Environment Protection Authority Annual Report

1 July 2008 to 30 June 2009

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1 July 2008–31 July 2009

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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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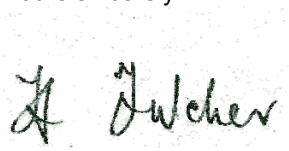
LETTER OF TRANSMITTAL

The Hon Jay Weatherill, MP
Minister for Environment and Conservation
Parliament House
North Terrace
ADELAIDE
South Australia 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 2008 to 30 June 2009. This report has been prepared in accordance with requirements of the *Environment Protection Act 1993* and the *Public Sector Management Act 1995*.

Yours sincerely



Helen Fulcher
Chief Executive
Environment Protection Authority

30 September 2009

PRESIDING MEMBER'S STATEMENT

I am delighted to present the Environment Protection Authority (EPA) Annual Report for 2008-09. The past 12 months have seen many changes within the EPA and marked the beginning of a new era, with the separation of the Presiding Member and Chief Executive roles and a new strategic focus continuing to build on a platform of best practice regulation focused around collaborative regulation.

The EPA released the fifth State of Environment Report for South Australia in November 2008, showing that while improvements are evident in some areas, such as the increasing reuse of treated wastewater and decreasing amounts of solid waste sent to landfill, our environment is under significant stress and requires immediate attention. With this in mind, we are creating a fundamental shift in the way we manage the environment in South Australia, with a strong focus on improving environmental outcomes by working collaboratively with our stakeholders.

In June 2009, the EPA annual Round-table was conducted with active participation from senior leaders in key industry sectors to explore new approaches to our collaborative regulatory approach and to build strong working relationships.

Our main strategic priority is Business Success and Sustainability. To this end, we are actively promoting good environmental practice and, for example, developing a new corporate licence product that combines a mandatory component of licence conditions expressed in plain English, with a voluntary component that outlines how the EPA will work with a licensee to improve the sustainability of their activities over time.

To complement our main priority, we continue to improve and build on our other strategic priorities including More Effective Relationships, Improved Regulation, A Reputation for Excellence and internally Supporting our People.

The Board has established two new committees this year to address audit and risk management, and finance; and has established a working group on sustainable funding to assist the Board in strengthening effectiveness and ensuring good governance is at the forefront.

I would like to take this opportunity to thank the Environment and Conservation Minister, Jay Weatherill, and the South Australian Government for their leadership in the environmental area and for their continuous support for the initiatives and role of the EPA.

In addition, I would like to thank the Board for its passionate dedication and work, welcome Jane Yuile and thank outgoing Board members, Greg Panigas and Yvonne Sneddon, for their outstanding contribution. I would also like to thank the Chief Executive, Helen Fulcher, management and staff for their commitment and professionalism in leading the EPA into the next generation.

With the EPA relocating to a six-star energy rated building, our staff will be provided with the opportunity to lead the way in contributing today to a better environment for tomorrow.

Protecting the environment is a great privilege and responsibility that we all share. Notwithstanding the difficulties inherent in the global financial crisis, we cannot afford to let the maintenance and protection of our environment take a back seat. Instead, these difficult times should serve to sharpen our focus and our determination to protect and sustain.

Cheryl Bart
Presiding Member
EPA Board

EPA CHIEF EXECUTIVE STATEMENT

In my first year as Chief Executive, I have had the pleasure of leading an organisation that is passionate about its role in protecting the environment and committed to best practice regulation. It is a privilege to work within an organisation that effectively utilises its scientific and technical expertise and industry experience to work with its stakeholders to help protect the environment in South Australia.

I would like to reflect on what has been achieved in our day-to-day business over the last financial year, with a focus on three of the EPA's current strategic priorities.

Better environmental regulation

Supporting its stakeholders through effective environmental regulation is a priority of the EPA, which it does by delivering consistent and transparent regulatory services. Several examples can be found from achievements during the 2008–09 financial year, including the:

- introduction of a restructured licensing fee system, that focuses on the 'polluter pays' principle
- implementation of regulations to increase the deposit refund on drink containers from 5c to 10c
- release of a draft 'waste to resources' policy for consultation
- commencement of a review of the Environment Protection (Water Quality) Policy 2003 and Environment Protection (Air Quality) Policy 1994.

Informed business behaving sustainably

The EPA is dedicated to contributing to a sustainable South Australia. This year, it has been working with Adelaide Brighton Cement (ABC) and a community liaison group in relation to environmental improvements to ABC's Birkenhead cement works.

The EPA has also actively promoted the adoption of EcoMapping™ in order to raise the environmental awareness of a wide range of industries, including the Adelaide Hills wine industry.

It has participated as a partner in the across-government Business Sustainability Alliance to provide those businesses interested in improving their environmental performance with a one-stop shop for assistance.

The EPA has also been working closely with other agencies, such as the Department for Environment and Heritage (DEH), Department of Water, Land and Biodiversity Conservation (DWLBC) and natural resources management boards on the issue of improving water quality in South Australia.

Furthering a service-oriented culture

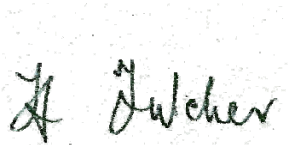
The EPA is committed to developing a service-oriented culture. After consultation with stakeholders, including local government, industry and the community, the EPA organised its third independent stakeholder survey.

The results from the survey were the basis for further development of key strategies and goals, and identified areas of strength, such as effective management of relationships and communication with stakeholders, as well as being a fair, honest and transparent regulator. The survey also gave clear indications of the areas of business that need improving, such as administrative paperwork and licence application turnaround times.

Through its refocused strategic priorities, the Authority is dedicated to building on its achievements from last year. It will be looking at many ways to improve its regulatory performance and protection of the environment. The stakeholder survey highlighted the value licensees place on the EPA's advice to industry, and this has reinforced the EPA's shift towards operating as a collaborative regulator.

An example of this is the adaptation of the Victorian EPA's corporate licence concept. This will not only provide a more outcome-focused, simpler licence for managing local environmental risks, but also include a sustainability agreement between the EPA and the relevant industry.

The EPA looks forward to working collaboratively with industry, the community and other parts of government to improve sustainability for South Australia's environment along with business success.



Helen Fulcher
Chief Executive
Environment Protection Authority

Reconciliation statement

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

ABBREVIATIONS

ABC	Adelaide Brighton Cement
ACC	Adelaide City Council
AHWR	Adelaide Hills Wine Region
ALGA	Australian Local Government Association
AQIS	Australian Quarantine Inspection Services
BLL	blood lead level
BoM	Bureau of Meteorology
BSA	Business Sustainability Alliance
CAMP	Cross-agency Management Protocol
CARES	Complaints and Reports of Environmental Significance
CBD	central business district
CCA	copper chrome arsenate
CE	Chief Executive
CEMS	Compliance and Enforcement Management System
COAG	Council of Australian Government
CLG	community liaison group
CoP	code of practice
DAC	Development Assessment Commission
DCE	dichloroethene
DEH	Department for Environment and Heritage
DPA	development plan amendment
DPLG	Department of Planning and Local Government
DPP	Director of Public Prosecutions
DTED	Department of Trade and Economic Development
DTEI	Department of Transport, Energy and Infrastructure
DWLBC	Department of Water, Land and Biodiversity Conservation
EDMS	Environmental Data Management System
EIP	environment improvement program
EIS	Environmental Impact Statement
EMS	environmental management systems
EP Act	Environment Protection Act 1993
EPA	Environment Protection Authority
EPHC	Environment, Protection and Heritage Council
EPO	Environment Protection Order
EPP	Environment Protection Policy
ERD Court	Environment Resources and Development Court
EVs	environmental values
GENI	General Environmental Information System
GIS	geographic information system
GL	gigalitres
HRD	Human Resources and Development Branch
IT	information technology
KCA	Kimberly-Clark Australia
KPI	key performance indicators
LFG	landfill gas
LFS	licence fee structure
LMC	Land Management Corporation
LMRIA	Lower Murray Reclaimed Irrigation Area
MAR	managed aquifer recharge
NChEM	National Framework for Chemicals Environmental Management

NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NPC	National Packaging Covenant
NPI	National Pollutant Inventory
NRM	natural resource management
NWQMS	National Water Quality Management Strategy
OHS&W	occupational health, safety and welfare
PAHs	polycyclic aromatic hydrocarbons
PAWR	Port Adelaide Waterfront Redevelopment
PCBs	polychlorinated biphenyls
PIRSA	Department of Primary Industries and Resources SA
PM_{10}	particulate matter less than 10 micrometres in diameter
ppm	parts per million
RDS	Records Disposal Schedule
REAP	Resource Efficiency Assistance Program
RPC Act	Radiation Protection and Control Act 1982
RPD	Radiation and Protection Division
SoE	State of the Environment Report
SOI	Statement of Intent
TCE	trichloroethene
TWP	TravelSmart Workplace Program
VS1	Victoria Square building
Waste EPP	Environment Protection (Waste to Resources) Policy
Water Quality Policy	Environment Protection (Water Quality) Policy 2003
WQOs	water quality objectives

HIGHLIGHTS AND MAJOR INITIATIVES

The following is a list of some of the EPA's key highlights and major initiatives for 2008−09 and shows where further information on each of these can be found throughout this report.

Innovative and appropriate regulatory and policy frameworks

To ensure that environmental regulation and policy are based on innovative and appropriate management options for supporting sustainability, the EPA has worked on a number of projects over the 2008–09 financial year. These projects are designed to keep regulation and policy relevant and effective. Highlights from this year include the following achievements:

Working in partnership with industry, the community and government

In carrying out its commitment to work with its stakeholders to reduce risks to the environment and human health, the EPA has worked closely with industry, the community and government. These partnerships enable effective utilisation of expertise with regard to related environmental projects. Some of the significant projects from this year include:

Research and monitoring contributing to informed decision making

To gain more understanding of environments under stress and to inform policy, the EPA has been involved in various research and monitoring programs. The results of these programs will assist with assessing the condition of the environment and with appropriate management systems and responses. Highlights from this work include the following research projects:

INTRODUCTION TO THE ORGANISATION

Environment and Conservation Portfolio

The Environment and Conservation Portfolio consists of four agencies: the Department for Environment and Heritage; the Department of Water, Land and Biodiversity Conservation; Zero Waste SA; and the Environment Protection Authority, which have primary responsibility for the management of the state's natural resources.

EPA organisation chart

Hon Jay Weatherill
Minister for Environment and Conservation

Cheryl Bart AO
EPA Board Presiding Member

Radiation Protection and Control Act 1982

Environment Protection Act 1993

Helen Fulcher
EPA Chief Executive

Tony Circelli
Regulation and Compliance

Peter Dolan
Science and Sustainability

Susan Churchman
Policy, Planning and Communications

Keith Baldry
Radiation Protection

John O'Daly
Corporate and Business Support

EPA governance

The EPA is an independent statutory authority, with a Board responsible for the carriage of the *Environment Protection Act 1993* (EP Act). The Board comprises 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 objects 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 Management Act 1994*, 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 CE makes the services of staff and facilities of the administrative unit available to the Authority for the performance of its functions, and is responsible to the Board for giving effect to its policies and decisions. These are reflected in the EPA's Strategic Plan, which is linked to the priorities of South Australia's Strategic Plan and provides a strategic framework for the work of the EPA.

Our vision

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

Our mission

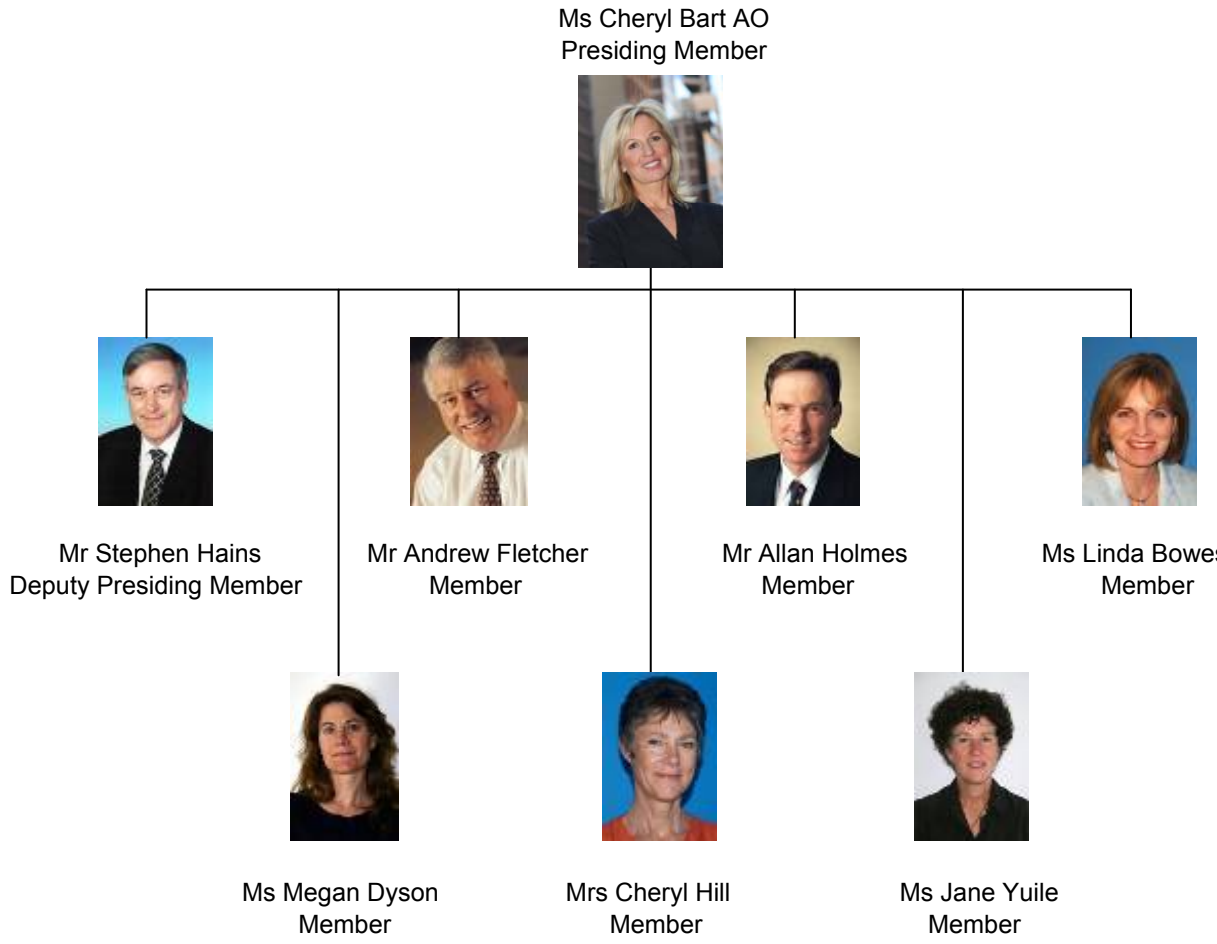
To manage and influence human activities to protect, restore and enhance the environment and to support human, social and economic wellbeing.

Our values

Empathy	Listening to the needs of our stakeholders and responding in a timely manner, with understanding, sensitivity and respect.
Sound judgment	Practical and balanced judgement guided by sound science, analysis, evidence and law.
Cooperation	Achieving results through open communication and working in partnership with each other and our stakeholders.
Innovation	Using lateral thinking and initiative for creative and innovative problem solving.
Integrity	Honesty, transparency and taking responsibility for all we say and do as the foundation for being accountable.

EPA Board membership

The Board is the governing body of the EPA for matters related to the *Environment Protection Act 1993*, and provides strategic direction, develops environmental policy and monitors performance.



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

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. The Chief Executive is also a member of the Board ex officio, although not entitled to a vote on any resolutions.

EPA Board Presiding Member

The roles of the Presiding Member of the EPA Board and the Chief Executive of the EPA were separated by legislative amendment on 7 August 2008. Whereas previously the same person had undertaken both roles, they are now undertaken by separate individuals.

The Presiding Member of the EPA Board, Ms Cheryl Bart, was appointed by the governor on 7 August 2008 for a three-year term. This change has enhanced the independence of the Board and strengthened its overall governance arrangements.

Outgoing members of the Board

Mr Greg Panigas

Mr Panigas was appointed to the Board for his 'practical knowledge of, and experience in, the reduction, reuse, recycling and management of waste or the environmental management industry'. His term with the Board commenced 4 March 2006 and concluded on 3 March 2009. Mr Panigas was instrumental in supporting a better policy and operational response to waste management and provided advice on the needs of the industry in relation to a better, clearer regulatory environment. He was actively involved in the Waste to Resources EPA Board Committee, which established a clear way forward for reform. The EPA thanks Mr Panigas for his valuable contribution to the Board and his commitment to the protection of the environment of South Australia.

Ms Yvonne Sneddon

Ms Sneddon was appointed to the Board for her 'qualifications and experience relevant to environmental protection and management or natural resources management'. Her term with the Board commenced 21 April 2006 and concluded on 20 April 2009. Ms Sneddon has been an important link with the Board to the natural resource management area and has generously offered her time outside Board meetings by providing expert guidance, wise counsel and support in the development and implementation of the EPA's risk management framework and policy. Ms Sneddon has also provided significant direction to the EPA in developing its internal audit function. The EPA thanks Ms Sneddon 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 Regulations.

Five committees reported to the Board over 2008–09:

- Local Government Committee
- Environment Protection (Waste to Resources) Policy Committee
- EPA Board Roles and Responsibilities Committee
- Internal Audit and Risk Review Committee
- Site Contamination Auditor Accreditation Committee.

Local Government Committee

The Local Government Committee was established by the EPA Board in June 2005, under section 17(1) of the EP Act, as a forum for formal discussion and resolution of issues between the EPA and local government, and as a mechanism for involving local government in the EPA policy development process. The committee also provides advice to the EPA Board and the Local Government Association State Executive Committee. Membership is comprised of representatives from local government, Local Government Association of SA and the EPA.

Environment Protection (Waste to Resources) Policy Committee

The Waste to Resources Policy Committee was established by the EPA Board in December 2007, under section 17(1) of the EP Act, as a forum for formal discussion and resolution of issues in relation to regulation of waste to resources. The committee also gives out-of-session consideration to the draft Waste EPP and associated documents, and provides advice to the Zero Waste SA Board and EPA Board.

EPA Board Roles and Responsibilities Committee

The Roles and Responsibilities Committee was established by the EPA Board under section 17(1) of the EP Act, in April 2008, to complete documentation of the roles and responsibilities of the Board—its establishment having been initiated at the Board's planning session. The work of this committee was completed in May 2009 when the Board endorsed a revised version of the Board's Corporate Governance Statement.

Internal Audit and Risk Review Committee

The Internal Audit and Risk Review Committee was established under section 17(1) of the EP Act, in April 2008, to consider the roles and responsibilities of the proposed Executive Subcommittee on Internal Audit and Risk Management and to provide input into the development of its work plan. The committee also oversaw development of an EPA Fraud, Corruption and Influence Prevention Strategy. This committee was dissolved in February 2009.

Site Contamination Auditor Accreditation Committee

The Site Contamination Auditor Accreditation Committee was established under section 17(1) of the EP Act, in August 2008, to advise the EPA Board on the accreditation of site contamination auditors. The committee is required to meet annually.

Funding Model Working Group

In August 2008, the Board convened its Funding Model Working Group to develop a funding model for the EPA that provides a rationale and firm basis for ensuring the sustainability for effective delivery of the EPA's functions, particularly in the context of self funding.

General and special meetings

During 2008–09, the Board met formally on 11 occasions. As well as these meetings, the Board also held a planning session on 22 October 2008, two consultation sessions with stakeholders, and conducted a site visit to the Watershed Function Centre, Mawson Lakes and tour of the Greenfields Wetlands.

Consultation program 2008–09

The EPA Board initiated a number of consultation sessions with stakeholders over 2008–09. As in past years, these proved extremely beneficial to all participants, and gave the Board an opportunity to hear directly from stakeholders about environment protection matters they considered important. This program of consultation contributes to the review and refinement of the EPA's priorities. The following meetings were included in consultation undertaken during 2008–09.

Environment groups—17 December 2008

The Board held a consultation session with representatives from various environment groups, including: People's Environment Protection Alliance, Environmental Defenders Office, Conservation Council of SA, Clean Air Society of Australia and New Zealand, Keep South Australia Beautiful (KESAB), Friends of Gulf St Vincent and Nature Foundation SA. Key themes included stormwater and groundwater management, legacy planning issues, interaction between government agencies and the community, the EPA's regulatory role and the 2008 State of the Environment Report.

Site visit to the Watershed Function Centre, Mawson Lakes and a tour of the Greenfields Wetlands —31 March 2009

At the invitation of the City of Salisbury, the Board held its March 2009 meeting at the Watershed Function Centre, Mawson Lakes. The City of Salisbury has transformed the former Mawson Lakes Sales Centre into a regional sustainability centre. Its primary role is to promote sustainable urban living, and it showcases the region's numerous achievements in water and environmental management. It is also an educational centre that promotes the many initiatives that are being implemented to move the region towards a more sustainable urban environment. Following the Board meeting, members participated in a walking tour of the Greenfields Wetlands.

Industry groups—29 April 2009

The Board held a consultation session with representatives from Business SA, Business SA's Environment Committee, the Engineering Employers Association and the South Australian Employers' Chamber of Commerce. Topics discussed included the kind of support the EPA can provide for business sustainability efforts, the relationship between business and the EPA, support for business in the current economic climate and opportunities to improve communication and information flow between business and the EPA.

Round-table—16 June 2009

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

A Round-table consultation was held on 16 June 2009 with participants from across industry, community, local government and state government. The 2009 Round-table explored the regulatory approach of the EPA, specifically the corporate licence concept, in an effort to increase the EPA's capacity to improve the sustainability of its licensee's

activities and pursue some regulatory reforms in conjunction with its licensing system review project. Keynote speaker, Mr Allen Gale from Goulburn Valley Water in Victoria, shared valuable insight with participants based on the corporate licence experience of Goulburn Valley Water.

Board members and senior EPA staff worked with participants to discuss the value and risks of the corporate licence concept.

STRATEGIC ORGANISATIONAL PRIORITIES

EPA strategic priorities

The EPA Strategic Plan priorities for 2007–10 are:

- Better environmental regulation
- Informed businesses behaving sustainably
- Furthering a service-oriented culture
- Recruiting and retaining good people
- Improving performance measurement.

The priorities were reviewed in early 2009. Further details on the revised EPA Strategic Plan priorities can be found on the following page.

EPA contributing to South Australia's Strategic Plan objectives

The promotion of the principles of sustainability is enshrined as an object under the *Environment Protection Act 1993*, and the EPA is required to take account of these principles in its decision making, and program and service delivery. In 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. These objectives are presented below.

Growing prosperity

Good environmental regulation can enhance business competitiveness and reduce business risk. The EPA will support economic development through cost-effective environmental regulation and reducing the administrative burden on business, while promoting the efficient use of environmental resources to deliver both cost savings to business and reduced impact on the environment.

Improving wellbeing

Through its regulatory and non-regulatory programs and services, the EPA will identify environments or communities under threat or pressure from unacceptable pollution and waste impacts, and develop 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 will use 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 required environmental standards.

Building communities

The EPA will continue to strengthen its engagement with regional and local communities, business and governments so as to share information and deliver high quality programs and services that contribute to strong and vibrant

communities. In so doing, the EPA seeks to ensure that it remains a relevant and credible organisation, and that its services are accessible to all its stakeholders and the wider community.

Expanding opportunity

The EPA will continue 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 will also continue to support its staff through appropriate workforce planning and development strategies.

Revision of the EPA's Strategic Plan

A new EPA Strategic Plan was drafted during the second quarter of 2009, and is due for release in August 2009. The EPA Strategic Plan 2009–12 will provide the framework for the organisation's direction over the next three years in the context of supporting the achievement of South Australia's Strategic Plan targets.

The release of a new plan at this time will allow the new direction and strategic priorities of the organisation to be reflected in operational planning from July 2009. The EPA's new strategic priorities are explained below.

- **Clean and healthy air**—Maintaining and improving air quality, particularly focusing on regional air quality issues, to minimise health impacts and costs
- **Land and water that is fit for purpose**—Protecting South Australia's waterbodies 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 health risks associated with ionising and non-ionising radiation.

Once released, the new Strategic Plan will be available on the EPA website at: <www.epa.sa.gov.au>.

Our environmental goals have also been revised to better describe the EPA's particular focus, and are as follows:

- **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 and local government.
- **Improved regulation**
  Working with its stakeholders, the EPA will continue its efforts to reduce red tape for business. This way, innovative and cost-effective solutions to protect, restore and enhance the quality of our environment will be developed.
- **A reputation for excellence**
  The EPA understands that improving access to its services and clarifying their scope saves time and reduces frustration for our stakeholders. The EPA strive to build a pro-active 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.

State of the environment reporting

The State of the Environment Report (SoE) for South Australia is delivered by the EPA, and provides independent recommendations to government about the condition of the environment. The *State of the environment report 2008* was formally presented to the Minister for Environment and Conservation on 26 November 2008. On the same day, the report was tabled in parliament.

With a total of 41 recommendations to the government, the 2008 report identifies the environmental challenges facing South Australia and the actions needed to address them. It emphasises the important relationship between a healthy environment, human wellbeing and economic prosperity, and the need for government, business and the community to urgently consider the impacts of their decisions and actions, and work together to find and implement solutions.

The report makes it clear that our environment is under significant stress, and highlights the need for bold action to protect and reinforce South Australia's clean and green reputation.

Of particular concern is the declining condition of South Australia's rivers, streams and wetlands in the River Murray floodplain primarily due to over-extraction of water from the river system, increasing salt levels, drought and the non-delivery of environmental flows. The Coorong and Lower Lakes are described as being in the poorest condition ever recorded, and inland waterway ecosystem health is generally declining.

The report sets out some of the steps that the government and the community are taking to tackle these challenges, particularly with regard to water reuse. It shows that South Australia's household water consumption per capita is the third lowest in the nation. There has been a marked increase in the reuse of stormwater and wastewater during the past five years between 2003 and 2008. The report states that greater volumes of wastewater and stormwater are being recycled and reused in South Australia compared with anywhere else in urban Australia.

It is expected that a formal response from government to the 41 recommendations of the report will be coordinated by DEH and provided to parliament during 2009.

BETTER ENVIRONMENTAL REGULATION

Reformed licence fee system

During 2008–09, the EPA introduced a new licence fee system that redistributes licence fees following 'user pays' and 'polluter pays' principles. The system was developed after consultation with a comprehensive group of stakeholders, including all licensees and various government and non-government organisations, and in conjunction with the Licence Fee Reference group.

The reference group includes representatives from Business SA, Engineering Employers Association SA, SA Chamber of Mines and Energy, SA Water, SA Wine Industry Association, SA Farmers Federation, the energy sector in the Port Adelaide region, Department of Trade and Economic Development (DTED), Northern Industry Environmental Forum, Waste Management Association, Local Government Association of SA and the Environmental Defenders Office of SA (representing the community).

The new fee structure is made up of three components:

- a flat minimum fee for all licences to cover the minimum paperwork common to the administration of all licences
- environment management fees for all licences, that reflect the resources required by the EPA to manage different activity groups as well as different licences within activity groups
- resource efficiency fees, that comprise two load-based sub-components: load-based fees for the discharge of selected priority pollutants above specified thresholds, with higher fees for the discharge of key pollutants in sensitive areas; and a water reuse fee for the discharge of water with a salinity of less than 1500 mg of total dissolved solids per litre into the marine environment.

The regulatory reforms also include criteria against which licensees can apply for a reduction in their annual licence fees. Over the first year of operation, a number of licensees have received a fee reduction due to good environmental management and process improvements.

During the implementation of the new licence fee system, it was recognised that the system may require some refinement and improvements. Now that the system has been in operation for one year and has captured all licences, the EPA intends to commence a targeted review of the fee system, and will write to licensees and industry groups to give them the opportunity to provide comment on the system.

The EPA corporate licence project is another licensing initiative that encourages improvement in sustainability. Further details of this project are on page 37.

Partnership with industry—Nyrstar, OneSteel

OneSteel Whyalla

The environmental impact of the OneSteel Whyalla operations are managed through an environmental authorisation attached to the *Whyalla Steel Works Act 1958* as Schedule 3.

The original environmental authorisation enacted by parliament in 2005 was found, during the course of its administration, to have a number of significant limitations.

In 2008, the EPA completed negotiations with OneSteel about amendments to the environmental authorisation to address these limitations. During the negotiations, the EPA sought to develop in partnership with OneSteel:

- licence conditions that clearly identify the site or business areas to which they apply and have clearly defined outcomes

- licence conditions that recognise the costs of delays in the iron ore supply chain
- a clear definition of what constitutes ‘reasonable and practicable’
- a mechanism for allowing day-to-day administrative decisions to be readily made without the involvement of the Minister for Mineral Resources Development
- a mechanism for ‘management of change’
- projects that will further reduce the offsite impact of the company’s operations.

The Minister for Mineral Resources Development varied the environmental authorisation, in accordance with section 15 of the Whyalla Steel Works Act 1958, and laid the relevant variation documents before both Houses of Parliament on 27 November 2008.

Nyrstar Port Pirie

During 2008–09, the EPA continued its significant involvement as a key partner in the ‘tenby10’ child blood lead reduction program. The EPA provided its input into the tenby10 Working Party and tenby10 whole-of-government case management program.

In 2008, the EPA worked with Nyrstar to develop their new 10-year EPA licence. The licence addresses a number of environmental aspects of the company’s operations, with an initial focus on reductions in fugitive lead emissions. The renewed licence commits Nyrstar to an environment improvement program, which specifies a range of additional initiatives and capital works to reduce emissions in support of achievement of the tenby10 goal. At least 95% of children aged under five years with a blood lead level (BLL) less than the World Health Organisation’s goal of 10 µg/dL (micrograms per decilitre) by the end of 2010.

EPA ambient monitoring in Port Pirie shows continuing improvement in lead levels in the air during 2008–09. This contributed significantly to the continuing reduction observed in the number of children with BLLs above 10 µg/dL. By the end of 2008, approximately 70% of children under the age of five years had a BLL below 10 µg/dL (SA Health 2009).

The completion of significant capital works at Nyrstar’s smelter site over the past two years to reduce fugitive airborne lead emissions is believed to have been a primary contributor to this improvement, including the blast furnace fume capture system and improvements to the operation of the slag fuming and sinter plants.

In addition to lead emission reduction, the renewed licence commits Nyrstar to improvements to stormwater quality and the storage and management of intermediate materials at the site. The impacts of sulfur dioxide emissions in Port Pirie, although considered to be relatively minor at this time when compared with lead, are being further investigated. Nyrstar’s licence is likely to be amended further to address this issue in coming years.

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 451 applications were assessed by the EPA (see Table 1) with 96% of all responses being provided within the statutory time frame as prescribed by the *Development Act 1993* and Regulations. The EPA provides advice on development applications and, in certain cases, can direct that proposals be refused or certain conditions be attached to ensure that the environment and community are protected.

Table 1 Assessment of development applications

Development application type	Description	2007–08		2008–09	
		No.	On time (%)	No.	On time (%)
Schedule 8 Item 11	Schedule 22: Activities of major environmental significance	230	97	179	99
Schedule 8 Item 10(b)	Schedule 21: Activities of environmental significance	134	96	95	93
Schedule 8 Item 10(a)	'Non-complying' development in a water- protection area	64	95	72	100
Schedule 8 Item 9	Wind farms	1	100	7	100
Regulation 29	Land division	91	98	68	94
Section 49	Crown development by state agencies	34	97	30	90
Totals/averages		**554**	**97**	**451**	**96**

Assessment of major developments and projects

The EPA also assesses proposals declared by the Minister for Urban Development and Planning to be of major environmental, social or economic importance. These major developments and projects must be referred to the EPA if they include an activity of environmental significance, as prescribed in Schedule 1 of the EP Act.

However, the minister refers most major developments and projects to the EPA for assessment and advice on potential environmental impacts associated with such development proposals. Documentation relating to the following major projects was referred to the EPA during 2008−09 for assessment:

- 88 O'Connell Street, North Adelaide
- AAMI Stadium new lighting
- Adelaide Desalination Plant
- Bradken Foundry (variation of development application)
- Buckland Park Township
- Cape Jaffa Marina (reserved matters)
- Ceduna Keys Marina (EIS amendment)
- Encounter Bay Shopping Centre and Residential Development
- Mannum Marina (reserved matters)
- Myponga/Sellicks Hill Wind Farm (variation of application)
- Nan Hai Pu Tuo Temple, Sellicks Hill
- Narnu Waterways, Hindmarsh Island

- IWS Northern Balefill, Dublin (amendment to EIS)
- Northward Fill: Inkerman Landfill (second amendment to EIS)
- Olympic Dam Mine Expansion
- Pomanda Island Weir, Wellington
- Southern Ocean Lodge, Kangaroo Island (condition variation).

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 reviews, to encourage both 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 46 SOIs, three ministerial DPAs, 37 local council DPAs and two local council Section 30 reviews.

The EPA also contributes to the development of regional planning strategies and master plans that form part of the South Australian Planning Strategy established under the Development Act 1993. The Planning Strategy provides guidance to councils in reviewing their development plans and, therefore, has a direct impact on local development. During the year, the EPA contributed to the development of the following regional planning strategies and master plans:

- 30-year Plan for Greater Adelaide
- Eyre and Western Region Planning Strategy
- Limestone Coast Planning Strategy
- Kangaroo Island Regional Land Use Framework
- Le Fevre Residential and Industrial Growth Strategy
- Victor Harbour Urban Growth Management Strategy
- Light Regional Council Strategic Plan.

Aquaculture

The *Aquaculture Act 2001* became operational in July 2002. The administration of this Act is the responsibility of Primary Industries and Resources South Australia (PIRSA). However, the Act stipulates statutory requirements that must be met by the EPA, such as assessment and provision of comments on aquaculture licence applications, variations of licence conditions and lease conversions. During the reporting period, 76 licence applications and no lease conversions were assessed. The EPA also addresses and responds to the statutory requirements of the Development Act 1993 and to general aquaculture issues. The EPA is represented on the Aquaculture Advisory Committee, which advises the minister responsible for administering the Aquaculture Act on matters pertaining to aquaculture.

Compliance and enforcement

Development of the Compliance and Enforcement Management System

The EPA's Compliance and Enforcement Management System (CEMS) is being developed to bring together the tools necessary to guide staff and improve consistency and transparency in compliance and enforcement decision making and actions. The objective of working within this system is to improve stakeholder confidence in the EPA and the effectiveness of the regulatory system.

At the foundation of the system are five principles, which underpin all of the EPA's regulatory decision making:

- proportionality
- consistency
- transparency
- targeted
- timely.

Consideration of these principles is fundamental to achieving the objectives of both the EP Act and RPC Act. This builds credibility and trust with EPA stakeholders based on a shared understanding and responsibility for achieving environmental outcomes across government, community and industry, with the least cost to all parties.

The initial focus of the development of the CEMS has been the review of the current compliance and enforcement guidelines. This process has resulted in the production of two new documents:

- EPA's compliance and enforcement policy and process statement
- Compliance and enforcement regulatory options and tools.

The EPA's compliance and enforcement policy and process statement was endorsed by the EPA Board, and both documents will soon replace the current compliance and enforcement guidelines. Both documents will be published late 2009.

The two documents set out the EPA's compliance and enforcement principles within an overarching system, and describe the options and actions the EPA may take in response to the many and varied incidents of non-compliance. They align the requirements of the EPA with those of other regulatory agencies both nationally and internationally and, most importantly, provide clear guidance on how the EPA intends to do things better—for the benefit of stakeholders and staff.

Environment Protection Orders

Environment Protection Orders (EPOs) can be issued by authorised officers under section 91(1) of the EP Act (see Table 2).

Police officers are authorised under the EP Act to use EPOs to deal with complaints about noise from domestic premises. Some local government officers are also authorised under the EP Act, but this authority is limited to the council area in which they are employed.

Table 2 Environment Protection Orders

EPOs recorded	2006−07	2007−08	2008−09
EPA	21	14	22
Police	279	131	144
Councils	57	39	4

Kimberly-Clark Australia—Case study

The EPA is working towards post-indenture for Kimberly-Clark Australia (KCA) in partnership with industry and other government departments.

KCA operates two mills adjacent to each other in the South East of South Australia—the Tantanoola Mill and the Millicent Mill—which produce pulp and paper products. The two mills are integrated and share wastewater, steam, filtrates and pulp. These mills currently operate under a combination of an indenture—in relation to the *Pulp and Paper Mills Agreement Act 1958* and the *Pulp and Paper Mill (Hundreds of Mayurra and Hindmarsh) Act 1964*— that expires in 2014, and an EPA licence. The indenture allows the company to discharge wastewater into drains that flow into Lake Bonney, which is South Australia's largest freshwater lake. Under the indenture, the government accepts legal responsibility for the mill effluent being released into the environment.

Significant work has been undertaken by the EPA and DEH over a number of years to understand the water quality and science associated with the lake. Recent and continuing technological upgrades and modifications to the KCA mills have significantly improved the quality of wastewater discharge into the lake, and the EPA now considers the lake to be in a much improved state (particularly in terms of chemical toxicity) and suitable for uses such as fishing. However, there is still a risk of algal blooms due to the high level of nutrients entering the lake, particularly from KCA's discharge. The company has already spent significant funds developing and implementing technological improvements, and is currently considering some millions of dollars of further technological improvements (which require more research and development) in readiness for the expiry of the indenture in 2014.

The EPA, KCA and DTED met regularly throughout 2008–09 to discuss post-indenture operation at KCA. These discussions have focused on various options for wastewater from both mills, including reuse and disposal. An across-government position statement on the requirements for KCA (agreed to by the EPA, DTED, DEH and DWLBC) was prepared and presented to KCA in early 2009. The key element of this statement relates to the expectations of the EPA regarding what is considered reasonable and practicable for assessment of wastewater options that must be undertaken by KCA.

KCA intends to develop a self-initiated environment improvement program (EIP) in consultation with the EPA with the intention of completing it in readiness for the expiry of the indenture in 2014. KCA has been presenting its progress on this plan since January 2009, and is aiming to present its EIP to the EPA in the second half of 2009 for consideration and determination of an appropriate way forward.

Waste to Resources Environment Protection Policy

Following extensive consultation with industry, and local and state government agencies, the EPA prepared a draft Environment Protection (Waste to Resources) Policy (Waste EPP). The policy will support the achievement of South Australia's Strategic Plan Target T3.8: 'Zero waste—Reduce waste to landfill by 25% by 2014' and promote waste management best practices through applying principles of sustainable waste management, including the waste management hierarchy.

When finalised, the policy will provide direction for the management of specific waste streams and how waste management facilities should operate to ensure consistency with the waste management objective within the policy. The draft policy was released for public consultation from 7 November 2008 to 20 February 2009, and circulated widely to stakeholders. Twelve stakeholder presentations on the draft Waste EPP were also given, with over 300 people attending. Numerous submissions were received, and a response to these submissions is expected to be released early in the 2009–10 financial year.

Waste reform project

The EPA promotes the sustainable management of waste materials and recognises that particular waste streams may be suitable for beneficial reuse, recycling and recovery. Given the rapid pace of progress in the resource recovery area, the EPA Board established a committee to broaden its focus beyond waste disposal and to better deal with emerging issues and opportunities in relation to regulation of the waste to resources sector. The Board approved the final report of the Waste to Resources Committee on 19 October 2007.

The recommendations of the report included:

- reviewing the approach of waste to resources in the EP Act to ensure a risk-based framework is provided
- developing a Waste EPP to promote sustainability objectives
- articulating the objectives and principles of waste management regulation in South Australia
- developing further advice on waste-derived materials.

The Waste Management Reform Project was initiated to implement the recommendations of the committee's report within the context of expanding opportunities for recovery and reuse of waste whilst managing environmental risks.

Over the 2008–09 financial year, the following work has been completed:

- risk-based assessment of waste and resource recovery activities to determine which activities require EPA licensing, including proposed thresholds and exemptions
- progress on the Waste EPP
- publication of the guideline *Waste Definitions*, which provides definitions for a range of terms commonly used within the waste industry.
- publication of the *Guideline for stockpile management—Waste and waste derived products for recycling and reuse*, which outlines the requirements for the management of potential risks associated with the stockpiling and storage of waste and waste-derived materials
- publication of the guideline *Refuse derived fuel—Standard for the production and use of refuse derived fuel*, which outlines relevant legislation and describes the principles and factors that need to be considered for the EPA to support any proposal to produce and use refuse derived fuel
- drafting of the guidelines for Waste derived fill—Protocol for the production and use of waste derived fill and Waste derived soil enhancer—Standard for the production and use of waste derived soil enhancer
- update of the EPA website to include more comprehensive information for industry and the general community

The implementation of the standards will continue to progress through 2009–10, during which time the EPA will meet with industry sectors, as appropriate, to ensure their understanding of the EPA's expectations and their ability to use the standards to progress beneficial reuse opportunities.

Landfill gas

Landfill gas migration and the potential risks to human health have become more evident with the recent case of Brookland Greens Estate in Cranbourne, Victoria. In response to this, the EPA initiated an assessment of landfill gas (LFG) issues in South Australia. A desktop risk assessment has been undertaken, and a report produced to identify which of the known large landfills in South Australia has the potential to generate LFG levels that could be a risk.

Of the approximately 460 landfills in South Australia (some historic) known to the EPA, the risk assessment is focusing on large landfill sites that are a combination of closed and operational sites. Landfills that are classified as small or medium (by waste volume) are not included in the assessment. Each site is being assessed against a range of parameters, including total waste volume, age of waste, rainfall and distance to sensitive receptors. To date, 20

large landfill sites have been identified as potentially posing a high risk and requiring further monitoring and investigation.

Mining applications

The EPA reviews mining lease applications submitted to PIRSA and provides advice to them as to whether a licence will be required. In some cases, such as IMX Resources, the EPA will licence the activities associated with establishing the mine's infrastructure. However, the EPA does not licence the mine itself.

Table 3 shows mining application reviews conducted by the EPA during the 2008–09 financial year.

Table 3 Mining application reviews

Company	Project	Action taken by EPA in 2008–09
Benagerie Gold Pty Ltd	Portia Gold	Review of mining lease proposal and advice to PIRSA
Centrex Metals Ltd	Wilgerup Haematite	Review of mining lease proposal and advice to PIRSA
Polymetals (White Dam) Pty Ltd	White Dam Gold	Review of works approval application
Hillgrove Copper Pty Ltd	Kanmantoo Copper	Review of tailings storage facility design water policy
Iluka (Eucla Basin) Pty Ltd	Jacinth–Ambrosia Mineral Sands	Review of works approvals and licence application
OZ Minerals Prominent Hill Operations Pty Ltd	Prominent Hill copper/gold	Review of licence application
IMX Resources	Cairn Hill Magnetite (haul road)	Review of licence application

2007 Wingfield Taskforce

Wingfield is described as Adelaide's largest waste precinct, as the majority of metropolitan waste is processed at Wingfield waste facilities or transferred through the precinct before being recycled or transported to landfill. The precinct is dominated by eight large-scale waste industry businesses, all of which hold a licence issued by the EPA.

In September 2007, the EPA established the Wingfield Taskforce in response to concerns raised by the licensed industry regarding the number of unauthorised waste activities in the suburb. The taskforce systematically investigated the Wingfield precinct and, between September 2007 and March 2008, identified 12 activities requiring further investigation.

In response to the findings of the taskforce, and with the goal of ensuring a consistent approach within the waste industry, the EPA has significantly increased its operational presence in Wingfield since October 2008, which will be ongoing.

The increased presence has resulted in an improved stakeholder relationship and a more timely response to emerging issues. In addition, it has further reduced the number of unauthorised waste activities, with the identification of only three unlicensed activities that are currently subject to investigation.

It was considered unnecessary to further investigate five of the initial 12 activities identified, which included the storage of empty skip bins and the onsite storage of small quantities of bitumen road profilings for use as road base. In the case of the remaining seven activities, the EPA has ensured each business is in compliance with the requirements of both the Development Act 1993 and the EP Act.

As at 10 June 2009, all but two of the 12 activities identified are compliant with the EP Act. The two outstanding activities have lodged licence applications with the EPA and are currently subject to the development approval process. The EPA will complete the licensing process once development approval is granted, which will bring an end to the work undertaken by the taskforce.

Cross-agency management protocol—management of unauthorised waste activity

This year, the EPA led a cross-agency working group, consisting of representatives from key stakeholders with a role in managing illegal dumping in South Australia. The working group has developed a Cross-agency Management Protocol (CAMP) for the more efficient management of unauthorised waste activities.

The CAMP is currently being considered by the decision-making bodies of participating agencies for endorsement and implementation. The objectives of the protocol are designed to:

- ensure a fair and consistent approach is adopted across government to manage incidents of unauthorised waste activities
- outline when and how to refer these incidents to relevant government bodies
- clarify the roles and responsibilities of all government bodies in relation to the management of unauthorised waste activities
- identify relevant compliance and enforcement tools that can be used to underpin the management protocol.

The protocol is designed to strengthen relationships between the EPA, local governments and industry, with all stakeholders working collaboratively towards a more efficient management of unauthorised waste activity in South Australia.

Container deposit legislation

The EPA successfully implemented changes to the EP Act to increase the refund amount for Category B beverage containers from 5c to 10c. The refund increase commenced on 1 September 2008, and an immediate increase in return rates was observed. In 2008–09, the return rate for all container types was 75.8%, which is approximately 6% higher than in each of the previous three years (see Table 4).

Table 4 Percentage return rates for beverage containers

Year	% Return
2005–06	69.5
2006–07	70.6
2007–08	69.9
2008–09	75.8

Approximately 577 million beverage containers were returned to collection depots during 2008–09. This is approximately 60 million more containers returned during 2008–09 compared with 2007–08. Approximately 46 809

tonnes of beverage containers were sent to super collectors for recycling. Liquid paperboard had the greatest increase in return rate, increasing by 14% compared with 2007–08 (see Table 5).

Table 5 Return rates (and comparison with 2007–08) for the various container types

Container type	% Return	Comparison with 2007–08
Glass	79.1%	+0 6%
Aluminium	82.9%	+5.6%
Polyethylene terephthalate or 'PET'	70.4%	+6.8%
Liquid paperboard	49.6%	+14%
High-density polyethylene or 'HDPE'	50.9%	+1.7%

Plastic bag legislation compliance

In January 2009, the South Australian Government introduced legislation to ban the supply of checkout-style plastic bags. This legislation provided transitional arrangements until 4 May 2009, to allow retailers time to adjust to the ban. Since the total ban came into effect, EPA enforcement officers have identified minimal problems. The majority of retailers have had almost no problems in complying with the ban on plastic bags.

Commencement of site contamination legislation, new regulations and new auditors

In November 2007, parliament passed the *Environment Protection (Site Contamination) Amendment Act 2007* (Amendment Act). Since that date, parts of the Amendment Act have commenced, with the remaining parts due to commence on 1 July 2009. The associated Regulations have also been drafted, circulated for consultation and passed by parliament.

This new legislation allows the EPA to:

- assign responsibility for historical site contamination to an appropriate person, based on the 'polluter pays' principle
- enter into voluntary, but statutory, agreements with that person to assess and/or remediate site contamination
- where necessary, issue assessment and/or remediation orders to an appropriate person
- recognise agreements that involve the transfer of liability for site contamination
- restrict or prohibit the taking of water
- establish a site contamination audit system.

In the past year, there have been many guidelines and information sheets published to support the legislation. They are available on the EPA website or upon request.

A Site Contamination Auditor Accreditation Committee has been established by the EPA Board, which has interviewed selected applicants. Auditors carrying out a similar role interstate are, upon application, able to gain accreditation in South Australia under mutual recognition legislation. As of 1 July 2009, South Australia will no longer rely exclusively on the Victorian audit system, as it will have its own.

Amendments are proposed for the Development Act and the *Land and Business (Sales and Conveyancing) Act 1994* to complete the legislative package that will effectively manage site contamination in South Australia.

Le Fevre Peninsula contamination—Case study

The Port Adelaide Waterfront Redevelopment (PAWR) project, possibly the largest remediation project to be undertaken in South Australia, encompasses many hectares of land adjacent to the Port River. The remediation and redevelopment project is being undertaken in a staged fashion over an extended timeframe (possibly up to 15 years).

The project is expected to result in the remediation of large areas of historically contaminated land. This will provide for the beneficial use of the land, whilst reducing potential ongoing human health and environmental impacts, particularly on the Port River, from the historical pollution source.

In June 2008, the Le Fevre Peninsula Primary School reported a noticeable increase in dust fall at the school, and expressed concern about its potential association with the PAWR site. The school also expressed concerns about the possible health impacts of the increased levels of dust.

The EPA and SA Health conducted an independent, staged assessment of the nature and extent of dust impacts at the primary school. This assessment included regular inspections of activities at the adjacent PAWR site, an evaluation of airborne particle monitoring data obtained from EPA monitors located at the primary school and the collection and analysis of dust samples collected from within school buildings.

SA Health raised concerns about the potential for human health effects if people were exposed to the dust at the school for long periods of time (greater than 20 years with regard to its assessment of the data from the EPA sampling). Following negotiations with the EPA, the Land Management Corporation (LMC) instigated a number of modifications to its environmental management practices at the PAWR site to significantly reduce dust impacts on the school. Site-specific dust monitoring conducted at the PAWR site and the EPA dust monitoring station have verified that the generation of dust has been minimised. The LMC has also conducted a one-off clean up of dust in the school, verified by the EPA, to remove dust that may have originated from its PAWR site. Also, at the request of the school, several large stockpiles of soil have been successfully relocated to an area away from the school. The soil is to be reused in later stages of the redevelopment project.

The EPA will be involved in the approval process for future stages of the PAWR redevelopment, and will ensure that appropriate development approval conditions are recommended to the planning authority to manage environmental risks posed by the project. The EPA will also continue to monitor the environmental performance of the project.

The EPA continues to provide regular updates to the school and other key stakeholders through a consultative group that was formed soon after the EPA became aware of the issue. The EPA also continues to monitor dust levels at the school and to work closely with the school community and the LMC. Monitoring data indicates that dust impacts on the school from the PAWR site have significantly decreased since the EPA's investigation and LMC's follow-up actions.

Clovelly Park groundwater contamination—Case study

In November 2008, the EPA became aware of elevated groundwater and soil vapour concentrations of the chemical substances trichloroethene (TCE), vinyl chloride and dichloroethene (DCE) in the Clovelly Park area.

Evidence of TCE, an industrial chemical used widely as a metal cleaner and degreaser since the 1960s, was of particular concern as exposure to it has been associated with several adverse health effects including neurotoxicity, immunotoxicity, developmental toxicity, liver toxicity, kidney toxicity, endocrine effects and cancer.

In response, the EPA, together with SA Health, advised the residents of 230 houses in the area against the use of bore water, unless tested to show the suitability for use, and conducted further investigations to ensure the safety of residents living in the area.

The combined efforts of the EPA and SA Health staff enabled a swift response in preparing and conducting the testing and assessing results in a timely manner, despite adverse weather conditions. Throughout December 2008 and January–March 2009, the EPA and SA Health undertook sampling of soil vapour and indoor and outdoor air, to investigate the potential offsite extent of the contamination and potential risks to the health of nearby residents.

Indoor air quality testing revealed that the TCE concentration in the majority of homes tested was below levels that required further investigation. However, a block of flats was found to have concentrations in ground floor units that exceeded acceptable levels. Residents have been provided with the results of testing and the opportunity to discuss them with SA Health. In addition, the affected tenants have been relocated, as recommended by SA Health.

The EPA is continuing to work closely with SA Health and unit owners to provide technical advice and support in relation to assessment of indoor air quality.

The EPA is also continuing to work with nearby industrial site owners to establish the source and extent of the contamination through soil and groundwater assessment works and, once this is determined, to develop a remediation strategy.

Managed aquifer recharge

Managed aquifer recharge (MAR) schemes are of increased strategic significance as a part of the South Australian Government's strategies and initiatives with regard to water management, including the State water plan *Water for Good*, Water Proofing Adelaide and associated projects.

The number of MAR schemes in Adelaide has continued to grow over the last 12 months. The continuing drought has maintained the focus on sourcing alternative water resources to sustain Adelaide's long-term water needs. The capture and reuse of stormwater and increased utilisation of treated wastewater remains a high priority, and aquifers provide a convenient storage medium provided they are suitable for the purpose.

MAR is recognised as a relatively new field and, because of this, the EPA has chosen to take a collaborative approach with the proponents of MAR schemes to ensure the best environmental outcomes are achieved. To this end, the EPA, in conjunction with other agencies, such as DWLBC, natural resource management (NRM) board representatives and SA Health, has developed a strategic project to streamline the regulatory processes and reduce the regulatory burden on MAR scheme operators. The aim is to ensure the health and safety of the community and the agreed environmental values of groundwater are protected now and into the future.

The EPA has been developing a new risk-based code of practice (CoP) for MAR, and this is due to be issued in March 2010. The new CoP will be applicable to all potential MAR schemes across South Australia, including treated wastewater. The new code is based upon the *Australian guidelines for water recycling* that has been produced under the National Water Quality Management Strategy.

As part of the implementation of these initiatives and development of a CoP, the EPA has been reviewing its requirements for development applications, works approvals and licences to ensure that emphasis is placed upon managers of MAR schemes to assess the risks associated with these schemes and implement appropriate risk management practices.

Healthy Waters Project

Currently, the *Environment Protection (Water Quality) Policy 2003* (Water Quality Policy) is informed by default environmental values (EVs) and water quality objectives (WQOs) for all of South Australia. The policy was drafted with the expectation that environmental values and water quality objectives relevant to specific areas would be developed to ensure that the policy remained a relevant and effective tool for water quality management in South Australia. The EPA Water Quality Branch is responsible for this task through its environmental goal, in the EPA Strategic Plan, of 'Water quality that meets agreed environmental values'. This is important for the sustainable management of the quality of South Australia's precious water resources. Location-specific guidance provides a powerful tool for compliance for those holding and managing authorisations under the EP Act and for local government and others seeking guidance to comply with the provisions of the Water Quality Policy.

Information about EVs and WQOs is also important for NRM boards, as they inform their own investment programs and priorities for their officers in regional areas. This further assists the EPA, and has a high potential to influence compliance with the EP Act and the Water Quality Policy in regional areas.

Recognising this, the EPA has formed a partnership with the Adelaide and Mount Lofty Ranges NRM Board and other interested groups, including the Office for Water Security and SA Water, to develop agreed EVs and interim WQOs for the Adelaide and Mount Lofty Ranges region—the Healthy Waters Project. Further support has been received for the Healthy Waters Project from the Commonwealth's Caring for our Country funding.

The project has gathered all existing information about EVs for the region and undertaken an extensive consultation process with agency and industry stakeholders, along with community individuals and groups. This work has focused on aspirations for water quality, but within the context of what trade-offs may need to be made for these to be achieved. Healthy Waters has an additional focus for the effective management of groundwater, whereby appropriate EVs and WQOs will facilitate MAR to assist with the reuse of treated wastewater and stormwater in a sustainable manner across the greater Adelaide metropolitan area.

The outcome will be a set of area-specific, practical and achievable targets for water quality management across the region, that will have broad community and stakeholder agreement. The project is on track for public consultation, with a draft report due for release in September 2009. Approval by the Minister for Environment and Conservation to amend relevant Schedules of the Water Quality Policy will be subsequently sought.

Drought response initiatives

Wastewater reuse—municipal wastewater schemes

Many community wastewater management systems around South Australia are being developed or upgraded with the injection of state and federal government funds of approximately $208 million. These systems are designed for reuse of up to 8 GL per annum of wastewater for irrigation purposes.

The Local Government Association advises that there are approximately 50 reuse schemes (for 35 councils) under construction or completed. There are 15 new schemes currently being designed and/or constructed, with another 27

approved schemes awaiting funding. During the 2008–09 summer, up to 100% of treated wastewater from Christies Beach Wastewater Treatment Plant was used for irrigation through the Willunga Basin Water Company.

The EPA is working with SA Health to develop an easy-to-use guide for operators who wish to irrigate wastewater close to waterbodies, including the River Murray and the coast. The Australian recycled water guidelines are being used as a basis to develop a process by which operators (often local councils) can obtain approval to irrigate treated wastewater in areas closer to waterbodies than current standards allow. The basis for the process is the development of a risk management plan. Currently, one Riverland council has had its proposal to irrigate a community oval accepted by the EPA. Other proposals are expected in coming months.

The EPA is involved in determining an appropriate regulatory framework for the Glenelg to Adelaide Park Lands Recycled Water Project. This project is ahead of schedule, with a new target completion date of 9 September 2009. Over 70% of the 6.5 km of 750 mm rising main and 65% (15 km) of the ring main around the parklands is complete. There are potentially 30 other users of the wastewater besides the Adelaide City Council, with a total reuse projection of 4.3 GL. It will be important that a risk management plan, dealing with potential irrigation impacts, is prepared and built into a framework that ensures long-term sustainability.

Emergency dredging—Lower Murray region

Through the creation of multi-site emergency authorisations, the EPA continues to provide a ‘fast track’ process for activities that allow farmers and businesses to access water in the Lower Murray region—for example, for contractors to dredge irrigation channels. This is accompanied by a development assessment process that responds to applications in a short timeframe. It also has links with the work done and advice provided for the management of acid sulfate soils.

Lower Murray Reclaimed Irrigation Area

Since 2000, the EPA has been working toward improving water quality of the Lower Murray (from Mannum to Wellington), where most of Adelaide’s water off-takes are located. A risk assessment conducted in 2004 identified dairying as the major cause of poor water quality. This is due to over 100 years of returning paddock runoff to the river, which has increased the amount of nutrients and bacteria to unacceptable levels. The Lower Murray Reclaimed Irrigation Area (LMRIA) covers over 5000 hectares and involves over 100 landholders. The total water used on this area equals the total water used by Adelaide each year. Seventy irrigators, managing over 4000 hectares, took part in the rehabilitation process, which is designed to reduce irrigation water use and pollutant loads returned to the River Murray. Others left the area or chose not to rehabilitate but to cease irrigation.

The $22-million LMRIA restructure and rehabilitation project was funded under the Commonwealth National Action Plan for water quality and salinity subsidised approximately 83% of the cost of the mandatory onground works. These works included required metering of all irrigation properties’ water use and the installation of surface water capture and reuse systems, including stormwater runoff, to prevent polluted water entering the river.

The EPA contributed to the work through environment improvement and management programs for each of the 70 properties, incorporating best management practices for irrigation, paddock improvement, effluent use and disposal, and monitoring and reporting of inputs into the river and water use on the properties.

The project has resulted in more efficient use of irrigation water, reduced nutrient and bacteria flow to the river and a greater appreciation of the impacts of land and water management in the area. The EPA has benefited through gaining a greater and very positive presence in the Lower Murray area. This will provide more opportunities for change management and reduction in pollution sources. Currently, the drought is limiting the provision of monitoring data. However, this will improve as increased flows return to the river.

National Framework for Chemicals Environmental Management

South Australia has been leading the development of a national framework for managing environmental risks of the 38 000 industrial chemicals currently in use in Australia. The EPA's Chief Executive chairs a national working group: the National Framework for Chemicals Environmental Management (NChEM), which is developing a governance structure and supporting policy, as well as technical tools, to manage these risks.

South Australia's leadership of this framework commenced in late 2008, and during the time of South Australia's lead, NChEM has published manuals to support consistent national risk assessments and developed a strategy to address the gap between risk assessments and governance of chemical risks and management. The working group has been a cooperative collaboration between the states and Commonwealth of Australia, culminating in the recent in-principle agreement by Australia's environment ministers to adopt the proposed governance model, including an advisory body and the national Environment Chemical Bureau. The working group is now formulating detailed arrangements for the Environment Chemical Bureau, including funding and legislative models, and monitoring and chemical labelling.

Enforcement and investigations

The EPA conducted investigations into 23 incidents this financial year, and seven matters carried over from 2007–08, giving a total of 30 investigations. Of the 30 matters, 14 have been finalised as follows:

- Three matters have been finalised in the Environment, Resource and Development (ERD) Court (see Table 6).
- One matter was dealt with by way of a negotiated civil penalty.
- 10 matters were dealt with by other compliance actions, including the provision of advice, issuing of Environment Protection Orders or Clean-up Orders, and expiation notices.

There are four matters currently before the ERD Court and yet to be concluded—two matters relate to environmental harm, one relates to breach of an EPA licence and the other relates to protection of marine waters. Currently there are:

- seven matters under active investigation
- four matters under review at the Crown Solicitors Office to determine the sufficiency of evidence.

The negotiated civil penalty matter, brought against Agribusiness Services Pty Ltd during 2008–09, resulted in a penalty of $13 918.50 plus technical costs of $6046.84 for breach of section 36 of the EP Act and two breaches of Clause 17 of the Water Quality Policy.

Table 6 Finalised prosecutions 2008−09

Offender name	Charges	Penalty
Transpacific Industries Pty Ltd	Serious environmental harm s80(2) of EP Act	$15 770.00
Downer EDI Works Pty Ltd	Polluting the environment causing serious environmental harm s79(2) of EP Act (penalty includes $96 000 in costs)	$189 759.68
Mulhern's Waste Oil Removal Pty Ltd*	Polluting the environment causing serious environmental harm ss79(2) of EP Act and nine counts of contravening conditions of environmental authorisation s. 45(5) of EP Act	$460 800.00

* Mulhern's are currently appealing this decision

EPA's contributions to the Environment Protection and Heritage Council

Together with the Commonwealth, the Australian Local Government Association (ALGA) and all the other Australian states and territories, South Australia is a member of the Environment Protection and Heritage Council (EPHC). It is also a member of the National Environment Protection Council (NEPC), which has the same membership with the exception of ALGA. NEPC's role is limited to the making and amendment of National Environment Protection Measures (NEPMs). South Australia is represented on these councils by the Minister for Environment and Conservation. The NEPC and EPHC are supported by a Standing Committee of Executives from environment agencies, with South Australia represented by the Chief Executive of the EPA on the NEPC Standing Committee and by both the EPA and DEH Chief Executives on the EPHC Standing Committee.

The work program of the EPHC includes matters relating to waste management, air and water quality, environmental management of chemicals and heritage. DEH leads South Australia's participation on heritage matters, including natural heritage, while the EPA leads on all other matters.

More specifically, the EPA contributes to the work of the EPHC/NEPC through:

- **Supporting the minister's participation in the EPHC/NEPC:** The EPA prepares and coordinates briefings to the minister in preparation for the council meetings, and participates in the preparation of agenda papers. At the initiative of South Australia, the EPHC made recommendations to the Council of Australian Governments (COAG) on alternative approaches to regulatory impact assessment to reflect the non-market costs and benefits of environmental policy. Examples of the application of these alternative approaches are the use of choice modelling to determine the willingness of consumers to pay for the responsible disposal of e-waste (computers and televisions) and for a national container deposit system.
- **Participation in working groups:** The EPA is a member of a number of EPHC/NEPC working groups, and the EPA Chief Executive chairs the NChEM Working Group, which has been tasked with the implementation of a number of recommendations of the Productivity Commission, accepted by COAG.
- **Reporting:** The EPA prepares an annual report on the implementation and effectiveness of NEPMs in South Australia, which forms part of the NEPC Annual Report. There are existing NEPMs for ambient air quality, air toxics, assessment of site contamination, diesel vehicle emissions, movement of controlled wastes, National Pollutant Inventory, and used packaging materials.
- **Funding:** The EPA funds South Australia's share of the costs of the NEPC Service Corporation, which serves as the Secretariat for EPHC/NEPC, and also contributes to various project consultancies.

Red-tape reduction

Major reductions in 'red tape' facing businesses are a key feature of the South Australian Government's economic development strategy and the EPA's commitment to best practice environmental regulation. The EPA's contribution to the government's first red-tape reduction plan, up to mid-2008, has been a direct saving to businesses of $2 million per annum, which provided additional flow-on benefits to the local economy. This was primarily achieved by improving performance in responding to development assessment referrals.

As part of the government's second red-tape reduction plan, the EPA is committed to generating additional direct savings for businesses of $2 million per annum by April 2012. This saving will largely be delivered by streamlining the administration of licences issued under the EP Act. This initiative is intended to reduce the time required to issue licences, works approvals and exemptions, thereby enabling businesses to commence operations faster. Licence conditions will also be revised, making them less prescriptive and, therefore, giving businesses more flexibility in achieving compliance with legislative requirements. Reform of licence conditions is a key feature of the corporate licensing system that is currently being developed.

This reform initiative represents the fifth improvement program for licensees under the EP Act. Previous reforms are:

- the introduction of an integrated pollution control licensing system that resulted in separate licensing systems for discharges of pollutants to air and water, along with waste management being replaced by a single system
- additional incentives for improved environmental performance through licence accreditation and fee reductions for entering into environment performance agreements with the EPA
- major reforms to the licence fee structure that reduced licensees' reporting costs for fee determinations. A redistribution of fees in accordance with the 'user pays' and 'polluter pays' principles resulted in reduced fees for approximately 660 licensees and a substantial increase in incentives for improved environmental performance. This is via an increase in the proportion of fees that are variable and directly related to environmental performance from approximately 30% to 55%
- the introduction of a three-tiered licensing system reflecting the risk of operations and licensee behaviour, with best performers being subject to reduced frequency of inspections and less demanding licence conditions.

Crematoria audit

In South Australia, the EPA regulates the environmental impacts from crematoria. Under the EP Act, the cremation of bodies is classified as an activity of environmental significance that requires environmental authorisation in the form of an EPA licence.

During the cremation process, pollutants can be emitted, such as particles (visible as smoke), odour, greenhouse gases and nitrogen oxides. Using as little fuel gas as possible, while ensuring no smoke or odour emissions, will mean that minimum quantities of pollutants are emitted. This is because some pollutants (such as odour or smoke) require more natural gas to ensure full combustion, while others, such as nitrogen oxides or carbon dioxide (a greenhouse gas), increase with more gas usage.

From May–November 2008, the EPA undertook an audit of all 10 South Australian crematoria (both human and pet) in response to a query from an industry consultant who questioned why the EPA focuses on emission limits for medical waste incinerators and not on emission limits to the same extent for crematoria.

The findings from the audit provided valuable information about the environmental performance of the cremation sector within South Australia. As a result of the audit, the EPA is determined to improve the consistency of monitoring requirements for the sector. This involves altering the requirements for each crematorium.

Under the new requirements, there must be no visible smoke or odour being emitted from a facility during normal operation. This will be assessed by the use of computer-based records of smoke measurement; reviewing operating parameters, such as temperature and residence time; and checking equipment in accordance with the manufacturer's instructions. The new requirements will mean that some facilities may need to increase their level of monitoring. They will also promote consistency within the cremation sector and assist with ensuring that the minimum possible amount of pollutants is emitted from the cremation process.

Crematorium operators were contacted and advised of findings from the audit, and positive feedback was received, including that this was a good, common-sense approach. Appropriate notifications have been made in line with section 46 of the EP Act, and changes to licence conditions for crematorium operators are due to be completed by the end of 2009.

Adelaide Desalination Plant EIS assessment

The Adelaide Desalination Plant proposal at Port Stanvac was declared a Major Development under the Development Act 1993 in April 2008. In September 2008, the Environmental Impact Statement (EIS) guidelines for the project were released by the Development Assessment Commission (DAC) following consultation with the EPA. The EIS was released on 12 November 2008.

The EPA provided detailed comments on the EIS to the Department of Planning and Local Government (DPLG) on 24 December 2008, including a request for additional brine discharge modelling and ecotoxicity testing. SA Water's response to all public and agency submissions was completed in January 2009.

The EPA assisted the DPLG with preparing an assessment report on the Adelaide desalination project in February 2009, and drafting conditions for development approval for consideration by Cabinet and the Governor of South Australia.

In March 2009, the governor approved the project, subject to various conditions, including those recommended by the EPA. Key conditions included requirements for:

- a comprehensive Construction Environment Management and Monitoring Plan
- an Operational Environment Management and Monitoring Plan
- a 50 to 1 dilution of the brine discharge when it reaches the sea floor in all locations and under all tidal and sea conditions
- under-sea boring of intake and discharge water pipes.

Adelaide Aqua, a consortium led by a Spanish company, won the contract to build the Adelaide Desalination Plant.

During March–June 2009, the EPA reviewed Adelaide Aqua's draft Construction Environment Management and Monitoring Plan, and advised on the likely EP Act conditions for operation of the desalination plant at a scale of 100 GL of production water per year.

Olympic Dam Expansion EIS assessment

The mining operation at Olympic Dam is regulated by the *Roxby Downs (Indenture Ratification) Act 1982* and associated indenture. However, the EPA licenses various chemical and metallurgical operations at the mine under the EP Act. The EPA also licenses the mining and milling of radioactive ores at the mine under the RPC Act.

During 2008–09, the EPA had substantial involvement in the assessment of the Olympic Dam Expansion EIS. The Olympic Dam Expansion Project proposal involves conversion of the current underground mine to an open cut mine for processing of copper (up to 1 million tonnes per year), uranium, gold and silver.

The expansion also includes the installation of substantial new infrastructure, including:

- sourcing and supplying additional water from bore fields within the Great Artesian Basin and a sea-water 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
- construction, relocation and upgrades to transport infrastructure including rail, road, airport, large landing facility and port
- additional infrastructure and services associated with expanded accommodation needs at Roxby Downs, the mine workers camp and other local towns.

On 1 May 2009, a 14-week public consultation period commenced with the release of the final EIS. The final EIS consisted of two parts—a 700-page main document, and 3500 pages of appendices providing technical information and studies. It is the largest EIS and development proposal in South Australian history.

INFORMED BUSINESSES BEHAVING SUSTAINABLY

Corporate licence project

The EPA has initiated a project to build on its licensing system to enable it to cover broader sustainability actions that are delivered using a voluntary sustainability agreement. This project is based on the Victorian EPA 'corporate licence' initiative.

The Victorian EPA corporate licence has four aspects:

- promoting and securing greater sustainability using a sustainability agreement
- multi-site licences
- less prescriptive, outcome-based licence conditions, in plain English
- certificates of compliance.

The EPA currently encourages improvements in sustainability in an informal way with many licensees. However, the corporate licence concept offers a significant opportunity to build on this with a formal sustainability agreement. These voluntary agreements promote the EPA working with business to embed sustainability as a business principle. Although they will not be legally binding, the EPA will be seeking a public commitment to deliver on these agreements.

The corporate licence project will also develop procedures to expand on the use of multi-site licences. Multi-site licences have the potential to provide environmental benefits and reduced red tape for both industry and the EPA.

Making compliance more efficient and effective will be a focus in developing a system to deliver plain English, licence conditions that focus on outcomes, not processes. However, modern, flexible regulation is not 'one size fits all'. It requires a proportionate approach by a regulator. Therefore, outcome-based conditions will not be offered to all licensees.

Licensees who have a proactive approach to compliance will have the benefit of outcome-based licence conditions and can decide how best to achieve compliance.

Those who do not have a proactive approach or a good compliance record will have prescriptive, action-based conditions applied to their licence.

Through the licence, the EPA can require a licensee to report annually on compliance with its licence conditions and detail the nature and reason for any non-compliance. The aim of this is to raise awareness of compliance issues in organisations and encourage a culture of compliance, supported by an explicit, high-level commitment.

EcoMapping™—Case study

The Adelaide Hills Wine Region (AHWR) is located in Adelaide's water supply catchment, where biodiversity and water quality issues are significant for the future of Adelaide's water supply, as well as the viticultural and winemaking businesses.

The AHWR has committed to the continual improvement of their environmental performance through the adoption of ecologically sustainable practices and the development and implementation of environmental management systems (EMS) for all of its members. To maximise the engagement of all members, a simple and easy-to-use tool was needed.

The EPA, with the support of the Business Sustainability Alliance, helped the AHWR adopt the EcoMapping™ EMS tool (a very successful model used in Europe). This started with a pilot of 12 AHWR members working together in cluster groups to develop a practical and simple EMS for their own sites.

As EcoMapping™ encourages management and staff to create visual maps of water and energy use, as well as identify sources of waste, air pollution and environmental risk, it becomes easy for business to identify potential improvements in work practices and processes. This is the basis of the environmental improvements.

'It's extremely encouraging to see that the number of members utilising our EMS program is growing, and it's significant that this includes some of our region's major growers and wineries', said Larry Jacobs of Hahndorf Hill Winery, who spearheaded the program on behalf of the AHWR.

The incentive for the AHWR to apply such a proactive approach to continuous environmental improvement is to ensure the preservation of the natural Adelaide Hills environment and to secure the region as a leader of sustainable viticulture and wine making in a global context, potentially resulting in increased export opportunities.

The overall EMS program undertaken by the AHWR can be viewed at their website: <http://www.adelaidehillswine.com.au>.

Business Sustainability Alliance

EPA resource efficiency officers have been working with their counterparts in Zero Waste SA, SA Water and DTED to align and support each other's programs, including promoting EcoMapping™ through the other agencies and conducting an Environment Improvers Program for the food industry at the South Australian Food Centre.

The main initiative for the Business Sustainability Alliance (BSA) has been the development of the Resource Efficiency Assistance Program (REAP), an internationally benchmarked diagnostic to determine the sustainability of a business, coupled with workshops to meet specific needs. REAP is targeting mid-sized businesses, as well as local and state government sectors.

The highlight of the BSA this year has been the signing of a memorandum of understanding by the chief executives of the four agencies in November 2008. The BSA website has been created as a portal for businesses seeking sustainability information, and was launched in April 2009 <www.southaustralia.biz/bsa>, along with the development of a BSA branding identity.

In order to improve the uptake and consistency of sustainability policies, the BSA has formed a Strategy and Policy Group involving key state government agencies.

The BSA has the capability of supporting the EPA's new sustainability agreements (based on the corporate licence concept) with relevant training and information packages.

Progressive implementation of landfill guidelines

It has been two years since the introduction of the EPA Guidelines *Environmental management of landfill facilities (municipal solid waste and commercial and industrial general waste)*. The EPA continues to work closely with local government and private landfill operators to ensure that the requirements of the landfill guidelines are met in accordance with the implementation schedule as follows:

- 2 January 2007—the landfill guidelines apply to all new landfill developments
- 1 July 2008—proponents either close non-compliant landfills by this date or have an EPA-approved closure plan for implementation by no later than this date
- 1 July 2010—all landfills must comply with the landfill guidelines.

Further progress has been achieved by the EPA and landfill operators with regard to the continued implementation of the landfill guidelines. Since the release of the guidelines, of the 178 operational landfills:

- 49 closed prior to 1 July 2008
- 96 are intending to close between 1 July 2008 and 1 July 2010
- 33 are intending to remain operational post 1 July 2010.

As at May 2009, of the 145 sites that have closed or are intending to close, the EPA has received 106 closure and post-closure monitoring plans for assessment, of which 66 have been approved. There are currently 39 closure and post-closure monitoring plans yet to be submitted for assessment from landfill site operators who have indicated that they will be closing prior to 1 July 2010.

Guidelines for Environment Protection (Noise) Policy 2007

The *Guidelines for the use of the Environment Protection (Noise) Policy 2007* (Noise EPP Guidelines) is a technical information guide intended for use by authorised officers[1], administering agencies[1], acoustic professionals and others (practitioners) who use and administer the *Environment Protection (Noise) Policy 2007*. The guidelines have been written to provide a clause-by-clause explanation of the policy, together with practical examples, to assist practitioners with applying the policy.

The *Noise EPP Guidelines* were refined through targeted consultation with relevant EPA staff, local government officers involved in noise complaint resolution and representatives from acoustic consultancies. Feedback from consultation has been received, and appropriate changes have been incorporated into the guidelines.

In addition to the *Noise EPP Guidelines*, a suite of information sheets have been written for use by the general public.

EPA guidelines for noise from wind farms

The EPA *Wind farms environmental noise guidelines* were originally published in February 2003. In response to industry concerns, the guidelines were replaced in December 2007 by interim guidelines for wind farms. The interim guidelines do not contain procedures for checking compliance. The concerns expressed by the major stakeholders are centred on whether the existing compliance methodology could provide an adequate measure of the true contribution of wind turbine emissions against other noise sources within very quiet rural environment.

During 2008–09, the EPA carried out a project to address the wind farm noise issue. The main stages of the project included:

- a review of papers and regulations on wind farm noise monitoring (both domestic and international, including SA EPA reports and contractor observations)

[1] As defined in the Environment Protection Act 1993.

- a comparison of the proposed guidelines with similar regulation and international practice
- noise prediction methods for wind farms
- instrumental and noise monitoring methods and solutions that might be implemented for wind farm noise monitoring
- a comprehensive noise monitoring program of a wind farm (case study) involving recent advancements in acoustic measurements.

A multi-stage consultation process was carried out to introduce the latest amendment of the guidelines. The *Draft wind farms environmental noise guidelines* were released for consultation in October 2008 and evoked significant public and stakeholder interest. The EPA has since conducted two workshops for major stakeholders and has organised one more round to collect responses on the amended draft.

The EPA also conducted research on the associated topics, such as the influence of high wind speed on noise measurements and the verification of accuracy of noise prediction methods. Information about relevant research and future amendment of the guidelines has been published in proceedings of the conference: *Acoustics 2008—Acoustics and Sustainability* and journal *Acoustics Australia*. The EPA intends to continue researching relevant topics and maintaining updates of the guidelines in accordance with the best available practices.

Comments, suggestions and proposals have been collated and appropriately included in the new guidelines, currently awaiting official publication. Similar to the previous release, it is thought the document will be widely used to assess noise impact from wind farms by different authorities across Australia.

Review of National Water Quality Management Strategy

In May 2009, the EPHC, Natural Resources Management Ministerial Council and National Health and Research Management Council endorsed the National Water Quality Management Strategy's (NWQMS) Australian guidelines for water recycling, Phase 2 modules: 'Stormwater harvesting and reuse' and 'Managed aquifer recharge' (MAR). The EPA contributed to these national guidelines, which will provide a firm basis for policy and regulation development. In particular, the MAR guidelines provide the framework and technical background for the EPA's MAR CoP.

The EPA also contributed to the scoping of the revision of NWQMS Guideline 4 (*Australian and New Zealand guidelines for fresh and marine water quality 2000*), endorsed by the EPHC to occur over the next three years. This guideline is a vital document in the management of water quality in Australia and New Zealand, providing methods and technical background to the establishment of limits on pollutant concentrations in freshwater, coastal and marine environments. Recent research and data will be incorporated into the revision, which will negate the need to undertake similar work at the state level.

Statutory review of the Air NEPM

The 10-year statutory review of the National Environment Protection (Ambient Air Quality) Measure (Air NEPM) has been underway since November 2005. The EPA has participated directly in this process through its membership of the Air NEPM Review Working Group. The review was projected for completion in 2008, with the publication of the second of two public discussion papers. The first paper, addressing NEPM performance, structure and policy issues, was published in 2007. Completion of the second paper, reviewing the national environment protection standards for air quality, has been pushed back to late 2009. Setbacks in completing some of the health consultancies have contributed to the delay, but further delays have occurred in developing agreed approaches to determining costs and benefits of potential changes to the NEPM.

National Packaging Covenant

The South Australian Government continues to underpin the National Packaging Covenant (NPC) through the implementation of its *Environment Protection (Used Packaging Materials) Policy 2007*. The policy requires brand

owners who are deemed to be significant contributors to the waste stream to either sign the NPC or comply with the policy's requirements.

The EPA undertook a brand owner audit in March 2009 to identify companies that were significant contributors to the waste stream. A total of 200 brand owners products were randomly audited across a variety of stores in metropolitan Adelaide. All brand owners were referred to the Covenant Secretariat for follow-up action.

The EPHC requested industry to prepare a new covenant to replace the current covenant when it expires on 30 June 2010. The EPHC is likely to be in a position to make a decision in November 2009 about the future of the NPC.

National product stewardship developments

The EPA assisted with the development of the Draft Tyres Product Stewardship Agreement and Draft National Environment Protection (Tyres) Measure (Tyres NEPM*)*, as well as the finalisation of the associated regulatory impact statement.

Further work in 2009 was undertaken to identify the fate of end-of-life tyres due to the changing nature of markets worldwide. It is expected that the EPHC will be equipped to make a final decision on the Tyres NEPM in November 2009.

Work on proposed product stewardship agreements for televisions and computers continued during 2008–09. Significant progress has been made with the relevant industries, and it is anticipated that the EPHC will be in a position to decide how to manage these problematic wastes by November 2009.

Greywater projects

During 2008–09, 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)*, with an emphasis on the River Murray and greywater treatment solutions.

The EPA and the South Australian Murray-Darling Basin NRM Board completed a research trial with the commercial houseboat industry to determine the effectiveness of world-first greywater treatment technology for vessels.

The EPA also entered into a collaborative agreement with Standards Australia to develop an Australian Standard for greywater treatment systems on vessels to ensure that all systems meet a minimum quality standard. The project has progressed rapidly throughout 2008–09, and the new standard is due for publication in September 2009. Funding for this project was received from Standards Australia, SA Water, South Australian Murray-Darling Basin NRM Board and DWLBC.

Liaison with interstate boating associations and authorities is continuing, with a view to adopting EPA greywater management requirements and treatment technology for vessels at a national level.

Working together to save the Murray from sand—Case study

Local communities and governments alike are united to save South Australia's natural resources and ensure sustainability. South Australia's mighty River Murray is many things to many people. It is a source of pleasure that provides an aquatic playground, major tourism drawcard, and houseboat and shack haven, and supplies fresh fish and potable water. Its environmental values are widely respected as it winds through unique landscapes alongside wetlands filled with wildlife.

All this is at stake as we add more challenges to the river's health and survival. Landholders along the River Murray are responding to drought conditions and prolonged low river levels by dumping sand to allow improved access to the river for recreation. Wind, waves and water traffic can quickly move and redistribute this sand into the river's ecosystems, damaging the natural state of the river, as well as creating hazards for both commercial and recreational uses.

Local councils along the River Murray have been working together with the EPA, other state government agencies and local suppliers to prevent further sand dumping. This cooperation has seen a dramatic decrease in the number of incidents occurring on the Lower Murray.

Sand dumping for the creation and extension of beaches along the River Murray has been a long-term problem, originally identified by local councils and later confirmed through the risk assessment process in 2004. The councils and DWLBC were keen fr the EPA to play a greater role in preventing this activity.

Stephen Packer of the EPA explained that sand used for beaches eventually washes into the river and causes many adverse impacts, such as creating sandbars, smothering the bank, river plants and animals, and blocking pumps. This leads to areas requiring dredging—itself a damaging activity. The drought has exacerbated this problem, as people use sand to make the exposed mud safer and easier to walk on. When the river level rises, all of the deposited sand will wash away and cause more problems.

The EPA embarked on a major media campaign, printing flyers, issuing press releases and advising sand suppliers of the penalties for placing sand near the river's edge. The campaign was greatly assisted by the Mid–Murray Council and the Rural City of Murray Bridge, who have posted out nearly 13 000 flyers to their ratepayers. The EPA has also produced an information sheet on its website to advise people of alternatives to sand, and that they must work with the local council if considering permanent works.

'The community response has been excellent. South Australians risk losing so much, and this is now being understood by many of the river's landholders. We are seeing a decrease in the practice of sand dumping and are happy to hear that alternatives for creating easier water access are being considered, including jetties, pontoons and approved beach-building materials', said Andrew Strauss, Acting Works Manager, Mid–Murray Council.

The EPA, along with the DWLBC, regional NRM boards and River Murray local councils, will continue to run its media and awareness campaign. It will also be extended to include River Murray councils above Lock 1 during 2009–10.

Water quality monitoring

The EPA monitors and provides assessment on the water quality of the River Murray and Lower Lakes. Monthly reports are sent out on the water quality of the Lower Lakes to key stakeholders and a public report is made available on the EPA website <www.epa.sa.gov.au/lower_lakes.html>. The major ecological impacts in the lakes at present are due to high salinities and drying, and disconnection of habitats.

In 2008, the EPA developed trigger levels to give warning of any potential acidification of the Lower Lakes due to exposure of acid sulfate soils. These were subsequently endorsed by the Murray–Darling Basin Ministerial Council. The triggers were exceeded in the Currency Creek region in May 2009 when local rainfall on exposed soils resulted in low pH and high heavy metal levels in surface water. Management actions involving limestone additions have been implemented by the DEH to neutralise this acidity. An EPA water quality officer has been undertaking detailed monitoring and assessment in this region.

Small-scale desalination plants

The EPA has assisted, by the provision of technical guidance, with the establishment of a number of small-scale desalination plants around the River Murray Lower Lakes to support food and wine sector irrigators. These plants have allowed valuable crops to be maintained as water quantity and quality in the Lower Lakes deteriorated.

Lower Lakes acid sulfate soils

The Murray-Darling Basin is experiencing the worst drought conditions on record, and the Lower Lakes are under extreme stress, resulting from a combination of low water levels and the exposure of acid sulfate soils. Release of acid and metals from these soils can lead to acidification of waterbodies and toxic impacts on aquatic biota and human health. The EPA is managing a major research project designed to inform management decisions surrounding use of sea-water and/or alternative remediation options for acid sulfate soils in the Lower Lakes. This research is critical to ensuring sound management decisions are made that do not compromise the future recovery of the Lower Lakes.

Dust and rainwater quality monitoring has also been undertaken at various locations around the lakes to provide information about potential human health risks from dust blowing off exposed lake beds. Concerns about dust have increased in the community, but no health risks were apparent in the preliminary monitoring results. This work will continue over the summer of 2009–10 to provide a more comprehensive assessment.

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 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, state and territory governments.

Portfolio NPI key performance indicators

Managing environmental risk of significant point sources of pollution—air

Table 7 shows the percentage change in the pollution load for key air emissions from authorisation holders reporting to the NPI (in both financial years of 2002–03 and 2007–08). This measure is based upon data reported and the percentage difference between total emissions from facilities from 2002–03 to 2007–08. Some substances showed a decrease in emissions—11% decrease for oxides of nitrogen and 28% for total volatile organic compounds. Overall, there has been an increase in emissions of key pollutants ranging from 6% for sulfur dioxide to 21% for carbon monoxide. The increase is primarily due to increases in industrial activity at numerous sites.

Table 7 Percentage change for key air emissions based on NPI data

AIR		EMISSIONS		
Substance	Number of reporters	Total tonnes per financial year		Difference over 5 years (%)
		2002–03	2007–08	
Carbon monoxide	113	65 586	79 570	21
Lead and compounds	73	55	61	11
Oxides of nitrogen	113	46 493	41 519	-11
Particulate matter 10 µm	113	13 180	14 473	10
Sulfur dioxide	116	74 246	79 072	6
Total volatile organic compounds	173	14 467	10 405	-28

Managing environmental risk of significant point sources of pollution—water

Table 8 shows the percentage change in the pollution load for key water emissions, from authorisation holders reporting to the NPI (in both financial years of 2002–03 and 2007–08). This measure is based upon data reported and the percentage difference between total emissions from 2002–03 to 2007–08. All substances showed a decrease in emissions. The differences ranged from a 3% decrease for total phosphorus to 38% for copper and compounds.

Table 8 Percentage change for key water emissions based on NPI data

WATER		EMISSIONS		
Substance	Number of reporters	Total tonnes per financial year		Difference over 5 years (%)
		2002–03	2007–08	
Copper and compounds	7	2	1	-38
Lead and compounds	8	4	3	-33
Zinc and compounds	3	28	20	-30
Total nitrogen	9	2387	1688	-29
Total phosphorus	9	406	396	-3

Motor vehicle air emissions inventory for Adelaide

The EPA has initiated a program to develop a comprehensive air emissions inventory for South Australia. An emissions inventory estimates pollution from all sources within a region, called an 'airshed', providing information that can be used to develop air quality models that assist with resolving local pollution control issues, or developing broad management plans for a region, such as the Adelaide metropolitan area. Sources include licensed and non-licensed industries, transport and domestic sources, such as wood heaters and petrol-powered garden equipment.

Stage one of the program, a project to develop a motor vehicle emissions inventory, is near completion. This is a collaborative project between the EPA, Department of Transport, Energy and Infrastructure (DTEI) and SA Health, being undertaken by the University of Adelaide. It provides estimates of emissions from all major roads in South Australia under various conditions. The information for Adelaide will not only help our understanding of how traffic contributes to air quality now, but also how changes in vehicle numbers and technology, and traffic patterns will influence air quality in Adelaide over coming decades. Some of the techniques being developed for the motor vehicle emissions inventory are quite novel, and the project is attracting interest from other Australian jurisdictions.

An important outcome from this program has been the establishment of the cross-agency group, incorporating representatives from the EPA, DTEI and SA Health. This group will have a continuing role in the collaborative management and utilisation of the inventory and related programs, but will also provide a forum to identify current and emerging issues for air quality and to recommend strategic approaches for managing its long-term impacts on South Australian communities.

Mount Gambier SmokeWatch and fine particle monitoring

Following the successful pilot of the SmokeWatch community education program in the Adelaide Hills during the winters of 2006 and 2007, the EPA is now focusing its efforts on delivering the program in Mount Gambier, another region of the state identified as being effected by wood smoke pollution during the winter months.

SmokeWatch was launched in Mount Gambier in March 2009, and is a collaborative partnership between the EPA, the City of Mount Gambier, the Firewood Association of Australia and the Australian Home Heating Association, with support from various local businesses and organisations, including local wood heater and firewood suppliers, health services, schools and real estate agents.

The aim of the program is to reduce wood smoke pollution caused by the inefficient use of domestic wood heaters in the Mount Gambier City Council area, by encouraging more efficient use of wood heaters and building the capacity in the local community to take ownership of wood smoke pollution issues.

As part of the program, the EPA located air monitoring equipment in Mount Gambier in early June 2009 to obtain information of the levels of wood smoke in the region during the winter months. The monitoring consists of PM_{10} and fine particle monitoring along with a particle sizing instrument. The latter instrument is being used to assist the EPA to identify potential sources that contribute to particle pollution. The monitoring activities will be used to provide a 'snapshot' of air quality in Mount Gambier during the winter months, last conducted in 2002.

FURTHERING A SERVICE-ORIENTED CULTURE

Stakeholder perspective survey

The third stakeholder perspectives survey was undertaken on behalf of the EPA by the Ehrenburg-Bass Institute for Marketing Science. Earlier surveys were undertaken in 2002 and 2006.

Three stakeholder groups were surveyed—licensed business stakeholders, radiation licensees and callers to the EPA complaints and enquiries hotline. The report indicates that there are significant differences in the level of awareness, knowledge, service quality and satisfaction between these stakeholder groups, a finding not unexpected given the very different interactions these groups have with the EPA. The EPA scored an overall stakeholder satisfaction rating of 61/100.

The perceived strengths of the EPA were identified as: effectively managing relationships and communication with stakeholders; and the areas where most improvement can be made relate to process issues, such as paperwork, licence application paperwork turnaround time and providing feedback.

Pollution complaints hotline

The EPA continues to maintain a pollution complaints line to receive calls about environmental concerns (see Table 9).

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

- provide information to the caller (verbal advice or mailing of information)
- register a formal complaint for follow-up by an authorised officer
- refer the information provided by the caller to another state or local government agency for action.

Table 9 Number of complaints received by the EPA

Type of complaint	2006−07	2007−08	2008–09
Air quality	1091	994	762
Air and noise	45	74	86
Noise	860	939	1029
Marine pollution	28	14	33
Water*	150	101	104
Waste	210	182	168
Other	97	95	149
Total	**2481**	**2399**	**2331**

* Most water complaints are handled directly by local government.

Complaints and Reports of Environmental Significance database (CARES)

The online Complaints and Reports of Environmental Significance database has been operating for eight years. There have been 2331 complaints received by the EPA during 2008−09. In addition to EPA users, there are 14 councils and two other government agencies that regularly access this database.

Co-regulation of the environment by local government and the EPA

Both local and state governments are involved in:

- the setting of appropriate standards to protect the environment
- ensuring that new development is sustainable
- the education of the community and industry about appropriate environmental management standards
- enforcing appropriate standards of environment protection (where necessary).

Councils that use compliance and enforcement provisions in the EP Act to protect the environment and improve amenity within their areas are able to request assistance from the EPA when required.

The existing EPA support protocols will be further developed and maintained to strengthen local government capacity to administer the EP Act by:

- promotion of consistent compliance and enforcement standards across the state by agency administration staff and other authorised persons
- encouraging the community to resolve problems independently, if possible, in preference to involving authorities and, eventually, enforcement
- coordinating the provision of technical advice and training to council authorised officers and delegates to enable them to effectively use the EP Act.

Involvement with the community and Adelaide Brighton Cement—Case study

In 2005, Adelaide Brighton Cement (ABC) established a community liaison group (CLG) for its Birkenhead cement works. The meetings are set in an open forum, chaired by an independent facilitator and attended by community members, local council, a local school representative, the EPA, ABC and visitors. The meetings include sharing information about the plant and its processes, the EIP in place, stack emissions monitoring, ambient monitoring, community complaints and any other issues raised by the community.

ABC has continued to make further environmental improvements in 2008–09, including optimising its operations to reduce the amount of dust emitted from the stacks and implementing an ambient dust monitoring plan to assist with identifying areas for further improvement.

ABC's alternative fuels and raw materials program has shown a significant reduction in nitrogen oxide emissions due to the use of alternative fuels as a replacement for natural gas. Other benefits include diverting material away from landfill and a reduction in greenhouse gas emissions from non-renewable energy sources.

The EPA considers that ABC's environmental improvements and its communication with the CLG have improved ABC's relationship with the community and increased the community members' knowledge of the cement works. Members of the CLG have commented that they now have 'better communication and a better understanding of how the business operates'. Residents are also 'confident in receiving feedback from ABC and also from the EPA as mediators, and the community meetings are working well'.

Bushfire at Port Lincoln landfill—Case study

On 13 January 2009, a bushfire in Port Lincoln destroyed all recycling facilities and the office building on the landfill site, damaged the weighbridge and infrastructure and both active disposal cells were set on fire, as was a storage area for green waste, mulch and recyclables. Immediate measures implemented to control and extinguish the fire in the disposal cells were successful, and both cells were able to be progressively re-opened for disposal.

Port Lincoln Council staff and onsite contractors were very cooperative and responsive to the EPA's advice and suggestions throughout this process, and gave feedback that highly commended the EPA for its assistance during this time. The collaboration between all parties involved led to Port Lincoln's investment in fully engineered cells being saved. In addition, the EPA was actively involved in assisting the council with temporarily diverting waste to the Coffin Bay landfill, located in the District Council of Lower Eyre. The assistance provided by District Council of Lower Eyre during the time when it was most needed was of great benefit to this process.

The EPA advised on urgent disposal options for 1000 tonnes of fire-affected bait fish from a company's site, with a preference for disposing of the waste to a site that was licensed by the EPA and accredited by the Australian Quarantine Inspection Services (AQIS) to receive such waste. The Whyalla landfill, the closest disposal facility at the time, was prepared to receive the waste. However, the company preferred to bury the material on its own land.

After the company gained approval from the AQIS for the destruction, by deep burial, of the bait fish on its own premises, the EPA issued an emergency authorisation, outlining conditions for the short-term management of the site. The EPA is continuing to work with the company and its consultant to finalise a report that addresses the terms and conditions of the long-term management of the buried pilchards on the premises, while minimising the potential risk to protected environmental values.

OPTIMISING ORGANISATIONAL CAPABILITY

During the review of the 2007–08 Corporate Operational Plan, it was recognised that, while the organisational strategic priority 'Recruiting and retaining good people' had provided an essential focus for the EPA, the strategic focus needed to be broadened to include the concept of organisational capability. Therefore, the strategic priority was amended to become 'Optimising organisational capability'. This ensured that the EPA not only employs and retains good people, but develops the capacity and skills of all staff and its internal operating systems to deliver agreed outcomes within a tightening resource base.

Business development and reform

In May 2009, the EPA set up a Business Development and Reform Directorate to focus resources and attention on key organisational programs and product service development.

Two of the key initiatives are the development of the sustainable licensing tool (corporate licences project) and the review of the co-regulatory role of the EPA and local government. Business Development and Reform will also continue to focus on a program of regulatory reform to ensure best practice application and management of legislation. Key initiatives in the reform agenda include:

- a targeted review of the EPA's licence fee structure
- reforms to the licence administration system
- reforms to the EPA's customer service desk function
- continued development of the Compliance and Enforcement Management System.

Business Development and Reform is well positioned to provide a conduit between policy development and operational implementation, adding immense value to effective policy development.

Formation of EPA Audit and Risk Management Committee

In March 2009, the EPA Audit and Risk Management Committee was established. The primary objectives of the committee are to assist the EPA Chief Executive in fulfilling and discharging her responsibilities in relation to:

- the EPA's risk management framework
- financial reporting practice
- external and internal audit functions
- financial and internal control systems.

This will be achieved by providing an independent, objective and robust view of the effectiveness of these policies, frameworks and controls.

The committee comprises three EPA Board members (one of whom is appointed as chairperson), two EPA management members and a public sector manager external to the EPA.

Preparation of the site contamination GENI module

The state government, through the EPA, prepared the *Environment Protection (Site Contamination) Amendment Act 2007* to add provisions to the EP Act in relation to site contamination. These provisions form part of a set of measures to ensure that site contamination is adequately managed in South Australia. These measures include the *Environment Protection (Site Contamination) Regulations 2008*, and amendments to Regulations under the Land and Business (Sale and Conveyancing) Act 1994 and planning processes under the Development Act 1993.

To be able to administer these legislative changes to the EP Act and to improve the performance of the EPA in fulfilling its legislative responsibilities, various existing business processes were required to be modified and new processes established within the Site Contamination Branch and other branches of the EPA.

These processes required changes and additions to the existing General ENvironmental Information System (GENI), to support activities such as:

- accreditations and renewals for site contamination auditors
- notation of site contamination on land titles
- reporting and administration of site contamination audits
- prohibition or restriction of taking water affected by site contamination
- special management areas
- notification of site contamination of underground water
- site contamination assessment and remediation orders.

Changes were also required to improve the ability of the EPA to carry out its function in responding to questions prescribed in the Regulations under the Land and Business (Sale and Conveyancing) Act. The process to facilitate the implementation of these changes included the development of detailed user requirements and functional specifications, the development/coding of the GENI module, quality assurance testing of the software, and final training and implementation.

Critical information technology modules required for the commencement of the legislation are currently undergoing testing, and are expected to be available for commencement of the legislation on 1 July 2009. There will be a requirement for the remaining components and functionality to be developed during the 2009–10 financial year.

Commonwealth water information system

The Commonwealth's *Water Act 2007* was created to enable better water accounting throughout Australia. The Water Act and associated Regulations require the EPA to supply certain water quality and meteorological data. A proportion of the historical meteorological data acquired from instruments deployed for the EPA ambient air quality monitoring program was stored in spreadsheets in a form unsuitable to be sent to the Bureau of Meteorology (BoM). In addition, the data had to be mapped to an XML schema before it would accepted by the BoM.

The EPA received funding of $65 000 for two projects to address the issues of historical meteorological data entry into the Environmental Data Management System (EDMS) and formatting data from EDMS into the XML schema. The entry of historical data into the EDMS was completed on time and within budget in early June 2009. The development of the XML mapping tool is expected to be completed in July 2009 and within budget. Completion of these two projects will enable the EPA to meet its obligations to provide the required data in the required formats automatically and on a fortnightly basis, by late July 2009.

EPA transition to new accommodation at Victoria Square

In March 2009, the EPA moved into its new headquarters at 250 Victoria Square (VS1). This move into a green star-rated building allowed the EPA to consolidate staff from three separate sites into one. Furthermore, given the building has large floor of around 2200 m^2, the EPA is now spread over less than two floors.

To assist with the facilitation of the move into VS1, EPA staff disposed of:

- 47 bins of general waste (240 litres)
- 1 bin containing old disks, tapes, CDs and DVDs (240 litres)
- 2160 lever arch files, which were removed and recycled by an outsourced storage provider

- 94 m^3 of rubbish from Grenfell Street (all recycled)
- 20 m^3 from Kent Town (all recycled).

Between 1 June 2008 and 28 February 2009, 525 boxes of records were also sent to an offsite storage facility.

This consolidation, coupled with an open-plan layout, has greatly enhanced the formal and informal communication and collaboration between staff in different branches and divisions of the EPA. The building itself, and the EPA's fit-out, incorporate the best available technologies to reduce energy and water use, ensure waste and water recycling, and improve indoor air quality. Since moving to VS1, there have been signs that the new accommodation has improved staff morale, which is expected to lead to improved productivity and reduced sick leave.

Develop scope and focus for a workforce planning strategy

Building on the EPA's previous investigation, which resulted in the development of a draft workforce plan and strategy, the development of a scope and focus for a workforce planning strategy commenced. The project arose from human resource challenges, such as an ageing workforce, staff retention, changing expectations of work, technology and skills shortages.

An EPA representative working party has reviewed the current workforce planning work and determined that the DEH's Workforce Profiling and Planning project conducted by SACS Consulting warranted further investigation and benchmarking in conjunction with DEH.

After liaising with DEH about its preliminary project outcomes, the EPA now reports to the Board and Executive on a range of human resource management matters. These reports include quarterly trend analysis for Safety in the Public Sector targets, sick leave per full-time equivalent and staff separations, with annual workforce profiling and occupational health, safety and welfare annual trends.

The EPA continues to work with DEH on further project outcomes and appropriate workforce planning strategies that could be adapted to the EPA.

Wind tunnel at Netley Air Quality Laboratory

The acquisition of a wind tunnel to calibrate wind speed and direction sensors was recently completed at the Netley Air Quality Laboratory. This was implemented with financial assistance from DWLBC who will also be making use of the tunnel. Other external groups have also shown interest in the tunnel.

The tunnel was constructed to improve the control over calibration and maintenance of wind sensors, thereby improving the quality of data. The unit has already proven useful in the detection of faulty sensors by both departments. Over time, the wind tunnel will enable the continued improvement of meteorological monitoring used for air quality issues by the EPA and for use in water management by DWLBC and BoM.

The EPA is now planning to automate and improve the positioning of sensors within the tunnel. This will further enhance the control and operational efficiency of the unit, improving its ease of use. To complement this, software to automate the acquisition of meteorological data is also planned. Funding for these improvements is being sought through the BoM's Modernisation and Extension of Hydrologic Monitoring Systems Program. Data is provided to the BoM on a regular basis and used in the hydrologic program.

IMPROVING PERFORMANCE MEASUREMENT

Adelaide Coastal Water Quality Improvement Plan

A draft Adelaide Coastal Water Quality Improvement Plan has been prepared with funding support from the Australian Government Coastal Catchments Initiative. This plan identifies strategies to address the 14 recommendations of the Adelaide Coastal Waters Study, which investigated the cause of the death of 5200 hectares of seagrass off Adelaide's coast. Discharges from industry, sewage treatment plants and stormwater were found to be the cause of this environmental harm.

The draft plan has been prepared in consultation with a broad range of stakeholders who are represented on the project steering committee. The plan will be considered by the state government during 2009, and will influence the future management of industrial discharges, and the management and reuse of treated wastewater and stormwater.

Review of ambient water quality monitoring

Modification of the ambient water quality monitoring program, to deliver resource savings and greater integration with other organisations

The review of the ambient water quality monitoring program, a two-year process, is nearing completion. A significantly refined marine and inland water quality monitoring program will commence in July 2009, reflecting increased understanding of the links between water quality and environmental response. A range of scientific studies have been completed to support this evolution and continue to inform the long-term state and regional monitoring program. These studies have been undertaken in partnership with regional NRM boards, the Commonwealth Scientific and Industrial Research Organisation (CSIRO), other government agencies and universities. The findings of these studies will be published over the next year.

The studies include: a risk assessment of endocrine disruptors to South Australian waters; studies of changes in macroinvertebrate communities in relation to habitat and land use; assessment of pesticide and nutrient pollution risks to groundwater, rivers and streams; and temporal variation in groundwater quality, to inform inland water monitoring. Marine and coastal studies include a risk assessment of pollution threats to the Gulf of St Vincent and studies of coastal water quality variability, nitrogen pollution in seagrasses and heavy metal accumulation in mussels.

In addition to the scientific studies, a collaborative project is underway with regional NRM boards and government agencies to develop 'report cards' for water quality reporting. This project is linked with the DWLBC project to integrate regional and state monitoring programs. Through both projects, the EPA and partners are seeking to integrate state monitoring and reporting that is cost effective.

Projects are also currently underway to further refine the groundwater monitoring program, including studies of pesticide and nutrient fate and transport, and a statistical assessment of monitoring requirements. These studies are due for completion in June 2010.

Regulation and Compliance Performance Measurement Program—case study

The EPA has developed key performance indicators (KPI) for its regulation and compliance functions, based upon a performance reporting hierarchy. The hierarchy approach sets out program logic for the key processes and their linkages involved in regulation and compliance. The KPIs have been developed to inform and measure these key processes. Since July 2007, the EPA has been collating the necessary data to report against the endorsed KPIs, as well as trialling other more detailed measures of performance.

The five KPIs for the regulation and compliance function are percentage change:

- in the pollution load from licence holders reporting to the National Pollutant Inventory over the last five years
- of licence-holder inspections that demonstrate full compliance and licensee not in breach of their obligations over the last two years
- in breaches resolved by the EPA over the last two years through a variety of mechanisms, including a change of licence condition, issuing an EPO and negotiation
- in breaches identified by the EPA through its inspection/audit programs rectified within an agreed time frame and demonstrated through follow-up over the last two years
- in the number of complaints, where the alleged offender is a licence-holder, over the last five years.

The first annual regulation and compliance performance report (for 2007–08) highlighted a number of significant improvements in the way in which licence-holders strive for compliance with their EPA licence conditions and quickly respond to environmental incidents should they occur. This has contributed to a significant decrease in the number of complaints being made to the EPA relating to licence holders, and a significant decrease in the pollution load of key pollutants. This includes total volatile organic compounds and nitrogen oxides being emitted to air, and copper, lead, total nitrogen and total phosphorus emitted to water.

The collection of regulation and compliance function KPIs through 2008–09 has further strengthened the information relating to licensee compliance and pollution load emissions. The comparison between previous years and 2008–09 continues to show a decreasing trend in pollutant emissions and non-compliance issues.

OTHER STATUTORY INFORMATION

Freedom of information and the Public Register

During 2008−09, 18 freedom of information (FOI) applications and 121 Public Register requests were received (see Table 10).

Table 10 FOI applications, Public Register

Applications	2006−07	2007−08	2008−09
Freedom of information	33	23	18
Public Register	168	154	121

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

Table 11 Section 7 enquiries

Section 7 enquiries/responses (required under the Land and Business (Sale and Conveyancing) Act)	2006−07	2007−08	2008−09
Automatic enquiries to the Lands Titles Office database involving perusal of the Section 7 information maintained by the EPA.	54 185	58 960	49 608
Manual enquiries requiring an EPA officer search made upon request by the Lands Titles Office.	2 414	3 694	3 040

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 to which the report related.

Energy efficiency action plan report

There are currently three priority areas for which the EPA has developed performance indicators: energy management, waste management, and travel and fleet management.

During March 2008, the EPA relocated staff from 77 Grenfell Street, Kent Town and Stirling to 250 Victoria Square (VS1), a six-star energy efficient rated building with a five-star fitout. Rental accommodation at Byron Place, Adelaide is currently being refurbished to accommodate the radiation laboratory, which is currently located at Kent Town. Occupied office space has reduced from 5280m^2 in 2007–08 to 4762.5 m^2.

Priority area 1: energy management

The figures for 2008–09, in Table 12, show continuing improvement from previous years in relation to energy use per square metre. The EPA is required to make a 25% reduction per square metre by 2014. In relation to the EPA office locations, the main source of energy consumption, the EPA has already met 20% of the reduction target. It is anticipated that the relocation will improve our energy efficiency. However, some additional energy costs have been

borne for vacated premises as tenancies have been decommissioned, and the effect of the move to an energy efficient building will not be fully realised until the following year.

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^2)	Energy Use per m^2	Energy Use (GJ)	GHG Emissions (tonnes)
Base year									
2000–01	1934	$79 259	636	1694	557	4867	0.35	240	79
MJ per m^2							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***
MJ per m^2							294		
Target (2014)	**1450**		**477**	**1271**	**417**		**0.26**		

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

Priority area 2: Waste management

Within VS1, all waste management and recycling is managed by the Building Manager. Containers for all streams of office waste are provided and collected, and quantities recorded and contents recycled. While statistics specific to the EPA were available from the date of occupation to 30 June 2009, all waste being collected from within the EPA tenancy will be collected, recorded and reported separately from other building tenants for 2009–10.

Personal waste containers have not been provided at individual workstations to encourage staff to place rubbish in recycling and organic waste bins located within the office. It is anticipated that this will increase the volumes of various waste being recycled.

Paper recycling

In preparation for the relocation to the new building, the Records Management unit of the EPA implemented a program within the agency to decrease the level of documentation stored within work areas. This project resulted in significant numbers of documents being removed to more appropriate records and archive storage and the recycling of surplus papers and publications through January to March 2009. A monthly average (excluding the clean-up period) has been used for the period of April to June 2009 as a result of actual collection figures being unavailable. Whilst there has been a decrease in the paper diverted from landfill over the last three years (see Figure 1) there has also been a decrease in the amount of paper used over this time.

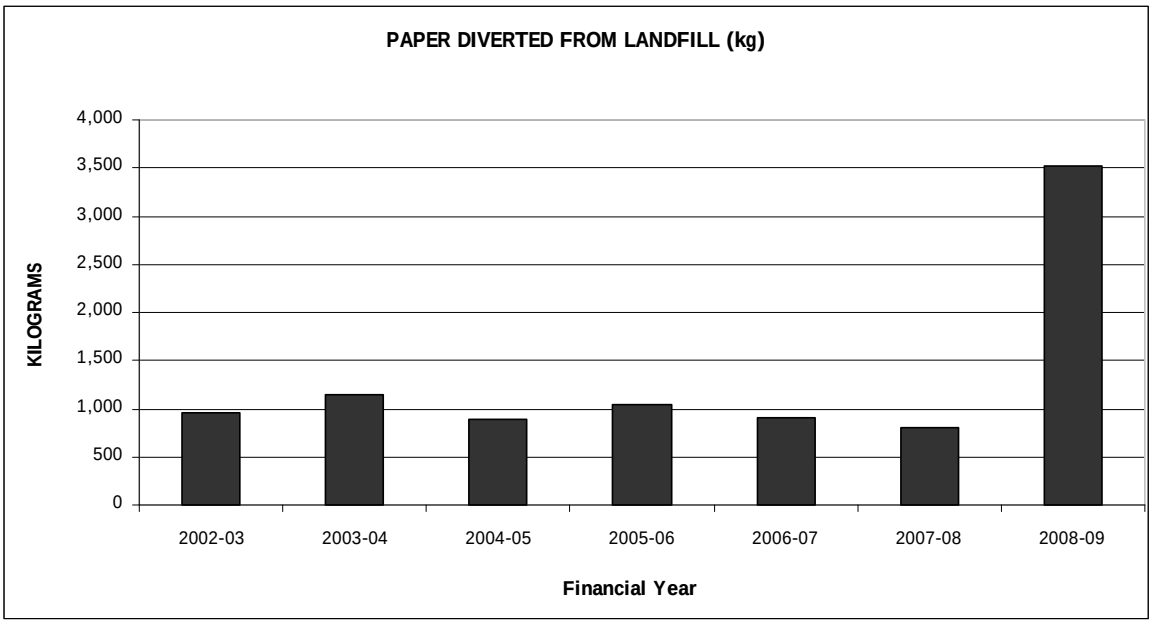


Figure 1 Paper diverted from landfill

Printing consumables

The recycling initiative provided by Close The Loop Limited has been continued following the relocation to VS1. A rationalisation of printers and photocopiers also occurred, resulting in a reduction from 43 to 16, by creating printer and photocopier utility hubs. Reports provided by the company are summarised in Table 13, and show that a total of 1459.8 kilograms of waste printing consumables have been diverted from landfill since the initiative's inception in April 2002.

Table 13 Printer consumables recycling

	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	TOTAL
CBD building									
Quantity diverted (no. of items)	10	209	231	282	289	377	367	287	2052
Amount diverted (kg)	8.6	183.7	212.3	194.8	209.0	203.4	156	161.23	1329.03
Stirling									
Quantity diverted (no. of items)	-	-	-	-	9	47	47	86	189
Amount diverted (kg)	-	-	-	-	8.9	18.4	18.4	21.57	67.27
Kent Town									
Quantity diverted (no. of items)	-	-	-	-	-	33	32	31	96
Amount diverted (kg)	-	-	-	-	-	14.1	16.45	15.5	46.05
Murray Bridge									
Quantity diverted (no. of items)	-	-	-	-	-	21	0	-	21
Amount diverted (kg)	-	-	-	-	-	17.1	0	-	17.1
Total items	**10**	**209**	**231**	**282**	**298**	**478**	**446**	**404**	**2358**
Total weight (kg)	**8.6**	**183.7**	**212.3**	**194.8**	**217.9**	**253**	**190.85**	**198.30**	**1459.8**

Fluorescent tubes

Until the relocation in March 2009, the EPA was recycling fluorescent lighting tubes through a company called Chemsal, which extracts the toxic liquid mercury from the tubes and disposes of it in a safe manner. They also recovered the glass from the tubes for reuse. In VS1, lighting replacement will be managed by the building manager and recycled as required, to maintain the six-star energy rating.

Container recycling

Waste products such as cans, plastics, tins, glass, milk and juice cartons accounted for 9480 litres (or 79 bins) recycled from the CBD building in 2007–08. Similar numbers were collected for 2008–09 up to relocation in March 2009 (see Figure 2). An average has been utilised to the end of June 2009 to estimate the year's collection. From March 2009, all recycling will be collected by building management and recorded and reported on during 2009–10. It is anticipated that recycling of containers will increase with increased proximity of recycle bins and the removal of personal bins.

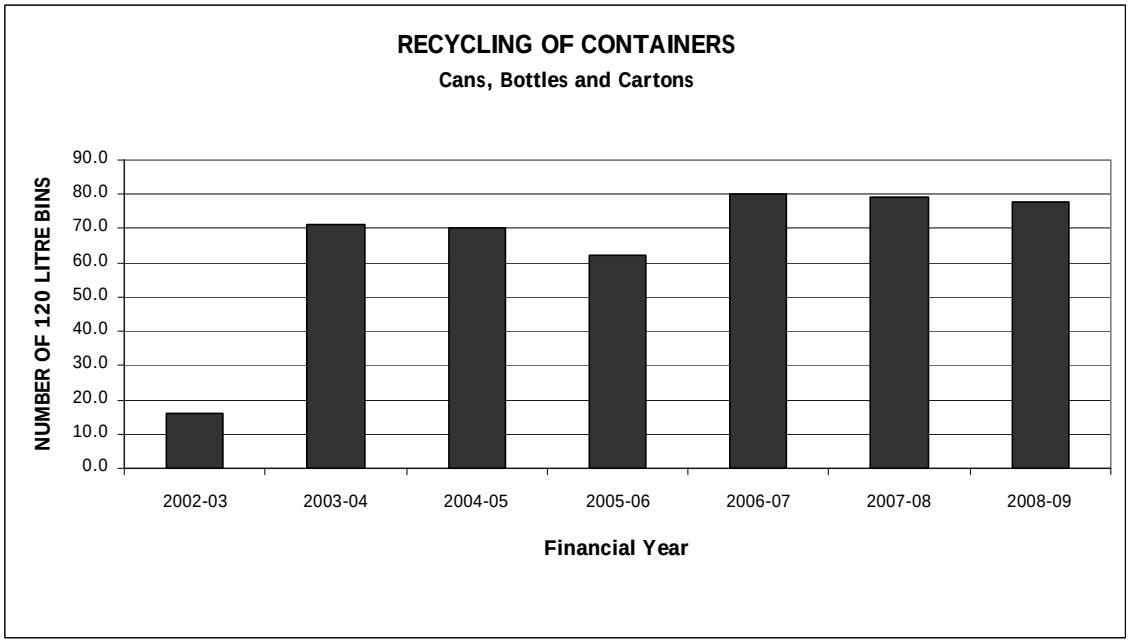


Figure 2 Recycling of containers (cans, bottles and cartons)

Other (non-recycled) products

Organic waste, such as food scraps, are collected in-house to be composted rather than sent to landfill. Until end of March 2009, approximately 1050 kilograms of kitchen waste from the CBD building was composted. Since relocation, all organic waste is now collected by building management for composting.

Priority Area 3: Travel and fleet management

The EPA was the first state government agency to launch a TravelSmart Workplace Plan (TWP), an initiative that has been in operation since April 2007. This initiative provides a variety of measures that make it easier for staff to be involved in sustainable transport for both commuting and business-related travel.

Table 14 shows the vehicle types that are currently on long-term (three-year) leases to the EPA. The fleet make-up exceeds the government's requirement to have 50% of state government vehicles utilising lower emission fuels by 2010.

Table 14 EPA vehicle fleet

Vehicle types	Number of vehicles					
	30 June 2004	30 June 2005	30 June 2006	30 June 2007	30 June 2008	30 June 2009
Diesel only	3	3	3	3	4	6
Electric/unleaded (hybrid)	3	2	0	0	0	1
Unleaded only	4	8	6	10	10	12
LPG only	2	3	7	3	2	2
Combined dual fuel (unleaded and LPG)	25	21	19	19	15	9
Total long-term hire vehicles	**37**	**37**	**35**	**35**	**31**	**30**

Table 15 shows that the EPA has continued to reduce energy and greenhouse gas emissions from its vehicle fleet, and shows a marked improvement from the 2003–04 financial year.

Table 15 Energy use and greenhouse gas emissions

	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09
Energy (GJ)	2288	2082	2082	1939	1946	1883
CO_2 emissions (tonnes)	170	155	154	144	126	123

Note: During 2007–08, the emissions conversion factor was changed, and is now based on direct emission 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.

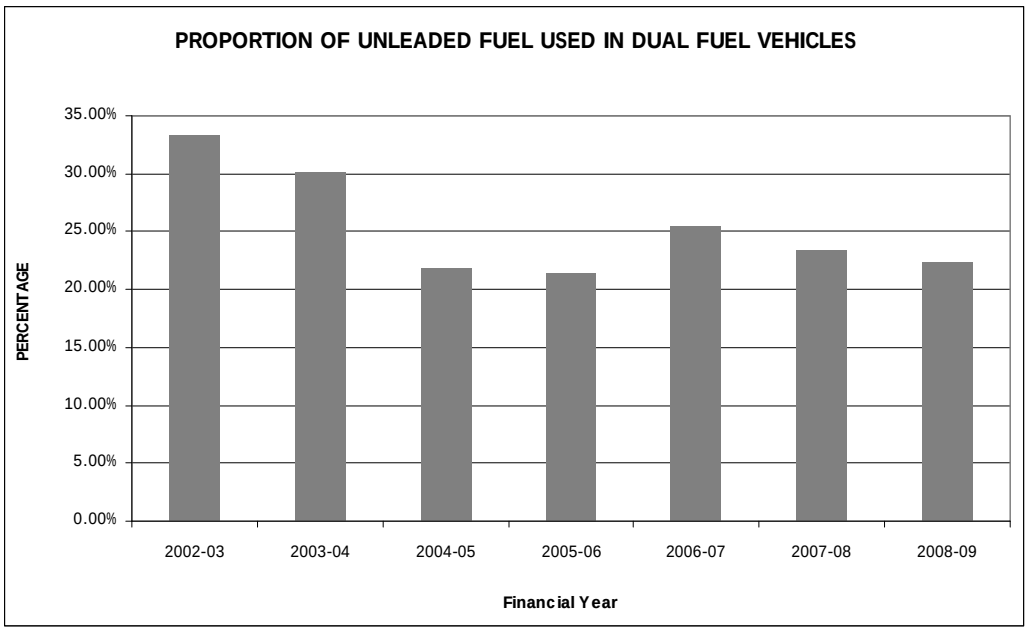


Figure 3 Proportion of unleaded fuel used in dual-fuel vehicles

The current vehicle fleet management policy incorporates a maximum of 20% unleaded fuel to be used in dual-fuel vehicles. Processes are being undertaken in 2009 to ensure staff are aware and comply with policy requirements and to fit signage to vehicles to encourage drivers to switch to alternative fuel.

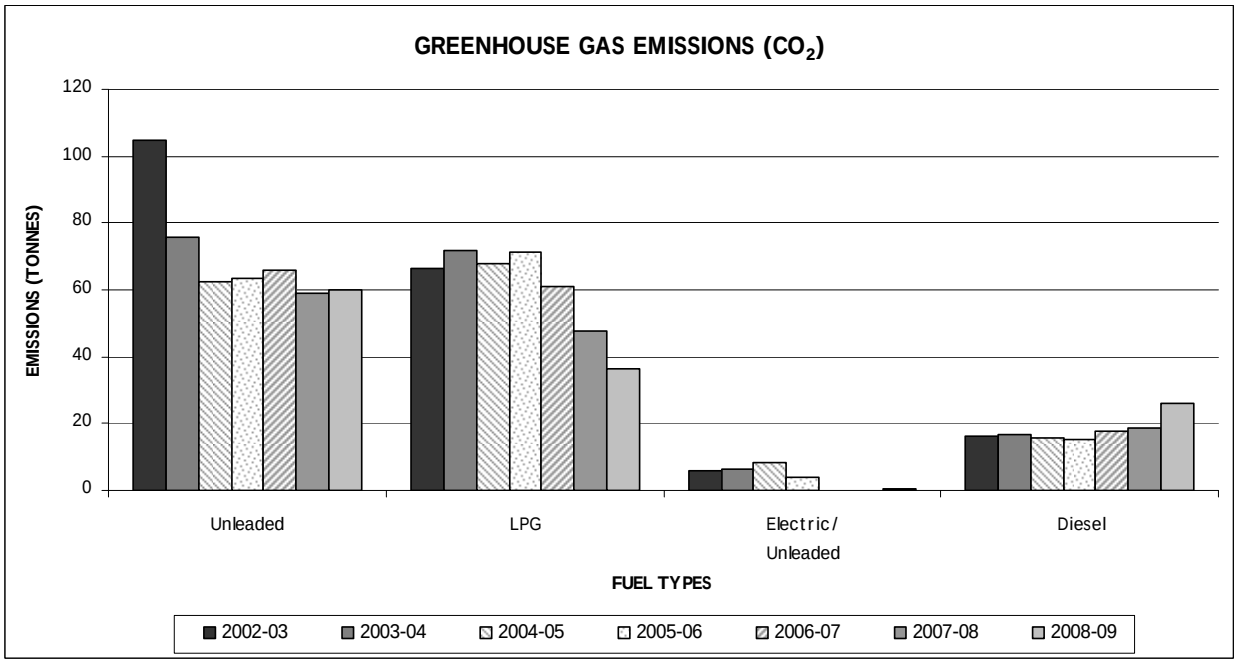


Figure 4 Greenhouse gas emissions

Figure 4 reflects the proportion of greenhouse gas emissions by each fuel type. Changes during 2008–09 reflect the change to fleet fuel types.

During 2007–08, the emissions conversion factor was changed, and is now based on direct emission 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 split between direct and indirect emission, as these were not available at the time.

The CBD fleet was centralised in 2008, and a fleet management package acquired, providing the opportunity to consider the utilisation, fleet vehicle mix, size and fuel type, and this will continue to be reviewed during 2009–10.

Evaluation of the TravelSmart Workplace Plan

In mid–2009, an evaluation was undertaken of the second year of the EPA's TravelSmart Workplace Plan. The results show that year two of the TWP saw a continuation of a variety of initiatives established since the inception of the plan, including:

- the sale of discounted public transport tickets for staff and their families
- a 10 000-step program encouraging staff to increase the amount they walk every day
- a Bicycle User Group to encourage the uptake of cycling and improve cycling conditions
- a sustainable transport induction pack for new employees.

One particular highlight of the second year of the plan was winning the national prize for the largest percentage of staff riding to work on National Ride to Work Day, on Friday 15 October 2008, for work sites with 100–249 employees.

Findings from the latest evaluation confirm that initiatives implemented as part of the TWP have influenced staff travel behaviour, with overall reductions in car journeys of 5% and increases in sustainable modes, such as public transport and cycling, of commuting travel since 2006.

APPENDIX 1 ORGANISATIONAL INFORMATION

Finance and administration

The Finance and Administration Branch has, this year, continued to provide its core business functions, whilst operating in an environment in which there has been continued staff movements.

While undertaking its ongoing activities, such as fleet management, telecommunications, procurement, accommodation, security and other building services, the administrative team has successfully managed the relocation from three separate work sites to one combined new office location at 250 Victoria Square, Adelaide in March 2009, with the assistance and cooperation of EPA staff. After the move, work continued on the establishment of a Records Disposal Schedule (RDS), planned for submission to State Records for approval in the first half of the 2009–10 financial year.

Apart from providing financial and management accounting advice, the Finance and Accounting Team introduced a change in report format and the provision of additional information within the monthly financial report to Executive and the EPA Board, with further improvements being made throughout the year. A range of services were provided in the area of budgeting and reporting to the Authority and external agencies. The Finance and Accounting Team also continued to undertake its revenue collection and debt management, asset management, general ledger maintenance and review of delegations and procedures. At the same time, additional responsibilities were addressed in relation to the preparation of the 2008–09 financial statements, which were previously completed by DEH as part of an arranged service-level agreement. The transition of Accounts Payable, Accounts Receivable, Payroll, Financial and Accounting services to Shared Services SA also occurred in the 2008–09 financial year.

The challenges for the 2009–10 financial year will be to complete the sentencing of records in accordance with the approved RDS and General Disposal Schedule, assist with the completion of a documented Financial Management Compliance Program, improve cash management and to further improve budgeting and reporting services.

Human Resources and Development

The Human Resources and Development Branch (HRD) of the EPA supports the achievement of the agency's goals by providing human resource management, broad organisational development and employee health, safety and welfare advice and support. This includes planning, learning and development programs, policies, information, advice and business systems. EPA payroll services are provided by DEH.

An EPA workforce capability development area for 2008–09 was the provision of learning to ensure all authorised officers working in the field have the skills for managing stakeholder aggression.

Disability Action Plan

The HRD Branch is currently investigating the development of a Disability Action Plan to ensure the promotion of independence for both employees and customers with disabilities.

Equal employment opportunity

All agency chief executives are responsible for implementing the Cultural Inclusion Framework to make the public service accessible to, and inclusive of, Aboriginal people and their culture. A steering committee, established by EPA Executive, has completed a baseline assessment utilising the current draft reporting for the Cultural Inclusion Framework. An action plan was developed and implemented recommending a number of activities. A range of activities relating to assisting indigenous employment have been implemented, including access to the Aboriginal Employment Register.

Traineeships

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

EPA workforce statistics

Tables 16–33 provide a representation of the EPA's workforce, and identify some changes in recent years.

Table 16 Total number of employees

	2007−08	2008−09
Persons	244	234
FTEs	231.72	220.59

Table 17 Employee gender balance

	2007−08		2008−09	
Gender	**% persons**	**% FTEs**	**% persons**	**% FTEs**
Male	54.1	55.99	55.98	58.12
Female	45.9	44.01	44.02	41.88

Table 18 Number of persons separated from or recruited to EPA

	2007−08	2008−09
Separated from the agency	24	35
Recruited to the agency	46	34

Table 19 Number of persons on leave without pay

	As at 30 June 2008	As at 30 June 2009
On leave without pay	6	20

Table 20 Number of employees by salary bracket

	2008−09		
Salary Bracket	**Male**	**Female**	**Total**
$0−$47 999	6	14	20
$48 000−$60 999	19	28	47
$61 000−$78 199	70	39	109
$78 200−$98 499	32	20	52
$98 500+	4	2	6
TOTAL	**131**	**103**	**234**

Table 21 Status of employees in current position

FTEs					
	Ongoing	**Short-term contract**	**Long-term contract**	**Other (casual)**	**Total**
Male	99.75	22.6	5.6	0.26	128.21
Female	63.76	25.02	3.6	0	92.38
TOTAL	**163.51**	**47.62**	**9.2**	**0.26**	**220.59**
Persons					
	Ongoing	**Short-term contract**	**Long-term contract**	**Other (casual)**	**Total**
Male	101	23	6	1	131
Female	70	29	4	0	103
TOTAL	**171**	**52**	**10**	**1**	**234**

Table 22 Number of executives by gender, classification and status

Classification	**Ongoing**		**Contract tenured**		**Contract untenured**		**Other (casual)**		**Total**	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
SAES1	0	0	0	0	4	1	0	0	4	1
CEO	0	0	0	0	0	1	0	0	0	1
TOTAL	**0**	**0**	**0**	**0**	**4**	**2**	**0**	**0**	**4**	**2**

Table 23 Average days of leave taken per FTE employee

Leave type	**2005−06**	**2006−07**	**2007−08**	**2008–09**
Sick leave	7.31	6.26	8.50	8.46
Family carer's leave	0.56	0.81	0.71	0.90
Miscellaneous special leave	0.29	0.47	0.54	0.34

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

Age Bracket	Male	Female	Total	% of total	South Australian Workforce Benchmark* %
15−19	0	0	0	0	6.5
20−24	2	5	7	2.95	10.3
25−29	13	14	27	11.44	11.1
30−34	11	20	31	13.14	10.7
35−39	18	14	32	13.56	11.7
40−44	25	15	40	16.95	11.4
45−49	15	15	30	12.71	11.9
50−54	16	8	24	10.17	10.3
55−59	20	8	28	11.87	8.2
60−64	9	4	13	5.51	5.3
65+	2	2	4	1.70	2.6
TOTAL	**131**	**105**	**236**	**100**	**100**

* 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 Number of Aboriginal and/or Torres Strait Islander employees

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

* Target from South Australia's Strategic Plan

Table 26 Cultural and linguistic diversity of employees

	Male	Female	Total	% of agency	% of SA community*
Number of employees born overseas	28	26	54	23.08	20.3
Number of employees who speak language(s) other than English at home	12	20	32	13.68	16.6

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

Table 27 Number of employees with ongoing disabilities requiring workplace adaptation

	2007−08				2008−09			
Number of employees with ongoing disabilities requiring workplace adaptation	**Male**	**Female**	**Total**	**% of agency**	**Male**	**Female**	**Total**	**% of agency**
	1	0	1	0.40	1	0	1	0.42

Table 28 Types of employee disabilities

	Male	Female	Total	% of agency
Physical	1	0	1	0.42
Total	1	0	1	0.42

Table 29 Number of employees using voluntary flexible working arrangements by gender

Arrangement	Male	Female	Total
Purchased Leave	0	3	3
Flexitime	125	91	216
Compressed weeks	0	5	5
Part-time job share	4	15	19
Working from home	2	6	8

Table 30 Documented review of individual performance development plan

Occurrence of review	Total workforce 2007−08	Total workforce 2008−09
Review within the past 12 months	53.28%	30.43%
Review older than 12 months	18.44%	54.94%
No review	28.28%	14.62%

Table 31 Leadership and management training expenditure

Category of expenditure	2007−08	2008−09
Total training and development expenditure ($)	556 226.80	552 357.58
Total leadership and management development expenditure ($)	41 251.90	49 471.72
% of total expenditure	3.39	3.11
% total leadership and management expenditure	0.25	0.28

Table 32 Accredited training packages by classification

Classification	Number of accredited training packages
AS06	1
P02	3

Table 33 Positions with customer service reflective in job and person specifications

Positions	%
% of positions with customer service reflected in the job and person specification	83%
% of positions without customer service reflected in the job and person specification	17%

Information technology system improvements

The Information Technology Branch played a pivotal role in the relocation of EPA staff members from three office locations to new accommodation at 250 Victoria Square in March 2009. It required substantial planning and coordination as a number of parties were involved. The entire information communication technology infrastructure was in place before the move. All personal computers, printers and projectors were relocated and connected over the weekend before staff occupied the building.

As part of the relocation project, an exercise was undertaken to review printing needs and to rationalise the number of printers used by the EPA. As a result, the total number of printers used has been reduced by more than half. All printers are now located in exhausted utility rooms in line with the green-star rating of the building.

New online application forms were implemented on e-ELF (electronic Environment Licensing Forms) to administer the changes to regulations under the Environment Protection Act 1993 in July 2008 as part of the new licence fee structure project.

In order to assist the EPA in administering its new site contamination legislation, a new module of GENI (General ENvironmental Information) has been developed, including a number of business processes. A significant effort has gone into the design and development of this module. The module is currently being tested, and is scheduled for implementation in July 2009.

New functionality and quarterly reports have been developed for the development applications tracking module of GENI.

The *Radiation Protection and Control (Cosmetic Tanning Units) Regulations 2008* and *Radiation Protection and Control (Non-ionising Radiation) Regulations 2008* came into operation in 2008–09. As a result, the radiation licensing module of GENI has been significantly enhanced to administer licensing of tanning unit operators, which is required under the new legislation. In addition, this module was enhanced with new functionality for tracking radioactive sources that do not require registration, enhanced reporting and document generation.

The EPA's complaints management system CARES (Complaints and Reports of Environmental Significance) has had major changes to reporting and other functionality over the last financial year. A new enquiries module to support the customer services desk will be designed for development next financial year.

As part of the implementation of the geographic information system (GIS) strategy for the EPA, a detailed business requirements specification was completed for a corporate GIS environment for the EPA.

Occupational health, safety, welfare and injury management

The EPA has continued to implement the occupational health, safety and welfare (OHS&W) system for incident reporting and investigation and procedures, practices and performance targets throughout 2008−09 (see Table 35). The OHS&W Committee implemented two significant programs during the financial year, including the commencement of an internal audit program and a risk assessment program.

The EPA was evaluated by WorkCover in June 2009. Results of the evaluation will be incorporated into the OHS&W Action Plan 2009–11 to ensure ongoing system improvement.

Table 34 Occupational health, safety and welfare (OHSW) statistics

		2006−07	2007−08	2008−09
1	**OHSW legislative requirements**			
	Number of notifiable occurrences pursuant to OHSW Regulations Division 6.6	-	-	1
	Number of notifiable injuries pursuant to OHSW Regulations Division 6.6	-	-	-
	Number of notices served pursuant to OHSW Act sections 35, 39 and 40 (default, improvement and prohibition notices)	-	-	-
2	**Injury management legislative requirements**			
	Total number of employees who participated in the rehabilitation program	-	-	2
	Total number of employees rehabilitated and reassigned to alternative duties	-	-	1
	Total number of employees rehabilitated back to their original work	-	-	1
	Number of open claims as at 30 June	2	-	2
	Percentage of workers compensation expenditure over gross annual remuneration	0.08%	0.001%	0.002%

Table 35 Meeting the organisation's safety performance targets

	Base: 2005–06	Performance: 12 months to end of June 2009*			Final Target
	Numbers or %	Actual	Notional quarterly target**	Variation	Numbers or %
1 Workplace Fatalities	-	-	-	-	-
2 New Workplace Injury Claims	3	3	2.7	-0.3	2
3 New Workplace Injury Claims Frequency rate	8.5	8.1	8	-0.1	6.8
4 Lost Time Injury Frequency Rate***	-	2.7	-	-2.7	-

	Base: 2005–06	Performance: 12 months to end of June 2009*			Final Target
	Numbers or %	Actual	Notional quarterly target**	Variation	Numbers or %
5 New Psychological Injury Claims	-	1	-	-1	-
6 Rehabilitation and Return to Work:					
a Early Assessment within 5 days	33.33%	33.33%	80%	-46.67%	≥80%
b Early Intervention within 5 days	-	100%	80%	20%	≥80%
c RTW within 5 business days	100%	50%	75%	-25%	75%
7 Claim Determination:					
a Claims determination in 10 business days	100%	50%	75%	-25%	≥75%
b Claims still to be determined after 3 months	-	-	3%	-	≤3%
8 Income Maintenance Payment for Recent Injuries:					
2007–08 Injuries (at 24 months development)	-	$4 860	$4 685	$175	$175
2008–09 Injuries (at 12 months development)	-	-	$5 000	$5 000	$5 000

* 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.

Table 36 Workers compensation expenditure

Expenditure 2008–09	2007–08 ($m)	2008–09 ($m)	Variation ($m) + (-)	% Change + (-)
Income maintenance	-	0.005	0.005	N/A
Lump sum settlements redemptions s42	-	-	-	-
Lump sum settlements permanent disability s43	-	-	-	-
Medical/hospital costs combined	0.0002	0.002	0.002	N/A
Other	0.0002	0.002	0.002	N/A
Total claims expenditure	0.0002	0.01	0.01	N/A

Hazard and incident reports the number of hazard/incident/injury reports have increased by 21 (14 in 2007−08 to 35 in 2008−09) (see Figure 5). The increase is due to a better staff awareness of correct reporting procedures and an improved willingness to submit reports.

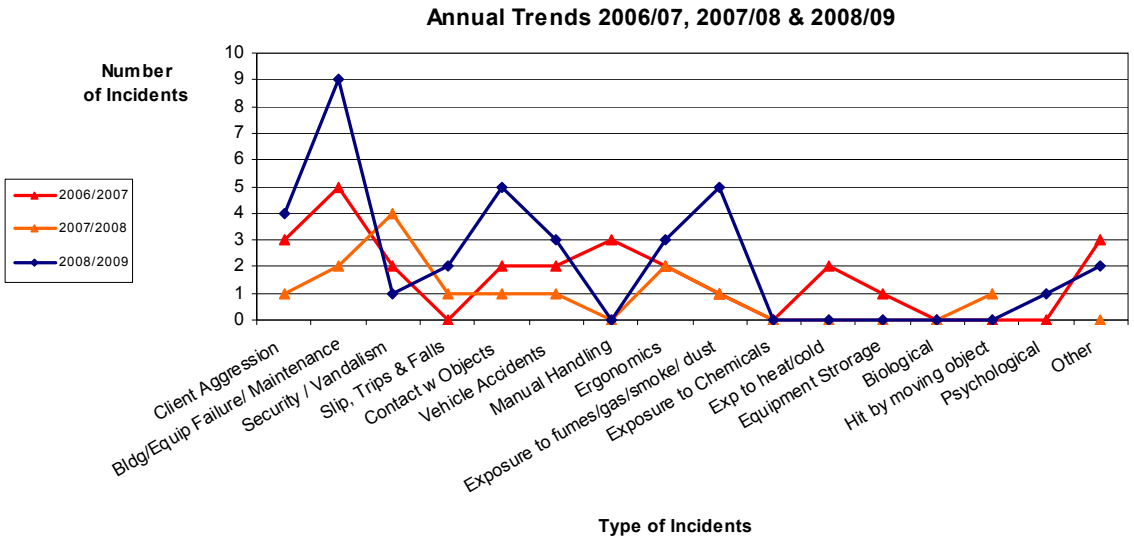


Figure 5 Hazard and incident reports—annual trends

Building equipment failure/maintenance still rates as the most frequent type of incident within the EPA. One of these incidents was reported as a 'Notifiable Dangerous Occurrence' in November 2008. The incident was a result of a small fire in a hot water unit at the Radiation and Protection Division (RPD) office at Kent Town. The Metropolitan Fire Service and Policy Security attended the fire, which was contained to the hot water unit only and was immediately extinguished. The hot water unit was subsequently removed, and no new unit was installed as RPD were scheduled to move to the new building in March 2009. No persons were in the building at the time of the fire as it was over the Christmas holiday break. Safework SA was notified of the incident, and an inspector conducted an investigation and no further action was required.

Four other incidents relating to building equipment failure/maintenance were a result of moving into a new building, following which changes were needed to ensure staff safety. There were four incidents relating to contact with objects that can also be attributed to the move to the new building.

Client aggression has increased, and the EPA has responded to this by running six training sessions throughout the year on 'Dealing with Aggressive Clients'.

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 achieved in 2008-09 (see Table 37).

Table 37 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*	5552	86.52	14 070 396	90.25
Paid within 30 days or less from due date	578	9.01	976 877	6.27
Paid more than 30 days from due date	287	4.47	543 831	3.48

* 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 2008–09 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

Tables 38 and 39 provide information about the use of consultants for controlled and administered entities.

Table 38 Use of consultants—controlled entity

Value of consultancies let	Number of consultancies 2006−07	Number of consultancies 2007−08	Number of consultancies 2008−09	2006−07 expenditure	2007−08 expenditure	2008−09 expenditure
Below $10 000	1	3	1	1 200	3 300	9 600
$10 001− $50 000	1	1	-	30 000	15 320	-
Above $50 000	-	-	-	-	-	-
Total	**2**	**4**	**1**	**31 200**	**18 620**	**9 600**

Below $10 000	
Number of consultants in this category: 1	Value of consultants in this category: $9 600
Altera Consultants	**EPA Investigation Review**
Between $10 001—$50 000	
Number of consultants in this category: Nil	Value of consultants in this category: Nil
Above $50 000	
Number of consultants in this category: Nil	Value of consultants in this category: Nil

Table 39 Use of consultants—administered entity

Value of consultancies let	Number of consultancies 2006−07	Number of consultancies 2007−08	Number of consultancies 2008−09	2006−07 expenditure	2007−08 expenditure	2008−09 expenditure
Below $10 000	5	-	-	19 029	-	-
$10 001–$50 000	1	-	-	22 592	-	-
Above $50 000	1	1	-	180 264	64 995	-
Total	**7**	**1**	-	**221 885**	**64 995**	-

Below $10 000	
Number of consultants in this category: Nil	Value of consultants in this category: Nil
Between $10 001 and $50 000	
Number of consultants in this category: Nil	Value of consultants in this category: Nil
Above $50 000	
Number of consultants in this category: Nil	Value of consultants in this category: Nil

Table 40 Overseas travel

Number of employees	Destination/s	Reason for travel	Total cost to agency
1	China	To conduct a presentation on windfarm noise at an international conference	$1 950

INDEPENDENT AUDITOR'S REPORT

Government of South Australia
Auditor-General's Department

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To the Members
Environment Protection Authority

As required by section 31 of the *Public Finance and Audit Act 1987*, I have audited the accompanying financial statements of the Environment Protection Authority for the financial year ended 30 June 2009. The financial statements comprise:

- A Statement of Comprehensive Income
- A Statement of Financial Position
- A Statement of Changes in Equity
- A Statement of Cash Flows
- Notes to and forming part of the Financial Statements
- A certificate from the Chief Executive, Presiding Member and Director Corporate and Business Support.

The Responsibility of the Board for the Financial Statements

The Members of the Environment Protection Authority are responsible for the preparation and the fair presentation of the financial statements in accordance with the Treasurer's Instructions promulgated under the provisions of the *Public Finance and Audit Act 1987* and Australian Accounting Standards. This responsibility includes establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility

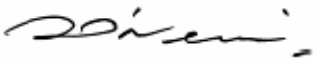
My responsibility is to express an opinion on the financial statements based on the audit. The audit was conducted in accordance with the requirements of the *Public Finance and Audit Act 1987* and Australian Auditing Standards. The Auditing Standards require that the auditor complies with relevant ethical requirements relating to audit engagements and plans and performs the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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 Board, as well as the overall presentation of the financial statements.

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

Auditor's Opinion

In my opinion, the financial statements present fairly, in all material respects, the financial position of the Environment Protection Authority as at 30 June 2009, and 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
17 September 2009

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 notes 1(a), 2 (c) and 33):

- complies 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 2009 and the result 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.

Helen Fulcher
Chief Executive
16 September 2009

Cheryl Bart
Presiding Member
16 September 2009

John O'Daly
Director, Corp. & Business Support
16 September 2009

Environment Protection Authority

Statement of Comprehensive Income

For the Year Ended 30 June 2009

	Note	2009 $'000	2008 $'000
Expenses			
Employee benefits	5	19,191	18,997
Supplies and services	6	8,042	7,307
Depreciation and amortisation	7	849	816
Grants and subsidies	8	12,352	11,910
Net loss from the disposal of non current assets	9	328	17
Other expenses	10	100	64
Total expenses		**40,862**	**39,111**
Income			
Fees and charges	12	33,654	32,699
Grants and contributions	13	1,703	1,246
Interest revenue	14	132	155
Other income	15	73	52
Total income		**35,562**	**34,152**
Net cost of providing services		**5,300**	**4,959**
Revenues from SA Government			
Revenues from SA Government	16	3,867	4,811
Total net revenues from SA Government		**3,867**	**4,811**
Net result		**(1,433)**	**(148)**
Total Comprehensive result		**(1,433)**	**(148)**

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
Balance Sheet
As at 30 June 2009

	Note	2009 $'000	2008 $'000
Current assets			
Cash and cash equivalents	17	5,123	7,108
Receivables	18	2,086	2,372
Other current assets		88	80
Total current assets		**7,297**	**9,560**
Non-current assets			
Receivables	18	4	3
Other Financial Assets	19	-	5
Property, plant and equipment	20	6,587	2,715
Intangible assets	21	1,168	625
Total non-current assets		**7,759**	**3,348**
Total assets		**15,056**	**12,908**
Current liabilities			
Payables	22	1,456	1,963
Employee benefits	23	2,261	1,766
Provisions	24	27	34
Other current liabilities	25	81	1
Total current liabilities		**3,825**	**3,764**
Non-current liabilities			
Payables	22	358	354
Employee benefits	23	2,954	3,428
Provisions	24	80	88
Other non-current liabilities	25	911	-
Total non-current liabilities		**4,303**	**3,870**
Total liabilities		**8,128**	**7,634**
Net assets		**6,928**	**5,274**
Equity			
Contributed Capital		3,087	-
Asset revaluation reserve		1,222	1,222
Retained earnings		2,619	4,052
Total equity		**6,928**	**5,274**
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 2009

	Contributed Capital	Asset Revaluation Reserve	Retained Earnings	Total Equity
	$'000	$'000	$'000	$'000
Balance at 1 July 2007	-	**1,222**	**4,200**	**5,422**
Net result for 2007-2008	-	-	(148)	(148)
Total comprehensive result for 2007-08	**-**	**-**	**(148)**	**(148)**
Balance at 30 June 2008	**-**	**1,222**	**4,052**	**5,274**
Net result for 2008-2009	-	-	(1,433)	(1,433)
Total comprehensive result for 2008-09	**-**	**-**	**(1,433)**	**(1,433)**
Equity contribution received	3,087	-	-	3,087
Balance at 30 June 2009	**3,087**	**1,222**	**2,619**	**6,928**

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 2009

	Note	2009 $'000	2008 $'000
Cash flows from operating activities			
Cash outflows:			
Employee benefit payments		(19,198)	(18,813)
Payments for supplies and services		(8,406)	(6,625)
Payment of grants and subsidies		(12,352)	(11,910)
Other payments		(86)	4
Cash used in operations		**(40,042)**	**(37,344)**
Cash inflows:			
Fees and charges		33,924	31,418
Grant and contribution receipts		1,703	1,246
Interest received		139	140
Other receipts		67	52
Cash generated from operations		**35,833**	**32,856**
Cash flows from SA Government			
Receipts from SA Government:		3,867	4,811
Cash generated from SA Government		**3,867**	**4,811**
Net cash provided by / (used in) operating activities	29	**(342)**	**323**
Cash flows from investing activities			
Cash Outflows			
Purchase of property, plant and equipment		(4,736)	(644)
Cash used in investing activities		**(4,736)**	**(644)**
Cash Inflows			
Proceeds from sale of financial assets		6	-
Cash generated from investing activities		**6**	**-**
Net cash used in investing activities		**(4,730)**	**(644)**
Cash flows from financing activities			
Cash Inflows			
Capital contributions from government		3,087	-
Cash generated from financing activities		**3,087**	**-**
Net cash provided by financing activities		**3,087**	**-**
Net decrease in cash and cash equivalents		**(1,985)**	**(321)**
Cash and cash equivalents at the beginning of the period		**7,108**	**7,429**
Cash and cash equivalents at the end of the period	17	**5,123**	**7,108**

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 2009

1 Objectives of the Environment Protection Authority

(a) Strategic Context

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 Management Act 1995*
- the Environment Protection Fund established 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 administrative unit provides administrative assistance and facilities to the statutory authority. The administrative unit also has responsibility for radiation protection functions under the *Radiation Protection and Control Act 1982*.

For further information regarding the reporting entity, refer to Note 2(c).

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.

(b) Financial Arrangements

The Department for Environment and Heritage (DEH) 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 DEH 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 DEH and the Authority relating to the future provision of these services. During 2008-09 a number of accounting services previously provided by DEH were transitioned to Shared Services SA (SSSA). These services included Payroll, Accounts Payable and Financial Accounting.

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

- Environment Licences
- Waste levies from landfill depots
- 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 AASB 101 Presentation of Financial Statements (September 2007 version) including AASB 2007-8 and AASB 2007-10 (these standards make consequential amendments to other standards as a result of the revised AASB 101), 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 2009.

(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; and
- 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 this financial report:
  (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 each entity within the SA Government for separate identification of these items applies;
  (b) expenses incurred as a result of engaging consultants;
  (c) employees whose normal remuneration is $100,000 or more (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
  (d) 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 2009 and the comparative information presented.

(c) 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*
- an administrative unit also named the Environment Protection Authority established under the *Public Sector Management Act 1995*
- 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 33. 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.

(d) Transferred functions

The Authority has not transferred any functions to SSSA during the 2008-09 financial year. However as detailed in Note 1(b), Payroll, Accounts Payable and Financial Accounting services previously outsourced to DEH, have transitioned to SSSA during 2008/09. These arrangements are now subject to separate service level agreements between the Authority and SSSA.

(e) Comparative information

The presentation and classification of items in the financial statements are consistent with prior periods except where adjusted to reflect the early adoption of AASB 101 Presentation of Financial Statements and specific revised accounting standards and accounting policy statements.

Comparative figures have been adjusted to conform to changes in presentation in these financial statements where required e.g. in preparing a single Statement of Comprehensive Income.

(f) Rounding

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

(g) 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.

Income, expenses and assets are recognised net of the amount of GST except:

- where the GST incurred on a purchase of goods or services is not recoverable from the Australian Taxation Office, in which case GST is recognised as part of the cost of acquisition of the asset or as part of the expense item applicable; and
- receivables and payables, which are stated with the amount of GST included.

DEH prepares a Business Activity Statement on behalf of the Authority under the grouping provisions of the GST legislation. Under these provisions, DEH is liable for the payments and entitled to the receipts associated with GST. As such, the GST applicable to the Authority forms part of the receivables and payables recorded in DEH's Statement of Financial Position and the GST cashflows recorded in DEH's Statement of Cash Flows.

(h) 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.

(i) 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

Revenues from fees and charges are derived from the provision of goods and services to other SA Government agencies and to the public. This revenue is recognised upon delivery of the service to the clients or by reference to the stage of completion.

Licence Fees are recognised as revenue by the Authority upon receipt.

Waste Levies are recognised by the Authority on an accrual basis

With respect to licence fees under the *Radiation Protection and Control Act 1982* , the Authority recognises this revenue upon receipt.

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 $3.1 million equity contribution in 2008-09.

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 dividends received, sundry expense reimbursements and disposal proceeds from the sale of listed equities.

Expenses

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 and assets held for sale 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:

Class of Asset	Useful Life
Computing Equipment	3-10 years
Application Software	3-15 years
Infrastructure	5-50 years
Plant and Equipment	3-30 years
Leasehold Improvements	15 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.

(j) 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.

(k) 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.

Other Financial assets

The Authority measures financial assets at historical cost.

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 $5,000 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 leasehold improvements. 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 reserve, 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 reserve to the extent of the credit balance existing in revaluations reserve for that asset class.

Any accumulated depreciation, as at the revaluation date, is restated proportionately with the change in the gross carrying amount of the asset so that the carrying amount of the asset after revaluation equals its revalued amount.

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

The Authority undertook an independent professional valuation in 2004-2005 for all buildings and infrastructure. Land was last revalued in 2003-2004 and to align, all revaluations will be updated in the 2009-2010 financial year.

Assets deemed to be at fair value

APF III *Asset Accounting Framework* states that revaluation of a non-current asset, or group of assets, 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 include:

- 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 reserve.

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 of 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 $5 000.

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

(l) 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.

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.

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 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 a 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

Liabilities for salaries and wages are measured as the amount unpaid at the reporting date at remuneration rates current at 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 6.5 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.

(m) Unrecognised contractual commitments and contingent assets and liabilities

Commitments include operating, capital and outsourcing 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

The Authority has early adopted the September 2007 version of AASB 101 Presentation of Financial Statements including AASB 2007-8 and AASB 2007-10 (these standards make consequential amendments to other standards as a result of the revised AASB 101).

Except for the amendments to AASB 101 Presentation of Financial Statements, 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 2009. The Authority has assessed the impact of the new and amended standards and interpretations and considers that 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.

5 Employee benefits

	2009 $'000	2008 $'000
Salaries and wages	14,072	13,664
Long service leave	424	617
Annual leave	1,367	1,366
Employment on-costs - superannuation	1,884	1,791
Employment on-costs - other	891	930
Board and Committee fees	186	100
Other employment related expenses	367	529
Total Employee Benefits	**19,191**	**18,997**

Employee Remuneration

The number of employees whose remuneration received or receivable, greater than $100,000, falls within the following bands:

	2009 No. of employees	2008 No. of employees
$100,000 – 109,999	15	11
$110,000 – 119,999	5	3
$120,000 – 129,999	-	1
$130,000 – 139,999	-	2
$140,000 – 149,999	1	1
$150,000 – 159,999	2	2
$160,000 – 169,999	-	1
$170,000 – 179,999	1	-
$180,000 – 189,999	1	1
$190,000 – 199,999	-	-
$200,000 – 209,999	1	-
Total Number of Employees	26	22

The table includes all employees who received remuneration of $100,000 or more during the year. Remuneration of employees reflects all costs of employment including salaries and wages, superannuation contributions, fringe benefits tax and any other salary sacrifice benefits. The total remuneration received by these employees for the year was $3.141 million ($2.670m).

6 Supplies and services

	2009 $'000	2008 $'000
Accommodation and property management expenses	2,676	1,899
Consultants	10	19
Contractors	772	883
Fee for service	911	903
General administration	944	506
Information technology & communication expenses	598	655
Minor works, maintenance & equipment	458	462
Monitoring fees	27	88
Scientific and technical services	589	763
Transportation	139	109
Travel and accommodation	187	166
Vehicle and aircraft	363	343
Other	368	511
Total: Supplies and services	**8,042**	**7,307**

Supplies and services provided by entities within the SA Government

Accommodation and property management expenses	2,561	1,636
Scientific and technical services	166	-
General administration	125	-
Vehicle and Aircraft	350	-
Total: Supplies and services - SA Government entities	**3,202**	**1,636**

Consultants

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

	2009 Number	2009 $'000	2008 Number	2008 $'000
Below $10,000	-	-	2	3
Between $10,000 and $50,000	1	10	1	16
Total paid/payable to the consultants engaged		10		19

7 Depreciation and amortisation

	2009 $'000	2008 $'000
Depreciation		
Buildings and Improvements	3	3
Computing Equipment	27	21
Furniture and Fittings	102	112
Leasehold Improvements	113	-
Moveable Vehicles	3	4
Infrastructure	15	12
Plant and Equipment	397	540
Other	2	2
Total: Depreciation	**662**	**694**
Amortisation		
Application Software	187	122
Total: Amortisation	**187**	**122**
Total Depreciation and Amortisation	**849**	**816**

The Environment Protection Authority relocated premises in March 2009. As a result of the capitalisation of the new office fitout higher depreciation expense was recorded. This will also be reflected in future years.

8 Grants and subsidies

	2009 $'000	2008 $'000
Grants and subsidies paid/payable to entities within the SA Government		
Department for Environment and Heritage	269	23
Department of Water, Land and Biodiversity Conservation	-	7
Zero Waste SA *	11,682	11,467
Total: Grants and subsidies paid/payable to entities within the SA Government	**11,951**	**11,497**
Grants and subsidies paid/payable to entities external to the SA Government		
Community Organisations and Associations	150	170
Individuals - Solar Hot Water Rebate	214	58
Local Government	-	10
Commonwealth Government	37	118
Universities	-	6
Other	-	51
Total: Grants and subsidies paid/payable to entities external to the SA Government	**401**	**413**
Total Grants and subsidies	**12,352**	**11,910**

** 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 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.*

9 Net loss from the disposal of non-current assets

	2009 $'000	2008 $'000
Furniture and fittings		
Proceeds from disposal	-	-
Less: Net book value of assets disposed	(324)	-
Net loss from disposal	(324)	-
Plant and equipment		
Proceeds from disposal	-	-
Less: Net book value of assets disposed	(2)	(17)
Net loss from disposal	(2)	(17)
Other assets		
Proceeds from disposal	-	-
Less: Net book value of assets disposed	(2)	-
Net gain/(loss) from disposal	(2)	-
Total: Assets		
Proceeds from disposal	-	-
Less: Net book value of assets disposed	(328)	(17)
Total: Net loss from disposal	**(328)**	**(17)**

10 Other expenses

	2009 $'000	2008 $'000
Bad and doubtful debts	9	(2)
Capital project costs - not capitalised	9	-
Other	82	66
Total: Other expenses	**100**	**64**
Other expenses paid/payable to entities within the SA Government		
Other (including audit fees - see note 11)	77	66
Total: Other expenses provided by entities within the SA Government	**77**	**66**

11 Auditor's remuneration

	2009 $'000	2008 $'000
Audit fees paid/payable to the Auditor-General's Department	77	66
Total audit fees	**77**	**66**

Other services:

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

12 Fees and charges

	2009 $'000	2008 $'000
Fees and charges received/receivable		
Fines and Penalties	259	44
Fees, levies and licences*	9,749	7,905
Waste Levies	23,267	24,326
Sale of goods	1	1
Sale of professional services	65	68
Section 7 Enquiries	313	355
Total: Fees and charges	**33,654**	**32,699**
Total: Fees and charges	**33,654**	**32,699**

13 Grants and contributions

		2009 $'000	2008 $'000
Grants			
Administered entities	(iv)	105	-
State Government Grants	(i)	1,221	974
		1,326	**974**
Grants and contributions received/receivable from entities external to the SA Government			
Commonwealth Government	(ii)	377	263
Private Industry and Local Government	(iii)	-	9
		377	**272**
Total: Grants and contributions		**1,703**	**1,246**

(i) State Government Grants and Contributions

	2009 $'000	2008 $'000
Adelaide & Mt Lofty Ranges Natural Resources Management Board	55	-
Department of Water, Land and Biodiversity Conservation	701	368
Murray Darling Basin Natural Resource Management Board	22	75
SA Water Corporation	27	40
Zero Waste SA	64	213
Department of Further Education, Employment, Science and Technology	150	150
Department for Environment and Heritage	200	126
Other	2	2
	1,221	974

(ii) Commonwealth Government

	2009 $'000	2008 $'000
Natural Heritage Trust	50	23
Department of the Environment, Water, Heritage and the Arts	200	240
Bureau of Meteorology	65	-
CSIRO	26	-
Department of Agriculture, Fisheries and Forestry	36	-
	377	263

(iii) Private Industries & Local Government

	2009 $'000	2008 $'000
Australian Acoustical Society	-	9
	-	9

(iv) Administered Entities

	2009 $'000	2008 $'000
Adelaide Coastal Waters Study	105	-
	105	-

It was agreed by the financial contributors of the Adelaide Coastal Waters Study that any funds remaining from the project would be used to assist in the funding of the Adelaide Water Quality Improvement Plan controlled by the EPA. As the outcomes of this study have now been achieved, the surplus funds have been recognised as a contribution to the Authority.

Contributions with conditions of expenditure

Contributions which have conditions of expenditure still to be met as at reporting date were $3.867 million. ($3.850m).

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:

	2009 $'000	2008 $'000
Environment Protection Fund	3,380	2,695
Water Quality Improvement Program	127	-
NRG Flinders	214	435
Chemcollect	99	348
Externally Funded Projects	47	372
	3,867	3,850

Conditions attached to these contributions include the completion of program milestones, project acquittal and other project specific requirements. Funds can only be released from the Environment Protection Fund with approval from the Treasurer.

14 Interest revenue

	2009 $'000	2008 $'000
Interest from entities within the SA Government	132	155
Total Interest revenues	**132**	**155**

15 Other income

	2009 $'000	2008 $'000
Other income received/receivable		
Salaries and wages recoveries	-	51
Other sundry revenue	73	1
	73	**52**
Total: Other income	**73**	**52**

16 Revenues from SA Government

	2009 $'000	2008 $'000
Revenues from SA Government		
Appropriations from Consolidated Account pursuant to the Appropriations Act	3,852	4,799
Contingency funds	15	12
Total revenues from SA Government	**3,867**	**4,811**

Total revenues from Government consists of $3.355 million ($4.315m) for operational funding and $0.512 million ($0.496m) for capital projects. For details on the expenditure associated with the operational funding and capital funding received refer to Notes 5 to 11. There were no material variations between the amount appropriated and the expenditure associated with this appropriation.

17 Cash and cash equivalents

	2009 $'000	2008 $'000
Deposits with the Treasurer	1,738	4,408
Environment Protection Fund Deposit Account	3,380	2,695
Cash on hand/Imprest accounts	5	5
Total Cash and Cash Equivalents	**5,123**	**7,108**

Deposits with the Treasurer

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.

Interest rate risk

Cash on hand is non-interest bearing. Deposits with the Treasurer and the Environment Protection Fund Deposit Account earn a floating interest rate, based on daily bank deposit rates. The carrying amount of cash and cash equivalents represents fair value.

Correction of accrual appropriation account

In 2007-08, $489,000 was incorrectly credited to Appropriation revenue when the credit should have been applied to the Accrual Appropriation Excess Funds Account. An adjustment has been made to correct this error and relevant comparative figures have been restated.

18 Receivables

	2009 $'000	2008 $'000
Current:		
Receivables	2,088	2,358
Less: Allowance for doubtful debts	(11)	(2)
	2,077	2,356
Accrued revenues	8	15
Workers compensation recoveries	1	1
Total: Receivables Current	**2,086**	**2,372**
Current:		
Receivables from entities within the SA Government		
Receivables	49	-
Accrued revenues	8	15
	57	**15**

Non-Current:		
Receivables from entities external to the SA Government		
Workers compensation recoveries	4	3
	4	**3**
Total: Receivables Non-Current	**4**	**3**

Movement in allowance for doubtful debts

The allowance for doubtful debts (allowance for impairment loss) is recognised when there is objective evidence 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.

Movements in the allowance for doubtful debts (impairment loss)	**2009** $'000	**2008** $'000
Carrying amount at the beginning of the period	2	**4**
Increase in the allowance	9	-
Decrease in allowance recognised in the Statement of Comprehensive Income	-	(2)
Carrying amount at the end of the period	**11**	**2**

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.

19 Other Financial Assets

	2009 $'000	**2008** $'000
Non-current		
Equity in listed entities	-	5
Total: Other financial assets non-current	**-**	**5**

20 Property, plant and equipment

	2009 $'000	**2008** $'000
Land		
Independent Valuation	100	100
Total: Land	**100**	**100**
Buildings and improvements		
Independent valuation	84	84
At cost (deemed fair value)	7	7
Less: Accumulated depreciation	(55)	(52)
Total: Buildings and improvements	**36**	**39**
Infrastructure		
Independent valuation	151	188
At cost (deemed fair value)	152	72
Less: Accumulated depreciation	(49)	(34)
Total: Infrastructure	**254**	**226**
Capital works in progress		
Capital works in progress	111	498
Total: Capital works in progress	**111**	**498**
Moveable vehicles		
At cost (deemed fair value)	101	101
Less: Accumulated depreciation	(63)	(60)
Total: Moveable vehicles	**38**	**41**
Computing equipment		
At cost (deemed fair value)	191	199
Less: Accumulated depreciation	(146)	(165)
Total: Computing equipment	**45**	**34**
Furniture and fittings		
At cost (deemed fair value)	672	1,219
Less: Accumulated depreciation	(469)	(592)
Total: Furniture and fittings	**203**	**627**
Leasehold Improvements		
At cost	5,082	-
Less: Accumulated depreciation	(113)	-
Total: Leasehold Improvements	**4,969**	**-**

Plant and equipment		
Independent valuation	1,087	627
At cost (deemed fair value)	3,312	3,688
Less: Accumulated depreciation	(3,568)	(3,311)
Total: Plant and equipment	**831**	**1,004**
Other:		
Independent valuation	27	69
At cost (deemed fair value)	42	144
Less: Accumulated depreciation	(69)	(67)
Total: Other	**-**	**146**
Total: Property, plant and equipment	**6,587**	**2,715**

Valuation of Land and Buildings
The valuation of buildings and infrastructure was performed by an independent valuer from the Australian Valuation Office as at 30 May 2005. Land was valued by an independent valuer from the Australian Valuation Office as at 30 June 2004.

Impairment
There were no indications of impairment of property, plant and equipment at 30 June 2009.

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 2008-2009

	Land $'000	Buildings and Improvements $'000	Infrastructure $'000	Capital Works in Progress $'000	Moveable Vehicles $'000	Computing Equipment $'000
Carrying amount at beginning of the period	100	39	226	498	41	34
Transfers between classes	-	-	29	-	-	19
Additions	-	-	14	5,502	-	19
Additions - Transfers to/(from) CWIP	-	-	-	(5,880)	-	-
Depreciation expense	-	(3)	(15)	-	(3)	(27)
Disposals	-	-	-	-	-	-
Non-capital WIP expensed in current period	-	-	-	(9)	-	-
Carrying amount at end of the period	**100**	**36**	**254**	**111**	**38**	**45**

	Furniture and Fittings $'000	Plant & Equipment $'000	Leasehold Improvements $'000	Other $'000	Intangible Assets $'000	**2009 Total $'000**
Carrying amount at beginning of the period	627	1,004	-	146	625	**3,340**
Transfers between classes	-	88	-	(144)	8	**-**
Additions	2	64	-	-	-	**5,601**
Additions - Transfers to/(from) CWIP	-	74	5,082	-	724	**-**
Depreciation / Amortisation expense	(102)	(397)	(113)	(2)	(187)	**(849)**
Disposals	(324)	(2)	-	-	(2)	**(328)**
Non-capital WIP expensed in current period	-	-	-	-	-	**(9)**
Carrying amount at end of the period	**203**	**831**	**4,969**	**-**	**1,168**	**7,755**

The additions to leasehold improvements during the 2008-09 financial year included fitout costs for rental premises for 250 Victoria Square, Adelaide.

Asset Movement Reconciliation 2007-2008

	Land $'000	Buildings and Improvements $'000	Infrastructure $'000	Capital Works in Progress $'000	Moveable Vehicles $'000
Carrying amount at beginning of the period	100	42	232	19	45
Transfers between classes	-	-	6	-	-
Additions	-	-	-	479	-
Depreciation expense	-	(3)	(12)	-	(4)
Carrying amount at end of the period	**100**	**39**	**226**	**498**	**41**

	Computing Equipment $'000	Furniture and Fittings $'000	Plant & Equipment $'000	Other $'000	Intangible Assets $'000	**2008 Total $'000**
Carrying amount at beginning of the period	42	739	1,439	75	722	**3,455**
Transfers between classes	13	-	52	(71)	-	**-**
Additions	-	-	70	144	25	**718**
Depreciation / Amortisation expense	(21)	(112)	(540)	(2)	(122)	**(816)**
Disposals	-	-	(17)	-	-	**(17)**
Carrying amount at end of the period	**34**	**627**	**1,004**	**146**	**625**	**3,340**

21 Intangible assets

	2009 $'000	2008 $'000
Computer software (internally generated)		
At cost (deemed fair value)	2,446	1,722
Less: Accumulated amortisation	(1,278)	(1,097)
Total: Computer software (internally generated)	**1,168**	**625**

The internally developed computer software relates primarily to the Authority's General Environment Information System (GENI) and Integrated Information System (IIS).

22 Payables

	2009 $'000	2008 $'000
Current:		
Creditors	1,008	1,510
Accrued Expenses	77	66
Employee benefit on-costs	371	387
Total: Payables Current	**1,456**	**1,963**
Payables to SA Government entities		
Creditors	171	384
Accrued Expenses	77	66
Employee benefit on-costs	371	387
	619	**837**
Non-Current:		
Employee benefit on-costs	358	354
Total: Payables Non-Current	**358**	**354**
Payables to SA Government entities		
Employee benefit on-costs	358	354
	358	**354**

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 2008 rate of 35% to 45%. This rate is used in the employment oncost calculation. The net financial effect of the change in the current financial year is an increase in the employment on-cost of $95,200.

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.

23 Employee benefits

	2009 $'000	2008 $'000
Current:		
Annual Leave	1,192	1,150
Short-term Long Service Leave	584	249
Accrued Salaries and Wages	485	367
Total: Current Employee benefits	**2,261**	**1,766**
Non-Current:		
Long Service Leave	2,954	3,428
Total: Non Current Employee benefits	**2,954**	**3,428**
Total Employee Benefits	**5,215**	**5,194**

Based on an actuarial assessment performed by the Department of Treasury and Finance, the benchmark for the measurement of the long service leave liability has not changed from the 2008 benchmark of 6.5 years.

In addition, the actuarial assessment performed by the Department of Treasury and Finance revised the salary inflation rate down to 4.0% from the 2008 rate of 4.5%. The net financial effect of the changes in the current financial year is a decrease in the annual leave liability of $5,731 and employee benefit expenses of $977.

24 Provisions

	2009 $'000	2008 $'000
Current:		
Provision for Workers Compensation	27	34
Total: Current Provisions	**27**	**34**
Non Current:		
Provision for Workers Compensation	80	88
Total: Non-Current Provisions	**80**	**88**
Total Provisions	**107**	**122**

Carrying amount at the beginning of the period	122	105
Additional provisions recognised	-	-
Reductions resulting from re-measurement or settlement without cost	(15)	
Unwinding of discount and effect of change in the discount rate	-	17
Carrying amount at the end of the period	107	122

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 Division of the Department of the Premier and Cabinet. These claims are expected to be settled within the next financial year.

25 Other liabilities

	2009 $'000	2008 $'000
Current:		
Lease incentive	67	-
Other	14	1
	81	**1**
Total: Other liabilities - Current	**81**	**1**
Non-current		
Lease incentive	911	-
	911	**-**
Total: Other liabilities - Non-Current	**911**	**-**

26 Unrecognised contractual commitments

	2009 $'000	2008 $'000

Capital commitments:

Capital expenditure contracted for at the reporting date but not recognised as liabilities in the financial report, is payable as follows:

Within one year	550	-
Total: Capital commitments	**550**	**-**

The Authority's capital commitments are for remaining fitout expenses for 250 Victoria Square and 13 Byron Place Adelaide. These projects are expected to be completed by 30 June 2010.

Remuneration commitments:

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	1,054	735
Later than one year but not later than five years	1,988	2,296
Total: Remuneration commitments	**3,042**	**3,031**

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

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	2,072	905
Later than one year but not later than five years	7,927	413
Later than five years	18,915	-
Total: Operating lease commitments	28,914	1,318
Representing:		
Non-cancellable operating leases	28,914	1,318
Total operating lease commitments	28,914	1,318

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.

Lease commitments have increased due to the Authority entering into new leasing arrangements during the period for 13 Byron Place and 250 Victoria Square, Adelaide.

27 Contingent assets and liabilities

Contingent assets:

The Authority is not aware of the existence of any contingent assets as at 30 June 2009.

Contingent liabilities:

The Authority is not aware of the existence of any contingent liabilities as at 30 June 2009.

28 Remuneration of Board and Committee Members

Members that were entitled to receive remuneration for membership during the 2009 financial year were:

Board of the Environment Protection Authority (EPA)

Ms Cheryl Bart	(appointed 7 August 2008)
Mr Stephen Hains	
Ms Jane Yuile	(appointed 5 March 2009)
Mrs Cheryl Hill	
Ms Megan Dyson	
Ms Linda Bowes	
Mr Greg Panigas	(term expired 3 March 2009)
Ms Yvonne Sneddon	(term expired 20 April 2009)

Radiation Protection Committee

Ms Sharon Paulka
Dr Gerald Laurence
Ms Jill Fitch
Ms Katheryn Taylor
Dr Michael Lardelli

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

	2009 No. of members	2008 No. of members
$nil	2	2
$1 - $9,999	4	6
$10,000 - $19,999	1	6
$20,000 - $29,999	5	-
$30,000 - $39,999	1	-
	13	**14**

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 $188,797 ($115,160).

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.

29 Cash flow reconciliation

	2009 $'000	2008 $'000
Reconciliation of cash and cash equivalents		
Cash and cash equivalents disclosed in the Statement of Financial Position	**5,123**	**7,108**
Cash and cash equivalents disclosed in the Statement of Cash Flows	**5,123**	**7,108**
Reconciliation of net cash provided by operating activities to net cost of providing services		
Net cash provided by (used in) operating activities	**(342)**	**323**
Less revenues from SA Government	(3,867)	(4,811)
Less non-cash items:		
Depreciation and amortisation expense of non-current assets	(849)	(816)
Net loss on disposal of assets	(328)	(17)
Lease Incentive	1,000	-
Movement in assets and liabilities		
Increase/(decrease) in receivables	(285)	998
Increase in other assets	9	11
(Increase)/decrease in payables	359	(772)
(Increase) in employee benefits	(21)	(156)
(Increase)/decrease in provisions	15	(17)
(Increase)/decrease in other liabilities	(991)	298
Net cost of providing services	(5,300)	(4,959)

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	2009		2008		Note number
	Carrying amount $'000	Fair value $'000	Carrying amount $'000	Fair value $'000	
Financial assets					
Cash and cash equivalents	5,123	5,123	7,108	7,108	17
Receivables	2,090	2,090	2,375	2,375	18
Financial assets	-	-	5	5	19
Financial liabilities					
Payables	1,814	1,814	2,317	2,317	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 and the ageing of impaired assets.

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
2009					
Not impaired					
Receivables	935	894	100	172	2,101
Impaired					
Receivables	-	-		11	11
2008					
Not impaired					
Receivables	2,096	131	102	44	2,373
Financial assets	5	-	-	-	5
Impaired					
Receivables	-	-		2	2

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			
	< 1 year $'000	1-5 years $'000	> 5 years $'000	Carrying amount $'000
2009				
Financial assets				
Cash and cash equivalents	5,123	-	-	5,123
Receivables	2,086	4	-	2,090
Total financial assets	7,209	4	-	7,213
Financial liabilities				
Payables	1,456	358	-	1,814
Total financial liabilities	1,456	358	-	1,814
2008				
Financial assets				
Cash and cash equivalents	7,108	-	-	7,108
Receivables	2,372	3	-	2,375
Financial assets	5			5
Total financial assets	9,485	3	-	9,488
Financial liabilities				
Payables	1,963	354	-	2,317
Total financial liabilities	1,963	354	-	2,317

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 2009

	2009 $'000	2008 $'000
Expenses		
Employee benefits	537	112
Supplies and services	615	773
Grants and subsidies	32	152
Total: Expenses	**1,184**	**1,037**
Income		
Fees and Charges	1,838	1,584
Interest revenue	132	155
Grants and Contributions	-	2
Total: Income	**1,970**	**1,741**
Net result	**786**	**704**

Statement of Financial Position as at 30 June 2009

	2009 $'000	2008 $'000
Current assets		
Cash and cash equivalents	3,380	2,695
Receivables	128	142
Total Current Assets	**3,508**	**2,837**
Total Assets	**3,508**	**2,837**
Current liabilities		
Payables	18	148
Employee Benefits	15	-
Total Liabilities	**33**	**148**
Net Assets	**3,475**	**2,689**
Equity		
Retained earnings	3,475	2,689
Total: Equity	**3,475**	**2,689**

Statement of Changes in Equity for the Year Ended 30 June 2009

	Retained Earnings $'000	Total Equity $'000
Balance at 30 June 2007	**1,985**	**1,985**
Net result for 2007/2008	704	704
Balance at 30 June 2008	**2,689**	**2,689**
Net result for 2008/2009	786	786
Balance at 30 June 2009	**3,475**	**3,475**

Statement of Cash Flows for the Year Ended 30 June 2009

	2009 $'000	2008 $'000
Cash flows from operating activities		
Cash inflows		
Fees and charges	1,860	1,624
Grant and contribution receipts	-	2
Interest received	124	140
Total Cash Inflows	**1,984**	**1,766**
Cash outflows		
Board member remuneration payments	(528)	(113)
Payments for supplies and services	(739)	(668)
Grant and contribution payments	(32)	(152)
Total Cash Outflows	**(1,299)**	**(933)**
Net Cash Inflows from operating activities	**685**	**833**
Cash at the beginning of the financial year	2,695	1,862
Cash at the end of the financial year	**3,380**	**2,695**

32 Administered Item of the Authority

(a) Reporting Entity and Strategic Context

The major objective of the Adelaide Coastal Waters Study Steering Committee (the Committee) is to carry out an integrated ecological study of the marine environment off metropolitan Adelaide. The study is referred to as the Adelaide Coastal Waters Study (ACWS) and focuses on the issues of loss of seagrass, declining water quality, algal blooms, beach closures, sand loss and wide scale movement, sediment on reef systems, mangrove dieback and problems caused by exotic organisms.

(b) Administered Item Financial Arrangements

The Committee's sources of funds consist of monies contributed by Mobil Australia, Ports Corp, SA Water Corporation, Adelaide and Mount Lofty Ranges Natural Resources Management Board, TRU Energy, the Department for Transport, Energy and Infrastructure, the Department of Primary Industries and Resources, the Coast Protection Board and the Authority.

The financial activities of the Committee are conducted through the Authority's Special Deposit Account with the Department of Treasury and Finance (DTF) pursuant to Section 8 of the *Public Finance and Audit Act 1987*.

Effective from 1 July 2008, the Steering Committee resolved that the contractual obligations for the Adelaide Coastal Waters Study (ACWS) had been fulfilled and it was agreed by the financial contributors that the remaining $105,000 of funds remaining would be used to assist the funding of the Adelaide Coastal Water Quality Improvement Plan controlled by the EPA. These funds have been recognised as a contribution in the Statement of Comprehensive Income for the EPA.

As the objectives of the Adelaide Coastal Waters Study have now been achieved, the Committee has been terminated with agreement of Committee members.

33 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
Radiation Protection Division

	2009 $'000	2008 $'000
Expenses		
Employee benefits	1,271	1,195
Supplies and Services	108	118
Total Expenses	1,379	1,313
Income		
Fees and charges	1,511	1,294
Total Income	1,511	1,294
Net Benefit (Cost) of Providing Services	132	(19)

APPENDIX 3 PUBLICATIONS RELEASED OR UPDATED DURING 2008-09

Corporate publications

EPA Annual Report 2008–09 (includes reporting under the *Radiation Protection and Control Act 1982*)

EPA Round-table 2008 Report

EPA Corporate Operational Plan 2008–09

Guidelines

EPA guidelines—Program requirements for compliance testing of diagnostic X-ray apparatus

EPA protocol—Compliance testing of Plain Dental X-ray apparatus

Guideline for stockpile management—Waste and waste derived products guideline for recycling and reuse

Guidelines for the use of the Environment Protection (Noise) Policy 2007

Refuse derived fuel—Standard for the production and use of refuse derived fuel

River vessel waste disposal options (2nd edition), produced by DWLBC

Site contamination—Assessment and remediation of groundwater contamination

Site contamination—Determination of background concentrations

Site contamination—Guidelines for the site contamination audit system

Site contamination—How to determine actual or potential harm to water that is not trivial resulting from site contamination

Site contamination—Notification of site contamination that affects or threatens underground water pursuant to section 83A of the *Environment Protection Act 1993*

Site contamination—What is site contamination

Wastes containing asbestos—Removal, transport and disposal

Waste definitions

Information sheets

Construction noise

General environmental noise

Fixed domestic machine noise

The Environment Protection (Noise) Policy 2007 and its impact on existing and proposed developments

Site contamination—Honesty in reporting

Site contamination—Transfer of liability

Site contamination—Responsibility for assessment and remediation site contamination

Waste/recycling depots: Undercover storage requirement

Greywater requirements for vessels on inland waters: Frequently asked questions

Wastewater requirements for vessels on inland waters

Codes of practice

Code of practice for vessel and facility management (marine and inland waters)

Public consultations

Discussion Paper: Review of the Environment Protection (Water Quality) Policy 2003

Draft Environment Protection (Waste to Resources) Policy

Draft EPA guideline: Waste derived fill—protocol for the production and use of waste derived fill

Draft EPA guideline: Waste derived soil enhancer—standard for the production and use of waste derived soil enhancer

Draft guidelines for use of the Environment Protection (Noise) Policy 2007

South Australian biosolids guidelines for the safe handling and reuse of biosolids

Draft wind farm environmental noise guidelines 2008

National Pollutant Inventory reports

National Pollutant Inventory—South Australia summary report 2006–07

SA EPA NPI update

Brochures

Code of practice for vessel and facility management (marine and inland waters)

Myponga Watercourse Restoration Project 2000–07

Refuse derived fuel

Stockpiling waste and waste derived products

Reports

A risk assessment of threats to water quality in Gulf St Vincent

EPA industry compliance audit report for extractive industries

Examination of PM_{10} and wind measurements at LeFevre Peninsula Primary School

Lower Murray Reclaimed Irrigation Area environmental monitoring report, Phase 1

Report on copper chrome arsenate (CCA) treated timber in South Australia

Smokewatch Adelaide Hills Pilot Study Part 2

South Australian EPA air quality report 2007

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

From 1 July 2002, the EPA became a separate administrative unit under the Environment and Conservation Portfolio. The EPA is South Australia's primary environmental regulator. It is responsible for the protection of air and water quality, and 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 2007–2010*.

Public participation in environment policy

The public is invited to participate in development of environment policy through:

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

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

Public consultation and community monitoring programs undertaken in 2008–09 are 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/pub.html>, or requested, free of charge, by telephoning the Customer Service Desk on (08) 204 2004. A list of 2008−09 EPA publications is set out in this annual report.

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 freedom-of-information charges for these documents may apply.

Documents available for purchase from the EPA in accordance with 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 existing DEH corporate policy, except in instances where specific EPA policy has been developed. Enquiries about such policy should be directed to DEH. 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 Overseas travel by EPA staff

IOP005 Conference attendance by EPA staff

IOP006 Guidelines for training and development expenditure

IOP007 Licence renewal process for A-class licences—this policy is now obsolete

IOP008 Guidelines for study assistance

IOP009 Accessing human resource development activities

IOP010 Induction

- Attachment 1–Process for induction of new employees
- Attachment 2–Induction checklist
- Attachment 3–Reference lists

IOP011 Guideline in preparing EPA Board papers

- Attachment 1
- Attachment 2

IOP012 Vaccination protocol for field-staff

IOP013 Licensing requirements for the transport and disposal of recyclable/reusable wastes

IOP014 WinTAP: Windows Time Allocation Program for EPA

- Attachment 1–TOIL record sheet

IOP015 Responding to environmental emergencies and major pollution incidents

- Attachment 1

IOP016 Threshold criteria—Matters for EPA Board consideration

IOP017 Guideline for the preparation of a Cabinet submission

- Attachment 1–Cabinet submission development process flow chart
- Attachment 2–Cabinet submission process checklist
- Attachment 3–Guideline: When is a Cabinet submission required?
- Attachment 4–Guideline: Notification of intention to draft a Cabinet submission
- Attachment 5–Instructions for using Cabinet submission templates
- Attachment 6–Preparing Cabinet submissions

IOP018 Hazard incident injury reporting, investigation and management

- Attachment 1–Risk assessment
- Hazard−incident—injury reporting risk rating
- Risk assessment matrix
- Attachment 2–Hazard incident injury reporting, investigation and management policy
- Hazard−incident−injury reporting policy
- Attachment 3–Report forms
- Hazard report forms
- Incident report forms
- Aggression report
- Manual handling report
- Needle stick injury report
- Vehicle accident report
- Notification of dangerous occurrence form

IOP019 Allocation and use of mobile telephones

- Attachment–Request for mobile telephone

IOP020 Mobile telephone–Reimbursing personal call costs

- Attachment–Mobile telephone personal calls−reimbursement form

IOP021 Vehicle management

- Attachment–Non-employee application to drive government vehicles
- Attachment–Application for regular home and/or office travel

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

- EPA policy for calculation of civil penalties under the EP Act

IOP030 Security Level 7 reception

IOP031 Accredited licensing system

IOP032 EPA risk management policy (draft)

- Attachment–Government of South Australia (2003) risk management policy statement

IOP033 The development and application of licence project plans

IOP034 The exercise of delegated authority

IOP035 Environment Protection Orders

IOP036 Assessment of waste or recycling depots and activities producing listed waste for limited purposes

- Attachment 1–Application form (including attachment for detailed information)
- Attachment 2–Assessment and determination by delegate for 3(3) Waste or Recycling Depots for limited purpose
- Attachment 3–Templates for letters of determination for 3(3) Waste or Recycling Depots
- Attachment 3a–3(3)(i) Determination that no licence is required
- Attachment 3b–3(3)(i) Refused – licence required
- Attachment 4–Assessment and determination by delegate for 3(4) Activities Producing Listed Waste
- Attachment 5–Templates for letters of determination for 3(4) Activities
- Attachment 5a–3(4) Determination that no licence is required
- Attachment 5b–3(4) Refused – licence required
- Attachment 6–GENI DA response template – non referral limited purposes 3(3) or 3(4).

Access to organisation documents

Requests for access to documents or amendment of personal records in the possession of the EPA should be directed in writing to:

Freedom of Information Coordinator
Environment Protection Authority
GPO Box 2607
ADELAIDE SA 5001

Telephone: (08) 8204 9128

Policy documents may be inspected at Level 9, 250 Victoria Square, Adelaide between 9 am and 5 pm Monday to Friday.

APPENDIX 5 SOUTH AUSTRALIA'S AIR QUALITY DATA

A summary of air quality highlights is provided below. More information on air quality and pollutants in Adelaide and key regional sites in South Australia is available at <www.epa.sa.gov.au>. This includes Information on short-term monitoring projects, along with more details on the ambient air quality for Adelaide. The EPA's reporting against the Ambient Air NEPM is also available at <www.ephc.gov.au>.

Adelaide

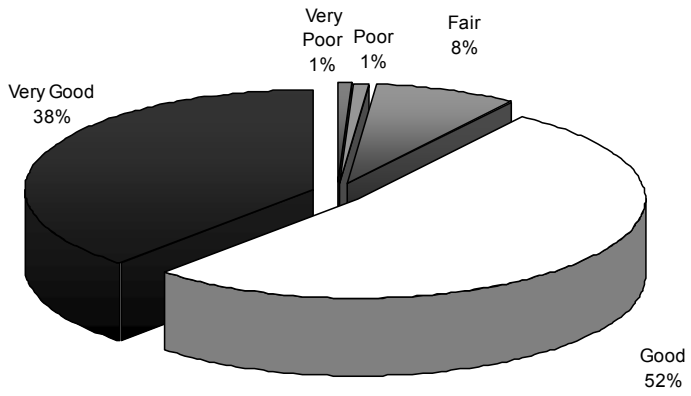


Figure 6 Adelaide's air quality index 2008

The pie chart of Adelaide's air quality index shown in Figure 6 describes the general air quality in the Adelaide metropolitan area. This is a summary of air pollutant levels that were monitored in the Adelaide metropolitan region. For details on the air quality index, please visit the EPA website at <www.epa.sa.gov.au>.

Air quality in Adelaide can be considered good, or very good 90% of the time. Overall, this year's results are similar to those of 2007–08. The poorer air quality is mainly due to elevated PM_{10} particle concentrations.

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

The bushfire events in Victoria continue to be associated with high ozone levels in Adelaide. During these events, weather patterns have been such that smoke from Victorian bushfires has been blown to Adelaide causing higher particle levels. It is believed that emissions from bushfires have provided the additional precursor pollutants to cause ozone levels to rise.

An examination of ozone data in metropolitan Adelaide from 2002 onwards shows that at Christies Beach there has been a small decrease, whereas data for all other sites shows a small rise in average ozone concentrations.

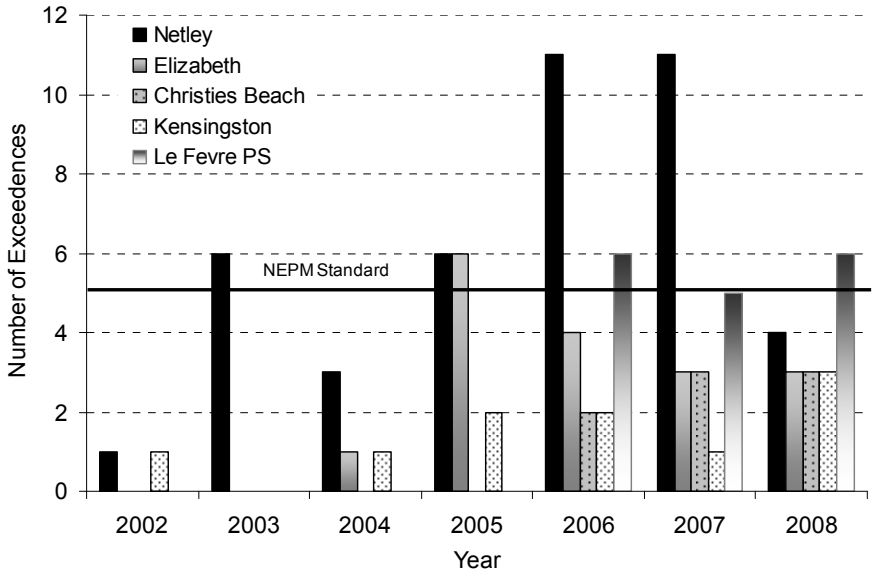


Figure 7 Annual exceedences of the NEPM PM_{10} standard at Adelaide monitoring sites

Development of the monitoring network has allowed a more comprehensive picture of particle concentrations in the Adelaide metropolitan area. Results for 2007 and 2008 are similar at all sites, with the exception of Netley (see Figure 7). The exceedences are due to a combination of dry conditions and human-sourced emissions. For the last four years, Adelaide has not complied with the National Particle Goal (greater than five days above the standard per year).

Whyalla

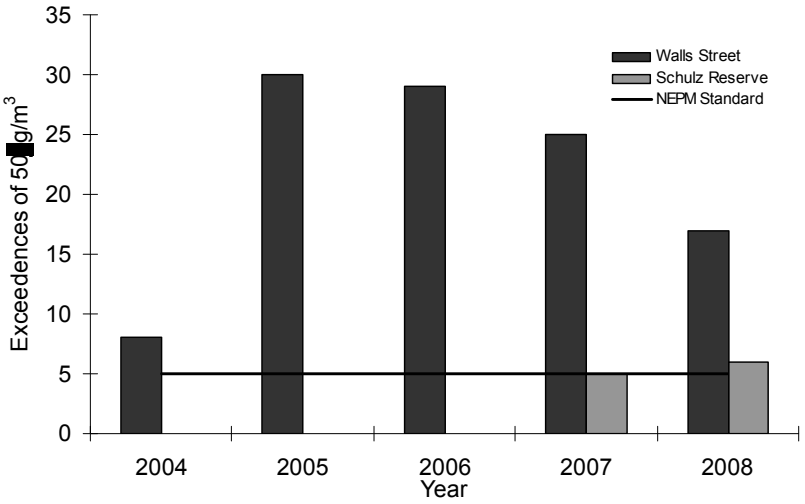


Figure 8 Exceedences of the PM_{10} NEPM standard at Walls St and Schulz Reserve

Dust levels in Whyalla have been of concern to the EPA, local industry and residents for some time. The EPA has monitored dust levels in Whyalla for many years and continues to do so using improved methods. Walls Street data in 2004 is only for the latter half of the year. The Schulz Reserve site was established in April 2007, to replace the Civic Park site that was no longer suitable.

In 2008, particle levels continued to be high at the Walls Street site located at the eastern end of the town, near local industry (see Figure 8). An industry run project commenced towards the end of 2008, which was expected to reduce dust emissions in the Walls Street area.

This is shown by the decrease in exceedences of the particle standard from 25 in 2007 to 17 in 2008. There were six exceedences of the NEPM standard at Shulz Reserve in 2008. Monitoring continues at both these sites, as levels are still high.

Port Pirie

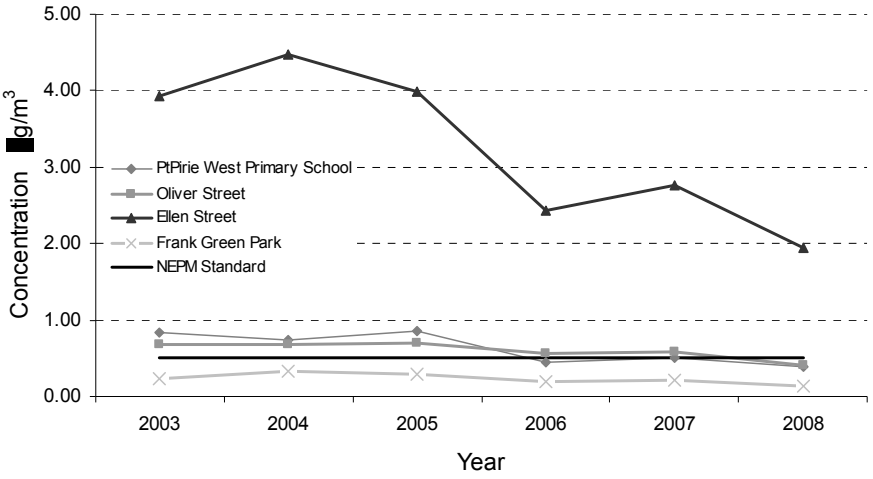


Figure 9 Annual averaged particulate lead concentrations at Port Pirie monitoring sites

Airborne lead monitoring continues at Port Pirie. Annual average lead concentrations at the four EPA sites located across the town are shown in Figure 9.

The annual average lead concentrations for 2008 were 0.39 µg/m^3 at Port Pirie West Primary School, 0.14 µg/m^3 at Frank Green Park and 0.41 µg/m^3 at Oliver Street. These concentrations are continuing to decrease, and the Oliver Street site has met the NEPM goal for the first time since monitoring began.

It should be noted that a systematic error was detected in the lead data as part of quality control measures. This resulted in increases to concentrations. Data has been corrected and re-issued. Thus, the values appearing in this report for historic data have increased, but the downward trend remains, with most sites falling below the NEPM standard.

At the Ellen Street site, close to the smelter, the annual average was 1.94 µg/m^3, also a decrease from previous years. This site is intentionally located adjacent to the boundary of the smelters, meaning the NEPM standard cannot be applied here. However, it serves to show lead levels close to the smelters.

The ongoing ‘tenby10’ program, run by the smelter to make improvements to the plant, is designed to reduce emissions and, therefore, ambient air concentrations of lead, with the aim of reducing blood lead levels in children in the community.

No monitoring for lead has been conducted in Adelaide since the removal of leaded petrol from sale, at which point concentrations decreased to very low levels.

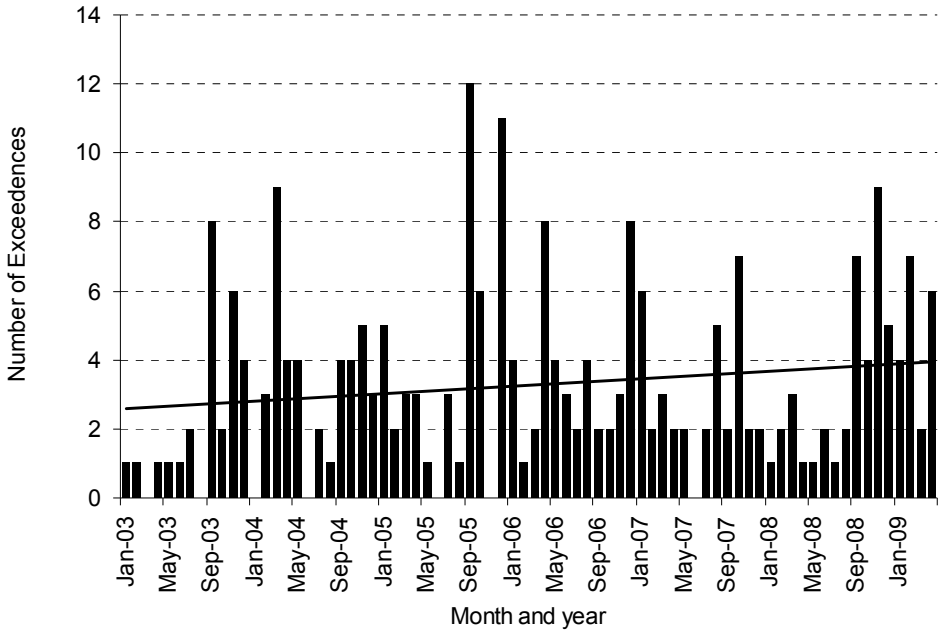


Figure 10 Monthly exceedences of the NEPM hourly sulphur dioxide standard in Port Pirie

To further monitor impacts from the smelter, the EPA operates a sulfur dioxide monitor at one site (Oliver Street). In 2008, the maximum hourly average concentration was 0.522 parts per million (ppm). The NEPM Standard is 0.20 ppm as an hourly average. There were 28 exceedance days of the hourly standard in 2008. There were no exceedences of the sulfur dioxide 24 hour average of 0.08 ppm in 2008.

The number of exceedences of the NEPM hourly standard has increased at the Oliver Street site over time. This is illustrated by the calculated trend line showing, on average, that the number of exceedences has increased by nearly 2% per month over the period January 2003 to April 2009 (see Figure 10).

It should be noted that the lead smelter shut down for development during the middle portion of 2006, resulting in emissions being significantly reduced.

Annual Report on the administration of the Radiation Protection and Control Act 1982

1 July 2008 to 30 June 2009

Environment Protection Authority
Annual Report on the administration of the Radiation Protection and Control Act 1982
1 July 2008–31 July 2009

For further information please contact:

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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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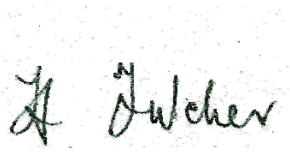
LETTER OF TRANSMITTAL

The Hon Jay Weatherill, MLC
Minister for Environment and Conservation
Parliament House
North Terrace
ADELAIDE
South Australia 5000

Dear Minister

I am pleased to provide the Annual Report on the administration of the *Radiation Protection and Control Act 1982* for the period 1 July 2008 to 30 June 2009, for tabling in parliament in accordance with section 22 of the Radiation Protection and Control Act.

Yours sincerely



Helen Fulcher
Chief Executive
Environment Protection Authority

30 September 2009

FOREWORD

This report provides information on the administration of the *Radiation Protection and Control Act 1982* (RPC Act) during the year 2008–09 by the Environment Protection Authority, when carrying out its RPC Act functions. The EPA obtains advice from the Radiation Protection Committee about all aspects of radiation protection.

The EPA's radiation protection functions serve to protect people and the environment from the harmful effects of radiation and provide a high-quality service to its licensees. As well as assessing licence applications, relevant staff respond to many enquiries from the public regarding radiation safety issues.

Other areas of responsibility include: assessment and inspections of uranium mining operations, X-ray apparatus, sealed radioactive sources and premises in which unsealed radioactive substances are handled; investigations of radiation accidents and incidents; assisting in the development of national standards and codes of practice for radiation protection; assessment and licensing of radiation users; providing expert advice on radiation incident response; and promoting good radiation protection practices among users of radiation.

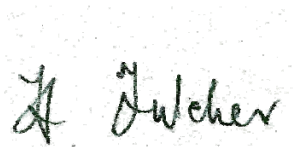
Similar to 2007–08, during 2008–09, there was a significant increase in applications for registration of low-dose dental and medical X-ray machines. In order to address the increasing number of X-ray machines, the EPA introduced a system for accreditation of people who may conduct third-party tests on X-ray machines and issue a certificate of compliance to enable registration.

The EPA continued a strategy for reducing doses to patients from medical imaging and promoted best practice through sharing knowledge with operators, owners and suppliers of X-ray equipment.

In addition, there were increased applications for mining and mineral processing approvals. To address the expansion of mining and mineral processing, the EPA worked with other agencies, such as Department of Primary Industries and Resources SA, to develop a more effective and efficient regulatory regime.

Significant analysis was also completed on aspects of the environmental impact statement for the expansion of Roxby Downs Olympic Dam mine.

I thank the staff for the continued application of their expertise during this year and the members of the Radiation Protection Committee for their contribution and valued advice.



Helen Fulcher
Chief Executive
Environment Protection Authority

30 September 2009

ABBREVIATIONS

ALARA	as low as reasonably achievable
AP	anteroposterior
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
GBq	gigabecquerel
IAEA	International Atomic Energy Agency
Joint Convention	Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management
mSv	millisievert
National Directory	National Directory for Radiation Protection: Edition 1
NIR Regulations	*Radiation and Protection Control (Non-ionising Radiation) Regulations 2008*
NORM	naturally occurring radioactive material
RHC	Radiation Health Committee
RHSAC	Radiation Health and Safety Advisory Council
RPC Act	*Radiation Protection and Control Act 1982*
Security Code	*Code of Practice: Security of Radioactive Sources*
Tanning Units Regulations	*Radiation Protection and Control (Cosmetic Tanning Units) Regulations 2008*
the Standard	Australian and New Zealand *AS/NZS 2635:2002: Solaria for cosmetic purposes*
UIF	Uranium Industry Framework
UV	ultraviolet

INTRODUCTION

The *Radiation Protection and Control Act 1982* (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 Environment Protection Authority (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 protect the environment, and the health and safety of people against the harmful effects of radiation. It 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 following each financial year, for tabling in parliament.

The EPA supports 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 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 and licensing uranium mines.

Officers 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 of the EPA 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 2009, 12 scientific and technical staff, and three administrative and clerical staff in the EPA were 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 forms part of the *EPA Strategic Plan 2007–2010*, which has been developed to align the organisation with the strategic directions set out in South Australia's Strategic Plan.

During 2008–09, the key priorities to achieve this goal were to further develop:

- strategies that enable the control of doses of radiation to the public, such that they are as low as reasonably achievable by:
  - undertaking an effective and efficient inspection and evaluation program for radiation-generating machines, facilities and radioactive sources
  - establishing competency criteria and evaluating competencies for users of radiation
  - developing strategies to address the increasing doses from new medical imaging technologies.
- strategies for the sustainable management of radioactive wastes by implementing the government's response to the radioactive materials audit carried out by the EPA in 2003
- 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
- effective legislation that incorporates national and international standards through updating the RPC Act and associated Regulations.

KEY PROJECTS AND INITIATIVES

Third-party accredited testing of dental and medical X-ray apparatus

The numbers, complexity and use of medical imaging apparatus have increased significantly in South Australia over the past two to three years. To deal with this increase, the EPA commenced a project to introduce third-party accredited testing of low-dose dental and medical X-ray apparatus. The project involves the development of protocols for testing dental and medical X-ray apparatus, and for accrediting suitably qualified people to conduct the tests. The objective of the project is to enable third-party compliance testing and approval of registration of compliant apparatus under section 32 of the RPC Act.

The EPA has completed the first stage of the project, which involved the development of protocols for testing and accrediting testers of Plain Dental X-ray apparatus. Information about the accredited testing of X-ray apparatus and the procedure for applying for accreditation can be found on the EPA website <www.epa.sa.gov.au>.

Managing South Australia's mining development

During 2008–09, the EPA continued to contribute to the management of South Australia's uranium and mineral sands mining through a period of significant increases in exploration and development. The EPA assessed licence and other applications, provided guidance to explorers and worked with operators, other state agencies and the Commonwealth to ensure proposed and current operations meet their environment and health protection obligations effectively.

The EPA continued to work with the Department of Primary Industries and Resources South Australia (PIRSA) to improve the uranium mining regulatory framework. The EPA has been actively involved with the Uranium Industry Framework (UIF)—an industry, and Commonwealth and state government group. The UIF seeks to harmonise regulatory arrangements across jurisdictions, ensure an effective and transparent regulatory regime and ensure effective and efficient coordination between relevant regulatory agencies. The UIF is also considering the training and skills needs for an expanded uranium mining industry in Australia.

Population dose reduction strategy in diagnostic imaging

During 2008–09, the EPA progressed its strategy for reducing doses to patients from medical imaging and promoted best practice through sharing knowledge with, and providing advice to, operators, owners and suppliers of X-ray equipment. The EPA also made available to radiation safety professionals quality assurance test equipment to undertake tests to achieve dose reduction in diagnostic imaging.

In October 2008, the EPA was approached by a large dental practice seeking assistance with updating their dental radiography services to ensure compliance with legislation and to optimise the quality of images with regard to radiation doses and film processing methods. The EPA assisted the practice in preparing a radiation management plan and safety manual, and in the use of optimal imaging techniques. The outcome was a halving of doses to patients. The practice carried out 23 000 X-ray examinations in the last financial year. It is estimated that a dose reduction to the population, equivalent to that of 7000 chest X-rays per year, has been achieved by the practice upgrading its dental units and switching to faster film.

Secure storage and use of radioactive sources

The EPA conducted inspections and audits of radioactive material to ensure its safe storage and use.

In April 2007, the Council of Australian Governments agreed to recommendations about the secure storage, possession, use and transport of radioactive material. The *Code of practice*: *Security of radioactive sources* (Security Code) was published by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) in January 2007. The expedited implementation of the Security Code within all jurisdictions of Australia and development of a national radioactive source register of certain radioactive sources, are key recommendations for achieving this aim.

During 2008–09, an officer of the EPA participated in a workshop for the development of a national register for radioactive sources, and two meetings of the Implementation Advisory Group hosted by ARPANSA to facilitate the development of a national register and implementation of the Security Code within each jurisdiction.

In May 2009, the EPA hosted a three-day training course on the requirements of the Security Code. The training course was attended by representatives of owners and transporters of radioactive sources.

The EPA also reviewed the provisions of the RPC Act to identify any changes required to facilitate adoption of the Security Code, and advised owners of radioactive sources of the provisions of the Security Code and EPA proposals for implementing the Security Code in South Australia.

New Regulations to control solaria

In 2008, Regulations to control the use of solaria were formed under the provisions of the RPC Act. These were the *Radiation Protection and Control (Cosmetic Tanning Units) Regulations 2008* (Tanning Units Regulations) and the *Radiation and Protection Control (Non-ionising Radiation) Regulations 2008* (NIR Regulations).

The Tanning Units Regulations came into operation on 14 March 2008. They require solaria businesses to comply with the Australian and New Zealand Standard *AS/NZS 2635:2002: Solaria for cosmetic purposes* (the Standard) and prohibit owners and operators of solaria from exposing people under the age of 18 years to ultraviolet (UV) radiation. Established businesses were required to provide the EPA with details of their business activity within 60 days from commencement of the Tanning Units Regulations. New businesses are required to notify the EPA within 60 days of commencing operation.

The NIR Regulations came into effect on 1 March 2009. They 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 principles and practices of radiation protection associated with the use of cosmetic tanning units. As there was no accredited training course for operators of cosmetic tanning units, applicants for a licence were required to demonstrate appropriate knowledge of the health effects of UV radiation and regulatory requirements for solaria by passing a licence examination prepared and administered by the EPA.

During 2008–09, the EPA inspected a representative sample of solaria and provided guidance to solaria owners and operators about the implementation of the Tanning Units and NIR Regulations.

In South Australia, at the end of the 2008–09 financial year, there were 42 businesses operating tanning units and another 21 with tanning units on their premises that were no longer in operation, primarily due to the decline in interest from the public.

The EPA also visited a number of solaria to assist operators with complying with the Tanning Units Regulations.

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 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 fears and concerns of parents regarding 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.

Review of the Radiation Protection and Control Act 1982

The review of the RPC Act is a major project of the EPA, which is aimed at making improvements to the RPC Act. Improvements include the adoption of provisions of the *National Directory for Radiation Protection: Edition 1* (National Directory) published by Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) in 2004, the recommendations of the report: *National competition policy review of radiation protection legislation*, published in 2001 and requirements of the *Code of Practice: Security of Radioactive Sources* published by ARPANSA in 2007.

During 2008–09, the EPA continued with the development of proposals to amend the RPC Act.

Competency criteria for users of radiation

During 2008–09, an officer of the EPA chaired a national working group developing competency criteria for radiation users. The national Industry Skills Council for government industry, Government Skills Australia, has developed units of competency in nine key areas. It is intended that these will be adopted nationally.

Radiation emergency response

The EPA is the agency responsible for providing expert advice to the combatant agency in incidents and emergencies involving radioactive material. During 2008–09, there were no such incidents attended 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 Advisory Committee
- Health Emergency Management Response Subcommittee.

The EPA provided training to emergency service personnel for responding to incidents and emergencies involving radioactive substances, as outlined later in this report.

RADIATION PROTECTION COMMITTEE

The Radiation Protection Committee consists of 10 members, one of whom is the Presiding Member of the committee, appointed by the governor pursuant to section 9 of the RPC Act. The Presiding Member must be an officer or employee of the department of the minister to whom the RPC Act is committed (the EPA). The specific qualifications or expertise of other members, relevant to the administration of the RPC Act, are prescribed in section 9 of the RPC Act.

Section 10 of the RPC Act 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 issues related to the expertise of its members and strategic issues. The functions and legislative responsibilities of the 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.

Membership

The three-year term of the current committee expires on 31 December 2010. As at 30 June 2009, the members and deputy members, in relation to the section of the RPC Act under which they were appointed, are listed below.

Members	Section of Act	Deputy members
Ms Helen 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
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
Mr S Caplygin	s9(2)(h)	Vacant
Dr PJ Sykes	s9(2)(i)	Dr MT Lardelli
Mr T Circelli	s9(2)(j)	Vacant

Meetings

During 2008–09, the committee met on four occasions and considered many of the matters addressed in this report. The committee advised the EPA on licences and exemptions granted under the RPC Act, and on proposed amendments to radiation protection legislation.

The committee also discussed and provided expert advice on a number of strategic issues, including the 'linear no-threshold hypothesis' and non-linear effects of radiation, the regulation of low-risk activities and the means by which the EPA may enhance its engagement with stakeholders in the radiation sector.

Members and deputy members of the committee also participated in working groups established to consider the review of the RPC Act, radiation protection training and accreditation, and applications for licences under section 24 of the RPC Act to mine or mill radioactive ores.

REGISTRATIONS AND LICENSING

Personal radiation licences and registrations of equipment and premises are renewed annually. The number of personal licences and registrations that were current or subject to applications under the RPC Act, as at 30 June 2009, are presented in Table 1.

Table 1 Personal licences and registrations under the RPC Act

Type of licence or registration	Section of RPC Act	Number licensed/ registered	Number subject to application
Licence to use or handle radioactive substances	28	881	59
Licence to operate ionising radiation apparatus	31 (1) (a)	3930	62
Licence to operate a non-ionising radiation apparatus (cosmetic tanning units)	31 (1) (b)	101	2
Registration of ionising radiation apparatus	32	1705	510*
Registration of sealed radioactive sources	30	633	82
Registration of premises in which unsealed radioactive substances are handled or kept	29	167	16

* This number primarily results from a significant increase in applications for registration of dental and medical ionising radiation apparatus over the last two to three years. The number of applications received three years ago was approximately 158 compared with 320 applications received during 2008–09.

In addition to people holding personal radiation licences, it is estimated that 2000–3000 people, who are not required to be licensed, were employed in occupations involving exposure to ionising radiation. These include workers at Olympic Dam, Beverley and Honeymoon uranium projects, workers in Type C premises, operators of cabinet X-ray units and fully enclosed industrial X-ray units, users of industrial radiation gauges and people assisting with medical, dental and veterinary X-ray procedures.

Where required under the provisions of the RPC Act, radiation workers' radiation doses were monitored using approved personal dosimeters. All radiation workers' doses recorded were below the occupational limits prescribed in the Regulations, and the average and median of doses received by all 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
- Heathgate Resources Pty Ltd (Beverley Uranium Project)
- Uranium One Australia Pty Ltd (Honeymoon Uranium Project)
- Oban Energy Pty Ltd (Oban Uranium Field Leach Trial Project).

The licences are subject to conditions that include compliance with ARPANSA's Code of practice & safety guide: Radiation protection and radioactive waste management in mining and mineral processing.

The EPA conducts routine surveillance of uranium mining activities by auditing companies' monitoring results and conducting inspections and independent monitoring. Each licensed company 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

BHP Billiton (Olympic Dam) holds a mining licence (LM[1]) for commercial operations under the RPC Act to mine and mill radioactive ores. The LM1 Report for 2007–08, reviewed by the Radiation Protection Committee on 4 December 2008, included an annual dose assessment summary and 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 the processing plant was less than 18% of the 20-millisieverts (mSv) average annual limit for workers, and the maximum individual dose received was assessed to be less than 40% of the limit.

The BHP Billiton Annual Report of the Environmental Management and Monitoring Program for 2008 confirmed that the radiological effects of the operation remain small and confined within the mining lease area. The report 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 one mSv annual limit for members of the public).

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.

Six 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.

Officers of the EPA visited the site on four occasions for radiation review meetings, inspections and/or workplace monitoring.

Beverley Uranium Project

Heathgate Resources Pty Ltd, operators of the Beverley project 600 km north of Adelaide, holds a licence (LM4) under the RPC Act to conduct uranium mining operations. The licence was renewed for a further 12 months from 4 August 2008.

The annual reports of the Occupational Radiation Monitoring Program and Environmental Radiation Monitoring Program for 2008 indicated the average annual dose for workers at the Beverley mine was approximately 1.4% of the 20-mSv annual occupational dose limit. The maximum dose received by a worker was approximately 13% of the annual limit. Environmental monitoring confirms doses to members of the public, as a result of the mining operations, are indistinguishable from background radiation levels.

No incidents were reported during 2008–09.

Honeymoon Uranium Project

Uranium One Australia Pty Ltd holds a licence under section 24 of the RPC Act to conduct uranium mining operations at its Honeymoon site. The licence (LM5) was renewed for a further 12 months from 6 October 2008.

The Honeymoon project, located approximately 75 km northwest of Broken Hill, is to be an in-situ leach uranium mine, producing around 400 tonnes per annum of uranium product. In April 2009, authorisation was granted by the EPA to commence construction of the plant and well field, with commissioning expected in early 2010.

[1] A class of licence authorised to mine or mill radioactive ores, issued under Section 24 of the RPC Act.

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 2008–09, the granting of a licence remained under consideration.

Oban Uranium Project

On 26 November 2008, Oban Energy Ltd (a subsidiary of Curnamona Energy Ltd) applied for a licence to mine or mill radioactive ores for developmental testing of processes at its Oban site, northwest of Broken Hill. The EPA and the Radiation Protection Committee assessed the application for a uranium in-situ recovery field trial, and a licence was granted on 19 May 2009.

Transport of uranium ore concentrate

Uranium ore concentrate from 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 ARPANSA's Code of practice & safety guide: Radiation protection and radioactive waste management in mining and mineral processing.

Mining and mineral processing operations registered under the RPC Act are:

- Australian Zircon's 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.

The Prominent Hill copper ore contains low concentrations of uranium. Although the ore grade is below the current definition of a radioactive ore, the operators of the Prominent Hill mine sought registration in order to ensure full regulatory compliance once the RPC Act is changed to incorporate recommendations from the National Directory.

Registration of former uranium mining and milling sites

The former Radium Hill uranium mine, 100 km southwest of Broken Hill, was developed in the early 1950s and operated until the early 1960s. The northern end of the remaining tailings dam at Radium Hill has been used as a repository for low-level radioactive waste since April 1981, when it was gazetted under the *Crown Lands Act 1929* and placed under the care, control and management of the (then) Minister of Mines and Energy.

The Port Pirie Treatment Plant processed uranium ore from Radium Hill between 1953 and 1962 and was operated by the (then) Mines Department of South Australia. It is estimated that approximately 200 000 tonnes of radioactive tailings remain in tailings dams at Port Pirie, on land owned by the state government, under the care of the Minister for Mineral Resources Development.

Australia is a signatory to the international Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Joint Convention). To comply with the requirements of the Joint Convention and South Australia's legal framework for controlling radioactive waste, the EPA sought registration of the Radium Hill and

Port Pirie sites under section 29 of the RPC Act, and both sites were first registered in 2003. The registered occupier of the sites is the Minister for Mineral Resources Development.

EPA conditions attached to the registrations were the development of appropriate long-term management plans for the sites and site characterisation of both sites. Site characterisation work continued during the reporting period.

Maralinga

The former British atomic weapons test site at Maralinga (Section 400 land parcel) is currently Commonwealth Government land, and is a licensed facility (Maralinga Facility Licence FV0043) under the *Australian Radiation Protection and Nuclear Safety Act 1998*. The site includes burial trenches containing radioactive materials, which were constructed during the Commonwealth Government Maralinga Rehabilitation Project, completed in 2000.

It is proposed that the Commonwealth Government will return the Maralinga site, including Maralinga Village and the airfield, to the South Australian Government for addition to the Maralinga Tjarutja freehold lands. The Commonwealth Government convenes the Maralinga Consultative Group, which has representation from the Commonwealth Government, South Australian Government (including the EPA when carrying out its RPC Act functions) and traditional owners: the Maralinga Tjarutja. The consultative group's tasks include developing a detailed, long-term management plan, which will provide for long-term radiation monitoring and surveillance of the site. The Maralinga site will be subject to the provisions of the RPC Act on the return of ownership to South Australia.

The consultative group met twice during the 2008–09 financial year.

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 Director of the Radiation Protection Division.

After careful consideration by the EPA, the director granted several exemptions from Regulations under the RPC Act, subject to conditions specified in exemption notices published in the Government Gazette. The exemptions granted included:

- conditional exemptions from regulation 18 of the Radiation Protection and Control (Ionising Radiation) Regulations 2000 (the requirement for employers to provide personal radiation monitors) were granted to:
  - Flinders University, with regard to staff operating a bone densitometry apparatus
  - owners of cabinet X-ray apparatus who comply with requirements of regulation 66 (which adopts requirements of the National Health and Medical Research Council Statement on cabinet X-ray equipment for examination of letters, packages, baggage, freight and other articles for security, quality control and other purposes)
  - owners of fill-height detectors incorporating either an X-ray tube or a sealed radioactive americium-241 source
  - VivoPharm Pty Ltd with regard to staff handling only unsealed radioactive H-3 in Type C premises[2].
- a conditional exemption from section 28 of the RPC Act (the requirement to hold a licence to use or handle a radioactive substance) was granted to veterinary assistants at the Hills Veterinary Centre to the extent that they may use or handle radioactive I-131 for the purposes of assisting veterinarians in therapy procedures involving administration of radioactive I-131 to cats, caring for the cats and handling radioactive waste resulting from the procedures
- a conditional exemption from section 31 of the RPC Act (the requirement for operators to hold a licence to operate ionising radiation) was granted to persons involved in emergency response to an identified major incident, emergency or a disaster provided that the operators hold a licence required by the jurisdiction of their place of residence to operate such apparatus
- a conditional exemption from section 32 of the RPC Act (the requirement for owners to register the apparatus) was granted to persons involved in emergency response to an identified major incident, emergency or a disaster provided that the apparatus is registered as required by the jurisdiction in which it is normally used
- a conditional exemption from regulation 40 (which specifies practitioners who may authorise exposures or treatments using ionising radiation) was granted to permit diagnostic radiographers to take X-rays authorised by physician assistants engaged in the physician assistant trial at the Queen Elizabeth Hospital, Royal Adelaide Hospital and Flinders Medical Centre
- a conditional exemption from regulation 45 (the requirement for approval of research involving the use of ionising radiation on human subjects) was granted to persons conducting research at the Spencer Gulf Rural Health School, University of South Australia
- a conditional exemption from regulation 45 (the requirement for approval of research involving the use of ionising radiation on human subjects) was granted to any person who conducts *in vivo* research involving the use of ionising radiation on a human being provided that the research has been assessed and approved by their organisations' human research ethics committee who have ensured that effective doses to an individual in one year do not exceed certain values

[2] Premises where unsealed radioactive substances are kept or handled are classified as Type A, B, or C, depending on the radionuclides kept or handled, the maximum activities handled and the types of operations performed in the premises, as prescribed in Schedule 3 of the Radiation Protection and Control (Ionising Radiation) Regulations 2000. Type C premises are typically laboratories in hospitals, universities or nuclear medicine facilities where unsealed radioactive substances are kept or handled, and are the lowest classification in terms of the activities and the hazards from operations carried out in the premises.

- a conditional exemption from regulation 91(10) (the requirement for the exposure control switch to be arranged in a way that the operator can remain outside the useful X-ray beam and at least 2 m from the tube and from the patient or behind a fixed protective barrier) was granted to the SA Dental Service and Forensic Science SA with regard to the use of a NOMAD hand-held dental X-ray apparatus
- a conditional exemption from regulation 133 (the requirement for approval to dispose of radioactive substance) was granted to persons who dispose of domestic ionisation chamber smoke alarms into domestic waste to the extent that they may dispose of up to two domestic alarms during any period of seven days.

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 promptly report to the EPA any accidents. This means accidents in a situation where a radiation source is no longer under control or a person has received or may have received an accidental exposure to ionising radiation. The EPA investigates all radiation accidents and incidents to determine the cause and any remedial action that could be taken to prevent a recurrence.

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. The requirement for radiation management plans arises from conditions attached to the licence to mine or mill radioactive ores.

Details of accidents and incidents involving exposure or potential exposure to radiation are provided to ARPANSA for the National Register of Radiation Accidents and Incidents.

During the reporting period, the following accidents and incidents were reported to the EPA:

- The EPA was notified by a supplier of a technetium-99m generator, containing 137 GBq of molybdenum-99, that the generator, which had been consigned to a hospital in Adelaide from Sydney, had not reached its destination. The carrier's documentation indicated that the package had been despatched and should have arrived in Adelaide. However, the package was eventually found at the premises of the carrier in Sydney. The supplier and carrier reviewed their procedures to prevent a recurrence.
- A hospital reported two radiation incidents involving the spill of I-131 Lipiodol in an angiography suite. The incidents occurred due to a problem with a two-way tap used in the administration of I-131 Lipiodol via a catheter inserted into a patient's hepatic artery. Monitoring detected contamination on the floor, the foot pedal console of the X-ray machine and shoes of staff members. To prevent a recurrence of the incidents, the facility reviewed its protocols and recommended the use of a three-way tap for future administrations.
- A hospital reported that a nuclear medicine technologist mistakenly injected a patient who was booked in for a heart scan with a bone tracer (99mTc-HDP) instead of a cardiac scan tracer (99mTc-MIBI). To prevent a similar incident, the hospital reinforced the requirement to check the patient's identity and to check a tracer's labels before administering the tracer to the patient.
- An incident occurred when a nurse, who was escorting a patient, opened the door to the computed tomography (CT) room and proceeded to enter the room while the CT unit was in tube warm-up mode prior to the CT examination on the same patient. Although the warm-up procedure was subsequently suspended, it was estimated that the nurse could have received an accidental radiation exposure. The nurse failed to read the signage on the door and also failed to follow verbal instructions by the CT operator once she entered the room. The remedial action taken to prevent a similar recurrence was to modify the signage to notify of potential risks. It was also recommended that new and current staff at the hospital should be provided with a radiation safety protocol component in their orientation or refresher training.
- Two incidents involving mistaken identity of patients were reported by separate radiology practices. One patient was given six unnecessary X-rays—four humeri, one anteroposterior (AP) elbow and one lateral scapula. The other patient was given one AP and one lateral view of the hand. To prevent a recurrence of the incidents, both practices reviewed their protocols and recommended that patients' details (name, date of birth, and so on) must be thoroughly checked by the referral doctors before authorising any request, and that patients' details, including clinical indications, must also be verified by all imaging staff before conducting any imaging procedure.
- A nuclear medicine facility reported that a patient, who was referred for a renal scan, was injected with a hepatobiliary reagent (Tc99m-DIDA) instead of a renal reagent (Tc99m-DTPA). To prevent a recurrence, the facility reviewed its radio-pharmaceuticals' labelling and checking procedures

- A young female patient, who was unaware of pregnancy, was referred for a CT of the lower abdomen. Despite displayed signage at the reception desk regarding the possibility of a pregnancy and the patient discounting pregnancy when asked on two occasions, it was found, after the CT exposure, that the patient was pregnant, with an estimated gestation of 14–15 weeks. The practice suggested that referral doctors could request a biochemical pregnancy test to exclude pregnancies of young females before any exposure of the abdomen.

NATIONAL AND INTERNATIONAL 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 to the extent that resources permit. The EPA's involvement in these activities during 2008–09 is summarised below.

Radiation Health Committee

The Radiation Health Committee (RHC) is established under the *Australian Radiation Protection and Nuclear Safety Act 1998* (ARPANS Act). The RHC advises the Chief Executive Officer of ARPANSA and the Radiation Health and Safety Advisory Council on matters relating to radiation protection, and develops policies and prepares draft publications for the promotion of uniform national standards of radiation protection throughout Australia and its states and territories.

Membership of the RHC includes a radiation control officer representing each of the states and territories. The South Australian representative is the Director of the EPA's Radiation Protection Division, who chairs the RHC.

The RHC met three times during the year and discussed:

- National Directory and proposed amendments
- safety guides on nuclear medicine, diagnostic and interventional radiology, and radiotherapy that support the *Code of practice: Radiation protection in the medical applications of ionising radiation*
- draft Code of practice: Radiation protection in the use of ionising radiation by chiropractors
- draft Safety guide: Safe transport of radioactive material
- draft Standard for limits and precautionary measures for reducing exposure to electric and magnetic fields (0 Hz–3 kHz)
- draft Safety guide: Management of naturally occurring radioactive material (NORM)
- *Safety guide: Predisposal management of radioactive waste*
- *RHC statement on the safe handling of corpses containing radioactive materials by crematorium/funeral parlour workers*
- draft Safety guide: Use of radiation in schools Part 1: ionising radiation
- classification of radioactive waste in Australia
- *Code of practice & safety guide: Radiation protection in veterinary medicine*
- national radiation protection qualifications, accreditation and training standards
- RHC strategy and future work program.

Summaries of meetings of the RHC may be found on the ARPANSA website at: <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 2008–09, the Director of the EPA Radiation Protection Division and a member of the South Australian Radiation Protection Committee were appointed as members of the council.

The council met three times during the year and discussed matters that included:

- the review of the efficiency and effectiveness of the National Directory for Radiation Protection Edition 1.0
- management and disposal of long-lived, intermediate-level radioactive waste
- publication of radiation safety guides about:

  - management of naturally occurring radioactive material
  - radiation protection in interventional and diagnostic radiology
  - radiation protection in nuclear medicine
  - safe transport of radioactive material
  - pre-disposal management of radioactive waste
  - use of ionising radiation in schools
- the ARPANSA publications program and national uniformity
- Australian and overseas radiotherapy incidents
- the role and membership of the RHC and Nuclear Safety Committee
- adoption of the Code of practice and safety guide: Radiation protection in veterinary medicine
- medical radiation and protection of pregnant patients.

Summaries of meetings of the RHSAC can be found on the ARPANSA website at: <www.arpansa.gov.au/pubs/rhsac/sum11-120609.pdf>.

National Directory for Radiation Protection

During 2008–09, SA Health referred proposals for amendments to the National Directory to the EPA for consideration and advice. These amendments included:

- Amendment 1—to provide for adoption of a number of codes of practice and radiation protection standards published since publication of Edition 1 of the National Directory
- Amendment 2—to clarify provisions of existing exemptions and exclusions
- Amendment 3—to provide for the adoption of the *Code of practice: Radiation protection in the medical applications of ionising radiation*
- Amendment 4—to provide for adoption of regulatory elements for the control of solaria used for cosmetic purposes.

The EPA advised SA Health that it supported all four amendments. During 2008–09, the Australian health ministers endorsed the adoption of Amendments 1 to 3 in the National Directory.

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

Australia is signatory to the international Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Joint Convention), developed under the auspices of the International Atomic Energy Agency (IAEA). The Commonwealth Government radiation protection regulator, ARPANSA, collaborates with the radiation protection regulators of the states and territories to progress compliance with the Joint Convention and promote world's best practice for management of spent fuel and radioactive waste in Australia.

Australia's national reports on compliance with the requirements of the Joint Convention are prepared by ARPANSA with input from state and territory regulators: each provides information on measures being undertaken to achieve compliance within their jurisdiction.

In August 2008, the EPA provided ARPANSA with an update on radioactive waste management activities in South Australia to be incorporated in Australia's third national report. ARPANSA completed the national report and submitted it to the IAEA in October 2008.

Following lodgement of national reports, contracting countries have the opportunity to scrutinise reports from other countries and seek clarification or further information on the contents. In April 2009, the EPA provided ARPANSA with answers to relevant questions from contracting parties in relation to the third national report on Australia's compliance with the Joint Convention.

The Asia Region ALARA Network Workshop on Non-destructive Testing

The Asia Region ALARA Network (ARAN) was formed in Daejeon, Republic of Korea, in December 2007. The main objectives of the ARAN include:

- supporting the development of a sustainable regional network, which 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 the Director of the Radiation Protection Division of the EPA.

The first activity of ARAN was its first workshop on the theme: Improving radiation protection in industrial radiography, held in Chiba, Japan, in November 2008. Thirty-two participants and experts, including representation from the South Australian EPA, attended the workshop. Participants developed a set of recommendations about improving radiation protection in relation to industrial radiography in the region.

A meeting of the ARAN Steering Committee was also held in Chiba. Items discussed included the future activities of ARAN, actions arising from the first workshop, the 'public face' of ARAN and future funding of ARAN.

The International Atomic Energy Agency 52nd General Conference

The conference was held from 29 September to 4 October 2008 at its Vienna headquarters. The Australian Ambassador to Austria hosted a side event at the conference to address uranium industry resurgence, and invited the EPA to present the regulator's perspective. The session also featured presentations from the IAEA, BHP Billiton and the Malawi Department of Mines.

Following the general conference, the IAEA hosted a technical meeting about sustainable global best practices in uranium mining. Established and developing uranium mining countries were represented, including Australia, Canada, China, Kazakhstan, India, Pakistan, Malawi and Namibia. Australia was represented by the Director, Radiation Protection Division of the EPA; the Commonwealth Government Department of Resources, Energy and Tourism; BHP Billiton (Olympic Dam); and ERA Ranger.

TRAINING AND CONFERENCES

Emergency response training

The EPA ran workshops for emergency service personnel, including the South Australian Police and Country Fire Service, about dealing with incidents and emergencies involving radioactive substances. The workshops were attended by approximately 30 emergency service personnel.

Between 31 March and 2 April 09, two officers from the EPA attended the state Chemical, Biological, Radiological Incidents and Emergency Management course held at the Country Fire Service State Training Centre at Brukunga, South Australia.

Training on the use of the code of practice for security of radioactive sources

In May 2009, two officers attended a three-day training course on the *Code of practice: Security of radioactive sources*, conducted by ARPANSA.

Conferences

In July 2008, three officers attended a seminar organised by BreastScreen SA, with the main theme being digital mammography.

In September 2008, two officers of the EPA attended the annual conference of the Australasian Radiation Protection Society in Canberra. One of the officers gave a presentation on the South Australian perspective on the introduction of solaria Regulations.

From 29 September to 4 October 2008, the Director of the Radiation Protection Division attended the International IAEA 52nd General Conference in Vienna.

In June 2009, an officer attended the Australian Institute of Mining and Metallurgy Uranium Conference in Darwin. A main theme of the conference was environmental protection and regulation.

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 2008–09:

- financial performance of the Radiation Protection Committee
- account payment performance
- contractual arrangements
- detection of fraud
- 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
- regional impact assessment
- sustainability reporting.