationship of trust. However, when there is a risk of harm to the environment, the EPA will act quickly and decisively, and take legal action if warranted.

The EPA has continued to take a strong and effective regulatory approach using a suite of tools to gain compliance, and mitigate and manage environmental risk. It has continued to inspect licensed sites across the state to assess compliance. This led to a range of sites being issued environment protection orders (EPOs) and the EPA pursuing further regulatory action where appropriate. The EPA website has been enhanced to better communicate potential and actual groundwater contamination notifications with further additions of environmental information to follow.

The EPA has undertaken a number of reforms to ensure that it continues to deliver its core regulatory role effectively. For example, it has developed a draft illegal dumping strategy that will systematically and proactively identify and take decisive regulatory action against illegal dumping or landfilling. It conducted sector audits that targeted lower-risk and unlicensed activities. The sector audits focused on inland marinas given the potential for vessel facilities to introduce pollutants to surface water, and coffee roasters, due to odour and particulate emissions to the environment. Of the 27 vessel facilities inspected, 15 required an EPA licence and seven coffee roasters required an EPA licence.

In April 2011, the EPA launched an online resource to improve the public's access to environmental information. As a first step, the EPA uploaded notifications of possible groundwater contamination, allowing the community to search by suburb of possible groundwater contamination in areas relevant to them. The EPA also enhanced its communication practices at this time by placing public notices for all new groundwater contamination notices received. A public communication statement on the EPA's approach was also posted on the website. The EPA will progressively expand its Public Register Directory section of the website to include other environmental information such as licences over the coming 12 months. Residents can readily obtain further information on these sites by contacting the EPA.

To enhance working relationships with community, industry, licensees and local government, an EPA Stakeholder Engagement Statement was released on the website in November 2010. The statement provides clear and detailed information about how, when and under what circumstances stakeholders can participate in the EPA activities. This relates to areas of business such as amendments to legislation and major projects, and issues relating to the regulation of licensed sites.

The EPA has continued to promote strong and proactive compliance behaviour by awarding Sustainability Licences to OneSteel in August 2010 and to the University of Adelaide in June 2011.

The EPA has also continued to actively engage with other agencies and contribute to whole-of-government agendas. By way of example, the EPA has positively influenced the content of the 30-Year Plan for Greater Adelaide by providing advice in a number of areas, including the potential noise and air quality impacts associated with high-density development. Other areas of engagement with government agencies include: recommended actions in the Water for Good plan; provided expert advice, technical support and liaison between NRM Boards, local and state governments, the community and industry to support informed pollution prevention practices; oversaw the management of acid sulfate soil impacts on water quality; and contributed to the assessment of the Olympic Dam Expansion Draft Environmental Impact and Supplementary Environmental Impact Statements.

In June 2011 the EPA Round-table was held and focused on the theme of 'EPA and the future Adelaide: how EPA can most effectively influence the 30-Year Plan for Greater Adelaide'. The key outcomes from stakeholders endorsed the need for the EPA to continue proactive input to the 30-Year Plan for the most beneficial outcome and solutions-focused approach by the EPA in its regulatory role, if it is to make maximum contribution to implementing the 30-Year Plan. For

example, stakeholders agreed the EPA should take a proactive stance as a facilitator and enabler of compliance—by contributing to solutions to manage environmental issues. Stakeholders also strongly advocated the value of engaging the EPA early in the development of planning policy.

In addition, we would like to thank the passionate and dedicated EPA Board for its excellent work, and thank outgoing Board member, Cheryl Hill, for her contribution. We would also like to thank the EPA management and staff for their loyalty, professionalism and leadership during the year.



Cheryl Bart  
Presiding Member  
Environment Protection Authority Board



Helen Fulcher  
Chief Executive  
Environment Protection Authority

## **Reconciliation statement**

The EPA would like to acknowledge the traditional custodians on whose ancestral lands the its carries out its business, and that it respects their spiritual relationship with their country. The EPA also acknowledges the deep feelings of attachment and the relationship that Aboriginal peoples have to the country.

In fulfilling its functions, the EPA is cognisant of the cultural and natural heritage of traditional owners and strives to achieve positive outcomes wherever these matters are concerned.



## HIGHLIGHTS AND MAJOR INITIATIVES

The following is a list of the EPA highlights and major initiatives for 2010–11, also indicating where further information on each of these can be found in this report.

**Firm but fair regulation:** The EPA uses a range of regulatory and administrative tools to achieve compliance. We use a balanced approach to ensure that our actions are consistent, fair and effective. This approach provides assurance to the community that the EPA is working to fulfil its role of protecting the environment. EPA's focus in this area in 2010–11 has been in the following areas:

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<a href="#">Compliance inspections</a>	29
<a href="#">Environment protection orders</a>	29
<a href="#">Civil enforcement and prosecutions</a>	30

**Improving public access to EPA information:** In 2010, the EPA Board resolved to make information more readily available to the community. Processes are being implemented and prioritised in a manner consistent with expectations from the community.

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<a href="#">EPA Stakeholder Statement</a>	20
<a href="#">Public Register</a>	44

**Government agenda and policy:** The EPA influences and contributes to robust whole-of-government environmental outcomes. It has continued to engage with other agencies, including being involved in the 30-Year Plan for Greater Adelaide and Water for Good, and in relation to the Adelaide Desalination Plant, illegal dumping and e-waste.

	Page
<a href="#">Working with the Department of Planning and Local Government to deliver the 30-Year Plan for Greater Adelaide</a>	20
<a href="#">Water for Good</a>	44

**Solving environmental problems with community:** The EPA has worked across the state with community groups and individuals to identify and manage a wide range of environmental problems.

	Page
<a href="#">SmokeWatch Mount Gambier</a>	22
<a href="#">Odour management on LeFevre Peninsula</a>	24
<a href="#">Significant licensees: OneSteel, Nyrstar, Boral, Penrice and Adelaide Brighton Cement</a>	25
<a href="#">Audit of coffee roasters</a>	43

**Influencing national directions agenda:** The EPA represented South Australian in its participation in the Environment Protection and Heritage officers group, incorporating the National Environment Protection Council (NEPC). The council, through the NEPC Acts, has the capacity to establish national environment protection measures (NEPMs). Each state and territory is required to report annually on the implementation of the various NEPMs within their jurisdictions.

The EPA has also influenced national directions by working with the Northern Territory Government to introduce container deposit legislation (CDL) there.

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<a href="#">National and state policy reform</a>	31
<a href="#">Container deposit legislation</a>	33

## INTRODUCTION TO THE ORGANISATION

### EPA governance

The EPA is a statutory authority, with a Board responsible for the carriage of the *Environment Protection Act 1993* (EP Act). The Board must comprise between seven and nine appointed members, whose skills, knowledge and experience collectively meet the requirements of Board membership as defined by the EP Act. The Board delegates specified powers to others in order to achieve the objectives of the EP Act. While the EP Act is committed to the Minister for Environment and Conservation, the minister does not have the power to direct the Board in making regulatory decisions or in its role in enforcement, or in making recommendations to the minister.

The EPA is also an administrative unit created under the *Public Sector Act 2009*, in which capacity it performs other functions for government, including administration of the *Radiation Protection and Control Act 1982* (RPC Act).

Under the EP Act, the chief executive of the administrative unit is also the chief executive of the statutory authority and a member of the Board *ex officio*, although not entitled to vote at a meeting of the Board. The Chief Executive is responsible to the Board for giving effect to its policies and decisions, making the services of staff and the facilities of the administrative unit available to the Authority for the performance of its functions. These are reflected in the *EPA Strategic Plan 2009–12*, which is linked to the priorities of South Australia's Strategic Plan and provides a framework for the work of the EPA.

### EPA Board membership

The Board is the governing body of the EPA for matters related to the EP Act, and provides strategic direction, develops environmental policy and monitors performance.



Ms Cheryl Bart  
Presiding  
Member

Mr Stephen Hains  
Deputy Presiding  
Member

Ms Megan Dyson  
Member

Mr Andrew Fletcher  
Member

Mr Allan Holmes  
Member

Ms Jane Yuile  
Member

Ms Linda Bowes  
Member

Helen Fulcher  
EPA Chief Executive

Members of the EPA Board are appointed by the Governor of South Australia. They are chosen for their qualifications, experience and expertise relevant to:

- environmental protection and management or natural resources management
- industry, commerce or economic development
- local government
- reduction, reuse, recycling and management of waste or the environmental management industry
- management generally and public sector management
- environmental law
- environmental conservation and advocacy on environmental matters on behalf of the community
- Allan Holmes
- Cheryl Bart
- Linda Bowes
- Andrew Fletcher
- Stephen Hains
- Stephen Hains
- Allan Holmes
- Jane Yuile
- Megan Dyson
- vacant

Various prescribed bodies are consulted in the appointment process for Board members. This wide spectrum of expertise gives the EPA the capacity to make decisions on the complex problems and issues that threaten the environment.

## **Outgoing members of the Board**

### **Ms Cheryl Hill**

Ms Hill was appointed to the Board for her 'practical knowledge of, and experience in, environmental conservation and advocacy on environmental matters on behalf of the community'. Her term with the Board commenced 20 March 2008 and concluded on 19 March 2011. The EPA thanks Ms Hill for her valuable contribution to the Board and her commitment to the protection of the environment of South Australia.

## **EPA BOARD COMMITTEES AND MEETINGS**

### **EPA Board Committee listing**

Section 17 of the EP Act allows the EPA Board to establish committees or subcommittees to advise or assist in carrying out the functions of the Board or as required by the Regulations.

Four committees reported to the Board during 2010–11:

- Finance Committee
- Audit and Risk Management Committee
- Funding Sustainability Committee
- Site Contamination Auditor Accreditation Committee.

#### **Finance Committee**

The Finance Committee was established by the Board in June 2009. This committee oversees the financial reporting and budget management of the EPA and works towards the continuous improvement of the monthly financial information provided to the Chief Executive and Board.

#### **Audit and Risk Management Committee**

The Audit and Risk Management Committee was established by the Board in March 2009. This committee oversees implementation of the risk management framework, which was set up to identify activities of high risk, monitor systematic controls to mitigate risks and achieve overall compliance with Board and agency policies. The committee meets at least quarterly.

#### **Funding Sustainability Committee**

In September 2009 the Funding Sustainability Committee was established by the Board to provide advice on achieving sustainable funding for the EPA and government projects.

#### **Site Contamination Auditor Accreditation Committee**

The Site Contamination Auditor Accreditation Committee was established in August 2008 to advise the Board on the accreditation of site contamination auditors. The committee is required to meet annually.

### **General and special meetings**

#### **Consultation program 2010–11**

The Board initiated a number of consultation sessions with stakeholders during 2010–11. As in previous years, the sessions gave the Board an opportunity to hear directly from stakeholders about what they considered important about environment protection matters. The following consultations were undertaken during 2010–11.

##### ***Port Lincoln, 13–14 September 2010***

The Board held a consultation session in Port Lincoln on 13 September, which was very well attended by industry, local government and community stakeholders.

Topics raised and discussed included: disposal of asbestos to landfill; disposal of liquid waste; the cost to regional councils of recycling and the resultant illegal dumping; disposal of e-waste in view of the digital TV roll-out; EPA comment

on a Development Plan Amendment; Centrex development and the monitoring of dust and stormwater, or reuse of storage discharge into an underground aquifer system.

***Mining and quarry industry, 17 May 2011***

The Board held a consultation session with representatives from Santos, Iluka Resources Ltd, Uranium SA, Uranium One, Terramin Australia Ltd, Penrice Soda Products Pty Ltd, Arafura Resources (Whyalla), Hillgrove Resources (Kanmantoo mine), OneSteel Whyalla, the SA Chamber of Mines and Energy, the Resources and Energy Sector Infrastructure Council and Primary Industries and Resources SA.

Topics raised and discussed included:

- industry relationship with various government agencies. Attendees agreed they had a good, collaborative, productive and transparent relationship with the EPA and were keen to understand the role of the EPA
- understanding EPA processes and the practicalities that determine relationships with agencies
- the government's ability to attract and retain adequate technical expertise
- the role of the EPA Board
- the need for good community engagement.

***Round-table, 8 June 2011***

The annual EPA Round-table conference is a legal requirement under the EP Act (section 19) and is an important part of the Board's engagement and consultation with its stakeholders.

A round-table consultation was held on 8 June 2011 with 53 participants from across industry, the community, and local and state governments. The session, opened by the Minister for Environment and Conservation aimed to seek the views of stakeholders on how they see the EPA's role in the delivery of the 30-Year Plan for Greater Adelaide. The Minister stressed the importance of collegiate and proactive communication between government departments as well as with community and industry to ensure the successful delivery of the plan.

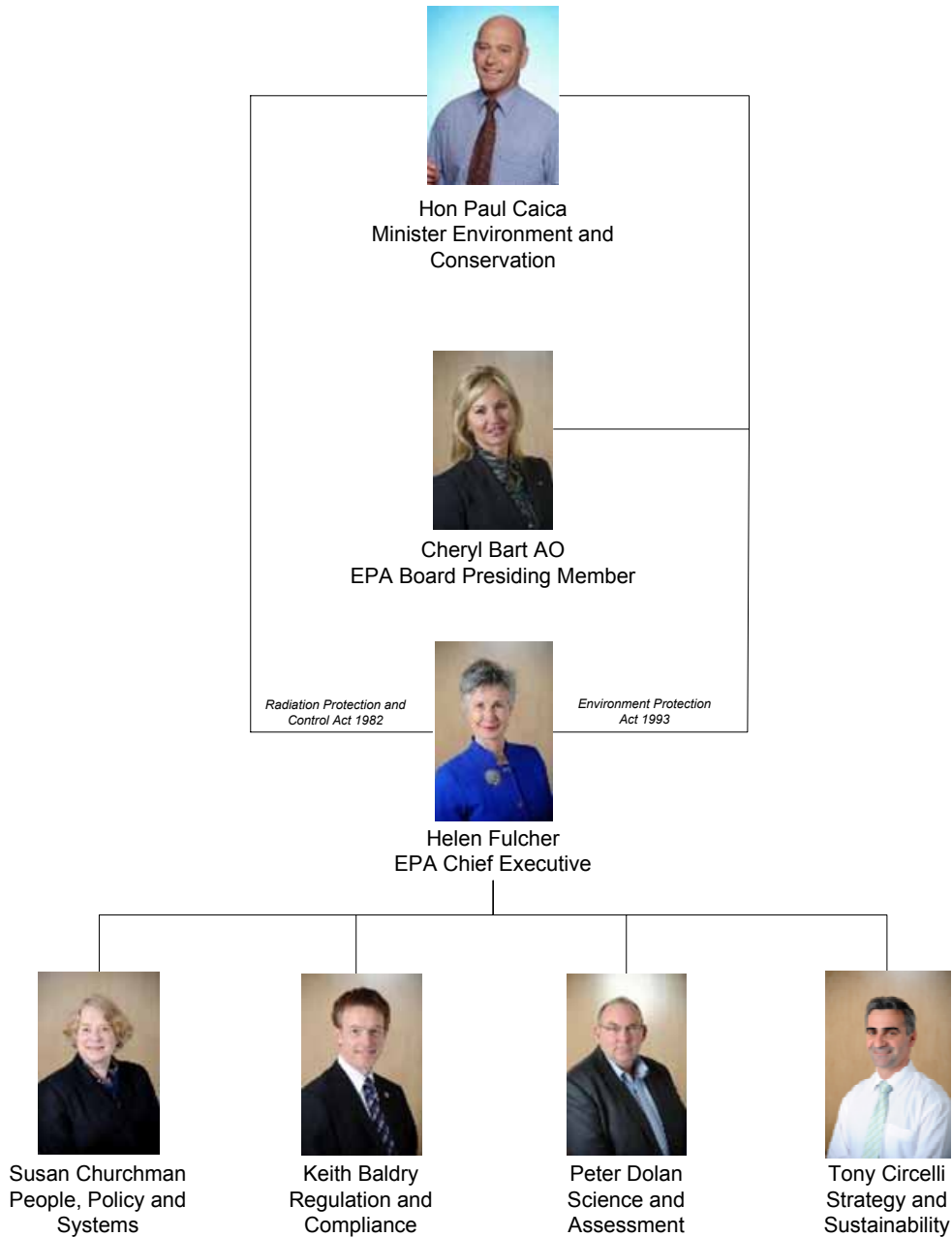
Guest speaker Tim Horton, Commissioner for Integrated Design, and panelists Ros DeGaris, Group Sustainability Manager, Adelaide Brighton Cement, and David O'Loughlin, Mayor of the City of Prospect, discussed some of the challenges of implementing the plan from the design, industry and community points of views They engaged the various stakeholders by providing a starting point for some stimulating and robust debate.

The key themes and issues raised in the group discussions were:

- effective and transparent communication and engagement with the community, developers and across government is an important role for the EPA in influencing delivery of the 30-Year Plan.
- EPA needs to adopt a proactive and solutions-focused approach to its regulatory role if it is to make maximum contribution to delivering the 30-Year Plan.
- protecting the effective operations of existing industries, while allowing increased densities in priority areas, is a particularly important role for the EPA in supporting delivery of the 30-Year Plan.
- the need and benefits of the EPA engaging early in the development of planning policy.

## EPA organisation chart

The EPA is part of the Environment and Conservation Portfolio and works actively and collaboratively with the other agencies in the portfolio.



## EPA vision

A clean, healthy and valued environment that supports social and economic prosperity for all South Australians now and in the future.

## STRATEGIC ORGANISATIONAL PRIORITIES

### EPA contributing to South Australia's Strategic Plan objectives

The promotion of the principles of sustainability is enshrined as an object under the EP Act, and the EPA is required to take account of these principles in its decision making, and program and service delivery by using its powers and functions to manage and influence human behaviour to achieve more sustainable practices, the EPA contributes to the objectives of South Australia's Strategic Plan (SASP) by:

- **Growing prosperity:** Good environmental regulation can enhance business competitiveness and reduce business risk. The EPA supports economic development through cost-effective environmental regulation and by reducing the administrative burden on business, while promoting the efficient use of environmental resources to ensure both cost savings to business and a reduced impact on the environment.
- **Improving wellbeing:** Through its regulatory and non-regulatory programs and services, the EPA identifies environments or communities under threat or pressure from unacceptable pollution and waste impacts, and develops strategies to mitigate identified risks.
- **Attaining sustainability:** In managing the impacts of pollution and waste, the EPA considers the principles of sustainability in decision making, developing and implementing policy, and delivering regulatory and non-regulatory programs. It uses a risk-based and outcome-focused approach to support the transition to more sustainable practices by business, government and the community.
- **Fostering creativity and innovation:** Better environmental regulation has a vital role to play in correcting market failure, promoting fairness and stimulating innovation in meeting environmental standards. The EPA will consider all innovative approaches to achieving the required environmental standards.
- **Building communities:** The EPA continues to strengthen its engagement with regional and local communities, business and governments in order to share information and deliver high-quality programs and services that contribute to strong and vibrant communities.
- **Expanding opportunity:** The EPA continues to seek opportunities to improve the environmental and economic sustainability of business and to better inform the community and business of the EPA's roles and responsibilities. It also continues to support its staff through appropriate workforce planning and development strategies.

### SASP targets for EPA

The EPA contributed to the following targets in 2010–11 through the projects listed below:

- **T1.7 Performance in the public sector – customer and client satisfaction with government services**  
The EPA is currently developing a Complaints and Internal Review Policy and a stakeholder survey both of which will be finalised in 2011–12. The Executive Key Stakeholder Management Plan is routinely assessed and reviewed.
- **T1.8 Performance in the public sector – government decision making**  
The EPA works with other government agencies on the 30-Year Plan for Greater Adelaide, Water for Good and coordinated and led the Environment and Conservation Portfolio's contribution to the assessment of the Olympic Dam Expansion.
- **T1.9 Performance in the public sector – administrative efficiency**  
The EPA improved its administrative efficiency through the online public register, red-tape reduction and the licensing administration modernisation project (LAMP).

Further information on each of these projects can be found later in this report.

## EPA strategic priorities

The EPA Strategic Plan 2009–12 was released in August 2009. It provides the framework for the organisation's direction in the context of supporting the achievement of South Australia's Strategic Plan targets.

The EPA's strategic priorities for 2009–12 are:

- **Business success and sustainability:** the EPA will support business to reduce environmental impacts and use resources better through the promotion of good environmental practice.
- **More effective relationships:** the EPA will achieve better results for the environment of South Australia by building more effective relationships with industry, licensees, local communities and government.
- **Improved regulation:** working with its stakeholders, the EPA will continue its efforts to reduce red tape for regulated parties. In this way, innovative and cost-effective solutions to protect, restore and enhance the quality of our environment will be further encouraged and progressed.
- **A reputation for excellence:** the EPA understands that improving access to its services and clarifying their scope saves time and reduces frustration in its stakeholders. The EPA strives to build a proactive and service-oriented culture and to be at the forefront of leading regulatory practices.
- **Supporting our people:** by supporting its people and continuing to improve its processes and efficiency in times of financial constraint, the EPA will develop the organisation to meet growing demands.

The Strategic Plan is available on the EPA website at <[www.epa.sa.gov.au/about\\_epa/strategic\\_plan](http://www.epa.sa.gov.au/about_epa/strategic_plan)>.

The environmental goals describe the EPA's particular outcomes and purpose. These are:

- **Clean and healthy air:** maintaining and improving air quality, focusing on regional air quality issues, to minimise health impacts and costs.
- **Land and water that is fit for purpose:** protecting South Australia's water bodies and land from the adverse impacts of pollution and waste that might reduce their value for current and future generations.
- **Communities protected from unacceptable noise:** protecting the community from exposure to unacceptable noise levels.
- **Sustainable use of resources:** reducing costs to business and environmental impacts by promoting the efficient use of resources and waste minimisation.
- **Communities protected from unacceptable radiation:** protecting the community from the health risks associated with ionising and non-ionising radiation.

## Environment and Conservation Portfolio 2010–11 targets for EPA

### **Implement the first year of the three-year implementation program for the *Environment Protection (Waste to Resources) Policy 2010***

The Environment Protection (Waste to Resources) Policy 2010 (Waste EPP) commenced operating on 1 September 2010 and will come into effect in stages over three years. It will support SASP 2007 target of reducing waste to landfill by 25% by 2014, by providing a regulatory underpinning for South Australia's Waste Strategy and promoting resource recovery and the diversion of waste from landfill.

In the first year of implementation, the EPA focused primarily on communicating with stakeholders to ensure they are aware of their responsibilities under the new policy. The EPA, together with ZWSA, has undertaken initial consultation with industry regarding guidance documents for facilities to be approved as resource recovery facilities and the resource recovery processing requirements.



From 1 September 2010, landfill bans came into effect across South Australia for hazardous waste, lead acid batteries, liquid wastes, medical waste, oil, selected whole tyres, vegetative matter collected by councils for recycling, and (where aggregated for resource recovery) cardboard and paper, glass packaging, metals, and additional types of plastic packaging. Complementary work is being done with ZeroWaste SA in regards to communicating the implementation of the Waste EPP and will continue into 2013.

**Work actively with SA businesses to expand on the sustainable licence program that promotes beyond compliance and sustainability outcomes**

Two Sustainability Licences were awarded in 2010–11, bringing the total to four since the program commenced in late 2009. Two of these have been required to report on their sustainability actions which included the following:

- The EPA assisted New Castalloy (NCA) to divert 1200 tonnes of used foundry sand and glass bead from landfill—it is being used to make a special white cement.
- The EPA supported NCA in applying for a 'Retooling for Climate Change' Federal Government grant, successfully gaining \$42 000 to install a counter-current water rinse in their paint line pre-treatment system. It is predicted that it will save 18 000 KL per year of mains water.
- The EPA supported NCA with an energy audit which identified potential to save 350 000 KW/hrs per year or 307 tonnes of CO<sub>2</sub> equivalents per year. The removal of 100 x 400-watt lights and installation of daylight switches on a further 65 lights is saving up to 312 KW/hrs per day or 57 tonnes of CO<sub>2</sub> equivalents per year.
- Yalumba are currently undertaking water and energy audits in collaboration with the CSIRO and the University of Adelaide with the view to reduce water use by 10% and to further enhance their reputation as being one of SA's leading wineries in sustainable practices.

**Work with key stakeholders to develop water quality environmental values for the Murray–Darling Basin**

The EPA has worked with other government agencies and submitted a report to the Murray–Darling Basin Authority with recommended environmental values, water quality targets and objectives for inclusion in the draft Murray–Darling Basin Plan. Further work is on hold until the revised draft Murray–Darling Basin Plan is released and evaluated in 2011.

**Complete and implement the codes of practice for managed aquifer recharge and industrial, retail and commercial premises**

The draft Code of practice for managed aquifer recharge (MAR code) was completed in 2010 after consultation with stakeholders and industry, and was designed to provide clear guidance for developers and operators of MAR schemes. The draft MAR code is based on the *Australian Guidelines for Water Recycling*, a component of the National Water Quality Management Strategy, and applies the risk management approach to identifying hazards, determining risks and adopting multi-barrier protection measures.

The EPA and Department for Water (DFW) are collaboratively developing one point of entry for the assessment and regulation of MAR in South Australia. A common web portal is being established for the provision of information and application forms covering all aspects of MAR. The draft MAR code has been rewritten into a more accessible document that will be delivered via this portal in 2011.

The draft Code of practice for industrial, retail and commercial sites (IRC code) was developed to complete the series of stormwater codes of practice, which includes codes for the community, local government, and building and construction industry.

The previous stormwater codes have been in place for 10 years and are now due for revision as part of the required five-year review of government regulation. Whilst the information in the codes and guidelines are still relevant, they will be revised to update terminology, eg 'water sensitive urban design (WSUD)' and include advances in technologies, eg stormwater separators.

There are also 34 associated stormwater guidelines requiring review and revision as part of this process. The IRC Code will now be delivered as part of an integrated web-based stormwater decision-support system, which includes the guidelines.

This approach will ensure that the information is more streamlined and easier for industry and the public to access and potentially reduce the overall number of guidelines and codes of practice.

### **Complete a consultative review of the Guidelines for the site contamination audit system and the Guidelines for assessment and remediation of groundwater contamination**

A review of the *Guidelines for the site contamination audit system* and the *Guidelines for assessment and remediation of groundwater contamination* was planned after 18 months of its implementation. This review has commenced and is on schedule.

To ensure that an effective consultative process is conducted, the review will involve an auditor subcommittee and key stakeholders, including site contamination auditors and consultants and other jurisdictions with equivalent operating audit systems. Following this consultation process, the revised guideline will be finalised for publication. It is anticipated that this will occur in 2011.

### **Complete further changes to Schedule 1 of the *Environment Protection Act 1993* for activities of environmental significance and prepare implementation plan**

The EPA has been reviewing the 'Activities of Environmental Significance' listed in Schedule 1 of the *Environment Protection Act 1993* with a view to updating the provisions and determining whether they remain environmentally significant. This project has been delayed due to the complexity of the changes. The EPA expects to finalise its review by mid-2011 and provide the draft to stakeholders for consultation in 2011–12.

### **Consult on a revised *Environment Protection (Water Quality) Policy 2003***

The *Environment Protection (Water Quality Policy) 2003* (Water Quality EPP) has been in operation since October 2003. It was the first of the new environment protection policies designed to extend the provisions of the EP Act into specific aspects of the environment (water, air, noise and waste).

Considerable work was undertaken during 2009–10, culminating in the development of drafting instructions that reflected the results of preliminary consultations. During 2010–11 Parliamentary Counsel amended the policy to reflect clearer objectives resulting in a more concise document.

### **Implement changes to allow for responding to new questions under the *Land and Business (Sale and Conveyancing) Act 1994***

Enhancements to the Section 7 module in General Environmental Information System (GENI) were completed to enable the EPA to respond to new enquiries under the *Land and Business (Sale and Conveyancing) Act 1994*. These enhancements enabled the EPA to respond to over 50 000 Section 7 enquiries in 2010–11.

### **Provide management, scientific and operational input into the delivery of the Save the River Murray program and the SA Drought Response program**

The EPA's involvement in water quality monitoring and acid sulfate soil research in the Lower River Murray and Lakes provided critical information that enabled the state government to formulate effective management actions.

The EPA, in collaboration with the Department of Environment and Natural Resources' Commonwealth-funded Murray Futures program, is continuing the monitoring and scientific assessment of water quality at a number of sites within the Lower River Murray and Lakes. Key findings include:

- Drought conditions in the Murray–Darling Basin between 2007 and 2009 resulted in major water quality impacts on the Lower Lakes. Very high salinity and nutrient levels, and several localised acidification events, occurred during the drought period.
- The floods in the Murray–Darling Basin during 2010–11 have flushed large amounts of salt and other water quality constituents from the Lower Lakes. The Lakes have also been re-oxygenating the black water that has flowed into South Australia during the floods with low dissolved oxygen.
- However, a number of the effects of the drought in the Lower Lakes region remain. Firstly, the salinity in Lake Albert has been diluting only very slowly due to the difficulty in flushing water through the Narrung Narrows. Secondly, localised acidity persists in the surface water of some of the marginal lake areas that became acidic during the drought. The groundwater and sediments under the refilled lake are still acidic and the long-term impacts of this are unclear. Thirdly, while the lake-bed ecology and aquatic plant communities are recovering slowly across the Lower Lakes, they are still in a relatively poor condition.
- The EPA also provided guidance and oversight to minimise the environmental impacts associated with the removal of regulators at Narrung and Clayton.
- Water quality reports were published regularly on the EPA’s website. Regular presentations were made to community and industry forums.

Another legacy of the drought was discovered by the EPA in February 2011. Several of the drainage channels of the Lower Murray Reclaimed Irrigation Area (LMRIA) had turned acidic, which had consequences when the channels were flowing again and this water was returned to the river. Water tables had dropped in the LMRIA during the drought, enabling acid sulfate soils to oxidise. When the river and groundwater returned to high levels during 2010–11, the acidity and metals were mobilised into drainage channels. The EPA has been leading the monitoring and technical investigations into this issue and has installed buoyed exclusion zones and signs to minimise the risk of the community contact with this water. Under the current high river flows, the acid water dilutes rapidly once the drainage water meets the main channel of the River Murray. Potential risks under future lower flow conditions are being evaluated by a joint government agency committee.

**Develop and publish aquatic ecosystem condition reports in conjunction with other portfolio partners and in support of Water for Good Action 46**

EPA surface water quality monitoring and evaluation uses multiple lines of evidence, including biological and ecological measures, as well as traditional water chemistry, to assess aquatic ecosystem condition. Aquatic ecosystem condition reports are being designed to be broadly informative about the condition of South Australian aquatic ecosystems and to support associated environmental management decision making. These reports are currently undergoing final consultation.

**State of the Environment reporting**

The EPA is required to publish a State of the Environment (SoE) report at least every five years, with the next report due in 2013. Since the 2008 report, the EPA has considered options to improve SoE reporting, including aligning it more appropriately with other state and national environmental reporting. The process of preparing the 2013 report commenced in May 2011 and will rely significantly on information reported under key government legislation, strategies and plans such as South Australia’s Strategic Plan, the Water for Good Plan, the *Climate Change and Greenhouse Emissions Reduction Act 2007*, state and regional natural resources management (NRM) plans, the No Species Loss Nature Conservation Strategy, the 30-Year Plan for Greater Adelaide, NEPC annual reports, Australian Bureau of Statistics data, the 2011 National SoE Report, and the National Waste Report.

## **BUSINESS SUCCESS AND SUSTAINABILITY**

### **Context**

We will support business to reduce environmental impacts and use resources better, through the promotion of good environmental practice.

The EPA takes a firm but fair approach; it works with industries to help them reduce their environmental impacts, but when there is a risk of harm to the environment, the EPA will act quickly and decisively.

Given that there is a variety of environmental risk and compliance behaviour, the EPA uses a tailored approach, employing a range of strategies to achieve best regulatory outcomes. Much is achieved through the provision of advice and guidance, partnering with other organisations, and through education and through its core regulatory role.

### **Innovative licensing**

Innovative licensing is encouraging businesses to improve their environmental performance through mechanisms involving less regulatory effort.

These mechanisms include rewarding excellence in environmental management by issuing accredited licences and recognising commitments to environmental sustainability improvements with a sustainability licence. These licences can also be combined to create an EPA accredited sustainability licence.

#### **Accredited sustainability licence**

Accredited sustainability licences are based on principles adapted from ISO 14001, resource efficiency, continuous improvement and good community relations, which is very similar to the European environmental standard, 'Eco Management and Audit Scheme' (EMAS), now applicable worldwide. The European Commission invited the EPA to speak on accredited sustainability licences at the EMAS conference in Brussels, Belgium, in November 2010, where a favourable response was received, along with encouragement to align the two systems.

As a result, a robust and transparent assessment system for accredited sustainability licences and sustainability licences has been developed, based on the eligibility criteria of the pilot licences and the fundamentals from ISO 14001, EMAS and other international standards. This assessment system has a scoring system of 62 criteria, allowing the EPA and licensees to evaluate their level of applicability for either licence. Consultation with existing and potential accredited sustainability licence and sustainability licence holders assisted to refine the assessment system.

#### **Sustainability licence**

A sustainability licence combines a voluntary environmental sustainability agreement with a streamlined statutory licence to reduce red tape.

Based on the success of the initial sustainability licences during 2009–10, the pilot program has evolved into an ongoing program.

In 2010–11, the EPA developed sustainability licences for more complex organisations such as the four campuses of the University of Adelaide and OneSteel at Whyalla. Both were completed by June 2011.

The University of Adelaide sustainability licence was awarded in June 2010 and as part of its commitment to sustainability the University has:

- established an 'Ecoversity' initiative to tackle environmental sustainability;
- worked with SA Water to reduce water consumption; accomplished waste reduction and improved recycling with the assistance of ZeroWaste SA;
- established an 'Ecoleader' program and student internships program, addressing water, waste and energy management;
- developed a web-based sustainability management and reporting tool to manage energy, carbon and environmental performance.

The OneSteel sustainability licence was awarded in August 2010 and as part of its commitment to sustainability OneSteel's targets include:

- achieving dust targets
- controlling emissions to water
- managing waste, including the implementation of asbestos management plans
- annual emission monitoring for particle and gaseous emissions from the plant exhaust stacks
- maintaining social and ethical responsibility by promoting values and initiatives that actively engage the community.

### National Pollutant Inventory

The National Pollutant Inventory (NPI) provides the community, industry and government with free information about substance emissions and transfers in Australia. The NPI website <[www.npi.gov.au](http://www.npi.gov.au)> shows emission estimates for 93 toxic substances and the source and location of those emissions. The NPI is a cooperative program implemented by the Commonwealth and state and territory governments. Figure 1 shows the reduction of air and water pollutants from 2004–2009.

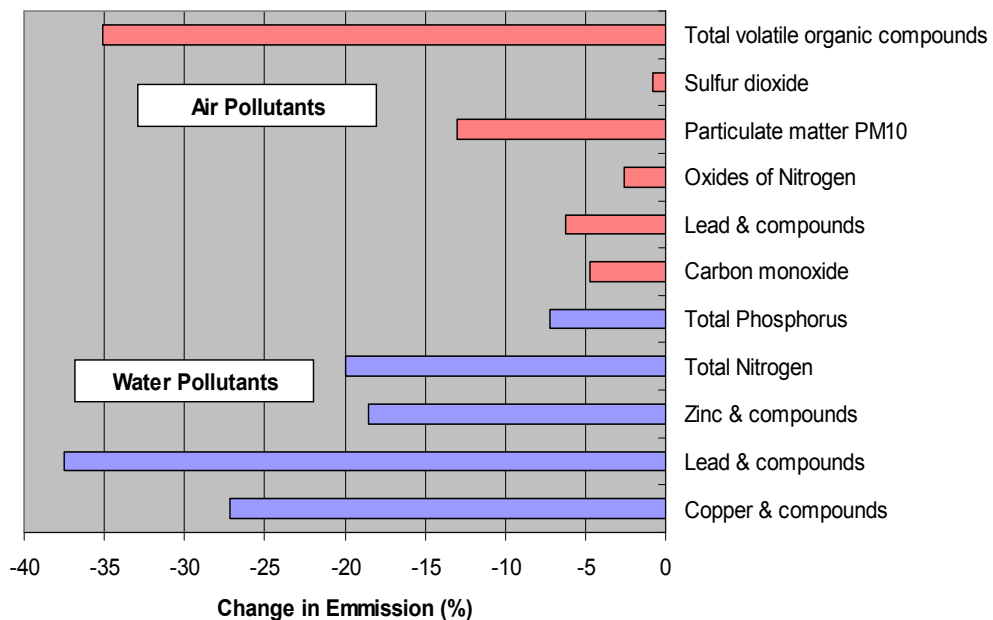


Figure 1 South Australia pollution reductions 2004–09

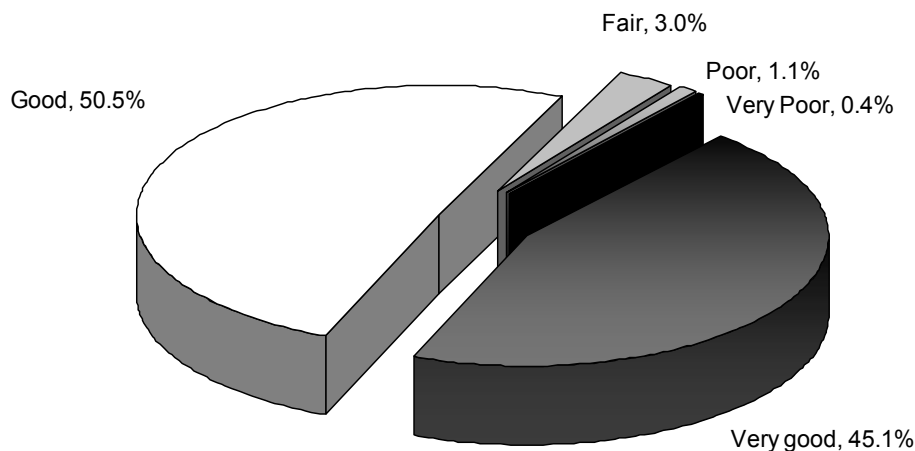
## Motor vehicle emissions inventory for Adelaide

Traffic emissions are the major contributors of hazardous pollutants in urban airsheds. As motor traffic emissions are dependent on a wide range of factors, estimation of their impacts on airsheds is a complex process. In 2008 the EPA commissioned traffic researchers from the University of Adelaide to develop new software for calculating an inventory of motor vehicle emissions for South Australia, with the participation of the Departments of Transport, Energy and Infrastructure (DTEI) and the Department of Health (DoH), utilising several innovative approaches and techniques to improve the quality of estimates and EPA's ability to model future patterns of traffic and their impacts on air quality. Although still under development, the software is considered unique and has attracted interest from other universities and jurisdictions.

During 2011 the EPA collaborated with the University of South Australia in a one-year honours student project aimed at further improving calculations of motor vehicle emissions in the inventory database. The project is focused on modelling motor vehicle emissions by examining the effects on emission rates of different vehicle speed distributions. The project is expected to deliver new knowledge relating to modelling motor vehicle emissions under South Australian conditions.

The EPA is also collaborating with DoH and the University of Adelaide in supporting both a Masters and a doctorate, as part of the North West Adelaide Health Study. The students are using information from the database to investigate the impacts of traffic emissions on community health in the region.

### Adelaide air quality data

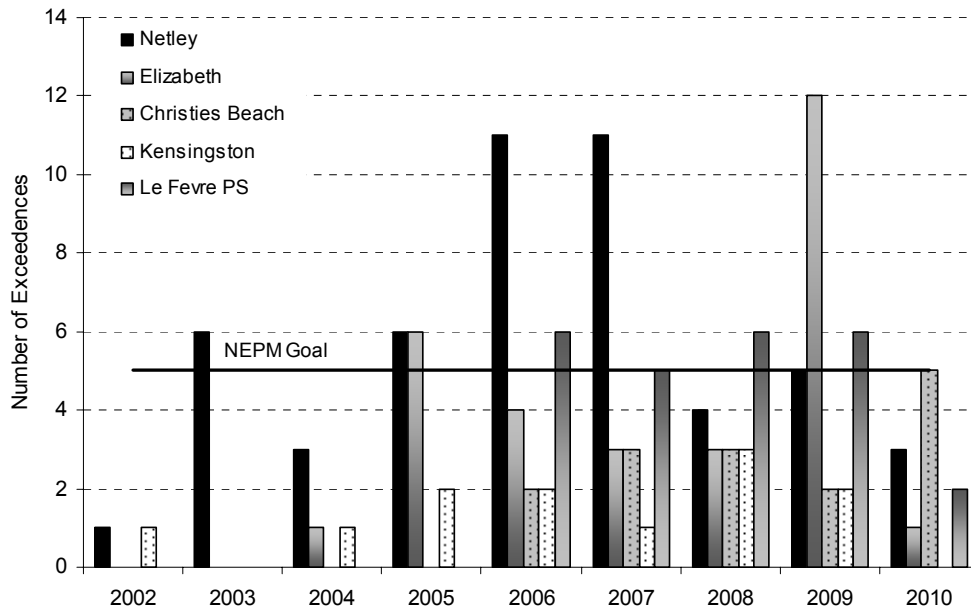


**Figure 2 Adelaide's air quality index 2010**

The pie chart of Adelaide's air quality index shown in Figure 2 indicates the general air quality in the Adelaide metropolitan area, taking into account PM<sub>10</sub> particles, ozone, nitrogen dioxide, carbon monoxide and sulfur dioxide for 2010. It is a summary of the air pollutant levels monitored in the Adelaide metropolitan region by the EPA, relative to the National Environment Protection Measure (NEPM) short-term standards. The air quality index is updated at 10 am and 6 pm daily and can be viewed on the website <[www.epa.sa.gov.au/environmental\\_info/air\\_quality](http://www.epa.sa.gov.au/environmental_info/air_quality)>.

Air quality in Adelaide can be considered good or very good for 95.6% of the time and very poor for only 0.4% of the time. Thus PM<sub>10</sub> levels were generally lower than those of previous years.

Generally, during dry conditions and when winds are high, dust blown from regional areas can combine with other forms of particle pollution, such as those from industry, motor vehicles, bushfires and sources in the metropolitan area, to cause dust levels above the NEPM Ambient Air Quality or Air NEPM standards.



**Figure 3 Annual exceedences of the Air NEPM PM<sub>10</sub> standard at Adelaide monitoring sites**

The metropolitan monitoring network provides a comprehensive picture of particle concentrations across Adelaide. Although the NEPM standard of 50 µm/m<sup>3</sup> (micrograms/cubic metre) was exceeded at these sites, the NEPM goal of not more than five exceedences per year was met at all sites.

Results for 2010 were generally lower than the previous year, most probably due to higher rainfall than in the previously drier years. PM<sub>10</sub> monitoring has since ceased at Kensington.

## MORE EFFECTIVE RELATIONSHIPS

### Context

We will achieve better results protecting and enhancing South Australia's environment by building more effective relationships with industry, licensees, the community and local government.

The EPA works with industry, other parts of the government and the community to reduce risks to the environment and promote proactive compliance behaviours. As an agency within the state government we consider plans that influence the work we do, such as the 30-Year Plan for Greater Adelaide and Water for Good.

Effective engagement with communities affected by environmental nuisance and pollution is essential, just as it is with members of the public who are interested in our science-based advice and monitoring data. To ensure effective relationships with industry, licensees, local government and the community, an EPA Stakeholder Engagement Statement was produced in 2010. It provides clear and detailed information about how, when and under what circumstances stakeholders can participate in the EPA's activities.

The EPA supports the objective in South Australia's Strategic Plan of improving wellbeing through working with key agencies to develop a preferred approach to managing local noise and air quality issues.

### Working with the Department of Planning and Local Government to deliver the 30-Year Plan for Greater Adelaide

The EPA worked actively with the Department of Planning and Local Government (DPLG) to assist with the formulation of State planning strategies and planning policy for local government development plans and the assessment of development applications.

The EPA also supported DPLG in the delivery of future Adelaide as envisaged by the 30-Year Plan for Greater Adelaide. The agency ensured that the environment protection-related policies and targets contained in the 30-Year Plan were incorporated into the Structure Plans that will guide development in State Significant Areas such as transport corridors and economic zones. Of particular interest to the EPA were those policies and targets that address the impacts of air and noise emissions from road and rail transport corridors on sensitive development. The EPA also collaborated with DPLG to ensure that issues relating to water sensitive urban design, site contamination, and the interface between sensitive uses and EPA licensed sites and other industries were adequately addressed through the structure-planning process.

To assist with implementation of Structure Plans in metropolitan Adelaide, the EPA helped to prepare the new Better Development Plan Planning Policy Library modules. These modules contain principles of development control specific to the new forms of development envisaged by the 30-Year Plan. The EPA engaged with DPLG to ensure that the principles of development control in the new modules specifically addressed noise and air pollution issues.

The EPA assisted DPLG with the writing of the draft 'Minister's Specification SA 8 Construction requirements for the control of external sound', the intent of which was to protect residents from the impact of noise from road and rail transport corridors and mixed land uses. The draft Minister's Specification was designed to apply to certain forms of residential development in specified transit corridors and land use zones.

### Community engagement

The focus of the EPA's community engagement activities throughout 2010–11 has been on improving community access to EPA information.



The Stakeholder Engagement Statement was published in January 2011 as a firm commitment to the provision of clear information on how, when and in what circumstances the public can participate in the EPA's activities. The statement underpins EPA consultation and engagement on a range of activities and initiatives, including input on amendments to legislation, major projects and issues relating to EPA licensed sites. The engagement statement is supported by a staff handbook, which provides guidance, templates and tools for planning and conducting effective community engagement activities.

## Improved access to information

In October 2010 the Board reaffirmed its commitment to the principles of open government, with an emphasis on improved access to information and greater accountability to the authority's stakeholders on policy issues. As a result, the public register directory was added to the website. The online public register provided information on site contamination records, and prosecutions and civil penalties.

The site contamination index service enabled a search by suburb to determine whether there have been notifications of possible groundwater contamination anywhere in SA. The EPA also enhanced its communication practices at this time by placing public notices for all new groundwater contamination notices received. Further information will be progressively made accessible via the website, including licences and site contamination audit reports.

The EPA website was also enhanced with the addition of a services directory search function, which helps visitors to easily locate information and forms relating to EPA services.

When hazardous chemicals were found in groundwater at Edwardstown and Solomontown, Port Pirie, the EPA communicated directly with the affected residents to keep them informed of findings and measures being taken to protect their health. The EPA wrote to more than 2200 residents of Edwardstown and 80 residents of Solomontown, Port Pirie, during the course of investigations. The website also provided regularly updated information as well as a comprehensive series of frequently asked questions and answers.

In April 2011, the EPA released a public communication statement in relation to site contamination. This provides the EPA's first steps when notified that actual or potential site contamination exists in a area and the communication that takes place with residents. For information please refer to [www.epa.sa.gov.au/about\\_epa/our\\_organisation/public\\_communication\\_statements](http://www.epa.sa.gov.au/about_epa/our_organisation/public_communication_statements).

The EPA engaged with the following groups in 2010–11: ABC Reference Group, Penrice Osborne Community Consultative Group, Residents of Inner North West Adelaide Incorporated, O-I Community Consultation Group, Linwood Quarry Joint Working Group, Strathalbyn Community Consultative Group, Mitcham Rail Taskforce, Whyalla Environment Consultation Group, Balefill Management Consultative Committee (NAWMA) and SWARA Residents Meeting.

The EPA has also continued to strengthen its relationships with specific stakeholder groups by participating and sponsoring industry expos and conferences. Major events for 2010–11 included:

- Local Government Association Annual Conference 2010
- Boating Industry of South Australia's 2010 Adelaide Boat Show
- National Science Week Science Alive expo
- Waste Management Association of Australia 2010 Conference (South Australian Branch)
- 35th Australasian Radiation Protection Society (ARPS) Conference

## Local government project

In July 2009 the EPA formed a high level group (HLG) of chief executives and directors from the Local Government Association (LGA), EPA Board, Department of Health (DoH) to identify ways of promoting agency partnerships that would better serve the community. The HLG engaged a working group of key state and local government agencies to develop a model designed to improve the management of environmental nuisance issues, with a key aim to improve the dispute resolution process. The model presented to EPA Executive and the HLG was supported as a model template for the management of local nuisance related issues. The HLG resolved that the LGA proceed with a proposal that promotes functional and legislative reform between local and state government to improve cross-agency partnerships on a range of issues, including environmental nuisance management.

## SmokeWatch Mount Gambier

SmokeWatch Mount Gambier is a three-year collaborative partnership between the EPA, DoH, City of Mount Gambier, Firewood Association of Australia and Australian Home Heating Association. Since its launch in 2009, SmokeWatch has also gained the support of several local schools, businesses and community organisations. Reports on 2009 and 2010 phases are available on the EPA website [www.epa.sa.gov.au/environmental\\_info/air\\_quality/working\\_with\\_the\\_community/smokewatch/smokewatch\\_in\\_mount\\_gambier](http://www.epa.sa.gov.au/environmental_info/air_quality/working_with_the_community/smokewatch/smokewatch_in_mount_gambier).

The goal of SmokeWatch Mount Gambier is to reduce the wood-smoke pollution caused by domestic burning, including inefficient use of wood heaters, in the City of Mount Gambier district. The program encourages householders to operate their wood heaters efficiently to improve the energy benefit of the fuel and reduce smoke emissions. It aims to build the capacity of the community to take ownership of domestic contributions to wood-smoke pollution issues. In this exercise SmokeWatch Mount Gambier is complementary to active EPA regulation of other sources of fine particle emissions, including long-established industries that utilise wood waste as fuel.

SmokeWatch Mount Gambier integrates community engagement, health and air science components to develop and reinforce positive messages on how communities can take simple actions to improve air quality.

The third and final phase of the program commenced in April 2011 and built on community engagement and monitoring activities implemented in 2010, including a health survey targeting susceptible groups in the community – with a particular focus on children – and campaigns to elicit ideas and opinions on air quality and wood-heater use. During 2011, with the assistance of the Mount Gambier Health Service, the EPA is also promoting increase participation of the health sector in the area, including medical practitioners, and medical and health education professionals from local university campuses.

Air monitoring continues in 2011 and community programs are underpinned and reinforced with sound scientific evidence of the air quality impacts of fine particles. The monitoring results are updated regularly on the EPA website and weekly summaries of both PM<sub>10</sub> and PM<sub>2.5</sub> are published in *The Border Watch* each Tuesday. Previous results have indicated that domestic wood smoke is a substantial contributor to poor winter air quality, along with contributions from wood-fired industrial processes and other possible sources such as agricultural activity near the city.

## Pollution reporting and enquiries

The EPA continues to maintain a pollution reporting and enquiries line (telephone 8204 2004, free call non-metro 1800 623 445) to receive calls about environmental concerns. Table 1 summarises the numbers and types of pollution reports received during 2010–11 and Table 2 details the number and types of general enquiries.

Depending on the nature of the complaint, the EPA's response may be to:

- provide verbal or written information to the caller
- register a formal report for follow-up by an authorised officer
- refer the information provided by the caller to another state or local government agency for action.

There has been an increase in the total number of reports received by the EPA, and a slight increase in the number of reports received with regard to air quality, water and noise-related incidents compared with 2009–10 figures. However, there has been a decrease in other report areas (eg marine pollution).

**Table 1 Number of reports received by the EPA**

Type of report	2008–09	2009–10	2010–11
Air quality	762	646	711
Air and noise	86	63	64
Noise	1029	1186	1241
Marine pollution	33	37	19
Site contamination	N/A*	N/A*	28
Water	104	116	138
Waste	168	156	153
Other	149	187	155
<b>Total</b>	<b>2331</b>	<b>2391</b>	<b>2509</b>

\* Reports associated with site contamination were not recorded separately prior to 2010–11.

**Table 2 Number of enquiries received by the EPA**

Type of enquiry	2010–11
Air quality	249
Noise	329
Water quality	228
Waste	299
Complaint and enquiry follow-up	902
Site contamination	158
Licensing	1008
Staff request	1588
Other eg container deposit legislation	1311
<b>Total</b>	<b>6072</b>

The EPA commenced recording enquiries in 2010–11, and comparative figures for previous years are not available.

## IMPROVED REGULATION

### Context

Working with our stakeholders, we will continue our efforts to reduce red-tape for business. Together, we will develop innovative and cost-effective solutions to protect, restore and enhance the quality of our environment

The EPA's role as a regulator is to promote the objects of the *Environment Protection Act 1993* and the *Radiation Protection and Control Act 1982*, and to secure compliance with these acts. While the legislation sets the basis of the EPA's functions, how the EPA allocates resources and exercises its discretion is an essential component of its regulatory style, which the law does not provide.

The EPA adopts a firm but fair approach. It strives to be transparent and accountable in the regulatory process. This approach applies equally to preventative approaches to support compliance and reactive approaches to deliver enforcement.

The EPA attempts to maximise the number of people in the regulated community who take proactive responsibility for their environmental compliance and performance. This requires good compliance support. At the other end of the spectrum, the EPA drives strong enforcement to create a credible deterrent to maximise the compliance of poor performers. The EPA continues to examine Australian and international regulatory approaches to support ongoing improvement of its regulatory strategy.

### Odour management on LeFevre Peninsula

In 2006, the EPA investigated potential sources of nuisance odour on the LeFevre Peninsula in direct response to community concerns. The EPA identified a number of facilities as potential sources of odour, including the major fuel storage terminals, and bitumen processing and blending plants.

The EPA has worked actively with all facilities identified to develop environmental improvement programs (EIP) to improve odour management. Conditions requiring the implementation of the EIPs were incorporated into the EPA licence of each site.

The odour management methods include installation of floating roofs on fuel storage tanks to minimise odour release during filling, installation of vapour recovery units during truck-tanker filling, and installation of oxidising technology at the main bitumen storage facility to reduce the risk of emission of odorous volatile organic chemicals (VOC).

To date, all fuel storage facilities have installed vapour recovery units and the main bitumen storage facility has installed a thermal oxidiser to destroy VOCs. Floating roof tanks are progressively being installed, with all work due for completion in 2012.

Verification monitoring and modelling has shown a vast reduction in odour from the target facilities as a result of this work. The impact on the surrounding community is illustrated in Figure 4, with no complaints received in 2011.

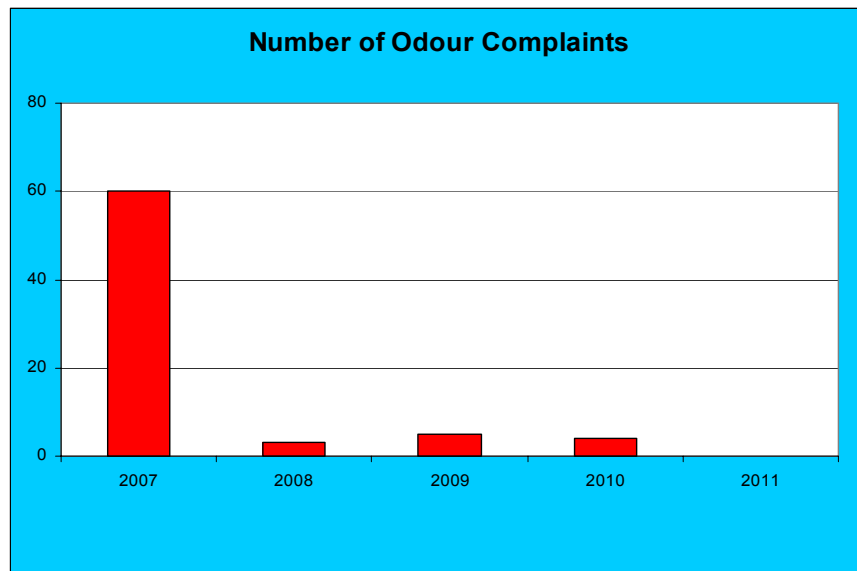


Figure 4 Odour complaints, 2007–11

## Significant licensees

Below are examples of some significant EPA licensees given the historical environmental challenges that are faced by the presence of large industries in residential areas.

### OneSteel, Whyalla

During 2010–11 OneSteel continued to progress its agreed program to reduce the company's environmental impact on the Whyalla community.

Key highlights were:

- ongoing remediation of the old northern stockpile area and the successful establishment of saltbush seedlings
- continuing improvements made within the pellet plant
- refurbishment of a second electrostatic precipitator in the basic oxygen steel-making furnace
- approval of a 1.5 GL reverse osmosis plant to produce processed water and thereby reduce the draw on the Murray River
- assessment of the infrastructure associated with the continuing expansion of OneSteel's export iron ore business
- granting of a sustainability licence to OneSteel in August 2010
- development of a third tranche of OneSteel's licence to recognise the changes to the business since the second tranche was agreed in 2008.

The EPA continued to monitor fine particulates levels at two sites in Whyalla. The Walls Street site is close to industry and is used to assess its impact. The Schulz Reserve site is used to assess general PM<sub>10</sub> levels in the township and for NEPM reporting. As reported last year, analysis of PM<sub>10</sub> and weather data indicates that the regional weather has a significant influence on the level of fine particulates observed at Whyalla. The La Niña event has reinforced this view, with the cooler, wetter weather patterns resulting in the lowest level of high PM<sub>10</sub> level days since the EPA commenced monitoring.

## Nyrstar, Port Pirie

Nyrstar, located in Port Pirie, operates one of the world’s largest lead-smelting facilities. Historically, the smelter has been the source of the well-documented lead contamination in the town and unacceptably high levels of blood lead in the local community.

The *tenby10* program, a five-year partnership between Nyrstar, state government and Port Pirie Regional Council, concluded at the end of 2010. Significant progress was made, with 72.3% of children recording a blood lead level below 10 µg/dL, compared with 49.6% in 2005 (Department of Health 2011). The EPA is working actively with Nyrstar to ensure it better controls lead emissions from its plant and with continued vigilance and new practices, further reductions in lead emissions are expected.

In October 2010 the EPA introduced daily lead-in-air monitoring at two locations in Port Pirie to better track lead levels (Figure 5). Previously the EPA monitored in accordance with the NEPM of one day in six.

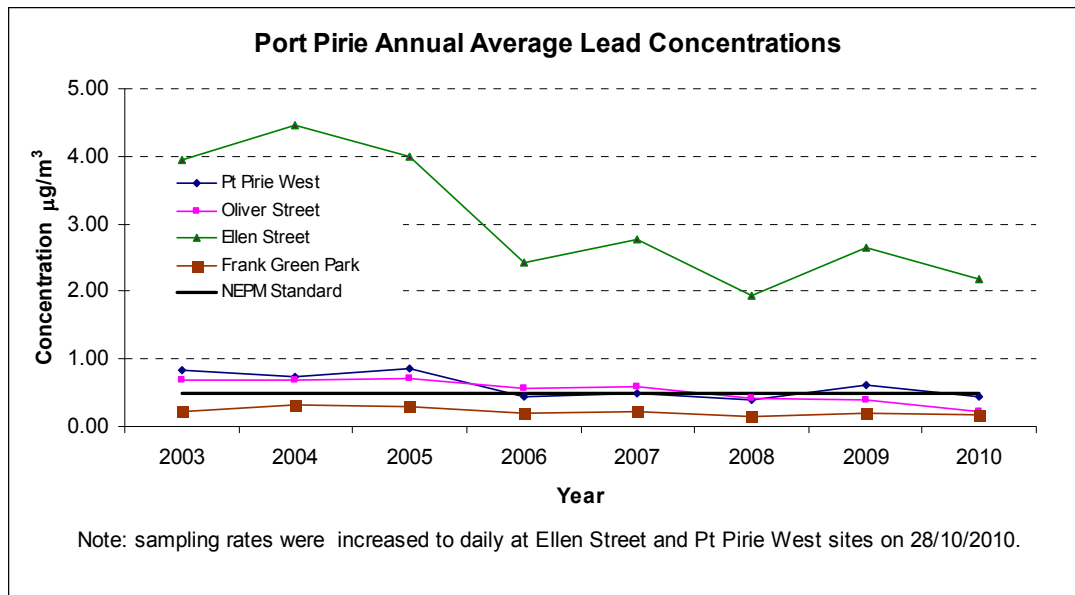


Figure 5 Port Pirie annual average lead concentrations, 2003–10

## Linwood Quarry (Boral), Marino/Hallett Cove

The Linwood Quarry Joint Working Group has continued in 2010–11, providing an opportunity for the local community to raise concerns about the quarry’s operations. The EPA is a member of this group which also comprises members of the local community (both Marino and Hallett Cove) and representatives from the City of Marion Council, Boral, and the Department of Primary Industries and Resources of South Australia (PIRSA), and includes an independent chair.

In 2009, the EPA identified drag-out (mud tracked out by wheels of vehicles) as an area for improvement for the quarry and an EIP was implemented in 2010. Under this EIP, Boral upgraded the vehicle wheel wash and sprinkler system on the entry/exit road to the site. These upgrades were completed and commissioned in early 2011.

Throughout 2010–11 the EPA has undertaken inspections of the quarry and in 2011–12 will continue working with Boral to establish a program for the assessment and management of fugitive dust impacts.

## Penrice Quarry, Penrice/Angaston

During 2010–11 the EPA attended monthly meetings of the Penrice Community Consultation Group, formed to provide the community with a mechanism to provide feedback on the quarry’s operating plan and rehabilitation program. Membership of the group includes an independent chair and local community members, with Barossa Council, PIRSA,

and Penrice Soda Holdings Ltd (Penrice) representatives. The EPA attends to provide clarification on environmental management issues.

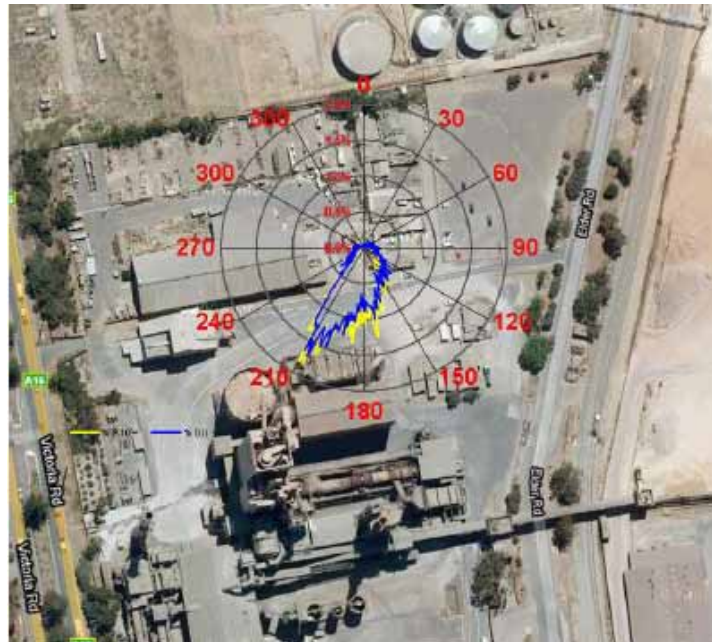
After completing an EIP to reduce dust emission offsite, Penrice entered into a second EIP in mid-2010. This required Penrice to:

- reduce vehicle drag-out by installing a wheel wash
- reduce fugitive dust emissions by:
  - installing a new dust suppression system to the aggregate crushing plant
  - installing misters on the primary crusher
  - developing and implementing a dust management plan.

Although extensive noise monitoring and modelling completed in 2010 showed compliance with the *Environment Protection (Noise) Policy 2007*, the EPA continues to work with Penrice and with consultants to identify appropriate improvements to further reduce noise impacts on its neighbours.

**Adelaide Brighton Cement (ABC)**

As part of its licence conditions, ABC is required to implement an environmental improvement program manage onsite activities, and meet specific monitoring and reporting requirements. The EIP targets continuous improvement of the environmental performance of the company, with a focus on reducing ambient dust levels, noise levels and the visual impact of the site. It was developed in consultation with the local community through the Adelaide Brighton Cement Community Liaison Group (CLG) and is valid until December 2011. Discussions between ABC and EPA have begun in relation to environmental improvements planned for 2012. A meeting, in addition to the usual quarterly community liaison group meetings, has been arranged in early July to ensure that all community concerns are addressed in future EIPs.



**Figure 6** Example of a polar plot produced for one of the monitoring stations at Adelaide Brighton Cement

On 18 May 2011, the EPA met with ABC and reviewed its performance against the objectives of the current EIP and all but one objective have been completed or are on track for completion within the specified timeframe. There is only an

additional truck-wash facility that has been delayed. The ABC reports on the progress of the EIP objectives at quarterly CLG meetings.

The EPA attends every CLG meeting and reports on EPA air quality monitoring, community complaints and licence requirements, including EIP objectives.

During 2010–11 the EPA worked actively with ABC to improve its quarterly stack and ambient air quality reporting. Particulate stack emissions have reduced considerably since December 2010 and EPA has worked with ABC and the CLG with the aim of having the most accessible and informative reporting format.

## **Vessel wastewater management**

During 2010–11, the EPA embarked on a number of initiatives associated with the implementation of the Code of practice for vessel and facility management (marine and inland waters). Key areas included:

- continued implementation of wastewater management requirements for all vessels operating on South Australia's marine and inland waters
- ongoing work with industry to develop wastewater treatment solutions
- ongoing audits and inspections of private vessels and liaising with private vessel owners to upgrade their vessels to meet the requirements as per the 1 January 2011 compliance date
- implementation of a 12-month trial to allow EPA licensed slipways to inspect and assess private operating on inland waters for compliance with the black and grey water requirements according to the code of practice.

Liaison with interstate boating associations and authorities is continuing, with the adoption of grey water management requirements, treatment technology and the EPA-sponsored Australian Standard for vessels well advanced at a national level.

## **Compliance and enforcement**

### **EPA regulatory approach**

Over the last 12 months the EPA has continued to strengthen its regulatory processes to support consistent and proportional decision making when dealing with breaches of the law. The draft breach management and investigation referral policy is being trialed and guides how the EPA will use its regulatory tools to respond to breaches of the law. The policy incorporates a risk matrix which uses the level of harm and the likelihood of compliance to guide enforcement action.

The EPA has also been developing better methods for measuring regulatory effectiveness, with the application of new key performance indicators on environmental risk reduction. Collection of this data will be enhanced by the upgrade of the licensing database as part of the Licensing Administration Modernisation Project (LAMP) project.

The establishment of the high-level Compliance Enforcement Strategy Committee (CESC) has also enhanced the governance of EPA's regulatory practice. This committee:

- advises the Board, Chief Executive and staff on compliance and/or enforcement action for matters
- provides advice to the relevant delegate in relation to initiating and finalising EPA investigations
- provides advice to the Board, Chief Executive and staff on regulatory strategies and compliance and enforcement matters.



- makes recommendations to the delegate with respect to negotiations relating to charges, penalty or settlement for criminal or civil matters.

The CESC is an integral part of ensuring that EPA’s regulatory objectives are met and the principles underpinning the firm but fair approach are followed.

Licensing those companies that present a risk to the environment enables the EPA to take a proactive approach to protecting the environment. This active management reduces the need for the EPA to rely on prosecutions for harm already committed.

**Compliance inspections**

The EPA has approximately 2100 licences and, in accordance with its compliance and enforcement guidelines, undertakes a risk-based approach to ensuring compliance with environmental requirements. During 2010–11 the EPA inspected 257 high-priority sites, with a range of resultant actions, including verbal and formal written warnings and environment protection orders (EPOs). For a small number of more serious cases of non-compliance, the EPA commenced civil or criminal prosecutions under the EP Act.

**Environment protection orders**

Environment protection orders can be issued by authorised officers under section 93(1) of the EP Act:

- (a) for the purpose of securing compliance with:
  - (i) the general environmental duty; or
  - (ii) mandatory provisions of an environment protection policy; or
  - (iii) a condition of an environmental authorisation; or
  - (iv) a condition of a beverage container approval; or
  - (v) any other requirement imposed by or under this Act; or
- (b) for the purpose of giving effect to an environment protection policy.

Police officers are authorised under the EP Act and use EPOs to deal with complaints about noise (eg loud music) from domestic premises.

Some local government officers are authorised under the EP Act, but this authority is limited to the council area in which they are employed. The majority of EPOs issued by councils relate to breaches of the Water Quality Policy with regard to stormwater issues from building sites.

**Table 3 Environment protection orders**

EPOs recorded	2008–09	2009–10	2010–11
EPA	22	25	15
Police	144	128	55
Councils	7	23	8
Total	173	176	78

An example of a successful outcome from the issuing of an EPO involved a building company that disposed of approximately 20 tonnes of waste soil onto private land without the consent of the landowner. The EPA issued the EPO to ensure that the waste soil was removed from the site and disposed of at a depot licensed to receive such waste.

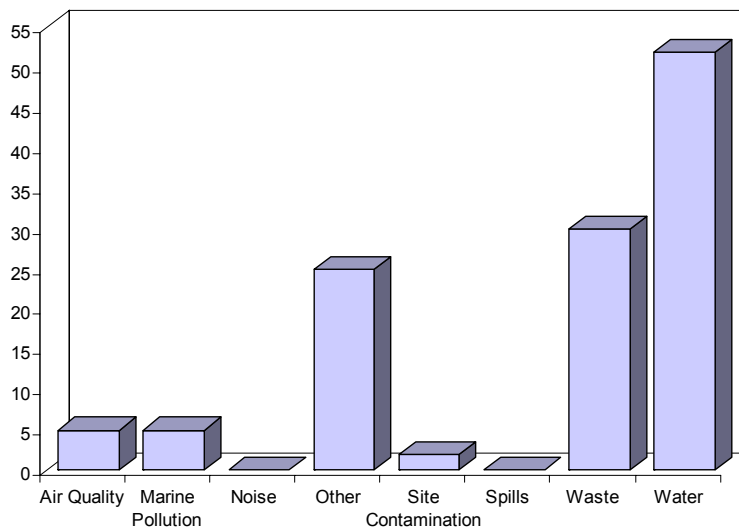
## Emergency response

The EPA responds to emergency pollution incidents when notified through the emergency 24-hour number. Emergency responses are of three types:

- whole-of-government procedure as outlined in the State Emergency Management Plan. This applies to spills or leaks of hazardous substances onto land or into non-marine waters and is coordinated by emergency services (police, fire and technical advice coordinators)
- national response plan, which deals with oil or chemical spills at sea, and is coordinated by the Marine Group of DTEI
- other environmental incidents that do not trigger either of the above emergency response systems. This includes incidents reported by EPA licence holders and some incidents reported by members of the public through the pollution reporting line, which requires an immediate assessment by the EPA.

During 2010–11, the EPA responded to 121 incidents through its emergency pollution incident response system, a 9% decrease in calls from the previous year. The majority of the calls came from EPA licence holders and members of the public, and were dealt with by the provision of advice relating to containment and clean-up. Examples included:

- train derailment at Cadney Park with a reported 1000 litres of waste oil spilt
- sulfur spill at Eastern Parade, Gillman, where six people were overcome by the fumes due to a bucket falling from a truck while leaving the site
- 20 000 litres of olive oil spilt between Mount Barker and Monarto due to a leaking bladder on a shipping container on a train en route to Melbourne
- diesel spill at Kapunda adjacent to the Light River due to a truck rollover.



**Figure 7 Emergency responses, by complaint category**

## Civil enforcement and prosecutions

More serious incidents of non-compliance may result in civil or criminal prosecutions under the EP Act.

The EPA has a dedicated Investigations Branch which probes breaches of the EP Act and the RPC Act in accordance with established compliance and enforcement criteria (refer to EPA’s regulatory approach). Prosecutions pursued by the EPA are conducted by the Crown Solicitor’s Office and the Office of the Director of Public Prosecutions.

The EPA conducted a total of 36 investigations in 2010–11, including 18 incidents this financial year and 18 matters carried over from 2009–10. Of the 36, 17 have been finalised as follows:

- One matter has been finalised in the Environment, Resource and Development Court (ER&D Court) [Table 4].
- One matter has been dealt with by way of a negotiated civil penalty (Table 5).
- Two matters did not proceed due to Crown advice that there was insufficient evidence to pursue a reasonable prospect of conviction.
- The remaining 13 matters were dealt with by other compliance actions, including providing advice and issuing EPOs or clean-up orders or expiation notices.

Three matters before the ER&D Court are yet to be concluded. One matter relates to serious environmental harm, one matter relates to environmental harm, and another relates to a breach of a mandatory provision of the Waste EPP. As of June 2010 there were:

- 11 matters under active investigation
- eight matters under review at the Crown Solicitor’s Office to determine the sufficiency of evidence.

**Table 4 Finalised prosecutions 2010–11**

Name	Charges	Penalty
United Water International Pty Ltd	Polluting the environment causing material environmental harm Section 80(2) of EP Act 1993.	\$80 000

As an alternative to criminal prosecution for less serious offences under the EP Act, the EPA may negotiate a civil penalty directly with an individual or corporation which the EPA believes has committed the offence, or may apply to the ER&D Court for an order that the person(s) pay an amount as a civil penalty to the EPA.

EPA-negotiated civil penalties are developed in compliance with its *Policy for calculation of civil penalties under the Environment Protection Act 1993* (2006).

**Table 5 Finalised civil penalties 2010–11**

Name	Charges	Penalty
Fibrelogic Pipe Systems Pty Ltd	Discharge of wastewater into stormwater system due to unlabelled and uncapped sewer pipe.	On 10 January 2011 the EPA and Fibrelogic settled a penalty of \$3075*

\* The total amount of the order was for \$3360.95; of this \$285.95 was for technical costs.

## National and state policy reform

### Red-tape reduction

A key feature of the state government’s economic development strategy is significantly reducing the red tape facing businesses. The EPA’s commitment to best practice environmental regulation is consistent with this strategy.

The EPA’s contribution to the government’s first red-tape reduction plan realised a direct saving to business of \$2 million per annum. As part of the government’s second red-tape reduction plan, the EPA is committed to generating a further \$2

million per annum of savings for business. This will largely be delivered by streamlining the administration of licensing under the EP Act and through reforms to radiation protection and control licences and permits under the RPC Act.

This savings objective will not, however, be achieved by the target date of April 2012. Ongoing implementation of the licence administration reform project was delayed until the EPA had received an allocation in the 2010–11 State Budget for the replacement of its IT systems. The new IT system will be operational during the second half of the 2012–13 financial year. Consequently the benefits of this project will not be realised by business until that time.

These reforms are part of a continuing improvement program for licensing administration, which had previously included the introduction of an integrated pollution control licensing system, additional incentives for improved environmental performance, major reforms to the licence fee structure and the introduction of a tiered licensing system.

The largest red-tape reduction initiative is associated with radiation protection and control and the accreditation of third-party testers of radiation apparatus. The legislative amendments for this reform came into effect on 1 July 2011 and led to savings for industry of about \$120,000 per year.

New projects are being included in the plan as additional red-tape reduction opportunities are identified. This includes an initiative for more efficient approval and regulatory arrangements for managed aquifer recharge development.

### **Five-year rolling review of regulation**

Following announcement by the government of a rolling five-year review of all business regulation, all agencies have submitted work plans to the Competitiveness Council for implementing their reviews. The Board approved the EPA work plan in November 2009, which included the review of the EP Act, RPC Act, Environment Protection Regulations and a number of codes and guidelines.

To support the implementation of the five-year review, EPA staff have received training by the Office of Best Practice Regulation and the SA Centre for Economic Studies to undertake regulatory impact assessments in compliance with the government's new Better Regulation handbook. The timeline and processes for implementation of the reviews, in accordance with the work plan, have been incorporated into annual business plans and work programs.

### **Contribution to the Environment Protection and Heritage Council (EPHC)**

The EPA continues to coordinate South Australia's participation in the Environment Protection and Heritage Council (EPHC), incorporating the National Environment Protection Council (NEPC). EPHC comprises the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities, one minister from each state/territory and New Zealand, and the President of the Australian Local Government Association. The Minister for Environment and Conservation represents South Australia.

Major EPHC achievements this year included the development and adoption of the National Waste Policy and the development of a national framework for product stewardship, including the development of draft Commonwealth legislation. Televisions and computers will be the first products to be covered by this framework. The council also agreed to a major investigation into improved resource recovery and reduced litter from packaging waste, including a national container deposit scheme, an idea originally placed on the council's agenda by South Australia.

NEPC and EPHC are supported by respective standing committees. The EPA Chief Executive is the South Australian representative on the standing committees and also chairs the National Chemicals Environmental Management (NChEM) Working Group, which developed a range of legislative options for establishing the proposed Environmental Chemicals Bureau.

From 1 July 2011, EPHC will be replaced by a Standing Council on Environment and Water, whose terms of reference are still to be determined by the Council of Australian Governments (COAG). The council will still include NEPC.

## **Ten-year review of the National Environment Protection (Ambient Air Quality) Measure**

The statutory review of the National Environment Protection (Ambient Air Quality) Measure, as amended 2004 (Air NEPM), was initiated in 2005 by NEPC with the establishment of a review team comprised of air quality experts from several jurisdictions, including South Australia.

The review embodied two components: the first phase reviewed the structure and performance of the Air NEPM against its original environmental goals; the second focused on the environment protection standards and the methodologies for cost–benefit analysis of likely changes to the standards.

As part of the process, the review team engaged health experts to undertake a review of the current research on the effects of the Air NEPM pollutants on populations in Australia and overseas. This review showed considerable advances in the knowledge of health impacts since the first NEPM was made in 1998, much of which pointed to a need to tighten some standards, notably those for ozone, sulfur dioxide and fine particles (PM<sub>2.5</sub>).

Further, an Australian study on air quality and children’s health commissioned for the review pointed to more substantial deleterious health effects of nitrogen dioxide (NO<sub>2</sub>) on children than earlier found in urban areas. This raises questions about whether the NO<sub>2</sub> standard is adequate for protecting communities in Australian cities.

The report of the review was finalised in February and is awaiting a decision by the COAG Standing Council on Water and Environment on whether to initiate a full variation process. In parallel, jurisdictions are considering ways to develop a consistent national framework for improving air quality in Australian cities in line with the findings of the review. The framework would focus on those areas where national approaches to managing pollution sources are of benefit, including motor vehicle emissions and domestic sources such as wood-fuelled heaters and fuel-driven garden equipment.

### **Development of NEPM for wood-heater**

The EPHC initiated a program to investigate the feasibility of an NEPM to provide for consistent national regulation of the import, sale, installation and operation of wood heaters, or more correctly, solid fuel domestic space heaters. While an NEPM is considered an important option, other mechanisms are possible, including Commonwealth legislation or Commonwealth–state mirror legislation.

A project team chaired by the Commonwealth commissioned a consultancy to prepare a regulatory impact statement (RIS) in accordance with requirements of the national Office of Best Practice Regulation. This included a comprehensive benefit–cost analysis of the various alternatives.

The proposals are awaiting a decision by the COAG Standing Council on Water and Environment.

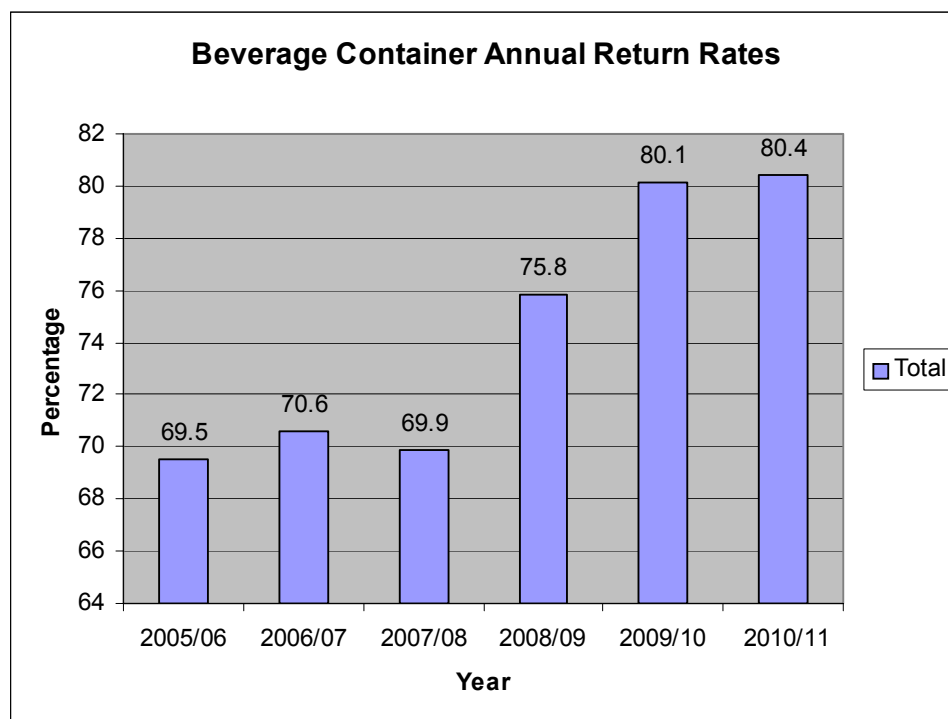
### **Container deposit legislation (CDL)**

CDL compliance officers conducted 335 retail and wholesale inspections in 2010–11 to detect and remove approximately 111,340 non-compliant containers.

The September 2008 refund increase to 10 cents continues to be a catalyst for increased return rates for beverage containers. The return rate for 2010–11 was 80.4% compared with 80.1% in 2009–10, 75.8% in 2008–09, and 69.9% in 2007–08, which preceded the refund increase.

**Table 6 Percentage return rates for beverage containers**

Year	% Return
2007–08	69.9
2008–09	75.8
2009–10	80.1
2010–11	80.4



**Figure 8 CDL annual return rates**

**Table 7 Return rates 2010–11 for the various container types and prior to the 10c refund increase**

Container type	% Return	Return rates 2010–11	Prior to refund increase
Glass	83.4	84.3	78.5
Aluminium	88.9	85.6	77.3
Polyethylene terephthalate (PET)	72.3	73.9	63.6
Liquid paperboard cartons (LPD)	55.4	58.1	35.4
High-density polyethylene (HDPE)	59.1	61.3	49.2

## Plastic bag legislation compliance

The EPA administers the *Plastic Shopping Bags (Waste Avoidance) Act 2008*.

A number of minor breaches were detected during 2010–11 and a few retailers (mainly at field days and shows) were instructed not to sell certain bags. One retailer was issued with an expiation notice for continued non-compliance.

During the same period, the Australian Competition and Consumer Commission announced that 'Goody' branded plastic bags were not biodegradable and did not comply with Australian Standard AS4736-2006 (Biodegradable plastics – Biodegradable plastics suitable for composting and other microbial treatment).

The EPA subsequently wrote to all producers and distributors of these bags to advise them that the bags should no longer be provided to retailers.

## Development assessment

The EPA coordinates the assessment of development applications of environmental significance referred by local government or the Development Assessment Commission (DAC). This year a total of 326 applications were assessed (Table 8), with 91% of all responses being provided within the statutory timeframe, as prescribed by the *Development Act 1993* and the associated development regulations. The EPA provides advice on development applications and, in certain cases, can direct that proposals be refused or that certain conditions be attached to ensure the environment and the community are protected.

**Table 8 Assessment of development applications**

Development application type	Description	2010–11	
		No.	On time (%)
Schedule 8 Item 9	Wind farms	2	100
Schedule 8 Item 10(a)	'Non-complying' development in a water-protection area	39	97
Schedule 8 Item 10(b)	Schedule 21: Activities of environmental significance	75	92
Schedule 8 Item 11	Schedule 22: Activities of major environmental significance	101	96
Regulation 29	Land division	85	84
Section 49	Crown development by state agencies	24	83
<b>Totals/averages</b>		<b>326</b>	<b>91</b>

## Significant development applications

The EPA provided direction on the following significant development applications.

### Penrice, Gillman

An application by Penrice Soda Products for the temporary deposition of calstilt at Gillman was referred to the EPA by the City of Port Adelaide Enfield on 22 February 2011. The proposal was to vary the previously approved (December 2009) application for storage of up to 72 000 m<sup>3</sup> of calstilt and schist for 12 months (for a trial to determine its suitability as an engineered fill). This application is still being considered by the EPA.

A separate application to vary the conditions of the previous approval to allow for an increase in stockpile height and storage volume for calstilt and schist was referred to the EPA by the Development Assessment Commission (DAC) on 15 April 2011. The EPA provided its advice on 19 May 2011 and did not oppose the proposed variation.

### **Rail Loop, Verdun**

The EPA provided its advice to the DAC in relation to a proposed rail loop at Verdun on 7 January 2011. The EPA did not oppose the development, but suggested that the DAC should seek advice from SA Water on the potential risk to Mount Bold reservoir from trains idling on an existing bridge over the Onkaparinga River. The proposed rail loop at Verdun was supported by the DAC on 10 February 2011, subject to certain conditions.

### **New Royal Adelaide Hospital**

The EPA received a referral from the DAC for the new Royal Adelaide Hospital on 5 January 2011, and finalised its assessment of the development application and provided its response on 31 March 2011. This response directed conditions on air quality, noise, site contamination and water quality.

### **Western Plains Resources, Port Pirie**

The EPA finalised its advice to the DAC on 18 February 2011 in relation to a proposed iron ore exporting and storage facility at Port Pirie. The EPA did not raise any objection to the proposal and recommended a number of conditions to be attached to any approval, including monitoring to confirm that the development does not impact on the marine environment.

## **Assessment of major developments and projects**

The Minister for Urban Development, Planning and the City of Adelaide refer most major developments and projects to the EPA for assessment and advice on potential environmental impacts, regardless of whether a Schedule 1 activity is involved or not. Documentation relating to the following major projects was referred to the EPA during 2010–11:

- Olympic Dam Expansion: supplementary EIS submitted in May 2011. More details on EPA's involvement are provided below.
- Sheep Hill Deep Water Port Facility: declared a major development in January 2011; guidelines for a public environmental report were prepared by DAC in consultation with the EPA and released in April 2011.
- Rare Earths Complex, Whyalla: declared a major development in September 2010; guidelines for an environmental impact statement were prepared by DAC in consultation with the EPA and released in May 2011.

### **Olympic Dam Expansion**

In 2005 the South Australian and Commonwealth Governments declared that the proposed major mining and processing expansion at Olympic Dam would require approval as a major development under the SA *Development Act 1993* and as a controlled action (nuclear action) under the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999*.

The principal components of BHP Billiton's proposed expansion include:

- converting the current underground mine to an open-cut mine and processing copper, uranium, gold and silver (up to one million tonnes of copper per year) and constructing associated metallurgical plant, tailings storage facility and rock storage facility
- sourcing and supplying additional water from bore fields within the Great Artesian Basin and constructing a seawater desalination plant at Port Bonython



- sourcing and supplying additional energy via a transmission line from the existing state electricity grid and/or an onsite gas-fired power station
- constructing, relocating and upgrading transport infrastructure, including rail, road, airport, barge-landing facility and port (in Darwin)
- supplying additional infrastructure and services associated with expanded accommodation needs at Roxby Downs and other local towns.

BHP Billiton released a draft environmental impact statement (EIS) for public comment in May 2009. In accordance with the relevant legislation, BHP Billiton was required to prepare a response to the large number of issues raised in public and government submissions in the form of a supplementary EIS (SEIS). A draft of the SEIS was provided to the South Australian and Australian Governments for adequacy checking purposes on 3 December 2010.

Between December 2010 and February 2011 the EPA coordinated comments including those from EPA, Department of Environment and Natural Resources and Zero Waste SA. This check was limited to determining whether the SEIS contained an adequate response to the comments made on the draft EIS and was not an opportunity to identify further issues, unless those impacts related to changes to the proposal. BHP Billiton released a final version of their SEIS on 13 May 2011.

The state government's Assessment Report on the project was still in preparation at the end of June 2011.

### **Major road projects**

The EPA assessed and advised on proposals by the DTEI for major road projects. The EPA's involvement included conducting pre-development meetings for each major road project and providing comment on documents and preparing project impact reports. Comments were provided on the following major road projects as part of the public consultation process:

- Darlington Transport Study
- Southern Expressway Duplication.

### **Development policy**

The EPA regularly reviews proposed amendments to council development plans by assessing statements of intent (SOIs), development plan amendments (DPAs) and Section 30 Development Act 1993 reviews. It provides advice to councils and the Minister for Urban Development and Planning to adopt development assessment policies that result in sustainable development and protection of the environment. During the year, the EPA assessed 25 SOIs, four ministerial DPAs, 30 local council DPAs and one local council Section 30 review.

The EPA also contributes to the development of structure plans and regional planning strategies that form part of the South Australian Planning Strategy established under the Development Act. The planning strategy provides guidance to councils when reviewing their development plans and has a direct impact on local development. During the year, the EPA contributed to the development of the following structure plans and regional planning strategies:

- Structure plans to implement 30-Year Plan for Greater Adelaide:
  - Draft North West Corridor Structure Plan
  - Draft Metropolitan Inner City Rim Structure Plan
  - Draft Playford Projects Structure Plan, including:
    - Playford North Extension (Andrews Farm)
    - Angle Vale
    - Virginia

- Murray and Mallee Region Plan
- Yorke and Mid North Region Plan.

The EPA also provided advice to DPLG's Better Development Plan Policy Library in relation to the air and noise policy content of the new modules written for transit-oriented development and mixed use development, proposed in accordance with the 30-Year Plan for Greater Adelaide.

## Aquaculture

The *Aquaculture Act 2001* became operational in July 2002 and is administered by PIRSA. In accordance with provisions of Section 59 of the Aquaculture Act, all licence applications and amendments must be referred to and approved by the EPA before the licence can be granted. During the reporting period, 49 licence applications and one lease conversion were assessed within the statutory timeframe of six weeks.

A review of the Aquaculture Act is currently underway, with EPA providing input into the draft Aquaculture (Miscellaneous) Amendment Bill 2010. This Bill does not propose any change to the EPA's involvement in the assessment and approval of aquaculture licence and lease applications. The EPA is represented on the Aquaculture Advisory Committee, which advises the minister responsible for administering the Aquaculture Act.

The EPA also addresses and responds to the statutory requirements of the Development Act, the establishment of aquaculture zone policies and general policies prescribed under the Aquaculture Act, and general aquaculture issues. During the reporting period, EPA provided comment on the following aquaculture policies as drafted by PIRSA:

- Statement of Intent for Aquaculture (Zones–Tumby Bay) Policy 2011
- Amendments to Aquaculture (Zones–Lower Eyre Peninsula No. 2) Policy 2007
- Reformatting of Aquaculture (Zones–Streaky Bay) Policy 2010, Aquaculture (Zones–Lacepede Bay) Policy 2010 and Aquaculture (Zones–Arno Bay) Policy 2010.

## Mining applications

The EPA ensures mining applications take into account the objects of the EP Act. It works with PIRSA who is the principal mining regulator in SA.

The EPA reviews mining lease applications submitted to PIRSA under the *Mining Act 1971* that takes into account the objects of the EP Act (Table 9).

**Table 9 Mining application reviews (non-uranium and uranium)**

Company	Project	Action taken by EPA in 2010–11
Iron Clad	Wilchery	Review of mining lease proposal
Lincoln Minerals	Central Barns	Review of mining lease proposal
Hillgrove Resources	Callington	Licence granted
Linc Energy	Orroroo	Assistance to consultants
Leigh Creek Copper	Mountain of Light	Licence granted
Polymetals	Vertigo	Advice to PIRSA on mining lease application
Havilah Resources NL	Portia	Review of works approval and licence applications

Company	Project	Action taken by EPA in 2010–11
IronClad Mining Ltd	Wilcherry Hill Iron Project	Advice to PIRSA on mining lease and miscellaneous purposes licence applications
Boral Resources (SA) Ltd	Reynella	Review of licence application
Boral Resources (SA) Ltd	Stirling North	Review of licence application
Boral Resources (SA) Ltd	Whyalla	Review of licence application

## Rail noise guidelines for new rail projects

The EPA is currently developing guidelines for the assessment of noise and vibration for new or upgraded rail development or the assessment of sensitive development exposed to rail noise in conjunction with other government agencies, to provide a solid basis for giving advice on the impacts of noise and vibration from rail operations on sensitive land uses. As a mobile source of noise, railway noise is specifically excluded from the Environment Protection (Noise) Policy 2007, so it is considered essential that a set of principles be in place to ensure consistency of input to development decisions, policies and strategies, including those embodied within the 30-Year Plan for Greater Adelaide. The draft guidelines will provide EPA advice to other parties on the impacts of:

- new rail developments or upgrades on residential and other sensitive uses
- new residential or sensitive developments near existing rail corridors.

Finalisation of the guidelines is projected for September 2011. The broad principles for mitigating noise impacts from rail operations are also being included in the government's Better Development Plan Library for planning authorities.

## Landfill separation guidelines (landfill gas)

A key environmental and human health risk associated with landfill is the generation and emission of landfill gas (LFG), which can continue for many decades after closure of landfill sites. Risks include accumulation of LFG in confined spaces, leading to the potential for asphyxiation and/or explosion. LFG also contributes to an acceleration of climate change. It is critical that development near a landfill only progresses once the risks posed by landfill gas have been comprehensively understood and assessed.

The EPA recommends in the absence of information on risk a minimum buffer distance of 500 metres between a landfill and an incompatible development. In the case of landfill gas, any structure with the capability to accumulate gas. Under the Development Regulations 2008, development within 500 metres of a landfill requires advice be sought from the EPA. A conservative 500-metre buffer is set to take account of the potential risks and distance landfill gases can travel. This is consistent with the approached undertaken by other Australian jurisdictions. Risks are site specific and with appropriate risk assessment, development is possible within the minimum buffer distance.

The EPA will continue to work with planning authorities, landfill operators and owners, and government agencies to ensure that risks are managed while providing the most effective guidance during development.

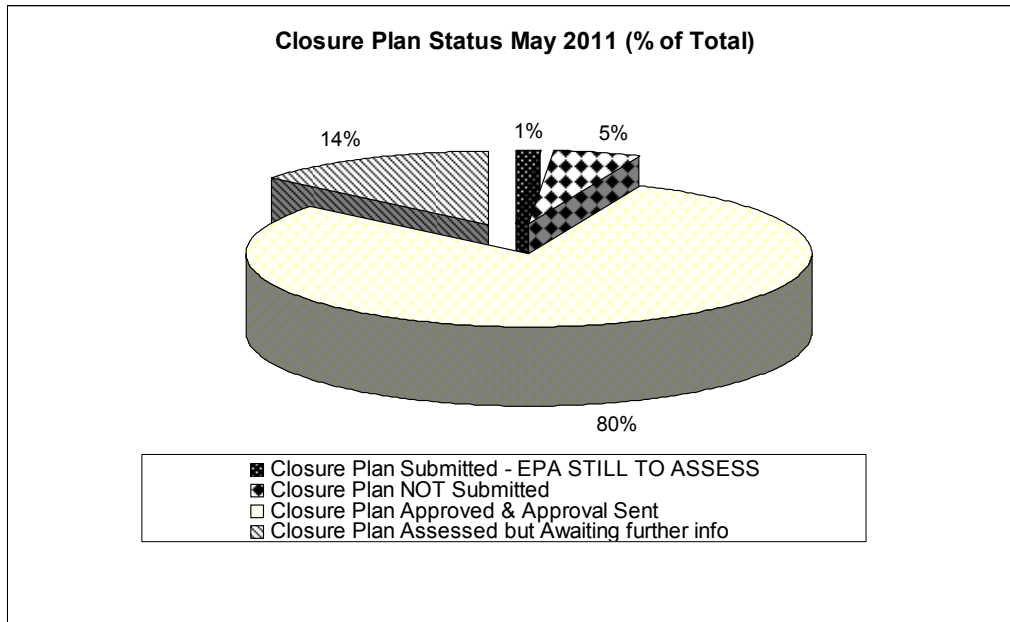
## Progressive implementation of landfill guidelines

In 2007 the EPA published the *Guidelines for the environmental management of landfill facilities (municipal solid waste and commercial and industrial general waste)*, otherwise known as the landfill guidelines. These guidelines apply to all new landfill developments from January 2007, and by 1 July 2008, proponents were to have either closed non-compliant landfills or to have put in place an EPA-approved closure plan for implementation no later than 1 July 2010. The EPA has worked actively with councils to find appropriate and cost-effective waste management solutions. The objective of the program is a sustainable waste management solution for South Australia, including appropriate landfills that meet minimum standards for environment protection.

A total of 157 landfills that did not meet minimum environmental standards were earmarked for closure between 2007 and 2011. Of these,

- 52 closed prior to 1 July 2008
- 96 closed between 1 July 2008 and 1 July 2010.

Figure 9 illustrates the current status of the landfill closure plans required for these 157 landfills. The EPA has worked cooperatively with councils and private EPA-licensed landfill operators to achieve a total closure plan submission rate of 95%. The closure of a further eight sites is anticipated and the plans will be submitted.



**Figure 9 Closure plan status as at May 2011**

A total of 38 landfills that meet the environmental standards remain operational throughout the state.

Implementation of the landfill guidelines has been successful. The closure of landfills will continue to be progressed and monitored by the EPA through its ongoing licence management operations. At the conclusion of this program South Australia's landfills will all meet required landfill standards.

### Waste management in unincorporated areas of South Australia

The EPA is currently leading a cross-agency working group to develop a waste management strategy for the unincorporated areas of South Australia. The aim of the strategy is to support the promotion and implementation of sustainable waste management practices within these areas of the state. This working group comprises a number of key stakeholders representing various local and state government agencies as well as non-government agencies.

Key objectives for the waste management strategy will be to:

- promoting the waste hierarchy and responsible waste management practices, taking into account regional differences by:
  - encouraging waste avoidance and minimisation rather than disposal to landfill
  - increasing the rate of resource recovery and recycling
  - educating remote communities on sustainable waste management practices.
- assessing current and future funding allocations for waste management services and infrastructure, and highlighting potential synergies between remote communities' waste management services

- providing sound recommendations for targeted areas for funding to maximise the benefits for the communities.

## **Management of site contamination (historical pollution)**

South Australia, like other urbanised locations throughout the world, has to manage historical pollution issues (site contamination) that are the direct result of past environmental practices.

In both urban and regional areas, contamination is often caused by petrol, oils, degreasers and other substances used in manufacturing, as well as agricultural chemicals, weedicides, pesticides and waste products which were often buried.

In past years, disposal of these products was often not regulated and it was common for pollutants to come into direct contact with the environment.

Site contamination is often detected during testing that may be required as part of the planning approval processes associated with the subdivision, development or redevelopment of land. Contamination can also be detected through due diligence assessment at the time of transfer of ownership of land.

Due to the historical nature of the contamination and the ability of chemical substances and contamination to migrate away from the point of origin, identifying the source or sources of the contamination can be a lengthy and technically complex process. Historical contamination can also generate concern in the community, as land in the vicinity of a site may potentially be affected by the migrating contamination.

On 1 July 2009 amendments to the EP Act came into effect that provided powers to the EPA to effectively manage site contamination. These included the ability to issue site contamination assessment orders and site remediation orders, and a duty to notify the EPA of the existence of site contamination that affects or threatens groundwater.

During 2010–11, the EPA managed a large number of historical contamination issues to ensure that potential resultant site contamination was addressed, and that unacceptable impacts to human health and the environment were mitigated. There were two cases which attracted significant public interest at Edwardstown and Solomontown, Port Pirie and are described in detail below.

### **Edwardstown**

In August 2009 the EPA was notified by owner Colonial First State of site contamination of groundwater at the former Hills Industries site in Edwardstown. At the request of the EPA, further work was undertaken and groundwater contamination was progressively identified outside the former Hills site.

Initial risk assessments carried out on the contamination site showed that at the time there was no risk to human health as a result of the contamination. In a follow-up to this the EPA requested that the contaminant plume be fully delineated and that further scientifically rigorous risk assessment reports be prepared.

On 14 February 2011 the EPA was notified of a substantial groundwater plume extending well away from the site. The plume was approximately one kilometre long. At the same time, the EPA received a risk assessment report that concluded that there may be a risk to human health where the groundwater is shallow. The report recommended an assessment of indoor air quality.

On being notified of the potential risk to residents in the area surrounding the former Hills site, the EPA immediately advised local residents not to use their bore water until further notice and a preliminary indoor air testing program was developed and implemented. Results of the indoor air testing were reviewed by the Department of Health, which concluded that:

- There was no immediate risk to human health.

- One of the chemicals found in the indoor air in a number of the houses that were tested, perchlorethylene (PCE), would not normally be expected to be present. However, the level was below the US EPA guideline value for indoor air quality in all instances.
- A more detailed sampling program was required to determine the long-term behaviour of PCE and whether it posed any further risk to residents.

Regular ongoing communication with potentially affected residents has continued.

Further work is also being undertaken to determine the full extent of the groundwater contamination area and new groundwater well permits are now restricted.

### **Solomontown, Port Pirie**

In 2004 the EPA was notified of historic site contamination of soil and groundwater at the former gasworks site in Solomontown, Port Pirie. The site was previously owned and operated by the South Australian Gas Company (SAGASCO) for gasworks activities, including the burial of waste products on the site. Chemicals typically associated with gasworks activities include benzene, total petroleum hydrocarbons, naphthalene and ammonia.

In 2006 an area of land that included the former gasworks site and a number of residential properties north of the site were affected by restrictions on new groundwater well permits.

Since receiving its powers in July 2009 to manage site contamination, the EPA has received progressively more information about the nature, extent and risks posed by the chemicals present in the area. In December 2010 the EPA, in conjunction with the DoH, decided that soil vapour testing in the area was warranted to determine whether any volatile chemicals were present in soils. This testing was undertaken during December 2010 and January 2011.

From an initial assessment of the results, 29 out of 32 sample locations indicated volatile substances within the soil. The samples were found to contain toluene, ethylbenzene, xylenes and isopropylbenzene broadly across the area sampled. After analysing this data with DoH, it was decided that testing of indoor air quality in the area was warranted.

Indoor testing was offered to 103 properties in the area and was accepted by 38 of these properties. This testing was undertaken during March and April 2011, with results being received by the EPA in April 2011. The results were reviewed by the DoH who concluded that:

- there was no immediate risk to human health
- benzene was found in five properties approaching, or exceeding, the acceptable guideline level set by the World Health Organization
- all other chemicals detected were at levels typical of urban environments.

As a precaution, air purifiers were installed in five properties to manage potential exposure to benzene and a more detailed sampling program is required to determine the long-term behaviour of benzene and whether it poses any risk to residents who live in the area.

Regular ongoing communication with potentially affected residents has continued.

### **Audit of inland marinas**

Marinas and slipways require licensing under the EP Act, given their potential to introduce pollutants into surface water. As a relatively low-risk situation the sector does not receive continuous individual site oversight from the EPA; but rather is subject to a sector audit.

In 2008 the EPA released a Code of practice for vessels and facility management (marine and inland water). This code provides guidance for marinas and boat repair facilities on their environmental responsibilities.

The EPA conducted a sector audit against the requirements of this code in 2010. It visited 27 vessel facilities along the River Murray and Lower Lakes. Of these 15 were identified as requiring a licence and advised of this during the site visit and later with follow-up letters. At least eight will require upgrades to ensure that they operate with low environmental risk. An environment improvement program (EIP) will be incorporated into their licence to ensure that the risk is reduced.

The EPA is now issuing licences to those sites and in 2011–12 will work towards ensuring that all of the 15 sites obtain a licence to operate and that they comply with the developed EIP.

## **Wastewater treatment plants**

In October 2010 the EPA initiated regular meetings with SA Water in order to align EPA risk-assessment outcomes with SA Water's capital expenditure plan. The purpose of this process was to achieve an agreed strategy of SA Water investment to reduce environmental risk in metropolitan and country wastewater treatment plants via clear and demonstrable scheduling of improvements.

To date, these meetings have resulted in agreed environmental risk reduction strategies in four targeted sites. In addition, the EPA has worked with SA Water to prioritise resources for all 25 SA Water facilities.

## **Audit of coffee roasters**

Coffee-roasting facilities require a licence under the EP Act if the processing capacity exceeds 30 kg per hour. Such facilities can generate odour and particulate emissions to the environment if odour pollution control devices, normally in the form of after burners and husk separators, are not installed.

In 2010 the EPA received numerous odour complaints relating to this activity, as well as reports from the community about new coffee-roasting facilities that could be operating without a licence. In response to these concerns, the EPA conducted a sector audit of known coffee roasters in the Adelaide metropolitan area.

The site inspections identified seven coffee-roasting businesses requiring an EPA licence. The EPA has since issued a number of these licences, while others are in the process of being finalised. As part of the process for granting new licences, the EPA considers submissions from the community.

The EPA will continue its efforts to manage environmental and community impact from coffee-roasting facilities in metropolitan and major regional areas that require an EPA licence.

## **Multi-site licences for managed aquifer recharges**

Managed aquifer recharge (MAR) in the Adelaide metropolitan area requires a licence under the EP Act. A number of MAR licensees have multiple licences, with various conditions attached to each location. However, licensees have indicated that this can result in confusion over which condition applies to which site and also creates the burden of multiple reporting requirements.

To resolve this, the EPA and individual licensees have worked together to identify where it would be practical to combine licences into a multi-site licence and so improve the way the licence is administered and managed by both parties.

To date, two multi-site licences have been issued and another two licensees have been identified for multi-site licences. This has maintained control of environmental risks while reducing unnecessary red tape.

## A REPUTATION FOR EXCELLENCE

### Context

The EPA is South Australia's leading environmental regulator; the Authority has scientific and technical expertise and has influenced key state and national government policies and outcomes.

We understand that improving access to our services and clarifying their scope saves time and reduces frustration for our stakeholders. We strive to build a proactive and service-oriented culture and to be at the forefront of leading regulatory practices.

In 2010, the EPA Board resolved to make information more accessible to the community. Processes are being implemented and prioritised in a manner consistent with expectations from the community.

### Public register

The EPA is required, under the EP Act, to keep a public register of information. The register is a key tool for promoting an open, transparent and accessible government and provides access to a diverse range of information in relation to operations, site contamination, licences (environmental authorisations), responses to development authorisation referrals, enforcement actions and other categories (such as South Australian Health Commission reports and environment assessment reports). Following a review of the register during 2010, the Board resolved to improve the accessibility of information recorded on the public register.

From October 2010 to April 2011 the EPA continued to scan information to improve the accessibility of information and identify and implement IT system improvements. In April 2011 the EPA uploaded a searchable index on its website, containing all notifications of actual or potential groundwater contamination sites across the state (otherwise known as Section 83a notifications—a legislative requirement since July 2009). Documents relating to these notifications form part of the EPA's public register. These are available for inspection and/or may be copied on payment of a prescribed fee.

The index is searchable by suburb/town and includes the site address, an EPA notification number and, where known, the potentially contaminating activity that caused the site contamination. The index is updated monthly. The EPA also enhanced its communication practices by placing public notices for all new groundwater contamination notices received.

Most requests for information arise from responses to property interest reports. Under the Land and Business, Sale and Conveyancing Regulations 1994, EPA is required to provide prospective purchasers of land with environmental information relating to that land—Section 7 enquiries). In 2010–11 the EPA responded to 4825 Section 7 enquiries. Public register requests totalled 233 during the same period, and the majority related to environmental authorisations or copies of site contamination audit reports.

Ongoing reform and improvements to the public register are scheduled to occur over the next five years and are being prioritised based on the level of public interest for particular records.

### Water for Good

The Water for Good plan outlines the actions to be taken to ensure that SA's water supplies are secure, safe and reliable. While Water for Good is aimed at the security of potable water supplies, in many cases the protection of this value is consistent with ensuring that water is fit for purpose.

EPA is a partner in Water for Good actions which address issues such as desalination, the use of wastewater and other recycled water, water quality data and reporting, and the reviewing of planning policies and other measures used to protect water resources in the Mount Lofty Ranges Watershed. The EPA also contributes to Water for Good actions that



address stormwater and wastewater master plans, the management of the Lower Lakes, and regional demand and supply plans.

The EPA is the lead agency for two of Water for Good actions—Actions 49 and 63.

**Action 49: Develop water quality improvement plans for the Mount Lofty Ranges (MLR) Watershed by 2011 and other critical water catchments across the state by 2017**

The Adelaide Watershed Water Quality Improvement Plan has progressed over the last 12 months, with the following activities undertaken: collating the existing information; carrying out risk assessments; engaging with all major rural industries to gather information on water quality management; developing a greater understanding of impediments to change and future expectations; fostering significant working relationships between EPA, DPLG, Adelaide and Mount Lofty Ranges Natural Resources Management Board (AMLRNRMB), DFW, SA Water, local government and industry; and expanding the role of the current Action 49 Steering Committee to cover Actions 50, 51 and 52, ensuring greater coordination between these MLR focused actions.

**Action 63: The Environment Protection Authority will develop environmental values for priority water bodies across the state by 2014**

The Environment Protection (Water Quality) Policy 2003 (WQ Policy) refers to environmental values (EVs) to provide guidance to water quality managers, developers and regulators, enabling protection for a water body to be appropriately targeted.

EVs describe the uses for which a local community agrees a body of water should be protected. This might include aquatic ecosystems, drinking water, agricultural uses, recreation, and spiritual and cultural uses and importance.

In the absence of community agreed EVs, the WQ Policy provides default values for all South Australian waters for regulatory purposes. However, community agreed EVs are more desirable because they provide a local focus for managing different bodies of water, making water quality protection actions more relevant and understandable. Local EVs also cut red tape by ensuring that water quality protection actions are focused on achieving only relevant EVs, rather than a statewide set of default EVs.

The Healthy Waters Project across the AMLRNRMB region identified EVs for inland surface waters, groundwater and coastal waters. These EVs have been used during 2010–11 to review detailed water quality parameters for use in the revised WQ Policy.

EVs for Adelaide’s coastal waters were identified during 2010–11 and included in the Adelaide Coastal Water Quality Improvement Plan, which was also completed during this period. These EVs will help to drive the environmental improvement recommended by the Adelaide Coastal Waters Study, that is to slow the loss of seagrass and allow for its recovery in the long term.

**LeFevre Peninsula Air Quality Strategy**

In 2010, the EPA initiated a collaborative project to develop a pilot air quality strategy for LeFevre Peninsula. This project is the first phase in the development of a comprehensive South Australian Air Quality Strategy, which was a key target of the *SA State of the Environment Report 2008* (target R1.1).

The strategy covers the Port Adelaide–LeFevre Peninsula area, an area chosen for the diversity and dynamism of its current development programs encompassing residential, transport and industrial projects.

A broad-based strategy will guide the management of air quality and the minimisation of community risks over the next three decades, in harmony with economic development and population growth, as projected in the 30-Year Plan for Greater Adelaide.

The project is under the direction of a steering committee, comprised of members drawn from the City of Port Adelaide–Enfield, DoH, DPLG, DTEI and Department for Trade and Economic Development. An initial strategy discussion paper was noted by Cabinet in December 2010. In June 2011 a concept discussion draft of the strategy was considered for development into a consultation draft strategy by a reference group comprised of local community leaders and other stakeholders. The consultation draft is due for release for broad community comment late 2011.

### **Premier's Award: Luke Mosley**

Dr Luke Mosley from the Water Quality Branch was awarded the individual initiative category in the 2011 Premier's Awards.

The award was made for the work that Dr Mosley and the EPA undertook in assessing and managing the water quality risks in the Lower River Murray and Lakes during extreme drought. This work was important because it enabled the state government to take decisive action in managing the water quality risks associated with this drought-affected region, greatly minimising the impacts on the environment and the local communities. Dr Mosley acknowledged the team with whom he worked, which included staff from the EPA, DENR and DFW.

Dr Mosley's award follows on from 2009, when the Water Quality Branch also won the award for 'Fostering Creativity and Innovation' for the river vessel grey water project.

## SUPPORTING OUR PEOPLE

### Context

The EPA is South Australia's leading environmental regulator and has a high level of scientific and technical expertise. As at 30 June 2011 the EPA employed 216 staff (full-time equivalent) in Adelaide and Mount Gambier.

Effective delivery of the EPA's priorities relies on staff working well together, and efficient and effective processes. Supporting and developing our people to do their best work, individually and in teams, is fundamental to staff satisfaction and morale. Good processes are the result of people thinking about continuous improvement and taking the time to make something they do on a regular basis easier, faster or more efficient. Systems reform expands on this continuous-improvement model to support a schedule of more significant changes.

We acknowledge the effort, drive and dedication of our staff and support their development. We continuously improve our systems and undertake comprehensive reviews when major step change is required.

We provide strategic direction and align activities to those strategic priorities, so that we work towards common goals. We evaluate our work and report on progress to demonstrate the effectiveness of our efforts, and that we are doing the right things and doing them correctly. This also supplies evidence for making the adjustments that improve processes.

Through our capability in our people and EPA development, our aim is to continue to have engaged, highly skilled, energised, committed, results-driven high achievers with superior team attitudes. Through our capability in finance, our aim is to be appropriately funded and efficiently financed to provide for the efficient and reliable processes required to meet the urgent and vital needs of our customers and stakeholders. We welcome feedback from stakeholders to help us improve our performance.

The EPA complies with state government policies and standards for recruitment and staff management. The EPA provides its staff with training and support to enable them to better meet growing demands.

By supporting our people and continuing to improve our processes and efficiency in times of financial constraint, we will develop the organisation to better meet growing demands.

### Leadership and management skills gap analysis

Building leadership and management (L&M) capability is a critical component of effective workforce management and significantly contributes to the EPA's achievement of its objectives.

The EPA engaged Locher Human Resources to undertake a skills gap analysis for our senior managers during 2010–11. Key elements of the project included:

- developing L&M competencies based on South Australian Executive Service competencies, the EPA's strategic plan, values and job and person specifications
- administering an online survey, measuring against the competencies
- reporting on the gap analysis, providing feedback to managers and recommendations for development
- developing a L&M framework.

The senior management group were satisfied with the process and the outcomes of the gap analysis and recommendations have been translated into performance and development plans.

Some L&M training such as 'Thinking and Acting Strategically' and executive mentoring/coaching, were implemented during 2011 to specifically address identified skills gaps. Directors also held discussions of each individual manager to consider their development needs and potential career path as executive management is responsible for fostering the development of the executive feeder group. The next step will be to develop a more formal L&M development plan and re-design templates for performance discussions with managers to reflect the newly identified manager competencies.

## **Women in leadership**

Target 6.23 requires 50% women in executive roles by 2014 and is a headline KPI of the South Australia Strategic Plan. The agency champion, who advocates for women in leadership within agencies to improve the participation of South Australian women in leadership, is located in the People and Capability Branch.

At the EPA, there are currently 40% women in executive positions, which is above the comparison current percentage for the South Australia public sector. The EPA has 34% women in the feeder salary bracket for executive positions.

In working towards Target 6.23, the EPA hosted a table for female employees at the CEDA Women in Leadership breakfast during 2010. The purpose of the breakfast was to advance the cultural and organisational change required to recognise the significant value of women as leaders and to help accelerate the flow of women into leadership and senior management positions. Following the event the Chief Executive hosted a morning tea for attendees to discuss aspects of the speakers' presentations.

The EPA is also supporting one female senior manager undertaking the Governor's Leadership Foundation Program.

The EPA is involved with mentoring, with executive female staff mentoring women in the feeder groups, both internally and externally. Public sector executive women outside the EPA also mentor senior female leaders within our organisation.

## **Strategic Workforce Development Plan**

Over the last few years a significant amount of work has been undertaken in building the foundation for a strategic workforce plan that clearly defines the kind of workforce the EPA needs now and into the future. Towards this objective an interim Strategic Workforce Development Plan was implemented in late 2010, which set out key areas for 2010–11. These included improved templates for role descriptions (what used to be known as job and person specifications) and a reinvigorated approach to leadership and management training.

## **Training**

This year EPA partnered with other departments across the Environment and Conservation Portfolio to deliver training common to our agencies. DENR, DFW and EPA successfully delivered training workshops designed to develop and enhance management skills, including 'Plain English Writing' and 'Project Management', both at the introductory and advanced levels.

Other corporate learning and development programs delivered this year included 'Cultural Awareness', and 'Time and Task Management', as well as training related to various Microsoft packages designed to develop and reinforce existing skills.

Our in-house Authorised Officers' training program, implemented last year to ensure the maintenance of a consistent level of knowledge and skills, continued its two-year rotation of scheduled workshops.

Environment forums and information sessions designed to encourage networking and the dissemination of information throughout the EPA were provided to all staff. The National Pollution Inventory, advances in stormwater management and water sensitive urban design, and an introduction to the EPA Radiation Laboratory were among many interesting topics presented over the past 12 months.

A comprehensive range of workshops was also provided to address overall improvement in our systematic approach to managing OHS&W.

## **Information technology system improvements**

During 2010–11 the EPA implemented a number of changes to its IT systems, primarily as a result of major changes to legislation. These included:

- enhancements to the General Environmental Information System (GENI) to:
  - improve access to information in the public register
  - create a new module for the introduction of new CDL fees (revenue measure)
- enhancements to the Integrated Information System (IIS) to:
  - include new penalties for the late lodgement of licence renewals and returns, and waste levy returns
  - reflect new waste levy and CDL fees (revenue measure).

The Environment Database Management System (EDMS) was replaced by the EnviroSys system which will improve the management of water and air quality monitoring data.

The EPA also implemented a new Timewise system in 2010. The system has enabled staff to log their timesheets, apply for leave, and provide management reporting capabilities through a single corporate system.

A new IT Asset Management System, Hardcat, was implemented, and IT assets are currently being loaded into the new system. This system will contribute significantly to the annual software assurance process.

## **Information management**

A draft Information Management Plan has been developed to form the basis of the Information Management Framework and will encompass an Information Security Management System (ISMS). The plan describes EPA's future direction in the management of its information assets.

The EPA has also completed the Records Disposal Schedule, which has been approved by state records. A record sentencing pilot was conducted on licence files that are currently stored with Fort Knox Records Management. The purpose of this pilot was to enable the EPA to understand the extent of the files and to estimate the scope of a future record sentencing project, as well as to provide direction on future procedures for record sentencing.

## **Licensing Administration Modernisation Project (LAMP)**

The EPA commenced on a project to replace its existing electronic licensing system IIS. In September 2010, the EPA received \$2.5 million to modernise the IT systems relating to licensing, waste levy auditing and waste tracking.

Modernising these processes is expected to result in significant savings for the EPA and business, since many tasks which are currently performed manually will be automated. For the public, this will mean faster and better dissemination of information; for businesses, it will lead to increased and improved online services (ie electronic forms and payment options). Automatic linkages and updates of information on the EPA website directory will also be a benefit of the project.

The project will be managed and delivered in stages. Stage1, which includes improving the current processes and gathering user requirements, has commenced and is planned to be completed in August 2011.

The entire LAMP project is expected to completed in the second half of financial year 2012–13.

## OTHER STATUTORY INFORMATION

### Freedom of information and the public register

During 2010–11, 40 freedom of information (FOI) applications and 233 public register requests were received (Table 10).

**Table 10** FOI applications, public register

Applications	2008–09	2009–10	2010–11
Freedom of information	18	30	40
Public register	121	223	233

The EPA has a statutory obligation under the Land and Business (Sale and Conveyancing) Act 1994 to provide information relating to environment protection (table 11).

**Table 11** Section 7 enquiries

Section 7 enquiries/responses	2008–09	2009–10	2010–11
Automatic enquiries to the Lands Titles Office database involving perusal of the Section 7 information maintained by the EPA	49 608	50 065	47 559
Manual enquiries requiring an EPA search made upon request by the Lands Titles Office	3 040	4 964	4 825

### Direction by the Minister

According to section 111(2)(b) of the EP Act, the Minister to whom the EP Act is committed has given no direction to the Authority during the period of this report.

### Whistleblowers Act

Nil return.

### Energy efficiency action plan report

#### Priority area 1: energy management

The rationalisation of accommodation, the main source of energy consumption, was finalised in October 2009 with the completion of the radiation laboratory fitout in leased premises within the city. The centralisation of staff following closures of Kent Town, Stirling and Grenfell Street offices, to 250 Victoria Square, a six-star building with a five-star fitout, resulted in a reduction of occupied space from 5280 m<sup>2</sup> in 2007–08 to 4762.5 m<sup>2</sup>. The impact of the shift was demonstrated with a marked reduction in energy consumed for office accommodation which has been maintained in the past year (Table 12).

**Table 12 Performance against annual energy use targets**

	Total for EPA			EPA office location			Air monitoring sites		
	Energy Use (GJ)	Expenditure (\$)	GHG Emissions (tonnes)	Energy use (GJ)	GHG Emissions (tonnes)	Business Measure (m <sup>2</sup> )	Energy use per m <sup>2</sup>	Energy use (GJ)	GHG emissions (tonnes)
Base year	1934	\$79 259	636	1694	557	4867	0.35	240	79
2000–01									
MJ per m <sup>2</sup>							348		
2001–02	1699	\$69 402	560	1497	492	4867	0.31	203	67
2002–03	1928	\$76 377	634	1634	538	4867	0.34	295	97
2003–04	1760	\$70 055	579	1493	491	4867	0.31	268	88
2004–05	1800	\$78 303	593	1525	502	4987	0.31	275	91
2005–06	1678	\$73 672	553	1432	471	5280	0.27	246	81
2006–07	1737	\$78 125	571	1460	480	5280	0.28	277	91
2007–08	1698	\$79 959	396	1458	340	5280	0.28	240	56
2008–09	1706	\$89 224	398	1398	326	4763	0.29	308	72
2009–10	1097	\$60 580	256	947	179	4763	0.20	150	77
2010–11	1025	\$58 524	239	727	169	4763	0.15	298	69
MJ per m <sup>2</sup>							150		
<b>Target (2014)</b>	<b>1450</b>		<b>477</b>	<b>1271</b>	<b>417</b>		<b>0.26</b>		

Note: Business measures in 2004–05 and 2005–06 increased due to an additional space taken on Level 2 of SA Water House (Grenfell Street). This table has been amended to reflect previous incorrect charging and energy use, as well as the transfer of Radiation Protection Branch from DoH. In 2007–08, the emissions conversion factor was changed, and is now based on direct emissions only, in line with the National Greenhouse Accounts (NGA) factors produced by the Department of Climate Change. Prior years' emission conversions did not differentiate between direct and indirect emission as these were not available at the time.

### Priority area 2: waste management

One of EPA's environmental goals for is for 'the sustainable use of resources—reducing costs to business and environmental impacts by promoting the efficient use of resources and waste minimisation'.

In support of this concept within the office environment in 250 Victoria Square, all waste management and recycling is managed in partnership with the lessors building management. Containers for all waste are provided within utilities rooms and kitchens, and collected regularly by cleaning staff, recording quantities and contents recycled where possible. Streams of waste collected include:

- co-mingled recyclable waste

- organic food waste
- white paper and confidential paper destruction
- general dry waste.

As a means of encouraging staff to consider recycling and appropriate disposal of waste, only paper recycling bins are provided at work stations. Regular waste audits were conducted to ascertain staff understanding of waste streams.

All toner cartridges from photocopying machines and printers were also collected and recycled. This year 377 cartridges (0.219 tonnes) were diverted from landfill for a total 1.904 tonnes since the initiative began in April 2002.

### Priority area 3: travel and fleet management

EPA reviews vehicle utilisation and vehicle mix annually and at each lease renewal, consideration is given to environmental aspects of the replacement vehicle, in addition to ensuring the vehicle meets the business requirements of staff. Tables 13–14 and Figures 10 shows a breakdown of EPA greenhouse emissions.

**Table 13 EPA vehicle fleet**

Vehicle types	Number of vehicles					
	30 June 2006	30 June 2007	30 June 2008	30 June 2009	30 June 2010	30 June 2011
Diesel only	3	3	4	6	9	9
Electric/unleaded (hybrid)	0	0	0	1	2	2
Unleaded only	6	10	10	12	9	8
LPG only	7	3	2	2	3	3
Combined dual fuel (unleaded and LPG)	19	19	15	9	2	2
<b>Total long-term hire vehicles</b>	<b>35</b>	<b>35</b>	<b>31</b>	<b>30</b>	<b>25</b>	<b>24</b>

**Table 14 Energy use and greenhouse gas emissions**

	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11
Energy (GJ)	2082	1939	1883	1883	1902	1950
CO <sub>2</sub> emissions (tonnes)	154	144	126	123	126	126

Note: During 2007–08, the emissions conversion factor was changed, and is now based on direct emissions from the vehicle only, in line with the National Greenhouse Accounts (NGA) factors produced by the Department of Climate Change. Prior years' emission conversions did not differentiate between direct and indirect emission, as these were not available at the time.



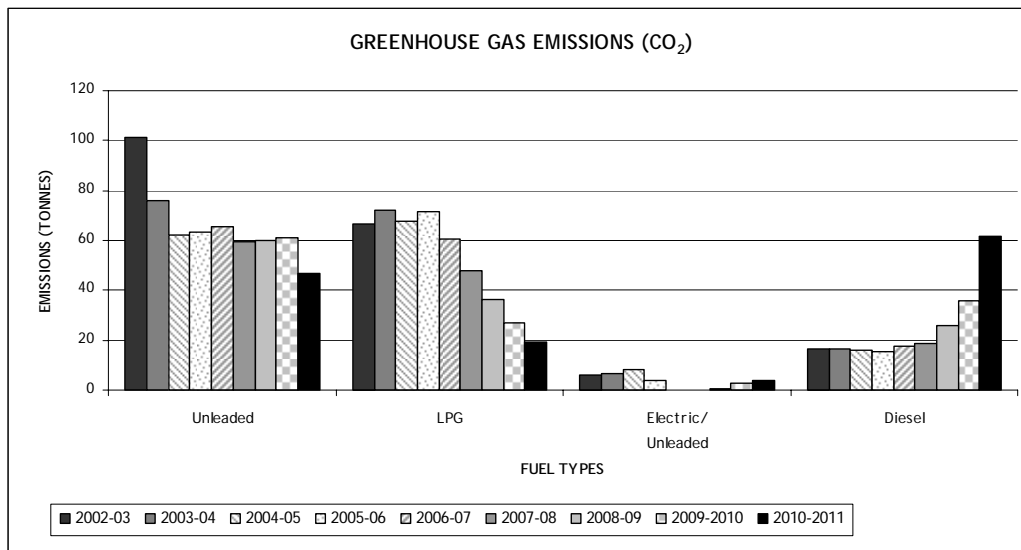


Figure 10 Greenhouse gas emissions

## Sustainability@Work

The EPA continues to demonstrate a leadership role in best practice environmentally sustainable behaviour in the workplace and to other businesses and communities in the state.

The Sustainability@Work (S@W) Team meets on a monthly basis to discuss sustainable practices within the workplace, including promoting initiatives, ensuring actions are implemented and working towards instilling a culture to reduce the EPA's environmental footprint.

In 2010–11 the EPA focused on energy, water, waste, transportation and green purchasing. The S@W Team implemented the actions in its plan with the assistance of EPA staff.

Key achievements for 2010–11 include:

### Waste

- The introduction of a three-bin waste and recycling system has helped to ensure that a high percentage of waste continues to be diverted from landfill.
- Collection of 10c drink containers began in June 2010 where a total of 2193 items were collected. Money raised was donated to a range of charitable organisations.

### Energy

- One of the building's stairwells has been made available to enable staff to gain fitness by walking from the ground floor to levels 8 and 9.
- The introduction of printing to staff mailboxes to control and release prints when required has reduced the amount of unnecessary printing and paper waste.
- A rechargeable battery scheme has been established to phase out single-use batteries.

### Influencing other agencies

- As a result of the Ride 2 Work Week held by the EPA Bicycle User Group in March 2011, a group of cyclists from DTEI has been inspired to arrange a similar event.

### Involving staff

- Fund-raising events (eg World Environment Day) held at the EPA.

- The money raised from the collection of 10c drink containers was donated to Greening Australia to purchase seedlings for revegetating McLaren Vale. Staff volunteered their time to plant the trees on Arbor Day.

### **S@W subcommittees**

The EPA TravelSmart Working Group has continued to implement actions to encourage sustainable transport within the EPA.

The actions include:

- access to public transport tickets for business travel made available to all divisions
- staff participation in National Walk to Work Day in October 2010.

The Bicycle User Group (BUG) is continuing their activities, including:

- contributions towards Bike SA membership for EPA staff
- Ride to Work Day held in October 2010
- Mapping the cycling routes of EPA staff to and from work and providing help to other cyclists in their commute
- Ride to Work Week held in early 2011, encouraging the participation of eight new cyclists and covering a total of 1381 km.

## APPENDIX 1 ORGANISATIONAL INFORMATION

The People and Capability Branch supports the achievement of the agency's goals by providing human resource management, learning and development, and employee health, safety and welfare advice and support. This includes planning, training programs, policies, information, advice and business systems. EPA payroll services are provided through Shared Services.

### Disability Action Plan

The development of a Disability Action Plan is currently being investigated and developed to ensure the promotion of independence for both employees and customers with disabilities.

### Equal employment opportunity

The Aboriginal Employment Register was promoted to managers as a tool to assist with timely recruitment. The EPA has sponsored one Aboriginal tertiary student through the National Indigenous Cadetship Program.

### Traineeships

The EPA continues to participate in the Government Youth Traineeship program where opportunities arise.

### Workforce statistics

Tables 15–32 provide a representation of EPA's workforce, and identify some changes in recent years.

**Table 15 Total number of employees**

	2009–10	2010–11
Persons	222	232
FTEs	210	216.02

**Table 16 Employee gender balance**

Gender	2009–10		2010–11	
	% persons	% FTEs	% persons	% FTEs
Male	54.50	56.33	53.88	56.81
Female	45.50	43.67	46.21	43.19

**Table 17 Number of persons separated from or recruited to EPA**

	2009–10	2010–11
Separated from the agency	47*	28
Recruited to the agency	35	27

\* This includes TVSPs.

**Table 18 Number of persons on leave without pay**

	As at 30 June 2010	As at 30 June 2011
On leave without pay	21	8

**Table 19 Number of employees by salary bracket**

Salary Bracket	2010–11		
	Male	Female	Total
\$0 - \$49 199	5	11	16
\$49 200–\$62 499	19	27	46
\$62 500–\$80 099	52	48	100
\$80 100–\$100 999	46	19	65
\$101 000+	3	2	5
<b>TOTAL</b>	<b>125</b>	<b>107</b>	<b>232</b>

**Table 20 Status of employees in current position**

FTEs					
	Ongoing	Short-term contract	Long-term contract	Other (casual)	Total
Male	103.36	11.64	7.73	0	122.73
Female	77.29	10	6	0	93.29
<b>TOTAL</b>	<b>180.65</b>	<b>21.64</b>	<b>13.73</b>	<b>0</b>	<b>216.02</b>
Persons					
	Ongoing	Short-term contract	Long-term contract	Other (casual)	Total
Male	105	12	8	0	125
Female	90	10	7	0	107
<b>TOTAL</b>	<b>195</b>	<b>22</b>	<b>15</b>	<b>0</b>	<b>232</b>

**Table 21 Number of executives by gender, classification and status**

Classification	Ongoing		Tenured contract		Untenured contract		Other (casual)		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
SAES1					3	1			3	1
CEO						1				1
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>

**Table 22 Average days of leave taken per FTE employee**

Leave type	2009–10	2010–11
Sick leave	8.81	8.7
Family carer's leave	0.94	1.47
Miscellaneous special leave	0.50	0.55

**Table 23 Number of Aboriginal and/or Torres Strait Islander employees**

	Male	Female	Total	% of agency	Target*
Aboriginal/Torres Strait Islander people	2	0	2	0.92%	2%

\* Target from South Australia's Strategic Plan

**Table 24 Workforce diversity—number of employees by age bracket and gender**

Age bracket	Male	Female	Total	% of total	South Australian Workforce Benchmark* %
15–19	0	0	0	0%	6.4%
20–24	2	5	7	3.02%	10.4%
25–29	10	11	21	9.05%	11.0%
30–34	12	23	35	15.09%	10.1%
35–39	21	15	36	15.52%	10.3%
40–44	22	15	37	15.95%	11.0%
45–49	17	13	30	12.93%	11.5%
50–54	18	12	30	12.93%	11.4%

Age bracket	Male	Female	Total	% of total	South Australian Workforce Benchmark* %
55-59	13	9	22	9.48%	9.4%
60-64	9	3	12	5.17%	5.5%
65+	1	1	2	0.86%	3.0%
<b>TOTAL</b>	<b>125</b>	<b>107</b>	<b>232</b>	<b>100%</b>	<b>100%</b>

\* Source: Australian Bureau of Statistics (ABS) Australian Demographics Statistics, 6291.0.55.001 Labour Force Status (ST LM8) by sex, age, state, marital status-employed-total from February 1978 Supertable, South Australia at May 2009.

**Table 25 Cultural and linguistic diversity of employees**

	Male	Female	Total	% of agency	% of SA community*
Number of employees born overseas	30	18	48	20.69	20.30%
Number of employees who speak language(s) other than English at home	14	13	27	11.64	16.6%

\* Benchmarks from ABS Publication Basic Community Profile (SA) Cat No. 2001.0, 2006 census.

**Table 26 Number of employees with ongoing disabilities requiring workplace adaptation**

2009-10				2010-11			
Male	Female	Total	% of agency	Male	Female	Total	% of agency
1	0	1	0.5	6	3	9	3.9

**Table 27 Types of employee disabilities**

Disability	Male	Female	Total	% of agency
Physical	5	3	8	3.4
Sensory	2	1	3	1.3
Psychological/ Psychiatric	2	0	2	0.9
<b>Total</b>	<b>9</b>	<b>4</b>	<b>13</b>	<b>5.60</b>

**Table 28 Number of employees using voluntary flexible working arrangements by gender**

Arrangement	Male	Female	Total
Purchased leave	2	4	6
Flexitime	120	94	214
Compressed weeks	1	6	7
Part-time job share	16	54	70
Working from home	1	7	8

**Table 29 Documented review of individual performance development plan**

Occurrence of review	Total workforce 2009–10	Total workforce 2010–11
Review within the past 12 months	82.43%	80.17%
Review older than 12 months	9.01%	12.93%
No review	8.56%	6.9%

**Table 30 Leadership and management training expenditure**

Category of expenditure	2009–10	2010-11
Total training and development expenditure (\$)	458 498.18	480 452.01
Total leadership and management development expenditure (\$)	61 465.36	62 995.90
% of total expenditure	2.27	2.50
% total leadership and management expenditure	0.30	0.33

**Table 31 Accredited training packages by classification**

Classification	Number of accredited training packages
ASO2	2
ASO3	2
ASO4	2
ASO5	2
ASO6	3
ASO7	1
ASO8	1
CEOO	1

Classification	Number of accredited training packages
PO1	2
PO2	6
PO3	3
PO4	2
TGO3	1

**Table 32 Positions with customer service reflected in job and person specifications**

Positions	%
Positions <b>with</b> customer service reflected in the job and person specification	20.42%
Positions <b>without</b> customer service reflected in the job and person specification	79.57%

## Occupational health, safety, welfare and injury management

The EPA has continued to improve its Occupational Health Safety Welfare and Injury Management System and focus on compliance and injury prevention strategies. This continued improvement has helped the EPA to see a reduction of the number of claims and claims cost. This work will stand the EPA in good stead to implement the new Work Health Safety Act. (SA) in January 2012.

**Table 33 Occupational Health, Safety and Welfare (OHSW) statistics**

	2008-09	2009-10	2010-11
<b>1 OHSW legislative requirements</b>			
Number of notifiable occurrences pursuant to OHSW Regulations Division 6.6	1	3	1
Number of notifiable injuries pursuant to OHSW Regulations Division 6.6	0	0	0
Number of notices served pursuant to OHSW Act sections 35, 39 and 40 (default, improvement and prohibition notices)	0	0	0
<b>2 Injury management legislative requirements</b>			
Total number of employees who participated in the rehabilitation program	2	2	1
Total number of employees rehabilitated and reassigned to alternative duties	1	-	0
Total number of employees rehabilitated back to their original work	1	1	1
Number of open claims as at 30 June	2	4	4
Percentage of workers compensation expenditure over gross	0.054%	0.24%	0.067%



annual remuneration

**Table 34 Meeting the organisation's safety performance targets**

	Base: June 2010	Performance: 12 months to end of June 2011*			Final Target (2015)
	Numbers or %	Actual	Notional quarterly target**	Variation	Numbers or %
1 Workplace Fatalities	0	0	0	0	0
2 New Workplace Injury Claims	2	2	2	0	2
3 New Workplace Injury Claims Frequency rate	5.5	5.7	5	.7	4.1
4 Lost Time Injury Frequency Rate***	2.7	5.7	5.7	3	2.1
5 New Psychological Injury Claims	2.7	0	2.4	2.4 above target	2.2
6 Rehabilitation and Return to Work:					
a Early Assessment within 5 days	-	100%	80%	20% above target	80.00%
b Early Intervention within 5 days	-	No Claims Involved	No Claims Involved	No Claims Involved	90.00%
c Lost Time Claims have 10 Business Days or less Lost Time	50%	100%	60.00%	40% above target	60%
7 Claim Determination:					
a Claims not yet Determination have Provisional Liability within 7 days.	100%	100%	100%	0%	100%
b 75% or More of New Claims Determined Within 10 Business Days	50%	100%	75%	25% above target	75%
8 Income Maintenance Payment for Recent Injuries:					
2009–10 Injuries (at 24 months development)	-	\$5951.00	\$2900.00	\$3051 above target	
2010 2011 Injuries (at 12 months development)	-	\$1,400.00	\$3000.00	-\$1600.00	

\* Except for Target 8, which is YTD. For Targets 5, 6c, 7a and 7b, performance is measured up to the previous quarter.

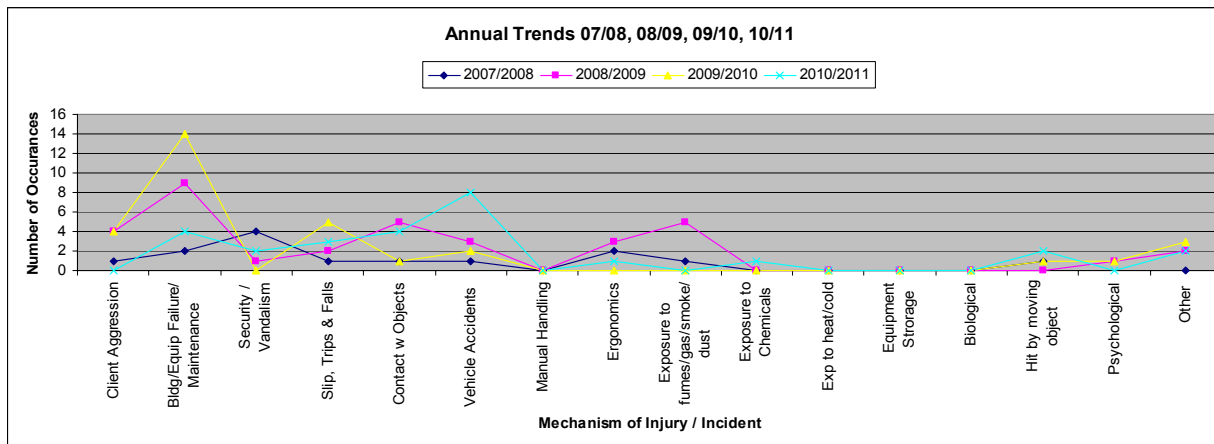
\*\* Based on cumulative reduction from base at a constant quarterly figure.

\*\*\* Lost Time Injury Frequency Rate Injury frequency rate for new lost-time injury/disease for each one million hours worked. This frequency rate is calculated for benchmarking and is used by the WorkCover Corporation.

The over all performance of the EPA has been a positive one in 2010-2011 with the EPA achieving better than target in most areas with the exception of the lost time frequency rate increasing to 5.7. The 94% reduction of income maintenance is a considerable achievement and one the EPA will strive to maintain. The other positive is the income maintenance costs at 24 months have not increased in the past 12 months, indicating all staff with open claims are still performing their pre-injury duties.

**Table 35 Workers compensation expenditure**

Expenditure 2008–09	2009–10 (\$m)	2010–11 (\$m)	Variation (\$m) + (-)	% Change + (-)
Income maintenance	0.023	0.0014	-0.021	-94%
Lump sum settlements redemptions s42	-	-	-	-
Lump sum settlements permanent disability s43	-	-	-	-
Medical/hospital costs combined	0.014	0.0093	-0.0047	-33.6%
Other	0.002	0.00070	-.0013	-93%
Total claims expenditure	0.042	0.0126	-0.0294	-70%



**Figure 11 Hazard and incident reports—annual trends**

**Items for Noting:** The number of hazard / incident / injury reports occurrences increased slightly in 2010-2011 to 34 as compared to 30 occurrences for 2009–2010. The EPA had a total of 27 Incidences and 7 Hazards reported in this financial year.

A reduction of building / equipment failure / maintenance from a total of 14 in 2009-2010 to 4 this financial year was a positive for 2010-2011, with teething issues of the new building rectified. An increase in vehicle accidents could be linked to the rise in the total of kilometres travelled by staff in 2010-2011. Vehicle incidents is a trend the EPA is taking steps to correct by ensuring further business driver awareness training sessions are scheduled for staff, along with defensive driver training for specific staff. As well there has been further implementation of black spot road hazard registers across the EPA.

## APPENDIX 2 FINANCIAL STATEMENTS AND ACCOMPANYING NOTES

### Account payment performance

The state government benchmark of achieving 90% of the number of invoices paid within 30 days was not achieved in 2010-11 (see Table 36) due to some invoices never received by EPA causing payments to be more than 30 days.

**Table 36 Account payment performance**

Particulars	Number of accounts paid	Percentage of accounts paid (by number)	Value in A\$ of accounts paid	Percentage of accounts paid (by value)
Paid by the due date*	5376	88.08	7 764 394	80.57
Paid within 30 days or less from due date	499	8.17	1 607 403	16.68
Paid more than 30 days from due date	229	3.75	264 830	2.75

\* The due date is defined as per section 11.7 of Treasurer's Instruction 11 'Payment of Accounts'. Unless there is a discount or a written agreement between the public authority and the creditor, payment should be within 30 days of the date the invoice is first received by the public authority.

### Contractual arrangements

During the 2010-11 financial year, the EPA did not enter into any contractual arrangements where the total value of an individual contract exceeded \$4 million.

### Instances of fraud

There have been no instances of fraud detected in the EPA during this financial year.

### Use of consultants

Table 37 provide information about the use of consultants.

**Table 37 Use of consultants—controlled entity**

Value of consultancies let	Number of consultancies 2008-09	Number of consultancies 2009-10	Number of consultancies 2010-11	2008-09 expenditure	2009-10 expenditure	2010-11 expenditure
Below \$10 000	1	2	2	9 600	13 900	16 800
\$10 001-\$50 000	-	-	-	-	-	-
Above \$50 000	-	-	-	-	-	-
<b>Total</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>9 600</b>	<b>13 900</b>	<b>16 800</b>

<b>Below \$10 000</b>	
Number of consultants in this category: 2	Value of consultants in this category: \$16 800
<b>Primary Industries &amp; Resources SA</b>	<b>Compliance assessment regarding a licence condition</b>
<b>Kingswood International Pty Ltd</b>	<b>Analysis, investigate and report on findings</b>
<b>Between \$10 001—\$50 000</b>	
Number of consultants in this category: Nil	Value of consultants in this category: Nil
<b>Above \$50 000</b>	
Number of consultants in this category: Nil	Value of consultants in this category: Nil

**Table 38 Overseas travel**

<b>Number of employees</b>	<b>Destination/s</b>	<b>Reason for travel</b>	<b>Total cost to agency</b>
1	Rotorua, New Zealand	Joint Steering Committee—ANZECC Guidelines	\$1613.00
1	London and Brussels	EMAS Conference in Brussels and research on efficiency and sustainability issues in London	\$2200.00
1	Vienna, Austria	International Atomic Energy Agency consultancy to draft model regulations for uranium mining	\$0
1	Dili, East Timor	Meeting with Augusto Pinto of the National Directorate for Environment as part of SA's contribution to a program established by the Premier to build government capability in East Timor	\$0
1	Northern Europe	A study tour in the UK and Europe with majority funded by CRC CARE	\$500.00

## INDEPENDENT AUDITOR'S REPORT



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Auditor-General's Department

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### To the Presiding Member of the Board Environment Protection Authority

As required by section 31 of the *Public Finance and Audit Act 1987*, I have audited the accompanying financial report of the Environment Protection Authority for the financial year ended 30 June 2011. The financial report comprises:

- a Statement of Comprehensive Income for the year ended 30 June 2011
- a Statement of Financial Position as at 30 June 2011
- a Statement of Changes in Equity for the year ended 30 June 2011
- a Statement of Cash Flows for the year ended 30 June 2011
- notes, comprising a summary of significant accounting policies and other explanatory information
- a Certificate from the Acting Chief Executive, the Presiding Member and the Chief Finance Officer.

### The Board's Responsibility for the Financial Report

The Members of the Board are responsible for the preparation of the financial report that gives a true and fair view in accordance with the Treasurer's Instructions promulgated under the provisions of the *Public Finance and Audit Act 1987* and Australian Accounting Standards, and for such internal control as the Members of the Board determine is necessary to enable the preparation of the financial report that is free from material misstatement, whether due to fraud or error.

### Auditor's Responsibility

My responsibility is to express an opinion on the financial report based on the audit. The audit was conducted in accordance with the requirements of the *Public Finance and Audit Act 1987* and Australian Auditing Standards. The auditing standards require that the auditor comply with relevant ethical requirements and that the auditor plan and perform the audit to obtain reasonable assurance about whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the financial report that gives a true and fair view in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made by the Members of the Board, as well as the overall presentation of the financial report.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

**Opinion**

In my opinion, the financial report gives a true and fair view of the financial position of the Environment Protection Authority as at 30 June 2011, its financial performance and its cash flows for the year then ended in accordance with the Treasurer's Instructions promulgated under the provisions of the *Public Finance and Audit Act 1987* and Australian Accounting Standards.



**S O'Neill**  
**AUDITOR-GENERAL**  
23 September 2011

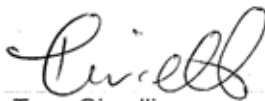
## Environment Protection Authority

### Certification of the Financial Report

We certify that the attached general purpose financial statements for the reporting entity Environment Protection Authority (as detailed in note 1 (a)):

- comply with relevant Treasurer's Instructions issued under section 41 of the *Public Finance and Audit Act 1987*, and relevant Australian accounting standards;
- are in accordance with the accounts and records of the Authority; and
- present a true and fair view of the consolidated financial position of the statutory Environment Protection Authority and the Administrative Unit as at 30 June 2011 and the results of its operation and cash flows for the financial year.

We certify that the internal controls employed by the Environment Protection Authority for the financial year over its financial reporting and its preparation of the general purpose financial statements have been effective throughout the reporting period.



Tony Circelli  
A/Chief Executive

16<sup>th</sup> September 2011



Cheryl Bart  
Presiding Member

September 2011



Richard Jacka  
Chief Finance Officer

15<sup>th</sup> September 2011

**Environment Protection Authority**  
**Statement of Comprehensive Income**  
**For the year ended 30 June 2011**

	<b>Note</b>	<b>2011</b> \$'000	<b>2010</b> \$'000
<b>Expenses</b>			
Employee benefits expenses	5	19,953	21,939
Supplies and services	6	6,925	7,401
Depreciation and amortisation	7	940	932
Grants and subsidies	8	13,210	12,319
Other expenses	9	270	304
<b>Total expenses</b>		<b>41,298</b>	<b>42,895</b>
<b>Income</b>			
Fees and charges	11	37,398	36,058
Grants and contributions	12	1,696	1,371
Interest revenue	13	232	139
Net gain from the disposal of non-current assets	14	8	(149)
Other income	15	58	33
<b>Total income</b>		<b>39,392</b>	<b>37,452</b>
<b>Net cost of providing services</b>		<b>1,906</b>	<b>5,443</b>
<b>Revenues from SA Government</b>			
Revenues from SA Government	16	2,404	7,449
<b>Total revenues from SA Government</b>		<b>2,404</b>	<b>7,449</b>
<b>Net result</b>		<b>498</b>	<b>2,006</b>
<b>Other comprehensive income</b>			
Changes in property, plant and equipment asset revaluation surplus		-	174
<b>Total other comprehensive income</b>		<b>-</b>	<b>174</b>
<b>Total comprehensive result</b>		<b>498</b>	<b>2,180</b>

The net result and comprehensive result are attributable to the SA Government as owner

*The above statement should be read in conjunction with the accompanying notes*



**Environment Protection Authority**  
**Statement of Financial Position**  
**As at 30 June 2011**

	<b>Note</b>	<b>2011</b> \$'000	<b>2010</b> \$'000
<b>Current assets</b>			
Cash and cash equivalents	17	9,374	8,395
Receivables	18	3,101	3,454
Other current assets	19	87	75
<b>Total current assets</b>		<b>12,562</b>	<b>11,924</b>
<b>Non-current assets</b>			
Receivables	18	3	4
Property, plant and equipment	20	5,987	6,001
Intangible assets	21	832	1,087
<b>Total non-current assets</b>		<b>6,822</b>	<b>7,092</b>
<b>Total assets</b>		<b>19,384</b>	<b>19,016</b>
<b>Current liabilities</b>			
Payables	22	1,375	1,462
Employee benefits	23	1,652	2,239
Provisions	24	33	29
Other liabilities	25	221	108
<b>Total current liabilities</b>		<b>3,281</b>	<b>3,838</b>
<b>Non-current liabilities</b>			
Payables	22	277	327
Employee benefits	23	3,385	2,966
Provisions	24	113	97
Other liabilities	25	778	844
<b>Total non-current liabilities</b>		<b>4,553</b>	<b>4,234</b>
<b>Total liabilities</b>		<b>7,834</b>	<b>8,072</b>
<b>Net assets</b>		<b>11,550</b>	<b>10,944</b>
<b>Equity</b>			
Contributed capital		3,195	3,087
Asset revaluation surplus		437	437
Retained earnings		7,918	7,420
<b>Total equity</b>		<b>11,550</b>	<b>10,944</b>
The total equity is attributable to the SA Government as owner			
Unrecognised contractual commitments	26		
Contingent assets and liabilities	27		

*The above statement should be read in conjunction with the accompanying notes*

**Environment Protection Authority**  
**Statement of Changes in Equity**  
**For the year ended 30 June 2011**

	Contributed Capital	Asset Revaluation Surplus	Retained Earnings	Total Equity
	\$'000	\$'000	\$'000	\$'000
<b>Balance at 1 July 2009</b>	<b>3,087</b>	<b>266</b>	<b>3,184</b>	<b>6,537</b>
Change in accounting policy for recognition of environmental authorisation fee revenue	-	-	2,405	2,405
Asset capitalisation threshold change	-	(3)	(175)	(178)
<b>Restated Balance at 1 July 2009</b>	<b>3,087</b>	<b>263</b>	<b>5,414</b>	<b>8,764</b>
Net result for 2009-10	-	-	<b>2,006</b>	<b>2,006</b>
Gain on revaluation of land, buildings and infrastructure	-	174	-	174
Total comprehensive result for 2009-10	-	<b>174</b>	<b>2,006</b>	<b>2,180</b>
<b>Balance at 30 June 2010</b>	<b>3,087</b>	<b>437</b>	<b>7,420</b>	<b>10,944</b>
Net result for 2010-11	-	-	498	498
Total comprehensive result for 2010-11	-	-	<b>498</b>	<b>498</b>
Transactions with SA Government as owner Equity contribution received	108	-	-	108
<b>Balance at 30 June 2011</b>	<b>3,195</b>	<b>437</b>	<b>7,918</b>	<b>11,550</b>

All changes in equity are attributable to the SA Government as owner

*The above statement should be read in conjunction with the accompanying notes*

**Environment Protection Authority**  
**Statement of Cash Flows**  
**For the year ended 30 June 2011**

	Note	2011 \$'000	2010 \$'000
<b>Cash flows from operating activities</b>			
<b>Cash outflows:</b>			
Employee benefit payments		(20,121)	(22,041)
Payments for supplies and services		(6,794)	(7,461)
Payment of grants and subsidies		(13,210)	(12,319)
Other payments		(220)	(310)
<b>Cash used in operations</b>		<b>(40,345)</b>	<b>(42,131)</b>
<b>Cash inflows:</b>			
Fees and charges		37,619	37,104
Grant and contribution receipts		1,696	1,371
Interest received		226	132
Other receipts		58	33
<b>Cash generated from operations</b>		<b>39,599</b>	<b>38,640</b>
<b>Cash flows from SA Government</b>			
Receipts from SA Government:		2,404	7,449
<b>Cash generated from SA Government</b>		<b>2,404</b>	<b>7,449</b>
<b>Net cash provided by operating activities</b>	29	<b>1,658</b>	<b>3,958</b>
<b>Cash flows from investing activities</b>			
<b>Cash Outflows</b>			
Purchase of property, plant and equipment		(787)	(686)
<b>Cash used in investing activities</b>		<b>(787)</b>	<b>(686)</b>
<b>Net cash used in investing activities</b>		<b>(787)</b>	<b>(686)</b>
<b>Cash flows from financing activities</b>			
<b>Cash Inflows</b>			
Capital contributions from government		108	-
<b>Cash generated from financing activities</b>		<b>108</b>	<b>-</b>
<b>Net cash provided by financing activities</b>		<b>108</b>	<b>-</b>
<b>Net increase in cash and cash equivalents</b>		<b>979</b>	<b>3,272</b>
<b>Cash and cash equivalents at the beginning of the period</b>		<b>8,395</b>	<b>5,123</b>
<b>Cash and cash equivalents at the end of the period</b>	17	<b>9,374</b>	<b>8,395</b>

*The above statement should be read in conjunction with the accompanying notes*

**Environment Protection Authority**  
**Notes to and forming part of the Financial Statements**  
**For the year ended 30 June 2011**

**1 Objectives of the Environment Protection Authority**

**(a) Reporting Entity**

The Environment Protection Authority reporting entity (the Authority) includes the following:

- the Environment Protection Authority – a statutory authority with an appointed board established by the *Environment Protection Act 1993*
- an administrative unit also named the Environment Protection Authority established under the *Public Sector Act 2009*
- the Environment Protection Fund established under the *Environment Protection Act 1993*.

Under the *Environment Protection Act 1993*, the Chief Executive of the administrative unit is also taken to be the Chief Executive of the statutory authority. The Chief Executive is subject to the control and direction of the Minister in relation to the activities of the administrative unit, and is subject to the control and direction of the Board in relation to giving effect to its policies and decisions under the *Environment Protection Act 1993*.

The statutory authority is South Australia's primary environmental regulator for the protection, restoration and enhancement of our environment. The statutory authority makes use of the services of the administrative unit's employees and facilities in performing its statutory obligations.

The administrative unit also has responsibility for radiation protection functions under the *Radiation Protection and Control Act 1982*. The Authority's financial statements include assets, liabilities, revenues and expenses attributable to Radiation Protection. The income and expenses (excluding overheads) attributable to Radiation Protection are disclosed in Note 32. However assets and liabilities have not been separately disclosed as they cannot be reliably attributed to Radiation Protection functions.

The Environment Protection Fund meets the accounting criteria of a controlled entity of the Authority and consequently the assets and liabilities of the Fund are recognised by the Authority in the Statement of Financial Position, the Fund's revenues and expenses have been recognised in the Authority's Statement of Comprehensive Income and the Fund's changes in equity have been recognised in the Authority's Statement of Changes in Equity. The transactions of the Fund are disclosed in Note 31.

**(b) Strategic Context**

The Authority promotes the principles of ecologically sustainable development and works with government, industry and the people of South Australia, with key roles to:

- review, develop and draft environmental protection policies and national environment protection measures
- authorise activities of environmental significance through an authorisation system aimed at the control and minimisation of pollution and waste
- conduct compliance investigations and institute environmental monitoring and evaluation programmes
- provide advice and assistance regarding best environmental management practice.

The Authority has a key advocacy and engagement role across Government and with the people of South Australia, business and communities throughout South Australia, to achieve a healthy and valued environment.

**(c) Financial Arrangements**

The Department of Environment and Natural Resources (DENR) provides some professional, technical and administrative support to the Authority. The identifiable direct costs of providing these services are met by the Authority. In addition, certain services are provided by DENR at no charge to the Authority and have not been recognised in the financial statements as it is impractical to determine a value for these items. The costs of these services include salaries and overheads relating to the provision of various administrative services.

A Memorandum of Understanding was signed on 31 May 2004 between DENR and the Authority relating to the provision of these services. The Authority is currently engaging with DENR in revising the Service Level Agreement and to date has made substantial progress towards its finalisation.

The Statutory Authority's sources of funds consist of income derived primarily from fees, levies and licences. These fees, levies and licences include:

- waste levies from landfill depots
- environmental authorisation fees
- radiation license fees
- fines and penalties
- section 7 enquiries.

The financial activities of the Authority are primarily conducted through deposit accounts with the Department of Treasury and Finance (DTF) pursuant to Section 8 and Section 21 of the *Public Finance and Audit Act 1987*. The deposit accounts are used for funds provided by Parliamentary appropriation together with revenues from services provided and from fees and charges.

## 2 Summary of significant accounting policies

### (a) Statement of compliance

The financial statements are general purpose financial statements. The accounts have been prepared in accordance with relevant Australian accounting standards, and Treasurer's Instructions and accounting policy statements promulgated under the provisions of the *Public Finance and Audit Act 1987*.

Except for the amendments to Australian Accounting Standards, AASB 2009-12, which the authority has early adopted, Australian Accounting Standards and interpretations that have recently been issued or amended but are not yet effective have not been adopted by the Authority for the reporting period ending 30 June 2011.

### (b) Basis of preparation

The preparation of the financial statements requires:

- the use of certain accounting estimates and management to exercise its judgment in the process of applying the Authority's accounting policies. The areas involving a higher degree of judgment or where assumptions and estimates are significant to the financial statements, are outlined in the applicable notes;
- the selection and application of accounting policies in a manner which ensures that the resulting financial information satisfies the concepts of relevance and reliability, thereby ensuring that the substance of the underlying transactions or other events are reported;
- compliance with accounting policy statements issued pursuant to section 41 of the *Public Finance and Audit Act 1987*. In the interest of public accountability and transparency the accounting policy statements require the following note disclosures, that have been included in these financial statements:
  - (a) revenues, expenses, financial assets and liabilities where the counterparty/transaction is with an entity within the SA Government as at reporting date, classified according to their nature. A threshold of \$100,000 for separate identification of these items applies;
  - (b) expenses incurred as a result of engaging consultants;
  - (c) employee targeted voluntary separation package information;
  - (d) employees whose normal remuneration is equal to or greater than the base executive remuneration level (within \$10,000 bandwidths) and the aggregate of the remuneration paid or payable or otherwise made available, directly or indirectly by the entity to those employees; and
  - (e) board/committee member and remuneration information, where a board/committee member is entitled to receive income from membership other than a direct out-of-pocket reimbursement.

The Authority's Statement of Comprehensive Income, Statement of Financial Position and Statement of Changes in Equity have been prepared on an accrual basis and are in accordance with historical cost convention, except for certain assets that were valued in accordance with the valuation policy applicable.

The Statement of Cash Flows has been prepared on a cash basis.

The financial statements have been prepared based on a twelve month period and presented in Australian currency.

The accounting policies set out below have been applied in preparing the financial statements for the year ended 30 June 2011 and the comparative information presented.

### (c) Comparative information

The presentation and classification of items in the financial statements are consistent with prior periods except where specific accounting standards and/or accounting policy statements have required a change.

Where presentation or classification of items in the financial statements has been amended, comparative figures have been adjusted to conform to changes in presentation or classification in these financial statements unless impracticable.

The restated comparative amounts do not replace the original financial statements for the preceding period.

### (d) Rounding

All amounts in the financial statements have been rounded to the nearest thousand dollars (\$'000).

### (e) Taxation

The Authority is not subject to income tax. The Authority is liable for payroll tax, fringe benefits tax, goods and services tax (GST), emergency services levy, land tax equivalents and local government rate equivalents.

SSSA prepares a Business Activity Statement on behalf of the Authority under the grouping provisions of the GST legislation. Under these provisions, DENR is liable for the payments and entitled to the receipts associated with GST. Therefore, the Authority's net GST receivable/payable is recorded in DENR's Statement of Financial Position. GST cash flows applicable to the Authority are recorded in DENR's Statement of Cash Flows.

### (f) Events after balance date

Adjustments are made to amounts recognised in the financial statements, where an event occurs after 30 June and before the date the financial statements are authorised for issue, where those events provide information about conditions that existed at 30 June.

Note disclosure is made about events between 30 June and the date the financial statements are authorised for issue where the events relate to a condition which arose after 30 June and which may have a material impact on the results of subsequent years.

**(g) Income and expenses**

Income and expenses are recognised to the extent that it is probable that the flow of economic benefits to or from the Authority will occur and can be reliably measured.

Income and expenses have been classified according to their nature and have not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

**Income**

The following are specific recognition criteria:

*Fees and Charges*

Environmental Authorisation Fees received under the *Environment Protection Act 1993* are recognised as revenue when invoiced. All other license fees, including those received under the *Radiation Protection and Control Act 1982*, are recognised as revenue upon receipt.

Waste Levies are recognised by the Authority on an accrual basis.

*Contributions received*

Contributions are recognised as an asset and income when the Authority obtains control of the contributions or obtains the right to receive the contributions and the income recognition criteria are met (i.e. the amount can be reliably measured and the flow of resources is probable).

Generally, the Authority has obtained control or the right to receive for:

- Contributions with unconditional stipulations - this will be when the agreement becomes enforceable i.e. the earlier of when the receiving entity has formally been advised that the contribution (e.g. grant application) has been approved; agreement/contract is executed; and/or the contribution is received.
- Contributions with conditional stipulations - this will be when the enforceable stipulations specified in the agreement occur or are satisfied; that is income would be recognised for contributions received or receivable under the agreement.

All contributions received by the Authority have been contributions with unconditional stipulations attached and have been recognised as an asset and income upon receipt.

*Revenues from SA Government*

Appropriations for program funding are recognised as revenues when the Authority obtains control over the funding. Control over appropriations is normally obtained upon receipt.

Where money has been appropriated in the form of an equity contribution, the Treasurer has acquired a financial interest in the net assets of the Authority and the appropriation is recorded as contributed equity. The Authority received a \$108,000 equity contribution in 2010-11.

*Net gain/loss on non-current assets*

Income from the disposal of non-current assets is recognised when the control of the asset has passed to the buyer and is determined by comparing proceeds with carrying amount. When revalued assets are sold, the revaluation increments are transferred to retained earnings.

*Other income*

Other income consists of sundry expense reimbursements.

**Expenses**

The following are specific recognition criteria:

*Employee benefits*

Employee benefits include all costs related to employment including wages and salaries, non-monetary benefits and leave entitlements. These are recognised when incurred.

*Superannuation*

The amount charged to the Statement of Comprehensive Income represents the contributions made by the Authority to the superannuation plan in respect of current services of current Authority staff. The Department of Treasury and Finance centrally recognises the superannuation liability in the whole of government financial statements.

*Depreciation and amortisation*

All non-current assets, having a limited useful life, are systematically depreciated/amortised over their useful lives in a manner that reflects the consumption of their service potential. Amortisation is used in relation to intangible assets such as software, while depreciation is applied to tangible assets such as property, plant and equipment.

Assets' residual values, useful lives and amortisation methods are reviewed and adjusted if appropriate, on an annual basis.

Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset are accounted for prospectively by changing the time period or method, as appropriate, which is a change in accounting estimate.

The value of leasehold improvements is amortised over the estimated useful life of each improvement, or the unexpired period of the relevant lease, whichever is shorter.

Land assets are not depreciated.

Depreciation/amortisation is calculated on a straight line basis over the estimated useful life of the following classes of assets as follows:

<u>Class of Asset</u>	<u>Useful Life</u>
Computing Equipment	3-10 years
Intangibles	3-15 years
Infrastructure	5-50 years
Plant and Equipment	3-30 years
Moveable Vehicles	10-25 years

Furniture and Fittings	10-15 years
Buildings and Improvements	30-50 years
Other	7-10 years

*Grants and subsidies*

For contributions payable, the contribution will be recognised as a liability and expense when the Authority has a present obligation to pay the contribution and the expense recognition criteria are met.

All contributions paid by the Authority have been contributions with unconditional stipulations attached.

**(h) Current and non-current classification**

Assets and liabilities are characterised as either current or non-current in nature. Assets and liabilities that are sold, consumed or realised as part of the normal operating cycle even when they are not expected to be realised within twelve months after the reporting date have been classified as current assets or current liabilities. All other assets and liabilities are classified as non-current.

Where asset and liability line items combine amounts expected to be realised within twelve months and more than twelve months, the Authority has separately disclosed the amounts expected to be recovered or settled after more than twelve months.

**(i) Assets**

Assets have been classified according to their nature and have not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

Where an asset line item combines accounts expected to be settled within twelve months and more than twelve months, the Authority has separately disclosed the amounts expected to be recovered after more than twelve months.

*Cash and cash equivalents*

Cash and cash equivalents in the Statement of Financial Position includes cash at bank and on hand.

For the purposes of the Statement of Cash Flows, cash and cash equivalents consist of cash and cash equivalents as defined above.

Cash is measured at nominal value.

*Receivables*

Receivables include amounts receivable from fees and charges, interest and other accruals.

Receivables arise in the normal course of selling goods and services to other government agencies and to the public. Trade receivables are generally due within 30 days after the issue of an invoice.

Collectability of receivables is reviewed on an ongoing basis. An allowance for doubtful debts is raised when there is objective evidence that the Authority will not be able to collect the debt. Bad debts are written off when identified.

*Non-Current Assets*

Acquisition and Recognition

Non-current assets are initially recorded at cost or at the value of any liabilities assumed, plus any incidental cost involved with the acquisition. Non-current assets are subsequently measured at fair value less accumulated depreciation.

Where assets are acquired at no value, or minimal value, they are recorded at their fair value in the Statement of Financial Position. However, if the assets are acquired at no or nominal value as part of a restructuring of administrative arrangements then the assets are recognised at book value i.e. the amount recorded by the transferor public authority immediately prior to the restructure.

All non-current tangible assets with a value over \$10,000 are capitalised.

Revaluation of Non Current Assets

All non-current tangible assets are valued at written down current cost (a proxy for fair value).

Every five years, the Authority revalues its land, buildings and infrastructure. However, if at any time management considers that the carrying amount of an asset materially differs from its fair value, then the asset will be revalued regardless of when the last valuation took place. Non-current tangible assets that are acquired between revaluations are held at cost until the next valuation, when they are revalued to fair value.

Any revaluation increment is credited to the asset revaluation surplus except to the extent that it reverses a revaluation decrease of the same asset class previously recognised as an expense, in which case the increase is recognised as income.

Any revaluation decrease is recognised as an expense, except to the extent that it offsets a previous revaluation increase for the same asset class, in which case the decrease is debited directly to the asset revaluation surplus to the extent of the credit balance existing in revaluation surplus for that asset class.

Upon disposal or derecognition, any revaluation surplus relating to that asset is transferred to retained earnings.

The Authority undertook an independent professional valuation in 2009-2010 for all land, buildings and infrastructure. The valuer used by the Authority was as follows:

- Land, Buildings & Infrastructure  
1 July 2009, Valcorp Australia Pty Ltd  
Mr N Zwaans, BBus(Property) GAPI  
Mr F Taormina, BAppSc(Val), AAPI

Fair value was determined by identifying a market buying price, estimated as written down modern equivalent replacement cost. The fair value of land and buildings was based on recent market transactions for similar land and buildings in the area taking into account zoning and restricted use.

Assets deemed to be at fair value

APF III *Asset Accounting Framework* states that revaluation of a non-current asset is required only when its fair value at the time of acquisition is greater than \$1 million and its estimated useful life is greater than 3 years.

Asset classes that did not satisfy this criteria and are therefore deemed to be at fair value are:

- moveable vehicles
- computing equipment
- application software
- furniture and fittings
- plant and equipment

Impairment

All non-current tangible and intangible assets are tested for indications of impairment at each reporting date. Where there is an indication of impairment, the recoverable amount is estimated. An amount by which the asset's carrying amount exceeds the recoverable amount is recorded as an impairment loss.

For revalued assets, an impairment loss is offset against the respective asset revaluation surplus.

*Intangible Assets*

An intangible asset is an identifiable non-monetary asset without physical substance. Intangible assets are measured at cost. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and any accumulated impairment losses.

The useful lives of intangible assets are assessed to be either finite or indefinite. The Authority only has intangible assets with finite lives. The amortisation period and the amortisation method for intangible assets is reviewed on an annual basis.

The acquisition or internal development of software is capitalised only when the expenditure meets the definition criteria (identifiability, control and the existence of future economic benefits) and recognition criteria (probability of future economic benefits and cost can be reliably measured) and when the amount of expenditure is greater than or equal to \$10,000.

All research and development costs that do not meet the capitalisation criteria outlined in AASB 138 are expensed.

**(j) Liabilities**

Liabilities have been classified according to their nature and have not been offset unless required or permitted by a specific accounting standard, or where offsetting reflects the substance of the transaction or other event.

Where a liability line item combines accounts expected to be settled within twelve months and more than twelve months, the authority has separately disclosed the amounts expected to be settled after more than twelve months.

*Payables*

Payables include creditors, accrued expenses and employment on-costs and Paid Parental Leave Scheme payable.

Creditors represent the amounts owing for goods and services received prior to the end of the reporting period that are unpaid at the end of the reporting period. Creditors include all unpaid invoices received relating to the normal operations of the Authority.

Accrued expenses represent goods and services provided by other parties during the period that are unpaid at the end of the reporting period and where an invoice has not been received.

The paid parental leave scheme payable represents amounts which the Authority has received from the Commonwealth Government to forward onto eligible employees via the Authority's standard payroll processes. That is, the Authority is acting as a conduit through which the payment to eligible employees is made on behalf of the Family Assistance Office.

All payables are measured at their nominal amount and are normally settled within 30 days from the date of the invoice or the date the invoice is first received.

Employee benefit on-costs include payroll tax, WorkCover levies and superannuation contributions in respect to outstanding liabilities for salaries and wages, long service leave and annual leave.

The Authority makes contributions to several state government and externally managed superannuation schemes. These contributions are treated as an expense when they occur. There is no liability for payments to beneficiaries as they have been assumed by the respective superannuation schemes. The only liability outstanding at reporting date relates to any contributions due but not yet paid to the South Australian Superannuation Board.

*Leases*

The determination of whether an arrangement is or contains a lease is based on the substance of the arrangement. The Authority has entered into one or more operating leases.

Operating Leases

Operating lease payments are recognised as an expense in the Statement of Comprehensive Income on a straight-line basis over the lease term. The straight-line basis is representative of the pattern of benefits derived from the leased assets.



Lease Incentive

All incentives for the agreement of new or renewed operating leases are recognised as an integral part of the net consideration agreed for the use of the leased asset. Incentives received to enter into operating leases are recognised as a liability.

The aggregate benefit of lease incentives received by the Authority in respect of operating leases has been recorded as a reduction of rental expense over the lease term, on a straight line basis.

Lease incentives in the form of leasehold improvements are capitalised as an asset and depreciated over the remaining term of the lease or estimated useful life of the improvement, whichever is shorter.

*Employee benefits*

These benefits accrue for employees as a result of services provided up to the reporting date that remain unpaid. Long-term employee benefits are measured at present value and short-term employee benefits are measured at nominal amounts.

Wages, salaries, annual leave and sick leave

Salaries and wages for the pay period ending 1 July 2011 were prepaid on 30 June 2011, refer to Note 19. The liability for salaries and wages as at 30 June 2010 was measured as the amount unpaid at that reporting date.

The annual leave liability is expected to be payable within twelve months and is measured at the undiscounted amount expected to be paid. In the unusual event where salary and wages and annual leave are payable later than 12 months, the liability will be measured at present value.

No provision has been made for sick leave as all sick leave is non-vesting and the average sick leave taken in future years by employees is estimated to be less than the annual entitlement of sick leave.

Long service leave

The liability for long service leave is recognised after an employee has completed 5 years of service. An actuarial assessment of long service leave undertaken by the Department of Treasury and Finance based on a significant sample of employees throughout the South Australian public sector determined that the liability measured using the short hand method was not materially different from the liability measured using the present value of expected future payments. This calculation is consistent with the Authority's experience of employee retention and leave taken.

*Provisions*

Provisions are recognised when the Authority has a present obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

When the Authority expects some or all of a provision to be reimbursed, the reimbursement is recognised as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in the Statement of Comprehensive Income net of any reimbursement.

Provisions are measured at the present value of management's best estimate of the expenditure required to settle the present obligation at reporting date. If the effect of the time value of money is material, provisions are discounted for the time value of money and the risks specific to the liability.

The workers compensation provision is an actuarial estimate of the outstanding liability as at 30 June 2011 provided by a consulting actuary engaged through the Public Sector Workforce Relations Division of the Department of the Premier and Cabinet. The provision is for the estimated cost of ongoing payments to employees as required under current legislation.

The Authority is responsible for the payment of workers compensation claims.

**(k) Unrecognised contractual commitments and contingent assets and liabilities**

Commitments include operating lease and remuneration commitments arising from contractual or statutory sources and are disclosed at their nominal value.

Contingent assets and contingent liabilities are not recognised in the Statement of Financial Position, but are disclosed by way of a note and, if quantifiable, are measured at nominal value.

Unrecognised contractual commitments and contingencies are disclosed net of the amount of GST recoverable from, or payable to the Australian Taxation Office. If GST is not payable to, or recoverable from the Australian Taxation Office, the commitments and contingencies are disclosed on a gross basis.

**3 New and revised accounting standards and policies**

In accordance with amendments to APS 4.8 within Accounting Policy Framework II *General Purpose Financial Statements Framework*, effective 1 July 2010, the Authority has disclosed all employees whose normal remuneration is equal to or greater than the base executive level remuneration. Previously APS 4.8 within APF II required the Authority to disclose all employees whose normal remuneration was equal to or greater than \$100,000. This change is reflected in Note 5.

In 2010-11, the Authority has changed its revenue recognition policy for Environmental Authorisation fees received under the *Environment Protection Act 1993*. This revenue is now recognised when invoiced, rather than upon receipt. This change in accounting treatment ensures that relevant revenue is recognised when it becomes due under the Act.

This change has been applied retrospectively in accordance with AASB 108 *Accounting Policies, Changes in Accounting Estimates and Errors*.

The impact of this change in accounting policy is a decrease in 2009-10 Environmental Authorisation fees revenue of \$1.228m and an increase in 2009-10 Receivables of \$1.178m. The impact of the change on retained earnings is disclosed in the Statement of Changes in Equity.

In 2010-11, the Authority has changed its asset recognition threshold from \$5,000 to \$10,000 in accordance with guidance detailed in APS 2.15 of APF III Asset Accounting Framework. As a result, items with a purchase cost of less than \$10,000 have been fully expensed upon acquisition. The impact of this change on retained earnings is disclosed in the Statement of Changes in Equity.

Except for the amending standard AASB 2009-12, which the Authority has early-adopted, the Australian Accounting Standards and Interpretations that have recently been issued or amended but are not yet effective, have not been adopted by the Authority for the period ending 30 June 2011. The Authority has assessed the impact of the new and amended standards and interpretations and considers there will be no impact on the accounting policies or the financial statements of the Authority.

#### **4 Activities of the Authority**

The Authority is funded by appropriation and fees and charges for the provision of environment protection, policy and regulatory services. In line with the objectives of establishing the Authority to focus on environment protection activities, the Authority conducts its services through a single program, Environment and Radiation Protection. The purpose of this program is to achieve a clean, healthy and valued environment that supports social and economic policy for all South Australians. As the Authority conducts its services through a single program, a Statement of Disaggregated Disclosures has not been prepared.

**Environment Protection Authority**  
**Notes to and forming part of the Financial Statements**  
**For the year ended 30 June 2011**

<b>5 Employee benefits expenses</b>	<b>2011</b>	<b>2010</b>
	<b>\$'000</b>	<b>\$'000</b>
Salaries and wages	14,653	14,215
TVSPs (refer below)	-	1,960
Long service leave	601	875
Annual leave	1,428	1,362
Employment on-costs - superannuation	1,730	1,783
Employment on-costs - other	921	940
Board and Committee fees	150	164
Workers Compensation	37	71
Other employment related expenses	433	569
<b>Total: Employee benefits expenses</b>	<b>19,953</b>	<b>21,939</b>
<b>Targeted voluntary separation packages:</b>	<b>2,011</b>	<b>2010</b>
	<b>\$'000</b>	<b>\$'000</b>
Amount paid to these employees:		
TVSPs	-	1,960
Annual Leave and long service leave paid during the reporting period	-	528
<b>Total</b>	<b>-</b>	<b>2,488</b>
Recovery from the Department of Treasury and Finance	-	1,806
<b>Net cost to Environment Protection Authority</b>	<b>-</b>	<b>682</b>
Number of employees who received a TVSP during the reporting period	-	14

**Employee Remuneration**

The number of employees whose remuneration received or receivable falls within the following bands:

	<b>2011</b>	<b>2010</b>
	<b>No. of employees</b>	<b>No. of employees</b>
\$127,500 – 130,699*	-	-
\$130,700 – 140,699	2	-
\$150,700 – 160,699	-	1
\$160,700 – 170,699	2	1
\$180,700 – 190,699	1	2
\$200,700 – 210,699	1	-
\$270,700 – 280,699	-	1
\$290,700 – 300,699	1	-
\$330,700 – 340,699	-	1
<b>Total number of employees</b>	<b>7</b>	<b>6</b>

\* This band has been included for the purpose of reporting comparative figures based on the executive base level remuneration rate for 2009-10.

The table includes all employees who received remuneration equal to or greater than the base executive remuneration level during the year. Remuneration of employees reflects all costs of employment including salaries and wages, payments in lieu of leave, superannuation contributions, fringe benefits tax and any other salary sacrifice benefits. The total remuneration received by these employees for the year was \$1.291 million (\$1.304m).

In accordance with the revised Accounting Policy Framework II *General Purpose Financial Statements Framework*, the Authority has changed its accounting policy and now discloses all employees who receive remuneration equal to or greater than the base executive remuneration level rather than all employees who receive remuneration equal to or greater than \$100,000. The impact of this change in accounting policy is the number of employees disclosed has reduced by 37 for 2011 and 21 for 2010.

<b>6 Supplies and services</b>	<b>2011</b>	<b>2010</b>
	<b>\$'000</b>	<b>\$'000</b>
Accommodation and property management expenses	2,046	2,218
Consultants	17	14
Contractors	402	561
Fee for service	364	649
General administration	1,029	1,082
Information technology & communication expenses	631	606
Minor works, maintenance & equipment	396	387
Monitoring fees	576	528
Scientific and technical services	495	383
Transportation	137	132
Travel and accommodation	205	156
Vehicle and aircraft	478	421
Other	149	264
<b>Total: Supplies and services</b>	<b>6,925</b>	<b>7,401</b>

**Environment Protection Authority**  
**Notes to and forming part of the Financial Statements**  
**For the year ended 30 June 2011**

<b>Supplies and services provided by entities within the SA Government</b>		
Accommodation and property management expenses	1,979	2,187
Scientific and technical services	35	29
General administration	580	520
Vehicle and Aircraft	328	349
<b>Total: Supplies and services - SA Government entities</b>	<b><u>2,922</u></b>	<b><u>3,085</u></b>

**Consultants**

The number and dollar amount of consultancies paid/payable (included in supplies and services expense) that fell within the following bands:

	2011		2010	
	Number	\$'000	Number	\$'000
Below \$10,000	2	17	1	3
\$10,000 to \$50,000	-	-	1	11
<b>Total paid/payable to the consultants engaged</b>		<b><u>17</u></b>		<b><u>14</u></b>

<b>7 Depreciation and amortisation</b>	<b>2011</b>	<b>2010</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Depreciation</b>		
Buildings and Improvements	1	1
Computing Equipment	14	13
Furniture and Fittings	439	447
Moveable Vehicles	10	6
Infrastructure	13	13
Plant and Equipment	135	131
<b>Total: Depreciation</b>	<b><u>612</u></b>	<b><u>611</u></b>
<b>Amortisation</b>		
Application Software	328	321
<b>Total: Amortisation</b>	<b><u>328</u></b>	<b><u>321</u></b>
<b>Total Depreciation and Amortisation</b>	<b><u>940</u></b>	<b><u>932</u></b>

<b>8 Grants and subsidies</b>	<b>2011</b>	<b>2010</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Grants and subsidies paid/payable to entities within the SA Government</b>		
Department of Environment and Natural Resources	240	144
Department for Water	19	-
Zero Waste SA *	12,616	11,743
SA Fire and Emergency Services Commission	2	-
Other	1	10
<b>Total: Grants and subsidies - SA Government entities</b>	<b><u>12,878</u></b>	<b><u>11,897</u></b>
<b>Grants and subsidies paid/payable to entities external to the SA Government</b>		
Community Organisations and Associations	153	160
Individuals - Solar Hot Water Rebate	50	163
Commonwealth Government	129	99
<b>Total: Grants and subsidies - Non SA Government entities</b>	<b><u>332</u></b>	<b><u>422</u></b>
<b>Total: Grants and subsidies</b>	<b><u>13,210</u></b>	<b><u>12,319</u></b>

\* As per section 113 of the Environment Protection Act 1993 the Authority earns and collects 100 percent of waste levies, however is then required to transfer 50 percent of solid waste levies collected to Zero Waste SA as per section 17 of the Zero Waste SA Act 2004. This transfer represents the payment of waste levies monies to Zero Waste SA in accordance with the Zero Waste SA Act 2004.

<b>9 Other expenses</b>	<b>2011</b>	<b>2010</b>
	<b>\$'000</b>	<b>\$'000</b>
Bad and doubtful debts	134	14
Other	136	290
<b>Total: Other expenses</b>	<b><u>270</u></b>	<b><u>304</u></b>
<b>Other expenses paid/payable to entities within the SA Government</b>		
Other (including audit fees - see note 10)	103	77
<b>Total: Other expenses - SA Government entities</b>	<b><u>103</u></b>	<b><u>77</u></b>

<b>10 Auditor's remuneration</b>	<b>2011</b>	<b>2010</b>
	<b>\$'000</b>	<b>\$'000</b>
Audit fees paid/payable to the Auditor-General's Department	103	77
<b>Total: Audit fees</b>	<b><u>103</u></b>	<b><u>77</u></b>

**Other services:**

No other services were provided by the Auditor-General's Department

Environment Protection Authority  
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 For the year ended 30 June 2011

11 Fees and charges	2011	2010
	\$'000	\$'000
Fines and Penalties	339	238
Environmental Authorisation Fees	9,026	9,582
Radiation License Fees	1,268	1,469
Other License Fees	624	433
Waste Levies	26,069	24,237
Sale of professional services	35	50
Section 7 Enquiries	37	49
<b>Total: Fees and charges</b>	<b>37,398</b>	<b>36,058</b>

12 Grants and contributions	2011	2010
	\$'000	\$'000
<b>Grants and contributions received/receivable from entities within the SA Government</b>		
SA Government Grants (i)	1,530	1,080
<b>Total grants and contributions - SA Government entities</b>	<b>1,530</b>	<b>1,080</b>
<b>Grants and contributions received/receivable from entities external to the SA Government</b>		
Commonwealth Government (ii)	136	291
Local Government (iii)	30	-
<b>Total grants and contributions - non SA Government entities</b>	<b>166</b>	<b>291</b>
<b>Total: Grants and contributions</b>	<b>1,696</b>	<b>1,371</b>

(i) State Government Grants and Contributions	2011	2010
	\$'000	\$'000
Adelaide & Mount Lofty Ranges Natural Resources Management Board	25	-
Department for Water	322	481
SA Murray Darling Basin Natural Resources Management Board	10	70
Zero Waste SA	-	1
Department of Further Education, Employment, Science and Technology	150	150
Department of Environment and Natural Resources	998	353
Department of the Premier and Cabinet	-	5
Primary Industries and Resources SA	22	20
Other	3	-
	<b>1,530</b>	<b>1,080</b>

(ii) Commonwealth Government	2011	2010
	\$'000	\$'000
Department of the Environment, Water, Heritage and the Arts	-	90
Bureau of Meteorology	-	33
CSIRO	-	2
Murray Darling Basin Authority	-	166
Department of Education, Employment and Workplace Relations	10	-
Department of Resources, Energy and Tourism	21	-
Department of Sustainability, Environment, Water, Population and Communities	105	-
	<b>136</b>	<b>291</b>

(iii) Local Government	2011	2010
	\$'000	\$'000
Stormwater Management Authority	30	-
	<b>30</b>	<b>-</b>

**Contributions with conditions of expenditure**

Contributions which have conditions of expenditure still to be met as at reporting date were \$5.780 million (\$4.875m).

The Authority is engaged in a variety of funding programs involving State and Commonwealth sources who provide monies to the Authority on the premise that these funds are expended in a manner consistent with the terms of the agreement. At reporting date these contributions relate to:

	2011	2010
	\$'000	\$'000
Environment Protection Fund	5,616	4,626
Water Quality Improvement Program	42	73
NRG Flinders	1	51
Chemcollect	61	81
Externally Funded Projects	60	44
	<b>5,780</b>	<b>4,875</b>

The Environment Protection Fund is established under section 24 of the *Environment Protection Act 1993*. The Fund must be kept as directed by the Treasurer. Prescribed percentages of waste levies and licence fees are paid into the Fund under section 8 of the *Environment Protection Regulations 2009*. The Fund may be applied by the Minister or by the Authority with the approval of the Minister.

13 Interest revenue	2011	2010
	\$'000	\$'000
Interest from entities within the SA Government	232	139
<b>Total: Interest revenues</b>	<b>232</b>	<b>139</b>

Environment Protection Authority  
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 For the year ended 30 June 2011

<b>14 Net gain/(loss) from the disposal of non-current assets</b>	<b>2011</b>	<b>2010</b>
	\$'000	\$'000
<b>Furniture and fittings</b>		
Proceeds from disposal	-	-
Less: Net book value of assets disposed	-	(148)
<b>Net gain/(loss) from disposal</b>	<u>-</u>	<u>(148)</u>
<b>Plant and equipment</b>		
Proceeds from disposal	16	1
Less: Net book value of assets disposed	(8)	(2)
<b>Net gain/(loss) from disposal</b>	<u>8</u>	<u>(1)</u>
<b>Total: Assets</b>		
Total proceeds from disposal	16	1
Less: Total value of assets disposed	(8)	(150)
<b>Total: Net gain/(loss) from disposal of assets</b>	<u><u>8</u></u>	<u><u>(149)</u></u>
<b>15 Other income</b>	<b>2011</b>	<b>2010</b>
	\$'000	\$'000
Salaries and wages recoveries	22	1
Other sundry revenue	36	32
<b>Total: Other income</b>	<u><u>58</u></u>	<u><u>33</u></u>
<b>16 Revenues from SA Government</b>	<b>2011</b>	<b>2010</b>
	\$'000	\$'000
Appropriations from Consolidated Account pursuant to the Appropriation Act	2,398	5,327
Contingency funds	6	2,122
<b>Total: Revenues from SA Government</b>	<u><u>2,404</u></u>	<u><u>7,449</u></u>
Total revenues from Government consists of \$1.433 million (\$6.921m) for operational funding and \$0.971 million (\$0.528m) for capital projects. For details on the expenditure associated with the operational funding and capital funding received refer to Notes 5 to 10. There were no material variations between the amount appropriated and the expenditure associated with this appropriation.		
<b>17 Cash and cash equivalents</b>	<b>2011</b>	<b>2010</b>
	\$'000	\$'000
Deposits with the Treasurer	3,753	3,764
Environment Protection Fund Deposit Account	5,616	4,626
Cash on hand/Imprest accounts	5	5
<b>Total: Cash and Cash Equivalents</b>	<u><u>9,374</u></u>	<u><u>8,395</u></u>
<b>Deposits with the Treasurer</b> Includes funds held in the Accrual Appropriation Excess Funds Account. The balance of these funds is not available for general use, i.e. funds can only be used in accordance with the Treasurer's/Under-Treasurer's approval.		
<b>Interest rate risk</b> Cash on hand is non-interest bearing. The Environment Protection Fund Deposit Account earns a floating interest rate, based on daily bank deposit rates. The carrying amount of cash and cash equivalents represents fair value.		
<b>18 Receivables</b>	<b>2011</b>	<b>2010</b>
	\$'000	\$'000
<b>Current:</b>		
Receivables	3,134	3,443
Less: Allowance for doubtful debts	(55)	(5)
	<u>3,079</u>	<u>3,438</u>
Accrued revenues	21	15
Workers compensation recoveries	1	1
<b>Total: Current Receivables</b>	<u><u>3,101</u></u>	<u><u>3,454</u></u>
<b>Receivables from SA Government entities</b>		
Receivables	103	116
Accrued revenues	21	15
	<u>124</u>	<u>131</u>
<b>Non-Current:</b>		
<b>Receivables from entities external to the SA Government</b>		
Workers compensation recoveries	3	4
<b>Total: Non-Current Receivables</b>	<u><u>3</u></u>	<u><u>4</u></u>

**Environment Protection Authority**  
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**Movement in allowance for doubtful debts**

The allowance for doubtful debts (allowance for impairment loss) is recognised when there is objective evidence (i.e. calculated on past experience and current and expected changes in client credit rating) that a receivable is impaired. An allowance for impairment loss has been recognised in 'Other Expenses' in the Statement of Comprehensive Income for specific debtors and debtors assessed on a collective basis for which such evidence exists.

<b>Movements in the allowance for doubtful debts (impairment loss)</b>	<b>2011</b>	<b>2010</b>
	<b>£000</b>	<b>£000</b>
Carrying amount at the beginning of the period	5	11
Increase in the allowance	53	1
Amounts written off	(1)	(5)
Decrease in allowance recognised in the Statement of Comprehensive Income	(2)	(2)
Carrying amount at the end of the period	<u>55</u>	<u>5</u>

**Interest rate and credit risk**

Receivables are raised for all goods and services provided for which payment has not been received. Receivables are normally settled within 30 days. Receivables and accrued revenues are non-interest bearing. Other than as recognised in the allowance for doubtful debts, it is not anticipated that counterparties will fail to discharge their obligations. The carrying amount of receivables approximates net fair value due to being receivable on demand. There is no concentration of credit risk.

<b>19 Other assets</b>	<b>2011</b>	<b>2010</b>
	<b>£000</b>	<b>£000</b>
<b>Current:</b>		
Prepayments	87	75
<b>Total: Current Other Assets</b>	<u>87</u>	<u>75</u>
<b>20 Property, plant and equipment</b>	<b>2011</b>	<b>2010</b>
	<b>£000</b>	<b>£000</b>
<b>Land</b>		
Independent valuation	200	200
<b>Total: Land</b>	<u>200</u>	<u>200</u>
<b>Buildings and improvements</b>		
Independent valuation	35	35
Less: Accumulated depreciation	(17)	(16)
<b>Total: Buildings and improvements</b>	<u>18</u>	<u>19</u>
<b>Infrastructure</b>		
Independent valuation	359	359
Less: Accumulated depreciation	(79)	(66)
<b>Total: Infrastructure</b>	<u>280</u>	<u>293</u>
<b>Capital works in progress</b>		
Capital works in progress	319	86
<b>Total: Capital works in progress</b>	<u>319</u>	<u>86</u>
<b>Moveable vehicles</b>		
At cost (deemed fair value)	241	241
Less: Accumulated depreciation	(129)	(119)
<b>Total: Moveable vehicles</b>	<u>112</u>	<u>122</u>
<b>Computing equipment</b>		
At cost (deemed fair value)	125	110
Less: Accumulated depreciation	(100)	(86)
<b>Total: Computing equipment</b>	<u>25</u>	<u>24</u>
<b>Furniture and fittings</b>		
At cost (deemed fair value)	5,409	5,408
Less: Accumulated depreciation	(1,045)	(605)
<b>Total: Furniture and fittings</b>	<u>4,364</u>	<u>4,803</u>
<b>Plant and equipment</b>		
At cost (deemed fair value)	3,834	3,579
Less: Accumulated depreciation	(3,165)	(3,125)
<b>Total: Plant and equipment</b>	<u>669</u>	<u>454</u>
<b>Total: Property, plant and equipment</b>	<u>5,987</u>	<u>6,001</u>

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**Asset Movement Reconciliation**

A reconciliation of the carrying amount of each class of property, plant and equipment and intangible assets is displayed in the following table.

**Asset Movement Reconciliation 2010-2011**

	Land \$'000	Buildings and Improvements \$'000	Infrastructure \$'000	Capital Works in Progress \$'000	Moveable Vehicles \$'000
Carrying amount at beginning of the period	200	19	293	86	122
Additions	-	-	-	306	-
Additions - Transfers to/(from) CWIP	-	-	-	(73)	-
Depreciation expense	-	(1)	(13)	-	(10)
Disposals	-	-	-	-	-
<b>Carrying amount at end of the period</b>	<b>200</b>	<b>18</b>	<b>280</b>	<b>319</b>	<b>112</b>

	Computing Equipment \$'000	Furniture and Fittings \$'000	Plant & Equipment \$'000	Intangible Assets \$'000	2011 Total \$'000
Carrying amount at beginning of the period	24	4,803	454	1,087	7,088
Additions	15	-	358	-	679
Additions - Transfers to/(from) CWIP	-	-	-	73	-
Depreciation / Amortisation expense	(14)	(439)	(135)	(328)	(940)
Disposals	-	-	(8)	-	(8)
<b>Carrying amount at end of the period</b>	<b>25</b>	<b>4,364</b>	<b>669</b>	<b>832</b>	<b>6,819</b>

**Asset Movement Reconciliation 2009-2010**

	Land \$'000	Buildings and Improvements \$'000	Infrastructure \$'000	Capital Works in Progress \$'000	Moveable Vehicles \$'000
Carrying amount at beginning of the period	100	10	239	111	5
Additions	-	-	-	470	118
Additions - Transfers to/(from) CWIP	-	-	3	(495)	5
Depreciation expense	-	(1)	(13)	-	(6)
Net revaluation increment / (decrement)	100	10	64	-	-
Disposals	-	-	-	-	-
<b>Carrying amount at end of the period</b>	<b>200</b>	<b>19</b>	<b>293</b>	<b>86</b>	<b>122</b>

	Computing Equipment \$'000	Furniture and Fittings \$'000	Plant & Equipment \$'000	Intangible Assets \$'000	2010 Total \$'000
Carrying amount at beginning of the period	37	5,127	407	1,149	7,185
Additions	-	-	163	59	810
Additions - Transfers to/(from) CWIP	-	271	16	200	-
Depreciation / Amortisation expense	(13)	(447)	(131)	(321)	(932)
Net revaluation increment / (decrement)	-	-	-	-	174
Disposals	-	(148)	(1)	-	(149)
<b>Carrying amount at end of the period</b>	<b>24</b>	<b>4,803</b>	<b>454</b>	<b>1,087</b>	<b>7,088</b>



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<b>21 Intangible assets</b>	<b>2011</b>	<b>2010</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Computer software</b>		
At cost (deemed fair value)	2,757	2,684
Less: Accumulated amortisation	(1,925)	(1,597)
<b>Total: Computer software</b>	<u>832</u>	<u>1,087</u>
<b>Electronic Environment Licensing Forms (E-ELF)</b>		
At cost (deemed fair value)	167	167
Less: Accumulated amortisation	(140)	(124)
<b>Total: Electronic Environment Licensing Forms (E-ELF)</b>	<u>27</u>	<u>43</u>
<b>Integrated Information System (IIS)</b>		
At cost (deemed fair value)	474	474
Less: Accumulated amortisation	(416)	(357)
<b>Total: Integrated Information System (IIS)</b>	<u>58</u>	<u>117</u>
<b>General Environment Information System (GENI)</b>		
At cost (deemed fair value)	1,566	1,493
Less: Accumulated amortisation	(917)	(720)
<b>Total: General Environment Information System (GENI)</b>	<u>649</u>	<u>773</u>
<b>Complaints and Reports of Environmental Significance System (CARES)</b>		
At cost (deemed fair value)	240	240
Less: Accumulated amortisation	(209)	(181)
<b>Total: Complaints and Reports of Environmental Significance System (CARES)</b>	<u>31</u>	<u>59</u>
<b>Other</b>		
At cost (deemed fair value)	310	310
Less: Accumulated amortisation	(243)	(215)
<b>Total: Other</b>	<u>67</u>	<u>95</u>
<b>Total: Intangible Assets</b>	<u><u>832</u></u>	<u><u>1,087</u></u>
 <b>22 Payables</b>	 <b>2011</b>	 <b>2010</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Current:</b>		
Creditors	911	1,045
Accrued Expenses	145	126
Employee benefit on-costs	319	291
<b>Total: Current Payables</b>	<u>1,375</u>	<u>1,462</u>
<b>Payables to SA Government entities</b>		
Creditors	194	237
Accrued Expenses	90	77
Employee benefit on-costs	319	291
	<u>603</u>	<u>605</u>
<b>Non-Current:</b>		
Employee benefit on-costs	277	327
<b>Total: Non-Current Payables</b>	<u>277</u>	<u>327</u>
<b>Payables to SA Government entities</b>		
Employee benefit on-costs	277	327
	<u>277</u>	<u>327</u>

As a result of an actuarial assessment performed by the Department of Treasury and Finance, the percentage of the proportion of long service leave taken as leave has changed from the 2010 rate 45% to 35% and the average factor for the calculation of employer superannuation on-cost has changed from the 2010 rate 10.5% to 10.3%. These rates are used in the employment oncost calculation. The net financial effect of the changes in the current financial year is a decrease in the employment on-cost of \$0.033m and employee benefit expense of \$0.033m.

**Interest rate and credit risk**

Creditors and accruals are raised for all amounts due but unpaid. Sundry creditors are normally settled within 30 days. Employment on-costs are settled when the respective employee benefit that they relate to is discharged. All payables are non-interest bearing. The carrying amount of payables represents fair value due to the amounts being payable on demand.

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<b>23 Employee benefits</b>	<b>2011</b>	<b>2010</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Current:</b>		
Annual Leave	1,299	1,181
Short-term Long Service Leave	353	505
Accrued Salaries and Wages	-	553
<b>Total: Current Employee benefits</b>	<u><b>1,652</b></u>	<u><b>2,239</b></u>
<b>Non-Current:</b>		
Long Service Leave	3,385	2,966
<b>Total: Non-Current Employee benefits</b>	<u><b>3,385</b></u>	<u><b>2,966</b></u>
<b>Total: Employee Benefits</b>	<u><u><b>5,037</b></u></u>	<u><u><b>5,205</b></u></u>

As a result of an actuarial assessment performed by the Department of Treasury and Finance, the benchmark for the measurement of the long service leave liability has changed from the 2009-10 benchmark of 5.5 years to 5 years in 2010-11. The net financial effect of the changes in the current financial year is an increase in the long service leave liability of \$0.056m and employment benefit expense of \$0.056m. The impact on future periods is impracticable to estimate as the benchmark is calculated using a number of assumptions - a key assumption is the long-term discount rate. With current conditions, the long-term discount rate is experiencing significant movement.

<b>24 Provisions</b>	<b>2011</b>	<b>2010</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Current:</b>		
Provision for Workers Compensation	33	29
<b>Total: Current Provisions</b>	<u><b>33</b></u>	<u><b>29</b></u>
<b>Non-Current:</b>		
Provision for Workers Compensation	113	97
<b>Total: Non-Current Provisions</b>	<u><b>113</b></u>	<u><b>97</b></u>
<b>Total Provisions</b>	<u><u><b>146</b></u></u>	<u><u><b>126</b></u></u>
Carrying amount at the beginning of the period	126	107
Additional provisions recognised	20	19
<b>Carrying amount at the end of the period</b>	<u><b>146</b></u>	<u><b>126</b></u>

A liability has been reported to reflect unsettled workers compensation claims. The workers compensation provision is based on an actuarial assessment performed by the Public Sector Workforce Relations Division of the Department of the Premier and Cabinet.

<b>25 Other liabilities</b>	<b>2011</b>	<b>2010</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Current:</b>		
Lease incentive	67	67
Other	154	41
<b>Total: Current other liabilities</b>	<u><b>221</b></u>	<u><b>108</b></u>
<b>Non-Current:</b>		
Lease incentive	778	844
<b>Total: Non-current other liabilities</b>	<u><b>778</b></u>	<u><b>844</b></u>

<b>26 Unrecognised contractual commitments</b>	<b>2011</b>	<b>2010</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Remuneration commitments:</b>		
Commitments for the payment of salaries and other remuneration under fixed-term employment contracts in existence at the reporting date but not recognised as liabilities are payable as follows:		
Within one year	683	942
Later than one year but not later than five years	156	804
<b>Total: Remuneration commitments</b>	<u><b>839</b></u>	<u><b>1,746</b></u>

Amounts disclosed include commitments arising from executive and other service contracts. The Authority does not offer fixed-term remuneration contracts greater than five years.

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**Operating lease commitments:**

Commitments in relation to operating leases contracted for at the reporting date but not recognised as liabilities are payable as follows:

Within one year	2,125	2,003
Later than one year but not later than five years	8,937	8,533
Later than five years	19,673	21,237
<b>Total: Operating lease commitments</b>	<b>30,735</b>	<b>31,773</b>
Representing:		
Non-cancellable operating leases	30,735	31,773
<b>Total: Operating lease commitments</b>	<b>30,735</b>	<b>31,773</b>

The operating leases held by the Authority are mainly property leases with penalty clauses equal to the amount of the residual payments remaining for the lease terms. The leases are payable one month in advance and the Authority has the right of renewal. There are no existing or contingent rental provisions.

**27 Contingent assets and liabilities**

**Contingent assets:**

The Authority is not aware of the existence of any contingent assets as at 30 June 2011.

**Contingent liabilities:**

The Authority is not aware of the existence of any contingent liabilities as at 30 June 2011.

**28 Remuneration of Board and Committee Members**

Members that were entitled to receive remuneration for membership during the 2011 financial year were:

**Board of the Environment Protection Authority (EPA)**

Ms Cheryl Bart  
 Mr Stephen Hains  
 Ms Jane Yuile  
 Mrs Cheryl Hill (resigned 19 March 2011)  
 Ms Megan Dyson  
 Ms Linda Bowes

**Radiation Protection Committee**

Ms Sharon Paulka  
 Dr Gerald Laurence  
 Ms Jill Fitch  
 Ms Kathryn Taylor  
 Dr Michael Lardelli  
 Ms Jessica Burckhardt (appointed 26 May 2011)

The number of members whose remuneration received or receivable falls within the following bands:

	2011	2010
	No. of members	No. of members
\$nil	4	3
\$1 - \$9,999	2	2
\$20,000 - \$29,999	5	5
\$40,000 - \$49,999	1	-
\$50,000 - \$59,999	-	1
<b>Total number of Board and Committee members</b>	<b>12</b>	<b>11</b>

Remuneration of members reflects all costs of performing board/committee member duties including sitting fees, super contributions, fringe benefits tax and salary sacrifice arrangements. The total remuneration received or receivable by members was \$170,131 (\$187,852).

In accordance with the Department of the Premier and Cabinet's Circular Number 16, government employees did not receive any remuneration for board/committee duties during the financial year.

Unless otherwise disclosed, transactions between members and the Authority are on conditions no more favourable than those it is reasonable to expect the Authority would have adopted if dealing with the related party at arm's length in the same circumstances.

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**29 Cash flow reconciliation**

	2011 \$'000	2010 \$'000
<b>Reconciliation of cash and cash equivalents at the end of the reporting period</b>		
Cash and cash equivalents disclosed in the Statement of Financial Position	9,374	8,395
Cash and cash equivalents disclosed in the Statement of Cash Flows	9,374	8,395
<b>Reconciliation of net cash provided by operating activities to net cost of providing services</b>		
<b>Net cash provided by operating activities</b>	<b>1,658</b>	<b>3,958</b>
Less revenues from SA Government	(2,404)	(7,449)
<b>Add/less non-cash items:</b>		
Depreciation and amortisation expense	(940)	(932)
Net gain/(loss) on disposal of assets	8	(149)
<b>Movement in assets and liabilities</b>		
Increase/(decrease) in receivables	(354)	(1,038)
Increase/(decrease) in other assets	12	(13)
Decrease/(increase) in payables	13	149
Decrease/(increase) in employee benefits	167	10
Decrease/(increase) in provisions	(20)	(19)
Decrease/(increase) in other liabilities	(46)	40
<b>Net cost of providing services</b>	<b>(1,906)</b>	<b>(5,443)</b>

**30 Financial instruments/Financial risk management**
**Categorisation of financial instruments**

Details of the significant accounting policies and methods adopted including the criteria for recognition, the basis of measurement, and the basis on which income and expenses are recognised with respect to each class of financial asset, financial liability and equity instrument are disclosed in Note 2 "Summary of Significant Accounting Policies".

Statement of Financial Position Line Item	2011		2010		Note number
	Carrying amount \$'000	Fair value \$'000	Carrying amount \$'000	Fair value \$'000	
<b>Financial assets</b>					
Cash and cash equivalents	9,374	9,374	8,395	8,395	17
Receivables	3,104	3,104	3,458	3,458	18
<b>Financial liabilities</b>					
Payables	1,652	1,652	1,789	1,789	22

**Credit risk**

Credit risk arises when there is the possibility of the Authority's debtors defaulting on their contractual obligations resulting in a financial loss to the Authority. The Authority measures credit risk on a fair value basis and monitors risk on a regular basis.

The Authority has minimal concentration of credit risk. The Authority has policies and procedures in place to ensure that transactions occur with customers with appropriate credit history. The Authority does not engage in high risk hedging for its financial assets.

Allowances for impairment of financial assets are calculated on past experience and current and expected changes in credit rating. Currently the Authority does not hold any collateral as security for any of its financial assets. Other than receivables, there is no evidence to indicate that the financial assets are impaired. Refer to note 18 for information on the allowance for impairment in relation to receivables.

**Ageing analysis of financial assets**

The following table discloses the ageing of financial assets, past due, including impaired assets past due.

Financial assets item	Current (Not overdue) \$'000	Overdue for < 30 days \$'000	Overdue for 30-60 days \$'000	Overdue for > 60 days \$'000	Total \$'000
<b>2011</b>					
Not impaired					
Receivables	2,966	151	18	24	3,159
Impaired					
Receivables	-	-	3	52	55
<b>2010</b>					
Not impaired					
Receivables	2,666	300	93	404	3,463
Impaired					
Receivables	-	-	-	5	5

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**Maturity analysis of financial assets and liabilities**

The following table discloses the maturity analysis of financial assets and financial liabilities.

Financial statements item	Contractual maturities			Carrying amount \$'000
	< 1 year	1-5 years	> 5 years	
	\$'000	\$'000	\$'000	
<b>2011</b>				
<b>Financial assets</b>				
Cash and cash equivalents	9,374	-	-	9,374
Receivables	3,101	3	-	3,104
<i>Total: Financial assets</i>	<u>12,475</u>	<u>3</u>	<u>-</u>	<u>12,478</u>
<b>Financial liabilities</b>				
Payables	1,375	277	-	1,652
<i>Total: Financial liabilities</i>	<u>1,375</u>	<u>277</u>	<u>-</u>	<u>1,652</u>
<b>2010</b>				
<b>Financial assets</b>				
Cash and cash equivalents	8,395	-	-	8,395
Receivables	3,454	4	-	3,458
<i>Total: Financial assets</i>	<u>11,849</u>	<u>4</u>	<u>-</u>	<u>11,853</u>
<b>Financial liabilities</b>				
Payables	1,462	327	-	1,789
<i>Total: Financial liabilities</i>	<u>1,462</u>	<u>327</u>	<u>-</u>	<u>1,789</u>

**Liquidity risk**

Liquidity risk arises where the Authority is unable to meet its financial obligations as they fall due. The Authority is funded principally from waste levies and annual licence fees. The Authority works with the Department of Treasury and Finance to determine the cash flows associated with its Government approved program of work and to ensure funding is provided through SA Government budgetary processes to meet the expected cash flows. The Authority settles undisputed accounts within 30 days from the date of the invoice or date the invoice is first received. In the event of a dispute, payment is made 30 days from resolution.

The Authority's exposure to liquidity risk is insignificant based on past experience and current assessment of risk.

**Market risk**

The Authority has no interest bearing liabilities as at the end of the reporting period. There is no exposure to foreign currency or other price risks.

A sensitivity analysis has not been undertaken for the interest rate risk of the Authority as it has been determined that the possible impact on profit and loss or total equity from fluctuations in interest rates is immaterial.

**31 The Environment Protection Fund**

The following is a summary of the amounts included in the Fund. In reflecting these amounts in the Authority's financial statements, transactions between the Fund and the Authority have been eliminated.

**Statement of Comprehensive Income for the year ended 30 June 2011**

	2011 \$'000	2010 \$'000
<b>Expenses</b>		
Employee benefits	304	189
Supplies and services	932	668
Grants and subsidies	149	100
<b>Total: Expenses</b>	<u>1,385</u>	<u>957</u>
<b>Income</b>		
Fees and Charges	2,067	1,993
Interest revenue	232	139
Other revenue	1	-
<b>Total: Income</b>	<u>2,300</u>	<u>2,132</u>
<b>Net result</b>	<u>915</u>	<u>1,175</u>

**Environment Protection Authority**  
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**Statement of Financial Position as at 30 June 2011**

	2011 \$'000	2010 \$'000
<b>Current assets</b>		
Cash and cash equivalents	5,616	4,626
Receivables	168	149
<b>Total: Current Assets</b>	<u>5,784</u>	<u>4,775</u>
<b>Total: Assets</b>	<u>5,784</u>	<u>4,775</u>
<b>Current liabilities</b>		
Payables	161	60
Employee Benefits	-	7
<b>Total: Current Liabilities</b>	<u>161</u>	<u>67</u>
<b>Total: Liabilities</b>	<u>161</u>	<u>67</u>
<b>Net Assets</b>	<u>5,623</u>	<u>4,708</u>
<b>Equity</b>		
Retained earnings	5,623	4,708
<b>Total: Equity</b>	<u>5,623</u>	<u>4,708</u>

**Statement of Changes in Equity for the year ended 30 June 2011**

	Retained Earnings \$'000	Total \$'000
Balance at 30 June 2009	3,475	3,475
Net result for 2009/2010	1,175	1,175
Change in accounting policy for the recognition of environmental authorisation fee revenue	58	58
Balance at 30 June 2010	4,708	4,708
Net result for 2010/2011	915	915
Balance at 30 June 2011	<u>5,623</u>	<u>5,623</u>

**Statement of Cash Flows for the year ended 30 June 2011**

	2011 \$'000	2010 \$'000
<b>Cash flows from operating activities</b>		
<b>Cash inflows</b>		
Fees and charges	2,054	2,037
Interest received	226	132
Other revenues	1	-
<b>Total: Cash Inflows</b>	<u>2,281</u>	<u>2,169</u>
<b>Cash outflows</b>		
Employee benefit payments	(313)	(199)
Payments for supplies and services	(829)	(624)
Grant and contribution payments	(149)	(100)
<b>Total: Cash Outflows</b>	<u>(1,291)</u>	<u>(923)</u>
<b>Net Cash Inflows from operating activities</b>	<u>990</u>	<u>1,246</u>
Cash at the beginning of the financial year	4,626	3,380
Cash at the end of the financial year	<u>5,616</u>	<u>4,626</u>

Environment Protection Authority  
Notes to and forming part of the Financial Statements  
For the year ended 30 June 2011

**32 Radiation Protection Function**

The administrative unit has responsibility for radiation protection functions under the *Radiation Protection and Control Act 1982*.

The following summarises income and expenditure attributable to radiation protection functions within the administrative unit excluding the allocation of overheads. Transactions between the Radiation Protection division and the Statutory Authority have been eliminated in preparing the Financial Statements.

**Statement of Comprehensive Income for the year ended 30 June 2011**  
**Radiation Protection Division**

	2011	2010
	\$'000	\$'000
<b>Expenses</b>		
Employee benefits	1,288	1,193
Supplies and Services	72	48
<b>Total: Expenses</b>	1,360	1,241
<b>Income</b>		
Radiation license fees	1,268	1,469
Sales	7	13
Grants and contributions	22	-
Other revenue	6	12
<b>Total: Income</b>	1,303	1,494
<b>Net cost of/ (benefit from) providing services</b>	57	(253)

## **APPENDIX 3 PUBLICATIONS RELEASED OR UPDATED DURING 2010–11**

### **Corporate publications**

EPA Annual Report 1 July 2009 to 30 June 2010 (includes reporting under the *Radiation Protection and Control Act 1982*)

Round-table Conference Report 2010

### **Information sheets**

Monitoring for coastal protection

Series on environmental management practices for vessel and facility management on marine and inland waters:

- Environmental management systems
- Environmental incident reporting
- Vessel facility development (and redevelopment)
- Vessel facility operation
- Dredging
- Maintenance areas (including slipways and hardstands)
- Vessel cleaning (including in-water hull cleaning)
- Pressure water blasting
- Fibreglassing
- Painting and varnishing
- Welding and metal fabrication
- Engine maintenance and repair works
- Refuelling
- Bilge water
- Biofouling
- Ballast water
- Vessel recovery (sunken or abandoned).

The use and management of spa baths on houseboats

Grey water requirements for small vessels and vessels with minimal grey water production facilities

Flow chart for minimum grey water requirements for vessels on inland waters

Chemical storage and disposal

### **Public consultations**

Cost recovery associated with Container Deposit Legislation consultation—response to comments

### **National Pollutant Inventory**

National Pollutant Inventory: South Australia summary report 2008–09

NPI Newsletter 2011

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**Brochures**

Career opportunities

Rules for releasing wastewater from your vessel into inland waters

**Reports**

Review of the EPA's licence fee structure

SmokeWatch Mount Gambier 2010 campaign report

## **APPENDIX 4            FREEDOM OF INFORMATION STATEMENT**

The following details are provided as part of the information statement of the EPA under the provisions of section 9 of the *Freedom of Information Act 1991*.

### **Organisation structure and functions**

The EPA is South Australia's leading environmental regulator. It is responsible for the protection of air and water quality and for the control of pollution, waste, noise and radiation, to ensure the protection and enhancement of the environment. The EPA's organisational structure and functions are set out in this annual report.

### **Boards and committees**

Information on the EPA's boards and committees is set out in this annual report.

### **Effect of organisation functions on members of the public**

The EPA encourages environmental responsibility throughout the business and community sectors and works collaboratively towards achieving a healthy environment alongside economic prosperity.

The role and objectives of the EPA are detailed throughout this annual report and are published in the *EPA Strategic Plan 2009–2012*.

### **Public participation in environment policy**

The public is invited to participate in development of environment protection policy (EPP) through:

- public consultation sessions during the development of specific EPPs and other policy initiatives
- annual round-table conference
- regional round-table meetings
- specific issue forums.

The EPA also supported a number of programs to assist business and industry, community volunteers, teachers and students to become involved in protecting and enhancing the environment.

Public consultation undertaken in 2010–11 is detailed in this annual report.

### **Description of kinds of documents held by the EPA**

Publications produced by the EPA can be accessed through the department's website at [www.epa.sa.gov.au/about\\_epa/publications\\_and\\_resources](http://www.epa.sa.gov.au/about_epa/publications_and_resources) or requested, free of charge, by telephoning the Customer Service Desk on (08) 204 2004. A list of 2010–11 EPA publications is set out in this annual report (Appendix 3).

Other types of documents produced by the EPA include:

- administrative records
- asset maintenance records
- records and annual reports of boards and committees
- corporate and strategic planning records
- correspondence files
- financial records

- occupational health and safety records
- personnel records
- policy documents
- procedures and reference manuals
- survey and environmental reports and records.

Please note that standard charges for freedom of information documents may apply.

Documents available for purchase from the EPA under Section 109 of the EP Act include:

- applications for environmental authorisations
- environmental authorisations
- development authorisations
- beverage container approvals
- details of prosecutions and other enforcement action under the EP Act.

### **Policy documents**

In relation to corporate policy, the EPA refers to DENR corporate policies, except in instances where specific EPA policies have been developed. The following list details existing EPA internal operating policies.

- IOP001      Guideline for the preparation of an internal office policy or procedure for the EPA
- IOP002      Procedure for obtaining advice on sampling
- IOP003      Procedure to be followed when requesting legal advice
- IOP004      Learning and development policy and procedure
- IOP010      Induction
- IOP011      Guideline in preparing EPA Board papers
- IOP012      Vaccination protocol for field staff
- IOP015      Responding to environmental emergencies and major pollution incidents
- IOP016      Threshold criteria – matters for EPA Board consideration
- IOP017      Guideline for the preparation of a cabinet submission
- IOP018      Hazard incident injury reporting, investigation and management
- IOP019      Allocation and use of mobile telephones
- IOP020      Mobile telephone – reimbursing personal call costs
- IOP021      Vehicle management
- IOP022      Management of desk telephones
- IOP023      Filling of positions during restructure

- IOP024 Role and responsibilities of the Emergency Response Team
- IOP025 Volumetric survey assessment
- IOP026 Manifest audit process for liquid waste
- IOP027 Weigh data audit process for solid waste
- IOP028 A system for managing industry compliance audits
- IOP029 Civil penalties
- IOP031 Accredited licensing system
- IOP032 EPA risk management policy
- IOP033 The development and application of licence project plans
- IOP034 EPA delegations policy
- IOP035 Environment protection orders
- IOP036 Assessment of waste or recycling depots and activities producing listed waste for limited purposes
- IOP037 Checking licensee information for fee setting
- IOP038 Licence fee structure reform: the purpose of fee changes and opportunities for fee reduction
- IOP039 When to charge a flat fee component for a licence
- IOP040 Assessment of applications to produce and/or use refuse derived fuel
- IOP041 EPA fraud and corruption prevention policy
- IOP042 Assessment of railway operations for limited purposes
- IOP043 Referral of matters to Investigations Unit – DRAFT
- IOP044 Unauthorised waste activity – EPA response
- IOP045 Management of bona fide, leave and timekeeping records
- IOP046 Provision of public transport tickets for EPA business travel
- IOP 047 Flexitime
- IOP 048 Waste levy reduction for recycling and diversion
- IOP 049 Asset management for whole of Environment Protection Authority (EPA)
- IOP 050 Ensuring that the execution of instruments of delegation, and the use of the EPA seal, is legally correct, under the *Environment Protection Act 1993*

## ABBREVIATIONS

AMLRNRMB	Adelaide and Mount Lofty Ranges Natural Resources Management Board
ABC	Adelaide Brighton Cement
ABS	Australian Bureau of Statistics
CDL	Container Deposit Legislation
COAG	Council of Australian Governments
DAC	Development Assessment Commission
DEH	Department of Environment and Natural Resources
DoH	Department for Health
DFW	Department for Water
DPLG	Department of Planning and Local Government
DTEI	Department of Transport, Energy and Infrastructure
DPA	development plan amendment
EDMS	Environment Database Management System
EIP	environment improvement program
EIS	environmental impact statement
EP Act	Environment Protection Act 1993
EPA	Environment Protection Authority
EPHC	Environment Protection and Heritage Council
EPO	environment protection order
EVs	environmental values
FOI	freedom of information
GENI	General Environmental Information System (database for recording and tracking information)
GL	gigalitres
IIS	Integrated Information System
ISIS	Information Security Management System
LAMP	Licensing Administration Modernisation project
LFG	landfill gas
LGA	Local Government Association
LMRIA	Lower Murray Reclaimed Irrigation Area
MAR	managed aquifer recharge
MLR	Mount Lofty Ranges
NChEM	National Framework for Chemicals Environmental Management
NEPC	National Environment Protection Council

NEPM	National Environment Protection Measure
NPI	National Pollutant Inventory
NRM	natural resource management
OHS&W	occupational health, safety and welfare
PIRSA	Department of Primary Industries and Resources SA
PM <sub>2.5</sub>	particulate matter less than 2.5 micrometres in diameter
PM <sub>10</sub>	particulate matter less than 10 micrometres in diameter
RPC Act	Radiation Protection and Control Act 1982
SA Water	South Australian Water Corporation
S@W	Sustainability at Work
SOI	Statement of Intent
µg/m <sup>3</sup>	micrograms per cubic metre
Waste EPP	Environment Protection (Waste to Resources) Policy 2010
Water Quality EPP	Environment Protection (Water Quality) Policy 2003
WQOs	water quality objectives
ZWSA	ZeroWaste SA

**Environment Protection Authority**

**Annual Report on the  
Administration of the Radiation  
Protection and Control Act 1982**

**1 July 2010 to 30 June 2011**

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**Annual Report on the administration of the Radiation Protection and Control Act 1982  
1 July 2010 to 30 June 2011**

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Disclaimer

This publication is a guide only and does not necessarily provide adequate information in relation to every situation. This publication seeks to explain your possible obligations in a helpful and accessible way. In doing so, however, some detail may not be captured. It is important, therefore, that you seek information from the EPA itself regarding your possible obligations and, where appropriate, that you seek your own legal advice.

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# LETTER OF TRANSMITTAL

The Hon. Paul Caica, MP  
Minister for Environment and Conservation  
Parliament House  
North Terrace  
ADELAIDE  
South Australia 5000

Dear Minister

I am pleased to present the Annual Report on the Administration of the *Radiation Protection and Control Act 1982* for the period 1 July 2010 to 30 June 2011, for tabling in parliament in accordance with section 22 of the Radiation Protection and Control Act.

Yours sincerely

A handwritten signature in black ink, appearing to read "H. Fulcher". The signature is written in a cursive style with a large initial "H" and a stylized "F".

Helen Fulcher  
Chief Executive  
Environment Protection Authority

31 August 2011

# FOREWORD

The radiation protection functions of the Environment Protection Authority (EPA) serve to protect people and the environment from the harmful effects of radiation. As well as assessing applications for licences and for registration of radiation equipment and premises under *Radiation Protection and Control Act 1982* (RPC Act), staff respond to the many enquiries from the public regarding radiation safety issues. In dealings with its licensees the EPA provides a high-quality and responsive service. Other areas of the EPA's responsibility include: approval of research involving exposure of humans to ionising radiation; investigation of radiation accidents and incidents; regulation of solarium; provision of expert advice on radiation incident and emergency response; and promotion good radiation protection practices among users of radiation.

The EPA obtains both strategic and operational expert advice from the Radiation Protection Committee on licensing issues, as well as current and emerging information and advice on other aspects of radiation protection. The specific strategic areas the Committee focused on in 2010–11 were the critical shortage of diagnostic imaging medical physicists, consultation with stakeholders on proposed fees for licences and registrations, and new licences to be granted under the RPC Act. The Committee also met with the Minister for Environment and Conservation to discuss such current issues.

At the national level, the EPA contributed to the development of the radiation protection codes of practice and standards published by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and developed by the ARPANSA Radiation Health Committee, which is chaired by EPA Director Regulation and Compliance Division.

EPA staff participated in a working group and a workshop in Vienna to assist in the review of an International Atomic Energy Agency (IAEA) safety guide, *Protection of the public against exposure to natural sources of radiation including NORM residues*, and development of draft Model Regulations on Uranium Mining and Milling. The EPA also hosted international visitors seeking information on uranium mining practices and the regulatory approaches in South Australia.

The EPA continued to contribute to the management of South Australia's uranium and mineral sands mining in 2010–11, a period of significant increase in exploration and development. The EPA invested in specialised radiation protection training for staff new in this area to enhance their knowledge of radiation protection and to provide for succession planning.

During 2010–11 the EPA continued with the introduction of third-party accredited testing of diagnostic X-ray apparatus and concentrated on developing the skills of accredited testers and preparing detailed work books for testing apparatus in Stage 2 of the project which involves testing fixed, portable and mobile X-ray units used for medical, chiropractic and veterinary radiography.

I sincerely thank both the members of the Radiation Protection Committee for their active contribution and valued advice, and the expert staff of the Radiation Protection Branch for the continued application of their expertise during this year.



Helen Fulcher  
Chief Executive  
Environment Protection Authority

31 August 2011

## INTRODUCTION

This report provides information on the administration of the *Radiation Protection and Control Act 1982* (RPC Act) during the year 2010–11 by the Environment Protection Authority (EPA), when carrying out its RPC Act functions.

The RPC Act is committed to the Minister for Environment and Conservation, who has delegated roles, functions and powers under the RPC Act and its Regulations (pursuant to section 8 of the RPC Act) to the Chief Executive (CE) of the EPA. The CE further delegates responsibilities for administration and enforcement of the RPC Act to officers of the EPA.

The purpose of the RPC Act is to ensure the health and safety of people and to protect the environment from the harmful effects of radiation. The Act provides for the control of activities related to radioactive substances and radiation apparatus. Section 22 of the RPC Act requires the EPA to present a report to the minister on the administration of the RPC Act at the end of each financial year for tabling in both houses of the South Australian Parliament.

The EPA gives administrative support to the Radiation Protection Committee, which is an expert advisory body established under section 9 of the RPC Act. The committee advises the minister and the EPA about the granting of licences under the RPC Act, radiation protection matters that it considers significant, and matters that have been referred to the committee.

When carrying out its RPC Act functions, the EPA manages the review of legislation and the adoption of national standards, codes of practice and agreements for radiation protection. It also manages sources of ionising radiation through registration and inspections of radiation apparatus, sealed radioactive sources and premises where unsealed radioactive substances are kept or handled, as well as licensing individuals who use or handle radioactive substances or operate radiation apparatus; the EPA also licenses uranium mines.

Officers of the Radiation Protection Branch of the EPA, who are appointed as authorised officers under section 16 of the RPC Act, undertake surveillance of sources of radiation used in South Australia to ensure compliance with the RPC Act and its Regulations. Officers of the Investigations Branch have also been appointed as authorised officers under the RPC Act. These officers investigate alleged breaches of the RPC Act and Regulations.

As at 30 June 2011, the Radiation Protection Branch had 11.35 full-time equivalent (FTE) scientific and technical staff, and two FTE clerical staff responsible for administration of the RPC Act.

## STRATEGIC DIRECTIONS

### Strategic planning for radiation protection and control

The goal of the EPA in carrying out its RPC Act functions is to protect the environment and the community from unacceptable radiation. This goal forms part of the *EPA Strategic Plan 2009–2012*.

During 2010–11, the work focused on:

- 1 Maintaining systems to effectively regulate an expanding uranium mining industry through a regulatory framework in consultation with other departments and operators that allows cost-effective, risk-based and equitable regulation of uranium mines.
- 2 Maintaining effective legislation that incorporates national and international standards by developing proposals for updating the RPC Act and associated Regulations.
- 3 Implementing the *National Directory for Radiation Protection*.
- 4 Implementing the national *Code of Practice for the Security of Radioactive Sources*.
- 5 Ensuring compliance with requirements to safely manage radioactive sources and waste.
- 6 Progressing the introduction of third-party accredited testing of dental and medical X-ray machines.

## KEY PROJECTS AND INITIATIVES

### Managing South Australia's mining development

In 2010–11, the EPA continued to contribute to the management of South Australia's uranium and mineral sands mining during a period of significant increase in exploration and development. The EPA assessed licences and other mining and mineral processing applications, provided guidance to explorers, and worked with operators, other state agencies and the Commonwealth to ensure that proposed and current operations effectively meet their environment and health protection obligations.

The EPA worked with the Department of Primary Industries and Resources South Australia (PIRSA) to improve the uranium mining regulatory framework. A significant project is the development of guidelines for joint EPA/PIRSA regulatory processes.

The EPA has also been actively involved with the Uranium Industry Framework (UIF), which comprises Commonwealth and state governments, and industry groups. The UIF seeks to harmonise regulatory arrangements across jurisdictions, ensure an effective and transparent regulatory regime, and provide effective and efficient coordination between the relevant regulatory agencies. The EPA contributed to the work of the UIF in assessing the training and skills needs of an expanded uranium mining industry in Australia and also in the preparation of guidelines for uranium industry and government engagement.

### Code of Practice for the Security of Radioactive Sources

During 2010–11 the EPA worked with owners of radioactive sources to enhance security measures to meet the requirements of the *Code of Practice for the Security of Radioactive Sources* (Security Code), published by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and currently being implemented by states and territories. The EPA's main focus was on the Source Security Plans required under the Security Code, including the Source Transport Security Plan required for transport of Categories 1–3, security enhanced sources<sup>1</sup>.

In June 2011, the EPA hosted a training course presented by ARPANSA on the preparation of Source Transport Security Plans. The training course was attended by representatives of the owners and transporters of radioactive sources.

An officer of the EPA attended a meeting of the Security Code Implementation Advisory Group, held at ARPANSA offices in Sydney in August 2010, to discuss a national framework for security background checks required under the Security Code and the disqualifying criteria for security background checks.

### Radioactive waste management

The EPA conducted inspections and audits of radioactive waste material to ensure its safe storage and use. In addition to site visits, the EPA requires businesses to complete an annual audit of radioactive material in their possession and provide details of the radioactive source, its activity, its location and whether it is regarded as waste.

### Radioactive waste management plans

During 2010–11 the EPA approved radioactive waste management plans (RWMP) of organisations that use or store unsealed radioactive material. These organisations included:

- universities (3)
- pathology laboratories (4)

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<sup>1</sup> A radioactive source or aggregation of radioactive sources is assigned the category 1, 2 or 3 when using the methodology set out in Schedule B of the Security Code.

- hospitals (5)
- private nuclear medicine facilities (5)
- veterinary clinics (2)
- water testing company (1)
- scientific laboratories (4).

The approval of the RWMPs for some organisations included approval to dispose of very low-level radioactive waste via fume hoods, incineration or the sewerage system.

## **Mining waste**

Radioactive tailings and residues from mining or mineral processing activities are managed in accordance with industry best practice and authorisations and approvals granted under the *Code of Practice on Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing* (2005). The code is applied to all mining or mineral processing operations licensed or registered under the RPC Act.

## **Radiation emergency response**

The EPA is the agency responsible for providing expert advice to the combatant authority, the fire services, in responding to incidents and emergencies involving radioactive material. During 2010–11, there were no incidents or emergencies requiring attendance by the EPA.

Officers of the EPA participated in the following emergency response-related committees:

- State Chemical, Biological, Radiological and Nuclear (CBRN) Committee
- State CBRN Committee–Scientific Advisory Group
- Health Emergency Management Response Advisory Committee.

On 1 June 2011, staff of the EPA, along with BHP Billiton, Country Fire Services, Metropolitan Fire Service, South Australia Police, Department of the Premier and Cabinet, Safework SA and PIRSA participated in a uranium spill desktop exercise. The exercise was to identify emergency preparedness in the event of a uranium spill.

The EPA provided training to emergency service personnel for responding to incidents and emergencies involving radioactive substances, as outlined later in this report.

## **Review of the Radiation Protection and Control Act**

The RPC Act is primarily reviewed to enable the implementation of national agreements for radiation protection legislation, including the adoption of: provisions of the *National Directory for Radiation Protection* (National Directory), published by ARPANSA; the recommendations of the report, National competition policy review of radiation protection legislation; and requirements of the Code of Practice for Security of Radioactive Sources.

During 2010–11 the EPA prepared drafting instructions for proposed changes to the RPC Act, which were incorporated in the Statutes Amendment (Budget 2010) Act 2010 (Budget Act). Amendments to the RPC Act consequential to the Budget Act include:

- changing the licence to mine or mill radioactive ores to a licence for mining or mineral processing
- introducing a licence to possess a radiation source (radiation apparatus or radioactive substance)
- introducing a facilities licence that will apply to radiation facilities of a prescribed class where large quantities of radioactive minerals are used or stored.
- providing for the accreditation of people to undertake third-party testing, training or other services.



Following on from the changes to the RPC Act included in the Budget Act, the EPA proposed further amendments to the RPC Act to complete the necessary changes for fulfilling national obligations. By the end of 2010–11 the EPA had prepared drafting instructions which are yet to be considered by government. The proposed changes to meet national obligations include:

- incorporating the National Directory radiation protection principles in the Act
- providing for implementation of the Security Code.

## **Regulation of solaria**

In 2008, the *Radiation Protection and Control (Cosmetic Tanning Units) Regulations 2008* (Tanning Units Regulations) and the *Radiation Protection and Control (Non-ionising Radiation) Regulations 2008* (NIR Regulations) were made under the RPC Act.

The Tanning Units Regulations came into operation on 14 March 2008 and require solaria businesses to comply with the *Australian and New Zealand Standard AS/NZS 2635:2008—Solaria for cosmetic purposes*. The NIR Regulations came into effect on 1 March 2009 and require owners and operators of cosmetic tanning units to be licensed under section 31(1)(b) of the RPC Act. In order to obtain a licence, applicants are required to demonstrate appropriate knowledge of the health effects of UV radiation and the regulatory requirements for solaria by passing a licence examination prepared and administered by the EPA.

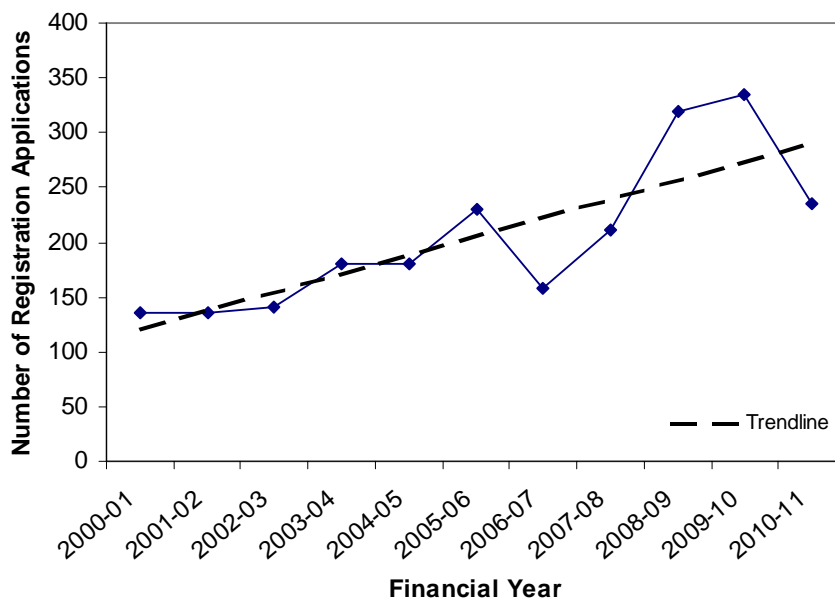
At the end of 2010–11 there were 35 businesses operating tanning units, compared with 45 operating at the end of the 2009–10 year. There were a total of 101 licensed operators.

During 2010–11, the EPA inspected all solaria businesses for compliance with the Tanning Units Regulations. The EPA was satisfied with the level of compliance overall.

## **Third-party accredited testing of dental and medical X-ray apparatus**

The numbers, complexity and use of dental and medical imaging apparatus have increased significantly in South Australia over the past several years as indicated in Figure 1. Although individual years vary according to machine replacement cycles, however a significant upward trend is indicated. Changes to the Medicare system flagged by the Commonwealth Government are likely to increase further applications for new apparatus in coming years.

While providing a challenge regarding regulatory inspection and registration, this indicates more availability of new medical technology to patients and medical practitioners in South Australia.



**Figure 1** Number of registration applications for dental, medical & veterinary X-ray apparatus FY 2000–11

To reflect national approaches for compliance testing X-ray apparatus and to enhance the registration of dental and medical X-ray apparatus under section 32 of the RPC Act through third-party compliance testing, the EPA established a project to introduce third-party accredited testing of dental and medical X-ray apparatus.

The third-party testing program is being implemented in four stages:

- Stage 1 covers dental plain radiography X-ray units.
- Stage 2 covers fixed, portable and mobile X-ray units used for medical, chiropractic and veterinary plain radiography.
- Stage 3 covers computed tomography (CT), fluoroscopy and mammography X-ray apparatus.
- Stage 4 covers orthopantomogram (OPG) and cone beam computed tomography apparatus.

The EPA completed Stage 1 of the project in 2008–09 and commenced Stage 2 towards the end of 2009–10.

During 2010–11 the EPA concentrated on enhancing Stage 2 with regard to the skills of accredited testers and prepared detailed work books to assist testers in testing these apparatus for compliance. Third-party testing of apparatus in Stages 1 and 2 will continue during 2011–12. The EPA proposes to introduce Stages 3 and 4 during 2011–12 and 2012–13 respectively.

## Community information and advice

The EPA provided significant support to the community in the area of non-ionising radiation.

Sources of non-ionising radiation include mobile telephones and base stations, powerlines, lasers and solaria used for cosmetic purposes. The harmful effects from exposure to high levels of non-ionising radiation are well known, but whether there are harmful effects from chronic low-level exposure is less clear.

The EPA responded to a large number of enquiries from the public on the potential risks from exposure to the extremely low-frequency magnetic fields associated with electricity in homes and powerlines. The EPA continued to make available to the public a simple-to-use, magnetic-field-strength meter, which has proved very useful for educating the public and allaying the fears and concerns of parents regarding the potential risks to children from exposure to magnetic fields.

The EPA advises the government, industry and the public about radiation safety for non-ionising radiation, and continually reviews ongoing research on this issue.

### **Joint Convention on the Safety of Spent Fuel Management and Safety of Radioactive Waste Management**

The EPA met with officers of ARPANSA regarding preparation of the Australian National Report 2011 under the United Nations Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Joint Convention). ARPANSA has requested that states and territories provide information on current radioactive waste management and holdings within their jurisdictions for inclusion in the report to enable Australia to meet its obligations under Article 32 of the Joint Convention.

### **Laboratory and technical services**

During 2010–11 the EPA radiation laboratory provided a resource for the calibration of radiation survey equipment, including radon and radon progeny monitors, and the analysis of environmental samples. Commissioning of a liquid scintillation analytical technique continued. The technique permits improved analysis times and reduces the cost of analysis of environmental samples.

### **Consultation with the mining and quarry industry**

On 17 May 2011 EPA staff, members of the EPA Board and some 17 representatives of the mining and quarry industry attended a consultation session on the relationships between the companies and the EPA in its regulation of their activities under the Environment Protection Act 1993 (EP Act) and the RPC Act. Mining or mineral processing companies regulated under the RPC Act, who were represented included, Arafura Resources (Whyalla), Oz Minerals, Iluka Resources and UraniumSA. A representative of the SA Chamber of Mines also attended. There was general consensus among the attendees that working relationships between the EPA and industry were effective and EPA's radiation related expertise is highly valued.

## RADIATION PROTECTION COMMITTEE

The functions and legislative responsibilities of the Radiation Protection Committee, as set out in section 12 of the RPC Act, are to:

- advise the Minister in relation to the formulation of Regulations under this Act
- advise the Minister in relation to the granting of licences under this Act, including the conditions to which they should be subject
- investigate and report on any other matters relevant to the administration of this Act at the request of the minister or of its own motion.

The committee plays an important role in advising the Minister and the EPA on all aspects of radiation protection in mining of radioactive ores, and medical, industrial, scientific and public uses of ionising and non-ionising radiation.

The committee consists of 10 members, one of whom is the Presiding Member of the committee, appointed by the Governor of South Australia. The Presiding Member must be an officer or employee of the department of the minister to whom the RPC Act is committed (ie the EPA). The specific membership qualifications and expertise relevant to the administration of the RPC Act are prescribed in section 9 of the RPC Act. Section 10 provides that the governor may appoint a suitable person to be a deputy member of the committee.

The EPA provides the committee with administrative support and seeks the committee’s advice on strategic issues and issues related to the expertise of its members.

### Meeting outcomes

During 2010–11, the committee met on three occasions and considered many of the matters addressed in this report. The committee also provided expert advice on the review of the RPC Act and on several key strategic issues.

The committee discussed critical skills shortages among diagnostic imaging medical physicists, noting that a number of key personnel with this expertise were about to retire and the importance of succession planning to ensure that staff with required expertise were available to protect the public and workers. The committee provided advice on options to progress this issue.

The committee considered the amendments to the RPC Act that would result from the Statutes Amendment (Budget 2010) Act 2010 and provided the EPA with advice on consultation with stakeholders regarding these changes.

Members and deputy members of the committee also participated in a working group established to consider closure criteria for the Port Pirie and Radium Hill legacy sites.

### Membership

The three-year term of the committee expired on 31 December 2010, with the exception of the presiding officer, whose appointment expires on 31 August 2011. The members and deputy members for the first half of 2010–11 are listed.

<b>Members</b>	<b>Section of Act</b>	<b>Deputy members</b>
Ms HM Fulcher (Presiding Member)	s9(2)(a)	–
Dr S Constantine	s9(2)(b)	Dr MJ Moss
Ms LM Ingram	s9(2)(c)	Ms SJ Hartman
Ms SM Paulka	s9(2)(d)	Ms K Taylor

<b>Members</b>	<b>Section of Act</b>	<b>Deputy members</b>
Dr GS Laurence	s9(2)(e)	Mr PJ Collins
Mrs J Fitch	s9(2)(f)	Dr E Bezak
Dr MI Kitchener	s9(2)(g)	Dr BE Chatterton
Vacant	s9(2)(h)	Vacant
Dr PJ Sykes	s9(2)(i)	Dr MT Lardelli
Mr T Circelli	s9(2)(j)	Vacant

On 26 May 2011 a new committee was appointed by the governor for a three-year term, with the exception of the deputy presiding member, whose term expires at the same time as the presiding member's term on 31 August 2011. The members and deputy members are listed.

<b>Members</b>	<b>Section of Act</b>	<b>Deputy members</b>
Ms HM Fulcher (Presiding Member)	s9(2)(a)	Mr K Baldry
Dr S Constantine	s9(2)(b)	Dr MJ Nottage
Mr C Kapsis	s9(2)(c)	Ms LM Ricote
Ms SM Paulka	s9(2)(d)	Ms K Taylor
Dr GS Laurence	s9(2)(e)	Mr PJ Collins
Mrs J Fitch	s9(2)(f)	Dr E Bezak
Dr ID Kirkwood	s9(2)(g)	Dr MI Kitchener
Mr GG Marshall	s9(2)(h)	Mr A Eadie
Dr PJ Sykes	s9(2)(i)	Dr MT Lardelli
Mr T Circelli	s9(2)(j)	Ms JV Burckhardt

## REGISTRATIONS AND LICENSING

Personal radiation licences and registrations of equipment and premises are renewed annually. Table 1 presents the number of current personal licences and registrations under the RPC Act as at 30 June 2011, and the number of new applications for licences and registrations approved during 2010–11.

**Table 1 Personal licences and registrations under the RPC Act**

Type of licence or registration	Section of RPC Act	Number currently licensed/registered	Number approved 2010–11
Licence to use or handle radioactive substances	28	969	154
Licence to operate ionising radiation apparatus	31(1)(a)	4396	583
Licence to operate a non-ionising radiation apparatus (cosmetic tanning units)	31(1)(b)	101	47
Registration of ionising radiation apparatus	32	1810	294
Registration of sealed radioactive sources	30	636	50
Registration of premises in which unsealed radioactive substances are handled or kept	29	157	3
<b>Total</b>		<b>8069</b>	<b>1131</b>

The number of applications received for registration of dental and medical X-ray apparatus during 2010–11 was 235 compared with some 320 applications received during 2008–09, and 334 applications received during 2009–10. The relatively large numbers of applications, compared with those received several years ago, is mainly due to medical, dental, chiropractic and veterinary practices upgrading X-ray equipment e.g. to digital and computer radiography X-ray machines.

It is estimated that during the period, there were approximately 7500 radiation workers in South Australia. This number includes workers licensed under sections 28 and 31 of the RPC Act, and workers who are not required to hold a licence but are employed in occupations that involve potential exposure to radiation. The latter include workers at Olympic Dam, Beverley and Honeymoon uranium projects, workers in Type C premises, users of industrial radiation gauges, operators of fully enclosed industrial X-ray units who work under the supervision of an appropriately licensed person, operators of cabinet X-ray units and people assisting with medical, dental and veterinary X-ray procedures.

Where required under the provisions of the RPC Act, radiation doses of radiation workers are monitored using approved personal dosimeters supplied by a number of businesses. The suppliers provide the employers of radiation workers and the EPA with the results of personal monitoring. The doses of radiation workers were below the occupational limits prescribed in the Regulations, and both the average and median of doses received by workers were well below occupational limits.

### Licences to mine and mill radioactive ores

Licences to mine and mill radioactive ores, issued under section 24 of the RPC Act, are currently held by:

- BHP Billiton (Olympic Dam Corporation) Pty Ltd (Olympic Dam operations): Licence No. LM1
- Heathgate Resources Pty Ltd (Beverley uranium project): Licence No. LM4
- Uranium One Australia Pty Ltd (Honeymoon uranium project): Licence No. LM5
- Oban Energy Pty Ltd (Oban uranium field leach trial project).

The licences are subject to conditions that include compliance with the ARPANSA *Code of Practice for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing* (the Mining Code).

The EPA oversees the regulatory compliance of uranium mining activities by auditing companies' monitoring results and conducting inspections and independent monitoring. Each licensed company also provides quarterly occupational and environmental radiation monitoring data, including dose assessments, to the EPA. These reports are examined, compared with the EPA's monitoring results, where appropriate, and reviewed with company officers at quarterly meetings.

### **Olympic Dam operations**

During 2010–11, BHP Billiton (Olympic Dam Corporation) Pty Ltd submitted the *BHP Billiton Annual Radiation Report and LM1 Annual Licence Report for 2009–10*. These reports were reviewed by the Radiation Protection Committee on 3 December 2010. The LM1 report included an assessment of the adequacy and effectiveness of radiation protection measures. The dose summary indicated that the average dose for all designated workers in the mine and processing plant was 2.8 millisieverts (mSv) and 1.4 mSv, respectively, compared with the 20 mSv average annual limit for radiation workers. The maximum individual dose received was 7.3 mSv (37% of the 20 mSv limit).

The company also submitted the *BHP Billiton Annual Report of the Environmental Management and Monitoring Program for 2009–10*. The report confirmed that the radiological effects of the operation remain small and confined to the mining lease area. It also confirmed that the annual radiation dose to members of the public living in Olympic Dam Village and Roxby Downs was less than the detection limit for the methods used (5% of the 1-mSv annual limit for members of the public).

During 2010–11, officers of the EPA visited the site for radiation review meetings, inspections and as sponsors of International Atomic Energy Agency (IAEA) scientific visitors.

The process of developing an environmental impact statement (EIS) for the BHP Billiton expansion project began in 2005. The EPA is participating in the assessment of the EIS, which was released for public comment for the period 1 May to 7 August 2009. The Supplement to the EIS was released on 13 May 2011, enabling final assessment of the proposal by the EPA and other government agencies.

### **Beverley uranium project**

Heathgate Resources Pty Ltd's Beverley uranium project is located approximately 600 km north of Adelaide. The company's licence to conduct uranium mining operations at the site was renewed for a further 12 months from 4 August 2010.

During 2010–11 year, Heathgate Resources completed work to gain the state and Commonwealth approvals necessary to conduct in-situ leach uranium mining operations at the Beverley North prospect, located approximately 9 km from the existing Beverley site. The EPA granted authorisations to construct and operate well fields and satellite ion exchange plants in the Beverley North area.

### **Honeymoon uranium project**

Uranium One Australia Pty Ltd's Honeymoon uranium project site is located approximately 75 km northwest of Broken Hill. The company's licence to conduct uranium mining operations at the site was renewed for a further 12 months from 6 October 2010.

In April 2011, authorisation was granted by the EPA to commence commissioning of the plant and well field.

### **Beverley Four Mile uranium project**

On 26 May 2009, the EPA received an application under section 24 of the RPC Act from Quasar Resources and Alliance Craton Explorer Joint Venture for a licence to mine or mill radioactive ores at the Beverley Four Mile Project. The proposed mine is a uranium in-situ recovery operation. At the end of 2010–11, the granting of a licence was pending resolution of joint venturer discussions concerning the future operation of the mine.

### **Oban uranium project**

The licence granted to Oban Energy Ltd (a subsidiary of Curnamona Energy Ltd) for developmental testing of processes at its Oban site, northwest of Broken Hill, was renewed on 19 May 2011. Authorisation was granted by the EPA in July 2010 to operate the field leach trial (FLT) plant and well field at the Oban site, and the trial is continuing.

### **Transport of uranium ore concentrate**

Uranium ore concentrate from the Olympic Dam and Beverley mines is transported by road to Outer Harbor, in accordance with the Regulations for the safe transport of radioactive substances. It is then exported either directly from Outer Harbor or transported via rail to Darwin for shipment overseas.

Transport of uranium ore concentrate from the Olympic Dam and Beverley mines was conducted without incident in the reporting period.

### **Registration of mining operations**

Some mining operations do not involve radioactive ore, but may generate process streams and wastes that are defined as radioactive materials. Where there is sufficient radiological risk to warrant regulation, these operations are registered as premises under section 29 of the RPC Act. Conditions of registration are similar to those attached to licences issued under section 24 of the RPC Act to protect people and the environment from radiological hazards. The primary condition is compliance with the Mining Code.

Mining and mineral processing operations registered under the RPC Act at the end of the period were:

- Australian Zircon Mindarie mineral sand operation in the Western Murray Basin
- Iluka Resources Ltd mineral sand operation west of Ceduna
- Prominent Hill Prospect copper mine near Coober Pedy.

### **Registration of former uranium mining and milling sites**

The sites of the former Radium Hill uranium mine and the Port Pirie Treatment Plant, which in the past processed uranium ore from Radium Hill, have been registered as premises under section 29 of the RPC Act since 2003. The registered occupier of the sites is the Minister for Mineral Resources Development.

Conditions attached to the registrations require the development of appropriate long-term management plans for the sites and site characterisation for both sites. Work continued during the reporting period on setting radiological close-out criteria for the sites.

### **Maralinga**

The former British atomic weapons test site at Maralinga (Section 400 land parcel) is registered as premises under the RPC Act, in the name of Maralinga Tjarutja. The site includes burial trenches containing radioactive materials, which were constructed during the Commonwealth Government's Maralinga Rehabilitation Project, completed in 2000. The EPA conducts regular visits to Maralinga to inspect the condition of the work conducted as part of the rehabilitation project.



The Maralinga Land and Environment Management Committee met on site in October 2010 and in Canberra in March 2011. The committee, which consists of one representative each from Maralinga Tjarutja, the Commonwealth Government and the EPA, oversees the site management activities and long-term radiation monitoring and surveillance of the site.

## **EXEMPTIONS GRANTED UNDER THE RPC ACT**

Under section 44 of the RPC Act, the minister or delegate is empowered to grant exemptions from any specified provision of the RPC Act, provided such action would not endanger the health or safety of any person. The authority to grant exemptions has been delegated to the Chief Executive of the EPA, and further delegated to the Director, Regulation and Compliance, and the Manager, Radiation Protection Branch.

After careful consideration the following exemptions from provisions of the RPC Act and Regulations were granted, subject to conditions specified in exemption notices published in the South Australian Government Gazette:

- 1 Diagnostic radiographers were granted a conditional exemption from the requirements of regulation 40 of the Radiation Protection Control (Ionising Radiation) Regulations 2000, which specifies practitioners who may authorise exposures or treatments using ionising radiation, in cases where specified radiographs are requested by a specified nurse practitioner while engaged in that capacity in an emergency department.
- 2 Owners of fixed ionising radiation apparatus used for medical or veterinary diagnostic radiography or by a chiropractor were exempted from the requirement of regulation 93 (7)(b) of the Radiation Protection and Control (Ionising Radiation) Regulations 2000, that the exposure switch fitted to the apparatus not be operable in parallel with any other exposure switch.

## **RADIATION INCIDENTS AND ACCIDENTS**

The Regulations under the RPC Act require employers of radiation workers, owners of X-ray apparatus or sealed radioactive sources, and occupiers of premises where unsealed radioactive substances are used or handled to report any radiation accidents promptly to the EPA. Radiation accidents include situations where the control of a radiation source has been lost or a person has received or may have received an accidental exposure to ionising radiation. The EPA investigates radiation accidents and incidents to determine the cause and any remedial action that could be taken to prevent a recurrence.

During the period the EPA received 12 reports of radiation accidents or incidents. None of these is known to have resulted in an adverse health outcome. Appropriate steps have been taken at radiology and nuclear medicine departments and practices to prevent a recurrence of such incidents. Details of accidents and incidents involving exposure or potential exposure to radiation are provided to ARPANSA for the Australian Radiation Incidents Register. These details are confidential.

A summary of the types of accidents and incidents, in each category, is given below.

### **Nuclear medicine (three incidents)**

One incident involved a spill of a small quantity of In-111 on a laboratory bench. The incident is not believed to have resulted in a radiation dose to staff. The other incidents involved a patient receiving the wrong reagent due to human error and a procedure on a pregnant patient who did not know she was pregnant at the time of the exposure.

### **Diagnostic radiology (nine incidents)**

These incidents included irradiation of wrong patients, wrong limbs/areas, and unnecessary irradiation due to incorrect procedures.

### **Uranium mining incidents**

Uranium mining operations in South Australia are required to record and report incidents and events (for example, spills of process materials) as part of approved radiation management plans and in accordance with the 'Bachmann Criteria', established for uranium mines in South Australia. During the period, five incidents were publicly reported under the approved incident reporting procedures for uranium mines. There were no environmental impacts or hazards to workers arising from the incidents.

Details of events reported for Olympic Dam, Beverley and Honeymoon under the Bachmann Criteria are available through the [PIRSA website](#).

## NATIONAL ACTIVITIES

To ensure that South Australia's regulation of activities involving radiation keeps pace with international and national best practice, the EPA takes part in international and national activities. The EPA's involvement in these activities during 2010–11 is summarised below.

### Radiation Health Committee

The Radiation Health Committee (RHC) was established under the *Australian Radiation Protection and Nuclear Safety Act 1998* (ARPANS Act). The RHC develops policies and prepares draft publications for the promotion of uniform national standards of radiation protection throughout Australia and its states and territories, and provides advice on matters relating to radiation protection to the Chief Executive Officer of ARPANSA and the Radiation Health and Safety Advisory Council.

Membership of the RHC includes a radiation control officer representing each of the states and territories. The South Australian representative is EPA Director Regulation and Compliance, who chairs the RHC.

Summaries of meetings of the RHC may be found on the ARPANSA website at:

<[www.arpansa.gov.au/AboutUs/Committees/rhcmt.cfm](http://www.arpansa.gov.au/AboutUs/Committees/rhcmt.cfm)>.

### Radiation Health and Safety Advisory Council

The Radiation Health and Safety Advisory Council (RHSAC) is established under the ARPANS Act. It advises the Chief Executive Officer of ARPANSA on a range of matters, including emerging issues, matters of major concern to the community and the adoption of codes, standards, recommendations and policies on radiation protection and nuclear safety. During 2010–11, EPA Director Regulation and Compliance and a member of the South Australian Radiation Protection Committee were members of the council.

Summaries of meetings of the RHSAC can be found on the ARPANSA website at:

<[www.arpansa.gov.au/AboutUs/Committees/rhsacmt.cfm](http://www.arpansa.gov.au/AboutUs/Committees/rhsacmt.cfm)>.

### National Directory for Radiation Protection

During 2010–11 the EPA provided advice to the South Australian Department of Health with regard to amendment 5 of the National Directory for Radiation Protection for consideration by the Australian Health Ministers' Advisory Council. The proposed amendments would:

- 1 clarify the radiation protection principles and, in particular, the justification principle, that apply to ionising radiation
- 2 adopt the *Code of Practice for Radiation Protection in Veterinary Medicine*, which ARPANSA published in July 2009 as Radiation Protection Series No. 17 (RPS 17)
- 3 adopt the *Code of Practice for Radiation Protection in the Application of Ionising Radiation by Chiropractors*, which ARPANSA published in November 2009 as Radiation Protection Series No. 19 (RPS 19)
- 4 correct several typographical and editorial matters in Schedule 13, National incident reporting framework.

### Australian National Radiation Dose Register (ANRDR)

Work on implementing the Australian National Radiation Dose Register (ANRDR) is proceeding. In order for South Australian data to be included in the register, the EPA has approved requests from BHP Billiton and Heathgate Resources to confidentially release the Olympic Dam and Beverley uranium worker information to ARPANSA.

## INTERNATIONAL ACTIVITIES

Because of South Australia's national and international status and reputation in uranium mining and radiation protection regulation, the IAEA and the Australian Safeguards and Non-Proliferation Office (ASNO) requested the involvement of EPA staff in international meetings and in hosting international scientific visits. The EPA has been involved in various activities on an in-kind basis, with all financial outlays being covered by other agencies.

During the reporting period, the EPA hosted IAEA technical missions from Argentina and Namibia seeking information on uranium mining practices and details of the regulatory approach used in South Australia.

### IAEA Consultancies

During 26–30 July 2010, an EPA officer attended a working group in Vienna to assist in the review of an IAEA safety guide, *Protection of the public against exposure to natural sources of radiation including NORM residues*.

The EPA Director Regulation and Compliance attended a workshop in Vienna, 6–10 December 2010, to assist the IAEA in developing the draft Model Regulations on Uranium Mining and Milling.

### Asia Region ALARA Network

The Asia Region ALARA (as low as reasonably achievable) Network (ARAN) was formed in Daejeon, Republic of Korea, in December 2007. The main objectives of ARAN include:

- supporting the development of a sustainable regional network that facilitates information, findings and data exchange and practical and cost-effective implementation of the principle of optimisation of radiation protection in participating countries
- maintaining, enhancing and developing competence and skills in radiation protection, with special emphasis on the implementation of the ALARA principle for occupational exposures during routine operations.

Australia's representative on the ARAN Steering Committee is EPA Director Regulation and Compliance.

The third workshop of the Asian Region ALARA Network was held in Adelaide on 12–16 October 2010. The theme of the meeting was occupational exposures in medical applications and was attended by representatives from the IAEA, some 14 countries from the region, the EPA, the Australian Nuclear Safety and Technology Organisation (ANSTO), and SA and NSW hospitals.

## **TRAINING AND CONFERENCES**

### **Emergency response training**

During 2010–11 the EPA provided training for members of the MFS and SAPOL in emergency procedures for first responders to radiation incidents. The training included hands-on demonstration of the types of radiation that may be involved in radiation incidents and the capabilities of the laboratory services provided by the EPA.

### **Training of EPA staff**

Three officers of the EPA attended a three-day General Radiation Safety Officer Course conducted by the Australian Nuclear Safety and Technology Organisation held at Lucas Heights in NSW on 17–19 November 2010.

An officer of the EPA attended a course on Quality Management in the Laboratory conducted by the National Association of Testing Authorities, Australia, held in Adelaide on 8–10 March 2011.

### **Conferences**

Four officers of the EPA attended the annual conference of the Australasian Radiation Protection Society in Adelaide on 17–20 October 2010.

Two officers of the EPA attended Paydirt's 2011 Uranium Conference held in Adelaide on 21–22 March 2011.

## OTHER STATUTORY MATTERS

The EPA provides resources for administration of the RPC Act and, therefore, statutory reporting requirements concerning the following issues are contained in the EPA Annual Report 2010–11:

- financial performance of the Radiation Protection Committee
- account payment performance
- contractual arrangements
- occupational health, safety and welfare
- use of consultants
- human resources
- staffing
- equal employment opportunity
- disability action planning
- energy efficiency action plan reporting
- freedom of information
- overseas travel
- sustainability reporting.

## ABBREVIATIONS

ALARA	as low as reasonably achievable
ARAN	Asia Region ALARA Network
ARPANS Act	Australian Radiation Protection and Nuclear Safety Act 1998
ARPANSA	Australian Radiation Protection and Nuclear Safety Agency
CBRN	chemical, biological, radiological and nuclear
CT	computed tomography
EIS	environmental impact statement
EPA	Environment Protection Authority
IAEA	International Atomic Energy Agency
Joint Convention	Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (IAEA).
MFS	Metropolitan Fire Service
Mining Code	Code of Practice for Radiation Protection and Radioactive Waste Management in Mining and Mineral Processing (ARPANSA)
mSv	millisievert
National Directory	National Directory for Radiation Protection: Edition 1 (ARPANSA)
NIR Regulations	Radiation Protection and Control (Non-ionising Radiation) Regulations 2008
NORM	naturally occurring radioactive material
OPG	orthopantomogram
PIRSA	Department of Primary Industries and Resources South Australia
RHC	Radiation Health Committee (ARPANSA)
RHSAC	Radiation Health and Safety Advisory Council (ARPANSA)
RPC Act	Radiation Protection and Control Act 1982
RWMP	radioactive waste management plans
SAPOL	South Australian Police
Security Code	Code of Practice for Security of Radioactive Sources (ARPANSA)
Tanning Units Regulations	Radiation Protection and Control (Cosmetic Tanning Units) Regulations 2008
UIF	Uranium Industry Framework