

environment protection authority

1999 - 2000

annual report



Government
of South Australia

Environment Protection Authority

1999 - 2000

Annual Report

Environment Protection Authority

GPO Box 2607
ADELAIDE SA 5001
AUSTRALIA

Telephone: 08 8204 2000

Facsimile: 08 8204 9393

Free Call: 1800 623 445

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LETTER OF TRANSMITTAL

The Hon Iain Evans MP
Minister for Environment and Heritage
Parliament House
North Terrace
Adelaide SA 5000

Dear Minister

It is with pleasure that I present to you the Annual Report of the Environment Protection Authority for the period 1 July 1999 to 30 June 2000. This report has been prepared in accordance with the requirements of the *Environment Protection Act 1993*.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Stephen Walsh', written in a cursive style.

Stephen Walsh
Chair
Environment Protection Authority

January 2001



FOREWORD

This report is structured to give an overview of the many issues that have been dealt with by the Environment Protection Authority in 1999-2000. The functions of the Authority cover a myriad activities including the development of Environment Protection Policies, promoting the pursuit of the objects of the *Environment Protection Act 1993*, environmental monitoring and evaluation, protection and restoration of the environment and consultation with all levels of government, industry and the community.

The Authority has a number of tools with which to deal with environmental issues including:

- authorisations (for example, licences)
- licence special conditions (for example, mandatory Environment Improvement Programs—EIPs)
- Environment Protection Policies—EPPs
- codes of practice and guidelines
- voluntary audits
- voluntary environment improvement programs (EIPs) and environmental performance agreements.

Using these measures the Authority normally seeks compliance through cooperation and negotiation, although, where appropriate, civil and criminal enforcement processes are used.

Closer links have been sought with the community and with industry as a means to resolve pressing environmental issues and to work towards a sustainable future. The partnership with local government on waste management is becoming stronger as progress is made on long-term arrangements for recycling, re-use and recovery of valuable resources from the waste stream.

South Australians have many opportunities to access information on environment protection and to influence the decision-making processes. These include the Round-table Conference, public input into the legislative reform program and the making of an Environment Protection Policy. There is also opportunity for the public to be involved in the granting of authorisations and in the process of amending conditions of licence. The Authority has met informally with many groups in 1999-2000 to gain a closer perspective of their opinions and concerns about many issues. These opinions and concerns play a significant part in the decision-making of the Authority.

The members of the Authority and the staff of the Environment Protection Agency are to be congratulated for their contribution to the protection of the environment. The dedication they have shown has enabled the organisation to make the many achievements highlighted in this report.

This annual report covers the administration of the Act by both the Environment Protection Authority (the Authority) and the Environment Protection Agency (the EPA) under delegation from the Authority.

A handwritten signature in blue ink, appearing to read 'Stephen Walsh'.

Stephen Walsh QC
Chair
Environment Protection Authority

A handwritten signature in blue ink, appearing to read 'Max Harvey'.

Max Harvey
A/Executive Director
Environment Protection Agency



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ACRONYMS AND ABBREVIATIONS

AHD	Australian Height Datum
ANZECC	Australian and New Zealand Environment and Conservation Council
ARTC	Australian Rail Track Corporation
ATO	Australian Taxation Office
CDL	Container Deposit Legislation
DEH	Department for Environment and Heritage (formerly Dept for Environment, Heritage and Aboriginal Affairs—DEHAA)
DHS	Department of Human Services
DTUPA	Department of Transport, Urban Planning and the Arts
EIP	Environmental Improvement Program
EIS	Environmental Impact Statement
EPA	Environment Protection Agency
EPD	Environment Policy Division
EPEC	Environment Protection Enforcement Certificate
EPO	Environment Protection Order
ERD Committee	Environment Resources and Development Committee of Parliament
GST	Goods and Services Tax
KESAB	Keep South Australia Beautiful
LEMP	Landfill Environment Management Plan
LGA	Local Government Association
MEKP	Methyl Ethyl Ketone Peroxide
NATA	National Association of Testing Authorities
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NHT	Natural Heritage Trust
NPI	National Pollutant Inventory
PAR	Plan Amendment Report
PET	Polyethylene Terephthalate
PM-10	Particulate Matter less than 10 microns
PPF	Pollution Prevention Fund
SAECCI	South Australian Employers Chamber of Commerce and Industry (now Business SA)
SAPOL	South Australian Police
SBPPP	Small Business Pollution Prevention Project
STEDS	Septic Tank Effluent Disposal Scheme
The Act	the <i>Environment Protection Act 1993</i>
The Authority	the Environment Protection Authority
WRWMA	Western Region Waste Management Authority
WWTP	Wastewater Treatment Plant



OVERVIEW OF 1999-2000

Meeting the Objects of the Act

The primary responsibility of the Environment Protection Authority (EPA) is to deliver on the objects of the *Environment Protection Act 1993*. Broadly, these objects seek to ensure that the use, development and protection of the environment is managed at a rate that will provide for the economic, social and physical well-being of society. Proper weight must be given to both long and short-term economic, environmental, social and equity considerations while preventing, reducing, minimising and, where practicable, eliminating harm to the environment.

Fundamental to all decisions of the EPA is that a precautionary approach must apply to the assessment of risk of environmental harm.

The EPA has always firmly believed that the best outcomes for the environment will generally be achieved by negotiation of environmental improvements with the holders of environmental authorisations, supplemented, if necessary, by the use of civil enforcement measures (such as mandatory Environment Improvement Programs, Environment Protection Orders and Clean-up Orders). Such measures are clearly preferable to expensive and time-consuming litigation, although this latter option will continue to be used as the need arises.

During 1999-2000 the EPA has made good progress in its commitment to achieving sustainable environmental outcomes for South Australians. Nevertheless, there are many significant issues which will determine the EPA's priorities for 2000-2001.

Air Quality

Adelaide enjoys arguably the best air quality of all Australian cities, and general air quality has significantly improved over the past 20 years due to industry-focused legislation and voluntary improvements by industrial and commercial operations. The successful implementation of backyard burning controls by local government has also contributed to the overall air quality.

The EPA is developing an air quality monitoring program. The data from this program will fulfil the State's reporting requirements for the National Environment Protection (Air Quality) Measure (NEPM).

Noise

Complaints regarding freight train noise have risen considerably in the past year. The noise emanates from locomotive engines and squeal from wheels as they slip on the tracks. The increase in complaints is probably due to increased traffic and longer trains, both of which appear to be a consequence of the conversion of the line to standard gauge.

Water Quality Protection

Reports have been released on the water quality of the Port River, Lake Alexandrina, the metropolitan bathing waters and a number of rivers and streams, and seagrass loss off the metropolitan area.

The EPA undertook a detailed investigation in response to reports of high levels of PCBs and heavy



metals in samples taken from dead dolphins in the Port River. The results indicate that the PCB levels are below levels identified in the scientific literature over the past decade; cadmium levels were also lower than those in dolphins from other SA waters. Sediment in 17 of the 26 sites monitored had high concentrations of lead and zinc (probably from road run-off). All the fish tested for heavy metals met the required food standards.

The EPA is undertaking an audit of industries in the area to determine the source of the PCBs and heavy metals.

Waste Management

Community interest in the management of waste has grown considerably in recent years. This has been sparked by inappropriate siting of landfills, the introduction of kerbside recycling and uncertainties regarding the future availability of disposal areas.

The *Integrated Waste Strategy for Metropolitan Adelaide (1996)* outlines key elements aimed at improving waste practices. Some of the key initiatives of the strategy have already been implemented.

The EPA, Planning SA and Department of Industry and Trade have identified four potential sites for the treatment of green organic waste.

The Waste Management Committee is developing a three-year business plan that will describe long-term arrangements for the committee. The committee recognises the need to provide direction and support for initiatives to reduce waste to landfill and improve resource recovery systems.

Promotion of Pollution Prevention

The EPA's Small Business Pollution Prevention Project, which targets small to medium businesses, seeks to educate small business operators in pollution prevention and cleaner production. This project remains an important initiative and will continue in its current form for the foreseeable future.

Legislation and Policy

Foremost in the EPA's priorities is the review of the Environment Protection Act, assented to in October 1993, and which is in need of significant strengthening and/or amendment in several areas, particularly:

- specific provisions to deal with site contamination
- perceived limitations to the enforcement provisions in the Act
- comparative powers and responsibilities of the Minister, the Authority and the Agency
- national competition policy requirements
- the need to update and improve the efficiency and effectiveness of the Act.

Consultation on a range of general provisions will be undertaken through a series of discussion papers. The revised bill is likely to be introduced into Parliament late in 2001.



Enforcement and Compliance

The EPA carries out inspections to check compliance and, where deliberate or continuous breaches occur, enforcement is carried out. To correct non-compliance the EPA can issue warnings, strengthen licence conditions, negotiate environment improvement programs or undertake civil enforcement action.

Prosecution is undertaken against individuals and/or organisations to deter others from taking similar action and to signal to the community and industry the need to proactively address their environmental responsibilities.



INTRODUCTION

The Environment Protection Authority

The Environment Protection Authority has been in operation since November 1994, with the introduction of the *Environment Protection Act 1993* (the Act). The Authority is a six-member statutory body with members appointed by the Governor for a maximum term of two years and the Chair appointed by the Governor for a maximum term of three years. Authority members are appointed because of their practical knowledge of, and experience in, defined areas as indicated below.

Mr Stephen Walsh, QC

Mr Walsh is Chair of the Authority as a person with 'qualifications and experience relevant to environmental protection and management or natural resources management'. An important role of the Chair is to be the voice of the Authority when communicating its position on issues of environmental importance. Stephen's qualifications as an arbitrator and negotiator have made him well suited for this role, particularly with the challenges faced in 1999-2000.

Mr Nicholas Begakis, AM BTech FAICD

Mr Begakis was appointed to the Authority as a person 'with practical knowledge of, and experience in, industry, commerce or economic development'. Mr Begakis was re-appointed for a second two-year term in December 1999.

Ms Jennifer Cashmore, AM

Ms Cashmore was appointed to the Authority as a person with 'practical knowledge of, and experience in, environmental conservation and advocacy on environmental matters on behalf of the community'. Ms Cashmore is a foundation member of the Authority.

Mrs Anita Aspinall, BA (Social Science)

Mrs Aspinall is Vice Chair of the Authority appointed for her 'practical knowledge of, and experience in, local government'. Mrs Aspinall is a foundation member of the Authority.

Dr David Cruickshanks-Boyd, BSc (Hons), PhD

Dr Cruickshanks-Boyd was appointed to the Authority for his 'practical knowledge of and experience in the reduction, reuse, recycling and management of waste and the environmental management industry'.

Mr Rob Thomas, BSc (Geology), BSc (Hons) (Zoology), MPhil (Applied Biology)

Mr Thomas was appointed Executive Director of the Environment Protection Agency in 1992 and was a member of the Authority by reason of his position. In June 2000 Mr Thomas was appointed to the position of Chief Executive of the new Department for Water Resources. Mr Max Harvey became Acting Executive Director and a member of the Authority in his place.



Meetings and Other Activities

During 1999-2000 the Authority formally met on 24 occasions. In addition, members considered many issues using electronic media such as facsimile and teleconference. On 2 June 2000 members also attended the Round-table Conference.

Individual members have represented the Authority at a range of meetings and functions, including chairing conference sessions and attending official openings and professional association meetings. When necessary, site visits were arranged to assist in the decision-making process. In 1999-2000, members of the EPA visited Mount Barker Products and Castalloy Foundries, to better inform themselves of the environmental issues raised by those activities.

Responsibilities of the Authority

Section 13 of the Act imposes the following functions upon the Authority:

- administer and enforce the Act
- prepare draft Environment Protection Policies
- review Environment Protection Policies
- contribute to the development of National Environment Protection Measures
- consider development applications referred to it under the *Development Act 1993*
- promote the pursuit of the objects of the Act by all levels of government, the private sector and the public
- institute or supervise environmental monitoring and evaluation programs
- encourage and assist the development and implementation of best environmental management practices and, for that purpose, encourage environmental audits, emergency planning, EIPs, environment performance agreements and similar measures
- promote the development of the environment management industry of the State
- conduct or promote investigations, research, public education and other programs and projects in relation to the protection, restoration or enhancement of the environment
- prepare *State of the Environment* reports
- perform any other functions assigned to the Authority by or under any other Act.



Environment Protection Agency

The Environment Protection Agency (EPA) is a division within the Department for Environment and Heritage (DEH). The Agency comprises the following branches: Strategy, Operations, Evaluation, and Business Services.

Many of the powers and functions of the Authority under the Act have been delegated to staff within the Environment Protection Agency. The level of delegation varies from solely the Executive Director, to branch managers, to employees who have been appointed as authorised officers for the purposes of the Act. However the Authority remains the prime decision-maker on significant or contentious issues.

Environment, Resources and Development Committee Inquiry into Environment Protection

In July 1999 parliament resolved to inquire into the functioning and operation of the Environment Protection Authority and the Environment Protection Agency. The responsibility for this inquiry was given to the Environment, Resources and Development (ERD) Committee of Parliament.

The Environment, Resources and Development Committee commenced its inquiry into Environment Protection on Wednesday 20 October 1999. During the inquiry evidence was taken from members of the Environment Protection Authority, senior officers of the Environment Protection Agency and the Department for Environment, community and environmental groups, and from individuals generally in relation to specific industrial operations.

The ERD Committee, as a result of their inquiry, made 40 recommendations for consideration and response by the Minister for Environment and Heritage. Broadly, the Committee's recommendations concerned suggested improvements to the *Environment Protection Act 1993*, greater consultation by the Authority and improved mechanisms for communication with the general community, improvements to environmental licensing and monitoring, and greater powers and resources to be made available to the Authority.



AIR QUALITY AND ATMOSPHERIC PROTECTION

Air Monitoring in South Australia

The EPA is developing an air quality monitoring network to gather data to enable better air quality management in South Australia, to fulfil reporting requirements under the National Environment Protection Measure (NEPM) on Ambient Air Quality, and to provide information for the public.

This is being achieved by four measures:

1. There is a fixed network of monitors being set up in metropolitan Adelaide with permanent sites at Netley, Northfield, Kensington Gardens, Elizabeth, and Gawler (to be moved to a southern location along the Onkaparinga Valley). Different air pollutants will be measured at individual sites, but all monitors will measure nitrogen oxides, ozone, sulphur dioxide, and meteorology.

Selected sites will monitor:

- total suspended particulate lead
- fine particles (PM-10)
- total suspended particles (TSP)
- fine particles as PM-2.5
- light scatter
- carbon monoxide.

Additionally there is a carbon monoxide monitoring site in Hindley Street (city), where levels are expected to be highest, and a site adjacent to the Mobil refinery monitoring sulphur dioxide as a measure of the refinery's performance.

2. As part of the network there will be three long-path monitors to enable the EPA to measure pollutants of concern that it is currently not able to measure on either a continuous basis, or in some cases, on any basis.

These include the aromatic hydrocarbons benzene, toluene and xylenes (emitted from fossil fuels and wood burning). These compounds are currently being considered for inclusion as 'air toxics' under the National Environment Protection Measure for Air. The instruments also monitor some of the criteria gases. This will enable South Australia to have a consistent monitoring approach at both the national and international level.

3. Two mobile stations will be set up to carry out measurements in selected major country areas to investigate pollution levels never before investigated. The stations will monitor nitrogen oxides, ozone, sulphur dioxide, TSP particles, PM-10 particles and meteorology. Stations will be located at:

- Mt Gambier
- Pt Pirie
- Whyalla



- Pt Augusta
- Southern winery area
- South East winery area
- Angaston
- Riverland area.

After an initial 12-month monitoring period at each location the need for further monitoring in any of these areas can be assessed.

4. A hot-spot monitoring program will be set up to allow monitoring around selected industrial sites over the next five years. This can also be utilised for complaints-based monitoring on an 'as needed' basis.

The hot-spot monitoring caravan was set up in Rundle Mall during World Environment Day and attracted considerable interest. There will now be a commissioning phase prior to commencement of the program. Selected sites for initial monitoring include:

- north of Mobil refinery
- near CSR at Mt Gambier
- Piccadilly Valley (fine particles from wood smoke)
- adjacent to brick works for hydrogen fluoride
- fruit drying facilities (for sulphur dioxide emissions)
- Christies Beach industrial area
- areas in the Barossa Valley (for hydrogen fluoride and sulphur dioxide).

Odour is becoming a significant issue and the EPA is in the initial stages of developing an odour policy. This will require preliminary work on odour measurement from facilities such as composting and intensive animal production to allow development of management procedures and separation distances. To carry this out the EPA's mobile olfactometer will be upgraded to cater for current standards.

Air Quality Monitoring	to 30th June 1999	to 30th June 2000
Number of locations monitored	21	21
Number of pollutants monitored (as per the Air Quality National Environment Protection Measure)	5	6
Percentage of valid data returned from the monitoring network	-	90%
Percentage of installations completed within times specified in the approved air monitoring plan	-	90%



Smoky Vehicle Program

The EPA continues its involvement in a program to observe excessively smoky vehicles. Owners of vehicles observed by EPA officers are sent an advisory letter requesting necessary engine repairs be undertaken.

The program is run in cooperation with the SA Police (SAPOL) and Transport SA, both of which are responsible for administering regulations that control excessive vehicle emissions, and have powers, via issuing a defect notice, to require mandatory repairs of unroadworthy vehicles.

During 1999-2000 EPA officers observed 352 vehicles. These included similar numbers of diesel fuelled and petrol fuelled vehicles. Approximately 36% of diesel vehicle owners and 17% of petrol vehicle owners have now returned repair advice forms detailing vehicle repairs undertaken.

One option to improve the response rate is to adopt the mandatory repair approach successfully used by the NSW and Victorian EPAs, where vehicle owners are given 30 days to fix the vehicle and forward proof of repairs to the EPA or incur a fine.

There is increasing international concern about the harmful nature of the emissions from diesel fuelled vehicles. Control of gross smoke emissions from these vehicles remains a priority of the program. Diesel vehicles normally only require regular servicing rather than major engine overhauls.

The EPA program raises public awareness of the importance of reducing visible exhaust emissions. It promotes the need for all motorists to regularly service their vehicle irrespective of exhaust emissions being visible or not.

Ozone Protection

During 1999-2000 the EPA granted 1293 ozone exemptions. Subject to regulations, these allow businesses to store, sell, use, service, dispose of or allow the escape of a prescribed substance or any product containing a prescribed substance.

At 30 June 2000 South Australia had deposited 179 tonnes of ozone-depleting halons with the Halon Bank. Nationally, 1879 tonnes had been deposited and about 1013 tonnes had been destroyed.

Three industry codes of practice are being revised in consultation with the EPA: the residential code for air conditioning; domestic code for refrigeration; and a commercial and industrial code for refrigeration and air conditioning. Each addresses the control of all fluorocarbon refrigerants. It is expected that these codes will be released in early 2001.

A review of the National Ozone Protection Program was conducted. Its key objectives were to assess the effectiveness of statutory and non-statutory arrangements at different levels of government, existing administrative and working arrangements, and to make recommendations on the most effective approaches to be adopted.

The terms of reference of this committee are to advise on:

1. implementation of ANZECC strategies on ozone protection policy and further development of the national ozone protection program, including revision of the 1994 ANZECC Revised



Strategy for Ozone Protection and progress on meeting ozone depleting substances (ODS) phase-out schedule

2. coordination between ANZECC member governments on reporting and controls on ODS, including the development of ODS inventories
3. cooperation with industry to reduce the consumption and use of ODS
4. international developments towards reducing dependence on ODS
5. the need for awareness campaigns and compliance and enforcement efforts
6. policy approaches to alternatives to ODS, particularly synthetic greenhouse gases (in collaboration with government greenhouse officials) which are significant ODS alternatives.



NOISE CONTROL

Noise, which can be defined as unwanted sound, can cause a range of health problems including hypertension and loss of sleep. In addition, excessive noise can cause loss of amenity and environmental harm.

Excessive environmental noise can emanate from a range of sources, not all of which are regulated by the EPA. Some noise sources, such as motor vehicles on public roads and aircraft noise, are subject to controls under other jurisdictions.

The EPA administers two noise control policies.

The *Environment Protection (Industrial Noise) Policy 1994* is used where a premises has a diverse range of noise sources, such as a typical large factory. The *Environment Protection (Machine Noise) Policy 1994* is used to control individual machines such as refrigeration compressors.

The Machine Noise Policy is mandatory and means that operators of machines (including domestic air conditioners) must take all reasonable and practicable measures to prevent or minimise any environmental harm. Properly maintained and operated machines will generally satisfy this requirement. South Australia is the only State in Australia where the control of noise from domestic appliances is not administered by local government. Local government is, however, becoming more active in this area and has recently developed guidelines for the control of nuisance noise from gas guns.

The Industrial Noise Policy is non-mandatory and provides guidance to industry. However, compliance with the policy can be required if an Environment Protection Order is served.

Freight Train Noise

Complaints to the EPA regarding freight train noise increased considerably. This has mainly occurred since the conversion of the rail line to standard gauge and is probably due to the increased length of trains (and thus the time taken for a train to pass and consequent increase in the length of time the noise lasts), the increased weight of trucks, the use of concrete sleepers which have less vibration absorbing qualities than wood, and the increased frequency of trains.

The noise emanates from the locomotive engine(s) and the squeal of the wheels as they slip on the rails. The squeal is the major source of complaint.

Rail squeal is most likely caused by sideways wheel movement over track and occurs at sharp bends. The problem has been subject to international research for over two decades but an exact cause is not yet known. This makes the process of finding a solution complicated, and subject to trial and error.

EPA Action

A proposed guideline that provides noise level criteria has recently been endorsed for discussion by the Authority. It is based on the approach used in NSW.



During 1998-99, the EPA sought to license all railway operators and to engage the major users and the track owner in developing an Environment Improvement Program (EIP) to minimise any adverse effects at nearby residential premises.

Recent legal advice to the EPA has restricted the licensing to the track owner, the Australian Rail Track Corporation (ARTC), as the access provider and system manager. ARTC has an approved EIP in place providing specific measures aimed at minimising the nuisance, but has appealed conditions of its licence requiring those measures, leading to a policy review of the situation.

The industry recognised the need for an integrated approach to address this problem and established a working group to ensure that all the relevant parties are aware of their general environmental duty. The EPA is participating on the working group and will be monitoring the efforts of the railway industry to ensure that all reasonable noise control options are considered.

In September 1999 the EPA held a public forum in Blackwood, with local residents and the industry, to discuss the rail squeal issue in the Adelaide Hills. The forum provided a great opportunity to inform residents about why the noise occurs and the measures currently being investigated by the industry to minimise the problem, and to gain valuable feedback from the local residents regarding the extent of the problem and how residents could be involved in the solution.

In December 1999 the EPA completed an extensive noise monitoring program at a representative curve in the Belair area. Noise levels were measured at trackside. The analysis indicates that in the absence of rail squeal, rail noise (ie locomotive noise and rolling noise) will generally meet the proposed guideline standard. This preliminary view is subject to further detailed measurements.

ARTC will soon be completing its rail grinding program and commencing a track lubrication trial. Track lubrication has been used in the US and Europe with varying levels of success. The ARTC, EPA and community volunteers will be involved in assessing its benefits. Extensive noise monitoring will be employed during this trial which will provide further insight to the nature and causes of the problem.

The EPA is also investigating which maintenance standards under the *Rail Safety Act 1996* are used by the industry and how these may affect or ameliorate the rail squeal problem.



WATER QUALITY PROTECTION

Ambient Water Quality Monitoring

The EPA, with support from other agencies in the State, undertakes ambient water quality monitoring of water bodies in South Australia.

Monitoring covers Lake Alexandrina and Lake Albert, the River Murray, a number of the more significant rivers and streams, the Blue Lake, groundwater supplies in the South East as well as the northern Adelaide and Willunga aquifers. There is monitoring of marine waters such as the Port River, metropolitan bathing waters, Nepean Bay on Kangaroo Island and Boston Bay at Pt Lincoln. Monitoring also includes assessment of changes to seagrass beds in Gulf St Vincent and Spencer Gulf and surveys of reef systems to determine their condition.

The purpose of the program is to provide data on water quality for the State Water Plan and *State of Environment* reports to assess whether water quality of some of the State's important water bodies is changing over time, and to provide data to assess the long-term ecologically sustainable development of our water resources.

Current Status

The Government has released reports assessing the results of the monitoring programs of the Port River, the metropolitan bathing waters, Lake Alexandrina, rivers and streams, and seagrass loss off the metropolitan area.

Data from the ambient water quality monitoring program are held in the EPA's Environmental Data Management System. It is proposed that this data, together with reports assessing the data, will be provided to the public via the Internet.

Port River Pollution

Heavy Metals and PCBs in Dolphins, Sediment and Fish

Reports of high concentrations of polychlorinated biphenyls (PCBs) and mercury in tissue samples taken from dolphins found dead in the Port River led the EPA to undertake a study to assess the reported findings in more detail.

The study had three objectives:

- to assess PCB, mercury and cadmium in dolphins found dead at various locations around South Australia to determine whether the levels of these pollutants found in the Port River dolphins were unusually high
- to determine possible sources of contaminants in and around the Port River estuary by undertaking a survey of sediments for PCBs and heavy metals in stormwater drains, sumps and other sites
- to determine if fish caught in the Port River met food standards for heavy metals and were safe to eat.



Tissue samples were analysed from 15 bottlenose dolphins, *Tursiops truncatus*, stored by the South Australian Museum. Liver tissue was tested for mercury; kidney tissue was tested for cadmium; and blubber tissue was tested for PCBs. These tissues were specifically chosen because they tend to accumulate the toxins.

Sediment samples were taken from 26 sites in and around the estuary. Samples were analysed for heavy metals (mercury, cadmium, copper, chromium, nickel, lead and zinc) and PCBs (Arochlors 1260 and 1254).

Fish were caught from the Port River and tested for mercury, cadmium and lead to determine if they complied with the Food Standard Code. Compliance with the code means that the fish are safe to eat. The study found that:

- PCB (Arochlor 1260) levels in blubber samples from dolphins found in the vicinity of the Port River were substantially higher than from dolphins at other sites around the State. The levels in the Port River dolphins were, however, well below most levels reported in the scientific literature over the last 10 years on dolphins found elsewhere and about 80 times less than the maximum value reported.
- PCBs (Arochlor 1260) were detected in sediment samples from four sites in the area, with contamination from at least two of the sites likely to be the result of recent contamination.
- Mercury levels found in liver samples from Port River dolphins were not unusual compared to those found in dolphins elsewhere around the State. The levels found were substantially less than the highest reported in the scientific literature over the past 10 years and about what one might expect given the age of the animals (mercury accumulates in liver and older animals have higher concentrations).
- Cadmium levels in kidney samples from the Port River dolphins were generally lower than in dolphins found elsewhere around South Australia. This may be related to diet.
- Monitoring of sediment showed that 17 of the 26 sites sampled had high lead and zinc concentrations. The source of the lead and zinc is likely to be from road runoff and indicates that more needs to be done to stop these pollutants from entering the river.
- Other contaminants found at high levels in the survey include copper at five sites and nickel at one site. Most of the high copper results, and the high nickel result, were near ship or boat building activities, or areas where boats are repaired or maintained. These activities need to be investigated.
- Testing of fish caught in the Port River for mercury, cadmium and lead found that they met the required food standard and were safe to eat. Levels were comparable with levels found in similar fish caught elsewhere in South Australia.

In response to these findings the EPA is undertaking an audit of industries in the area to determine the source of PCB pollution in the drains, and is investigating practices at some shipyards and marinas to reduce pollution.



Murray River and Murray Swamps

Management of Irrigation Drainage and Dairy Waste

Dairy farming along the Lower River Murray between Mannum and Wellington commenced over 100 years ago. The region is an important milk producer supplying a significant proportion of fresh milk to Adelaide and to two cheese factories in Murray Bridge and Jervois.

Flood irrigation historically has been used in this area. The drainage water contains high levels of nutrients as well as indicators of potentially pathogenic bacteria. The discharges lead to deterioration in river water quality and potential problems for downstream users, particularly for offtakes for drinking water supplies.

DEH has been developing policy options for the management of irrigation drainage water. The options will consider all irrigation drainage waters to the River Murray, not only the Lower Murray, although this area has the first priority.

Consultation regarding the options is being carried out with all affected parties and will be completed by the end of 2000.

The management of irrigation drainage is an integral part of an intergovernment and dairy industry investigation into rehabilitation of infrastructure and improvements in irrigation practices in the Lower Murray.

In addition to managing the return of irrigation water to the river, dairy shed waste audits have been conducted across the State including at the Lower Murray. Dairy shed effluent should not be confused with irrigation drainage.

A recent audit of dairy farms in the lower Murray region found a generally high level of compliance. None of the farms audited was found to be discharging effluent directly or indirectly to the river. All dairies inspected had installed some management system, generally at considerable cost.



MARINE ENVIRONMENT

Adelaide Coastal Waters Study

The coastal waters and ecosystem off Adelaide have been severely impacted by industrial, sewage, and stormwater discharges.

This has resulted in extensive loss of seagrass (at least 4000 hectares over the past 30 years), increased sand movement, degradation of reef systems, algal blooms, and poorer water quality.

It is evident that there is poor understanding of how the different components of the ecosystem off Adelaide interact and which management tools, based on good science, need to be developed and applied to ensure a holistic management framework.

The scoping study, undertaken by the CSIRO identified a range of work within an adaptive management framework to address the issues.

Following a review of the scoping study report the EPA initiated the Adelaide Coastal Water Study. It is supported by a number of key stakeholders who have pledged over \$2.1 million to fund the work. They are represented on a steering committee, chaired by the EPA Executive Director. They include DEH (EPA), Transport SA, the Torrens and Patawalonga Catchment Water Management Boards, Coast Protection Board, Optima Energy, Ports Corp, Mobil, SA Water, Local Government Association, and the Conservation Council

The CSIRO's Environmental Projects Office has been selected as the preferred tenderer to project manage the study. At 30 June 2000 negotiations were under way on the contract.



WASTE MANAGEMENT

EPA Initiatives and Strategies

Community interest in waste issues has grown rapidly in recent years due to a number of factors including inappropriate siting of landfills, introduction of kerbside recycling and uncertainties regarding future availability of disposal sites.

The *Integrated Waste Strategy for Metropolitan Adelaide* sets out a number of key elements aimed at improving waste management practices.

Key initiatives in the strategy carried out in 1999-2000 included:

- continued development and implementation of the Waste Strategy including the development of the Environment Protection (Waste Management) Policy
- further strengthening of licence conditions for all waste depots, with the objective of achieving best-practice operations
- commissioning of studies to obtain essential background data in areas as diverse as electronic waste, poultry industry waste, treated timber waste, and organic waste.

In 1998-99 the EPA conducted a major audit of the commercial and industrial waste stream at metropolitan landfills. Audit results were received in March 1999 and provided an understanding of the content and quantity of the waste stream. This is paramount in effectively planning and implementing the *Waste Strategy*. The results are assisting the EPA in developing policies and procedures for the minimisation, transport, treatment and disposal of commercial and industrial waste.

Green Waste Management Initiatives

The EPA, Planning SA and the Department of Industry and Trade have identified four potential sites for the treatment of green organic waste. A series of consultancies have been commissioned to prepare concept plans and to undertake market analysis work.

As part of the *Waste Strategy*, implementation guidelines are being developed for:

- landfill proposal preparation
- landfill environment management plans
- landfill closure and post-closure plans
- design of resource recovery and transfer stations.

Landfills

The *Integrated Waste Strategy for Metropolitan Adelaide* recognised that landfill will continue to be a major destination for solid waste in the future, even though methods of waste minimisation and recycling will most likely continue to improve. Even if waste is incinerated, there will always be residual solid materials, including ashes and clinkers, requiring disposal.



In the past, operating standards at metropolitan landfills have been poor when compared to best practice and this has contributed to the very strong public opposition that exists against new proposals. Action by the EPA over the past few years has resulted in the closure of a number of badly sited landfills, with others upgrading their environmental performance.

Landfill capacity for metropolitan Adelaide will be sufficient for the long term following the approval, in early 1999, of the Medlow Road and Inkerman Landfill sites. Medlow Road and Inkerman, together with the Dublin site, will give a capacity of 750 000 tonnes per annum for the next 50 years.

The EPA has prepared guidelines for major solid waste landfills that will serve as a basis to consider development applications and licence conditions for landfills.

Conditions of licence for old landfills have been upgraded following a review of their enforceability. The *Waste Disposal (Landfill) Planning Amendment Report (PAR)*, which had interim authorisation until 21 January 2000, was approved in August 1999 following public consultation. This PAR provides a stable structure for siting landfills.

Closure of Wingfield Landfill

The State Governor proclaimed the *Wingfield Waste Depot Closure Act 1999* on 6 May 1999. This requires Wingfield landfill to close no later than 31 December 2004, and at a post-settlement closure height of 27 metres Australian Height Datum (AHD).

The closure timeframe provides the Adelaide City Council with the opportunity to achieve an orderly, environmentally and economically sound completion of waste disposal operations, and is also consistent with the two to four-year lead time required to develop alternative environmentally sound landfill sites.

A draft Landfill Environment Management Plan prepared by Adelaide City Council underwent an extensive public consultation process. The Authority prepared a report to the Minister recommending adoption, which occurred on 5 May 2000. The plan will form the basis of a new licence for the site being developed by the EPA.

IWS Northern Balefill, Dublin

IWS Pty Ltd received development approval for a waste depot in January 1998.

The EPA issued a licence to IWS on 16 December 1999 following several months of negotiation. A Landfill Environment Management Plan for the waste depot was prepared by IWS and the plan is an integral part of the licence. IWS appealed several conditions of the licence in the Environment Resources and Development Court and the matter was referred to a compulsory conference.

A number of amendments to the licence were agreed to at the conference and an amended licence was referred to the Authority for consideration. At the same time, due to the continuing disagreement with IWS on the nature of wastes able to be received at the landfill and the level of processing that the waste should undergo, the EPA sought a clarification as to the intent of the development approval for the landfill. This course of action had been recommended by the Crown Solicitor's Office.



At 30 June the Crown Solicitor was preparing advice to the EPA on suggested amendments to the licence. These amendments will be subject to the receipt of the clarification of the development approval from Planning SA.

Closure of the Garden Island Landfill

The Western Region Waste Management Authority (WRWMA) currently operates a solid waste landfill depot on Garden Island.

The WRWMA prepared a draft Landfill Environment Management Plan which is to be incorporated into the lease agreement between the Land Management Corporation and the WRWMA.

The draft plan was submitted to the EPA for comment. There are several elements of the plan about which agreement could not be reached. These included stormwater management, final capping and waste types. The EPA incorporated these elements as specific conditions of the licence issued to WRWMA.

The WRWMA is proposing to use the Somernett litter control system at the landfill. This will minimise the potential for litter generation and access to the waste by birds.

Consistent with closure of other landfills in the Gillman-Wingfield area the EPA is seeking closure of the landfill (including final capping) no later than 31 December 2004. The draft Landfill Environment Management Plan indicates that the landfill will have a final height of 15 metres AHD.



THE PROMOTION OF POLLUTION PREVENTION

Waste Management Committee

The Waste Management Committee is a sub-committee of the Authority. The committee comprises representatives of the Local Government Association (LGA), Business SA and the Environment Protection Agency (EPA).

A new three-year business plan for the committee has been under development and will describe the longer-term arrangements for such a committee to continue.

The committee provided financial support towards maintaining and promoting kerbside recycling systems in the metropolitan area. The source and use of funds, particularly those used for the recycling rebate system, have been key issues for the committee to address. It agreed to cease this form of funding from 29 February 2000.

A number of initiatives that replace the recycling rebate for metropolitan councils have also been approved. A rural grants scheme received the first grant applications for consideration. A metropolitan grants scheme was launched by the Minister in June 2000.

The Committee recognises that there is an urgent need in South Australia to provide direction and support for initiatives to reduce waste to landfill and to improve resource recovery systems. In particular, the narrow focus of Recycle 2000, which was directed primarily towards metropolitan recycling initiatives, had to be expanded to facilitate development of waste minimisation programs for regional South Australia and to provide additional focus and support for current industrial activities.

Promotion of waste minimisation, and improvements to kerbside and other recycling, (especially in regional areas), development of recycling markets and products, research and development, education and information on waste reduction require significant development in South Australia.

Pollution Prevention Fund

The Pollution Prevention Fund, which began its life as the Cleaner Industries Demonstration Scheme in 1994, has provided valuable assistance for SA businesses to introduce environmental improvement and associated economic benefits.

This program was originally funded by the EPA, Commonwealth and the former Economic Development Authority (EDA), although after 12 months the Commonwealth and the EDA ceased their funding. The EPA has continued to fund the program alone since then with funding allocated during 1999-00 for the undertaking of small business workshops and a number of consultancies on specific technical issues.

While acknowledging the benefits that the fund has achieved it is felt that calling for general applications from industry may not be getting to all the problem pollution areas. There is also concern that only a small number of businesses are benefiting from the scheme. The value of cleaner production needs to be spread to industry on a wider perspective.



Work is currently underway to identify new sources of funding to address problematic areas in the waste and industry sectors. Commonwealth funds are being actively pursued to augment State commitments in this area.

Options for such focused attention include the provision of consultancy services and training programs, and the development of industry codes of practice and guidelines.

It is important that the momentum of pollution prevention and cleaner production is maintained and directed in the areas that need it most. Case studies have been produced for a variety of cleaner production initiatives with industry and these are being actively promoted to the various industry sectors.

Recycling in SA

South Australia has an enviable record in the recycling and reuse of waste. This State is equal to the national average in nearly all recyclable commodities, and exceeds the national average in beverage containers through its unique system of container deposits for beverages. The EPA strategies, which underpin the recycling of hard waste, green waste and beverage containers, have allowed the development of a dynamic environment management industry, which is being encouraged to grow for a more sustainable future.

Recycling

In 1997 \$10.6 million worth of materials were recovered from our waste stream by kerbside collection and drop-off centres alone.

This does not include all of the industrial recycling which is going on within Adelaide's industry base, nor does it include recycling of building and demolition waste, nor green waste treatment. These last two industries are growing in Adelaide and are responsible for diverting material that would otherwise end up in South Australia's landfills.

Demolition waste recycling, for example, diverted 350 000 tonnes from landfill in 1998-99, and there is very strong market growth locally for this material. Recent release by Transport SA of pavement material specifications using recycled products has further strengthened the demand and utilisation of demolition materials.

The waste treatment and recycling and associated industries are already large employers of skilled and semi-skilled labour. Container collection depots employ some 800 people across SA. People are required for the collection, transport, sorting, bailing, processing and value adding and sale of these commodities.

South Australia is unique in that it has container deposit legislation. No other State in Australia has the privately run drop-off centres. In addition, Adelaide and other centres have kerbside recycling. As a result, it is equal to the national average in nearly all recyclable commodities, and exceeds the national average in beverage containers. South Australians recover for recycling and re-use 84% of their glass beverage containers, 72% of PET containers and 86% of aluminium cans.



The importance of SA container collection depots cannot be under-estimated. Of the estimated 109 000 tonnes of domestic materials recycled through kerbside collections and container collection depots during 1998, 71 500 tonnes (66.1%) were handled by the depots.

Kerbside collection of recyclables is generally provided through local government in most suburbs. While collection of materials has worked reasonably well, markets for these materials have always been the most critical factor. Without markets and uses for the materials there is little incentive to collect them.

While some good markets exist for locally collected materials, such as newspaper, some plastics and glass, there is a need to improve recycling industry infrastructure so these materials can be processed in SA, and not shipped to the eastern seaboard for reprocessing. Cardboard, office paper, liquidpaperboard containers and PET are sent interstate. This adds to the cost of recycling in SA, as freight then becomes the single most expensive component.

In this regard the State Government is negotiating with key industries to establish facilities in Adelaide. The EPA has also provided grants and loans to various industries to develop new technologies to recover rubber, plastics, and scrap metal. Traditionally, purchase prices for kerbside materials in Australia have been developed through negotiated agreements, and certain commodities are protected by a floor price. For example, ACI Glass has for many years held a monopoly on glass supply, and its purchase price has been well above international market price. Current price for glass in Australia is \$72/tonne, compared with an international market price of about \$32/tonne. Competition policy and other events will cause downward pressure on kerbside materials pricing and pose obvious threats to the viability of recycling.

GST and Container Deposit Legislation

The impact of the application of the GST on the transaction by which container deposits are paid under the container deposit legislation has concerned depot operators since the new tax system was announced.

EPA officers and DEH GST Project Team representatives met with interested stakeholders on several occasions to explore, confirm and resolve the issues.

The Australian Tax Office (ATO) issued a private ruling to depot operators to the effect that beverage containers will be brought under Division 66 of the GST legislation, which covers second-hand goods. The effect of this ruling is that the general public will not have to pay GST. However, the GST will be inclusive for licensed organisations (such as depot operators).

There are still issues to be resolved in relation to indirect effects that the GST may have on container deposits, and it is understood that the ATO has resolved to continue to work with industry stakeholders to address these issues.

Green Waste Strategy

In order to reduce the volume of waste going to landfill, it is imperative that markets be developed for green waste products to ensure that there are adequate sites for green waste processing.



Current green waste processing sites do not have the capacity to receive more of the green waste collected at kerbside. Several new sites need to be identified for the green waste processing industry.

The EPA is now developing a State Strategy for the green waste management industry to address these issues. Elements of the strategy include:

- the identification of potential new green waste processing sites
- the securing of new sites
- relocation of some existing operations to more suitable sites
- comprehensive market development
- the trialing of alternative green waste treatment options.

An inter-agency committee, involving the Environment Protection Agency, Planning SA and the Department of Industry and Trade, has been established to identify alternative sites around Adelaide. Several possible sites are being looked at and a consultant was appointed to put together concept plans for sites at Wingfield, Bolivar, Maslin Beach and Penfield.

It is very important that the inter-agency committee knows exactly how much and what type of green waste material is being collected. Another consultant was appointed to assess Adelaide's green waste, and to look at the requirements for the future of the green waste management industry. The final report has been delivered. It clearly shows there is a large potential for the composting of green organic waste in Adelaide.

The appropriate treatment of green waste is essential if we are to reduce the volume of our waste stream. It is pleasing to note that several additional metropolitan councils have introduced kerbside green waste collections, and others have indicated an interest in commencing collections within the next 12 months. This is a trend that the EPA is keen to encourage, and it looks forward to the results of the inter-agency committee's findings.

The need for appropriate siting and relocation of composting facilities cannot be overstated. This is a priority issue and is being addressed by all government departments with an interest in this fledgling industry.



WORKING WITH THE COMMUNITY

The public can elect to be involved in environmental decision-making at various levels. The Authority is required to hold a Round-table Conference annually. In the making of an Environment Protection Policy, the EPA is required by legislation to seek public input. Further, the EPA must consult with 16 representative organisations prescribed under the Act, which include the Conservation Council of SA and Business SA. There is also opportunity for the public to be involved in the granting of authorisations and in the process of amending conditions of a licence.

Round-table Conference

In accordance with the requirements of the Environment Protection Act, the Environment Protection Authority conducts a Round-table Conference on an annual basis. Section 19 of the Act states that the purpose of the Round-table is to assist the Authority and the Minister for Environment and Heritage to assess the views of interested bodies and persons on matters related to the operation of the Act, and the protection, restoration, or enhancement of the environment within the scope of the Act, as the Authority may determine. The Authority believes that it is vital to work with industry and the public to achieve good environmental outcomes. Good communication is the cornerstone upon which the work of the Authority must be laid if it is to achieve the objects of the Act.

The 2000 Environment Protection Authority Round-table Conference was held on Friday 2 June at the Stamford Grand Hotel, Glenelg. Three hundred delegates from industry, government, conservation groups and the community gathered to provide their feedback and input into the administration of the Act and the environmental issues that most concerned their organisations. Key topics were chosen for consideration at the Round-table, following a questionnaire that was sent out to all invitees in March 2000. The results from this questionnaire were used as the basis to produce the three presentations put to the attendees on the day. This year the attendees were seated specifically with other members from the same sector as themselves. This was done to try and concentrate the messages and feedback coming from each sector.

Members of the Authority mixed freely with the delegates during the proceedings, giving the delegates the opportunity to discuss issues on a one-to-one basis with members of the Authority and with officers of the EPA. Such two-way communication is an important factor in ensuring that the desired outcomes of the Round-table are achieved. Participants were also able to express their views and concerns in the open forum and group discussions.

Overview of the Day

The 2000 Round-table Conference focused on the issues of compliance and enforcement, wastewater and waste, with the keynote speaker addressing consumerism and the generation of waste. Participants were given the opportunity during the day to interact with staff of the EPA, Authority members and with other attendees who faced similar environmental issues.

The morning session focused on presentations of the above mentioned topics by key personnel for the Agency. Following all the presentations, the attendees were given the opportunity to question the presenters.



In the afternoon, attendees had the opportunity to voice their views and ideas with respect to three questions:

1. What are the major environmental issues that affect you now?
2. In shaping the future of your organisation's relationship with the Environment Protection Authority, what do you see as your future environmental responsibilities?
3. With reference to the work of the Environment Protection Authority, what would you change now to achieve a significant positive influence to environmental quality and why?

The thoughts of the respective tables were then fed back to the rest of the conference. General consultation arising from the Parliamentary Environment, Resources and Development Committee report in relation to the structure of the Authority and improved community consultation followed this. In the final report, which will be released later in 2000, the key messages from the participants will be grouped under headings that address the issues identified.

Business SA and EPA Environment Program

In 1997 the EPA and Business SA (previously the South Australian Employers' Chamber of Commerce and Industry) signed a memorandum of agreement to promote improved environmental practices within the South Australian business community. Through funding provided by the EPA, an environment officer was employed by Business SA to conduct the program in cooperation with the EPA.

The environment program plays an important role in providing a link between government and industry on a range of environmental programs and issues, particularly pollution prevention. Program highlights, achievements and major activities for 1999-2000 include:

- awarding of a tender and project management of the environmental handbook *Business and the environment: a guide to reducing your costs and impacts*. This will be a valuable asset in assisting business to improve its environmental management. The handbook is in final draft layout and, following final consultation and approvals, will be launched in October 2000. Preparation involved intensive consultation with EPA staff and industry, along with other government departments. It will include information on topics such as cleaner production, waste management and other important environmental issues.
- hosting of a business environment breakfast with more than 350 industry leaders, international guests and government representatives as part of South Australia's hosting of the International World Environment Day celebrations on 5 June 2000
- establishing SA Challenge 100 program to encourage 100 South Australian firms to take a leadership role in environmental management. This is being supported by the Australian Greenhouse Office and the EPA and was officially launched on 5 June 2000. The Adelaide Advertiser is the first participant.
- partnering with the SA Wine and Brandy Industry Association to establish a new two-year environment program, supported by Business SA and the EPA through the Business SA Environment Program and with significant support from the Australian Greenhouse Office. This has seen the SA Wine and Brandy Industry Association appoint a full-time environment officer for the first time.



- partnering with the Motor Trades Association to complete its Greenhouse Allies Program, developed in partnership with Business SA and the EPA, looking at greenhouse gas reductions through improved energy and waste management
- establishing the Business Environment Forum for CEOs of South Australia's leading industry associations. The inaugural meeting was held in December 1999 with presentations from Mr John Scanlon and Mr Rob Thomas. A second forum was held in June 2000 with a presentation from the Minister for Environment and Heritage, Hon. Iain Evans.
- working with KESAB and the EPA on an Environment Awards Program for business, and on a range of information materials on waste management including covered loads and correct handling and storage of waste.

In addition to these significant achievements, the Business SA Environment Program also continued to work closely with Agency staff in the promotion of a range of their programs. Business SA also ran several forums and provided training and information to business. A new two-year service agreement to continue the Business SA Environment Program was announced on 5 June 2000 by the Minister for Environment and Heritage as part of international celebrations for World Environment Day.

Small Business Pollution Prevention Project

The Small Business Pollution Prevention Project remains an important initiative; it will continue in its current form and will be subject to a regular review of its effectiveness. This project, which targets small to medium businesses that are not necessarily licensed by the EPA, seeks to educate small business operators in pollution prevention and cleaner production.

Small Business Pollution Prevention Project	Target for 1999-2000	Actual to 30 June 2000
Number of attendees at workshops	150	248
Percentage of attendees that acknowledge increased awareness of the need to protect the environment through workshops and information sessions	70%	98%
Percentage of workshops delivered within targeted timeframes	100%	95%



Trial Project for Appointment of Local Government Officers under the Environment Protection Act 1993

Since 1995 the EPA has been pursuing a strategy which would see local government sharing responsibilities with the EPA, by using the provisions of the Act to deliver pollution prevention and control functions in relation to domestic and other activities not licensed by the EPA.

Following the difficulties and uncertainty experienced in the local government arena during council amalgamations and the review and rewriting of the *Local Government Act 1934*, it had been difficult until recently to engage local government to look at identifying opportunities to form a partnership between local government and the EPA.

In February 1999, the EPA advised the Local Government Association of a proposal for a local government/EPA partnership demonstration project designed to build on local government's extensive network of people with skills relevant to pollution control and the EPA's technical and scientific expertise in that area. The trial project fits within the whole of government functional reform framework.

The project aims to provide the following outcomes:

- increase the accountability of both local government and the EPA in relation to the administration of environment protection and management
- reduce duplication
- ensure that the responsibility for the administration and enforcement of pollution control legislation resides with the body that is able to deal with the problem most effectively in the circumstances by identifying any limitations within local government and the EPA.

The Environment Protection Act, Regulations, Environment Protection Policies, guidelines and codes of practice assist the identification of circumstances and activities that will enable the delineation of responsibilities where either local government or the EPA will be the preferred administrator.

The development of a model or models will allow all councils in South Australia to share responsibility for the administration and enforcement of the Act in partnership with the EPA.

It is considered that the benefits to South Australia in relation to sharing environment protection responsibilities with local government will include:

- clearer roles and responsibilities for both levels of government
- focus on improved service delivery, especially in regional areas
- better use of local expertise and innovation
- greater local involvement in decisions about service delivery
- reduction of duplication and waste
- improved efficiencies in the delivery of environment protection to the wider community.



Disposal of Hazardous Household Wastes and Farm Chemicals

Surveys have shown that there is a stockpile of unwanted, deregistered pesticides held on farms in South Australia and throughout Australia. Many of these are organochlorine pesticides and include chemicals such as DDT. Their continued storage and improper disposal have the potential to harm the environment and adversely affect the sales of primary produce in the event of contamination, as occurred in 1987 when meat exports suffered through the contamination of beef.

The EPA provides a service at its Dry Creek depot where householders and farmers can dispose of hazardous household wastes and farm chemicals without direct charge. The depot is open the first Tuesday of every month from 9 a.m. till 12 noon.

The Australian and New Zealand Environment Conservation Council (ANZECC) has approved in principle a national plan to administer the management of organochlorine pesticides. This plan is associated with a proposed publicly funded collection, storage and destruction scheme (ChemCollect), which would be a nationally consistent program aimed at removing historical stocks of these pesticides from farms. Such a scheme would represent a significant increase in the scope and magnitude of the existing program conducted by the EPA.

The collection scheme would take place over a period of three years and be carried out only once. The responsibility for the management of farm chemicals at the end of the collection program will rest with the agricultural and veterinary chemicals industry, which includes manufacturers, distributors and users. Peak bodies representing this industry have signed an agreement to fund this program (ChemClear) through a voluntary levy. Organochlorine pesticides and other farm chemicals to be collected under the scheme can be treated in Australia for safe disposal.

Stormwater

The EPA, in consultation with local government and industry reference groups, has prepared and published three codes of practice providing benchmarks for best practice in relation to stormwater pollution prevention. Those codes were for (i) the general community (ii) local, State and Federal government agencies (iii) the building and construction industry. A fourth code is being prepared for industrial, retail and commercial premises.

On behalf of the EPA, KESAB has prepared and delivered to the building and construction industry a 'Clean Site' campaign directed at reducing the volume of pollutants from building sites entering the stormwater drainage system.

The EPA provides in-kind support in relation to the Metropolitan Catchment Board's stormwater pollution prevention program by hosting a stormwater pollution prevention project coordinator and employing an extra environment protection officer to undertake audits of EPA licensed premises in the Port Adelaide Enfield and Charles Sturt council areas.

The EPA has developed stormwater pollution prevention training and awareness-raising packages that are delivered by EPA officers to industry and local government.



Public Environmental Pollution Complaints

Improving the EPA's Response

The EPA maintains a pollution complaints line (8204 2004) to receive calls from the public relating to environmental concerns. A free call number (1800 623 445) is provided for callers outside the metropolitan area. Both lines are serviced by Link Telecommunications, which provides a 24-hour answering service. Link operators use standard computerised responses that have been developed in consultation with EPA staff. This enables them to respond to all calls in a consistent and professional manner.

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

- provision of information to the caller (verbal advice or through mail-out of information sheets)
- referral to other agencies and bodies (for example, mediation services, local government)
- registration of a formal complaint for follow up by an Authorised Officer.

	1998-1999	1999- 2000	Variation (%)
Average calls per month	875	1150	31

About 20% of calls result in formal complaints being lodged, requiring follow-up by operational staff. Once Link takes these calls the following process takes place:

- Details of the enquiry or complaint are faxed to the EPA Customer Service Desk.
- Customer Service Desk staff log the complaint onto the Integrated Information System database and forward a hard copy to the relevant operational officer for follow-up and resolution.
- Once the complaint is resolved, or no further action is required, the database records are updated. Complaints relating to sites licensed under the Act are filed in the relevant licence docket.

Prior to October 1999 Link provided only the after-hours answering service for the pollution complaints line. However, given the steady increase in the number of complaints, it was decided to outsource the entire answering service.

Upgrading information and posting temporary information into Link's system can be undertaken quickly, thus allowing the EPA the flexibility to provide quick and accurate information in emerging and changing situations such as an oil or chemical spill.

Follow-up and resolution of complaints has not changed as a result of the outsourcing.



To ensure that the greatest environmental benefit is obtained from the use of operational resources, a priority system is applied to the follow-up of formal complaints. The following priorities apply:

- Priority One: essential for achievement of EPA objectives—complaints against holders of authorisations.
- Priority Two: important for achievement of EPA objectives—non-licensed premises in sensitive areas or causing material environmental harm.
- Priority Three: undertaken if and when resources available—non-licensed domestic (for example, slow combustion heaters, air conditioner noise, etc) and temporary odours.

A trial for the sharing of responsibility for resolution of complaints given priority three with local government will commence in October 2000.

Type of complaint	1998-1999	1999- 2000	Variation (%)
Air	800	970	21
Noise	787	692	12
Water	674	16*	N/A
Waste & other	54	178	229
Total	2315	1856	20

* Most water complaints are now referred directly to local government

Public Access to Monitoring Data

Air and Water Quality

The Environment Protection Agency undertakes ambient air and water quality monitoring programs. Data from these programs are stored in secure databases and the findings are assessed and reported to the public regularly.

Numerous requests are received for the reports and the data. These requests can come from members of the public who want to know what the air or water quality is like in their area; school children who often want some information for inclusion in assignments; other government and non-government agencies; consultants who need to data for specific purposes; researchers at academic institutions who might require the data as part of a larger study; and others.

The time taken to service these requests is considerable, as many responses have to be tailor-made for the particular enquiry. In some cases they can involve the collation and transfer of a large amount of data.



As monitoring data are collected at public expense it is not unreasonable that the data be made publicly available in a usable form. There is also a requirement under the Act to "provide for monitoring and reporting on environmental quality on a regular basis". In addition there is a strong 'right to know' attitude in the community where restricting access to data is seen as some form of 'cover-up'.

It has therefore been proposed that monitoring data held by the EPA be made available through the Internet. This would save a considerable amount of time in dealing manually with these requests, satisfy the requirements under the Act, and create a more positive view within the community that data are not being withheld unnecessarily. It will also provide a much easier and quicker mechanism for access.

In concept the system will allow the user to access clean data (that is, data that have been checked for accuracy and assessed), metadata (such as descriptions of monitoring sites, length of record, etc), and published reports that put the data into context. Users will have basic query capabilities and be able to download data and reports to their own computers.

The EPA has initiated a consultancy to assess the feasibility of providing access to monitoring data via the Internet. Subject to approval and funding, it is possible that the system could be available to the public early in 2001.

Public Register/Freedom of Information

In 1999–2000, 146 formal requests for access to information contained on the Public Register were answered, compared to 56 for 1998–1999. There were a large number of informal and unrecorded requests, usually by telephone, answered verbally at the time of enquiry.

A hardcopy index of information available on the Public Register as at 31 January 2000 was provided to the Environment Resources and Development Committee and is available for inspection. Investigations are proceeding into the provision of electronic access to the Public Register.

Twenty Freedom of Information applications were received in 1999–2000, compared to 17 for the 1998–1999 financial year.

	1998-1999	1999- 2000	Variation (%)
Public Register	56	146	160
Freedom of Information	17	20	17



LEGISLATION

Introduction

The Authority has the responsibility to regularly prepare and review Environment Protection Policies and other measures and practices under the Act to ensure that they are adequate and effective to secure the objects of the Act.

Similarly, government regularly reviews its legislation to ensure its adequacy and effectiveness. It is five years since the Environment Protection Act was proclaimed; it is timely that a review of the current Act is carried out.

The review of the Act and the preparation of Environment Protection Policies is carried out by the Legislative Reform Branch of the Environment Policy Division (EPD) of the Department for Environment and Heritage (DEH).

The Authority also contributes to the development of National Environment Protection Measures (NEPMs). The National Environment Protection Council, comprising Ministers from the Federal, State and Territory governments, has the responsibility to make NEPMs. A NEPM automatically becomes an Environment Protection Policy under the Act once it is made, and the Authority then has the responsibility to enact it.

Review of the Environment Protection Act

At 30 June 2000 a comprehensive review of the Environment Protection Act was in progress, with the carriage of the review being with the Environment Policy Division of DEH. The major drivers of the review are:

- the need for specific provisions to address site contamination
- perceived limitations of the enforcement provisions in the Act
- the comparative powers and responsibilities of the Minister, the Environment Protection Authority and the Environment Protection Agency
- national competition policy requirements
- the need to improve the efficiency and effectiveness of administration of the Act.

General Review

The general review will cover a wide range of issues. Consultation on these issues is through the release of a range of discussion papers, followed by the preparation and release of a draft consultation bill. Issues covered in the general review include:

- offences and penalties under the Act
- powers and responsibilities of the Environment Protection Authority
- the interrelationship of the Act and the *Public and Environmental Health Act 1987*
- miscellaneous amendments to improve the effectiveness and efficiency of the Act.

Submissions received on the offences and penalties paper, and relevant recommendations from the ERD Committee inquiry, will be used to prepare drafting instructions for amendments to the enforcement provisions of the Act.



Submissions on the *Powers and Responsibilities of the Environment Protection Authority* discussion paper, will, in concert with the ERD Committee recommendations, be used to prepare drafting instructions for amendments to the Act.

The Preparation and Review of Environment Protection Policies

Environment Protection (Water Quality) Policy

There is currently no consistent Statewide approach to the protection of water quality across all South Australian water bodies, in particular for inland waters. This poses the risk that, over time, the quality of South Australian waters will be degraded further. This would have economic, social (including public health) and environmental impacts.

The proposed Environment Protection Policy (EPP) for water quality will apply to all inland surface and ground waters, and marine waters. The EPP will cover a range of issues including:

- water quality objectives
- management and control of point and diffuse sources of pollution
- obligations relating to particular activities
- criteria, discharge limits and listed pollutants.

Benefits of a Water Quality EPP

Government, business, the community and the environment are all likely to benefit from an effective water quality EPP. The main benefits are likely to include:

- promotion of cleaner methods of production by encouraging a reduction of waste water, recycling or reclamation, reuse, treatment to reduce potentially degrading impacts, and environmentally sound disposal
- environmental standards that are consistent across the State's aquatic environments and which are closely linked to national strategies
- protection of aquatic environments
- maintenance of aquatic biodiversity
- a reduction in remediation costs associated with aquatic environments
- clarification of the legislation as it applies specifically to the aquatic environment, making for better understanding, greater certainty and time savings in enforcement
- better community health
- an improvement in the aesthetic quality of the State's waters.

It is anticipated that the draft water quality EPP will be released in the last half of 2000 for three months consultation.

Environment Protection (Noise) Policy

A new noise policy has been under development for some time and the need for it has been reinforced by the ERD Committee recommendations. A core objective is the need for the new policy to prevent



noise issues from occurring. To assist in achieving this, the proposed new policy will include guidelines for the assessment of development applications referred to the Environment Protection Authority.

The two existing policies on noise control, known as the Industrial Noise Policy and the Machine Noise Policy, are based on the repealed *Noise Control Act 1976–77*. There are a number of shortfalls associated with them. In particular, the policies do not adequately address the encroachment of rural living into rural industry areas, such as occurs in the Mount Lofty Ranges and the Willunga Basin.

The Environment Protection (Noise) Policy is proposed to replace the existing policies and address identified shortfalls.

The work completed to date in the development of the policy includes:

- a comprehensive review and summary of environmental noise legislation in all other States and Territories
- review of the current legislative controls in South Australia and identification of the deficiencies
- identification and canvassing of the available options associated with the assessment of both generic and specific noise issues, including the advantages and disadvantages of each option in overcoming the identified deficiencies
- identification of the scope and the preferred approach for the general policy
- identification of 14 specific environmental noise issues to be addressed by the policy, including the assessment of issues such as frost fans, gas guns, construction sites, domestic air conditioning units and the like.

Drafting of an EPP for consultation is expected to commence during September 2000.

Environment Protection (Motor Fuel Quality) Policy 2000

Legislation is being prepared to set fuel standards and to prohibit the sale of substandard fuel in South Australia. The purpose of setting standards for fuel is to ensure that air quality in South Australia does not deteriorate as a result of the importation of lower quality fuel from interstate or overseas.

The proposed legislative amendment process consists of two parts:

- the development of an Environment Protection Policy (EPP) under the Act which would set the standards for fuel sold in South Australia. The EPP would be brought in immediately as an interim policy
- an amendment to the Environment Protection Act to create the power to prevent the sale and distribution of a product that does not meet a set environmental standard.



The fuel standards were developed using the United States Environmental Protection Agency (USEPA) outcomes-based method, which allows a comparison of fuels made up of different constituents by establishing an 'air toxic' index. This is in contrast to the Commonwealth's moves to Euro 3 and Euro 4 standards, which are based on an evaluation of the individual components of a fuel.

The outcomes-based approach is in line with the position taken by South Australia in the Fuel Quality Review, and would give the government greater leverage in arguing for standards that take into account regional differences.

Parliamentary Counsel are currently preparing the draft EPP and amendment to the Act.

Environment Protection (Burning) Policy 1994 Amendment

Due to the amalgamation and name change of certain local councils in South Australia, the *Environment Protection (Burning) Policy 1994* no longer accurately lists amalgamated councils. Therefore, amendment is being undertaken to update the reference to amalgamated councils within the policy.

Landfill Gas Regulations

'Landfill gas' is a term used to describe the group of gases produced by landfill sites.

Landfill gas comprises several gases including methane, carbon dioxide and nitrogen. Methane is a colourless and odourless gas that can be explosive if present in confined spaces at concentrations between 5% and 15% when there is an ignition source. Worldwide, there have been over 50 reported deaths or serious injuries. Methane is also a significant greenhouse gas accounting for 4% of South Australia's emissions. Landfills generate gas for at least 30 years after closure.

Landfill gas collection systems have been installed in most major landfills servicing metropolitan Adelaide, and the gas is either used to generate electricity or, if not present in sufficient quantity or quality, burnt in flares designed for this purpose.

The EPA requires licensees to manage landfill gas to ensure there is minimal risk to human health or the environment. This involves the licensee conducting investigations to determine the concentrations of landfill gas within the landfill and around the perimeter of the landfill, and developing strategies to control and manage the landfill gas.

This approach has been effective with operating sites or sites that are nearing closure. Problems can occur when landfill sites have recently closed or have ceased to operate for a considerable time, due to the cost of installing gas extraction systems that cannot be offset against income from waste disposed at the landfill. Regulatory amendments will address this issue.

Originally, the Environment Protection Authority intended to prepare an Environment Protection Policy to establish requirements. However, on advice of the Crown Solicitor, a regulation is to be prepared. Drafting instructions for the regulation are nearing completion.



Development and Implementation of National Environment Protection Measures

National Environment Protection Measures (NEPMs)

NEPMs are broad framework-setting statutory instruments defined in the National Environment Protection Council (NEPC) legislation. They outline agreed national objectives for protecting or managing particular aspects of the environment.

NEPMs are similar to environment protection policies. They may consist of any combination of goals, standards, protocols, and guidelines. Typically a NEPM may contain:

- a goal
- one or more standards
- one or more monitoring and reporting protocols
- guidelines.

A NEPM will become law in each participating jurisdiction once it is made by the council, unless it is disallowed by either house of the Commonwealth Parliament. A two-thirds majority is required for the council to make a NEPM. Implementation of NEPMs is the responsibility of each participating jurisdiction.

In South Australia the Environment Protection Authority has the responsibility to implement NEPMs. As mentioned earlier, a NEPM automatically becomes an Environment Protection Policy under the Environment Protection Act once it is made.

National Environment Protection (Movement of Controlled Wastes Between State and Territories) Measure

In June 1998 the National Environment Protection Council passed the *National Environment Protection (Movement of Controlled Wastes between States and Territories) Measure* (the NEPM) to provide a national framework for developing and integrating State and Territory systems for managing the movement of controlled wastes between the States and Territories.

The NEPM aims to minimise the potential for adverse impacts, associated with the movement of controlled waste, on the environment and human health.

Pursuant to section 28A of the Environment Protection Act, the NEPM came into operation in South Australia as an Environment Protection Policy under Part 5 of the Act.

There is now a requirement to establish a system whereby States and Territories recognise waste transporter licences issued in other States or Territories, in order to fully implement the requirements of the NEPM.

A regulation under the Act is being prepared to ensure that, if a waste transporter transports controlled wastes into or out of South Australia, and that transporter holds a valid waste transporter licence issued elsewhere in Australia, then no South Australian licence is required.



Drafting instructions have been forwarded to Parliamentary Counsel and a submission seeking the introduction of a regulation will be presented to government later in 2000.

National Environment Protection (Used Packaging Materials) Measure

Attempts to address post-consumer packaging wastes over recent years have been less than satisfactory. They relied upon voluntary mechanisms at a national level. This new avenue provides for a voluntary 'covenant', as well as take-back requirements for brand-owners that choose not to be covenant signatories, but relies heavily on the voluntary mechanism to achieve outcomes.

The NEPM and covenant attempt to share the cost of recycling more equitably across the packaging chain. South Australia is well advanced in preparation for this initiative. Consistent enforcement penalties are unlikely to be achieved between jurisdictions, as the underpinning legislative framework for interpretation of Acts, levels of penalties and fines is different in each State and Territory. However, this should not hamper introduction of the National Environment Protection Measure through regulation in South Australia.

The covenant will exclude small businesses whose activities do not contribute significantly to the waste stream from the reporting obligations envisaged under the National Environment Protection Measure and its supporting obligations. However, the terms of this exclusion—that is, how we define a business 'that does not contribute significantly to the waste stream'—has caused a great deal of debate between and within jurisdictions. As currently envisaged the definition has two elements: one is based on market share, the other on the issue of products sold only within one State.

National Environment Protection (National Pollutant Inventory) Measure

The National Pollutant Inventory is a database, available on the Internet (www.npi.ea.gov.au), on CD-ROM and in published form, that presents data of pollutant estimates generated by industry, small business and public sources. The database deals with annual pollutant loads, and presents raw data that does not seek to interpret or otherwise inform the reader.

Stage 1 of implementation began in July 1998; South Australia received Federal funding of \$640 000 for the two-year period of Stage 1. In addition, it received \$100 000 to undertake air quality studies in its major regional centres.

The majority of the undertakings of the memorandum of understanding with the Commonwealth have been completed.

The deliverables for the first memorandum of understanding included:

- an education program for major reporters and local government
- a database to facilitate national pollutant inventory reporting
- verification system for industry data
- a response strategy for industry queries and problem resolution.

A new memorandum of understanding with the Commonwealth, for one year only, is presently under negotiation.



National Environment Protection (Air Quality) Measure

South Australia has continued its progression towards compliance with the measure by producing a revised draft Air Monitoring Plan for the State.

The monitoring network is being expanded and upgraded to meet the requirements of the NEPM. Monitoring is being contracted out, and the contract commits the contractor to achieving NATA accreditation by November 2001.

It is unlikely that the full monitoring network will be in place in time for a full year of data for 2001. The effectiveness of the NEPM can only be judged when there are sufficient data of the kind and quality required by the NEPM to assess monitored data against standards and goals.

Available data presented are for the calendar year 1999. It must be noted that, as the monitoring is not yet carried out to NEPM requirements of NATA accreditation, it is non-complying and cannot be used to assess compliance with the NEPM.

Ozone (four hour average NEPM standard 0.08 ppm)

Station	Highest measured (ppm)	Number of exceedences	Percentage data available
NORTH EAST METRO (Elizabeth)	0.088	5	78
NORTH EAST OUTER (Gawler)	0.057	0	76
WEST METRO (Netley)	0.075	0	68
NORTH EAST METRO (Northfield)	-	-	0
EAST METRO (Kensington)	0.083	1	75

Ozone (one hour average NEPM standard 0.10 ppm)

Station	Highest measured (ppm)	Number of exceedences	Percentage data available
NORTH EAST METRO (Elizabeth)	0.097	0	78
NORTH EAST OUTER (Gawler)	0.057	0	76
WEST METRO (Netley)	0.075	0	68
NORTH EAST METRO (Northfield)	-	-	0
EAST METRO (Kensington)	0.083	0	75



Nitrogen dioxide (one hour average NEPM standard 0.12 ppm)

Station	Highest measured (ppm)	Number of exceedences	Percentage data available
NORTH EAST METRO (Elizabeth)	0.042	0	79
NORTH EAST OUTER (Gawler)	0.032	0	77
WEST METRO (Netley)	0.056	0	73
NORTH EAST METRO (Northfield)	0.062	0	69
EAST METRO (Kensington)	0.035	0	76

Nitrogen dioxide (one year average NEPM standard 0.03 ppm)

Station	Highest measured (ppm)	Percentage data available
NORTH EAST METRO (Elizabeth)	0.005	79
NORTH EAST OUTER (Gawler)	0.003	77
WEST METRO (Netley)	0.010	73
NORTH EAST METRO (Northfield)	0.008	69
EAST METRO (Kensington)	0.006	76

Lead (one year average NEPM standard 0.5 µg/m³)

Station	Annual mean (µg/m ³)	Percentage data available
NORTH METRO (Northfield)	0.03	93
EAST METRO (Kensington)	0.03	97
SOUTH INNER METRO (Parkside)	0.1	90
WEST INNER METRO Pt Pirie West Primary School	0.87	97
SOUTH EAST METRO Pt Pirie Oliver St	0.66	93
SOUTH WEST METRO Pt Pirie Frank Green Park	0.37	79



National Environment Protection (Assessment of Site Contamination) Measure

On 10 December 1999 the National Environment Protection Council (NEPC) made the National Environment Protection (Assessment of Site Contamination) Measure.

The purpose of the NEPM is to establish a nationally consistent approach to the assessment of site contamination to ensure sound environmental management practices by regulators, community, assessors, contaminated land auditors, land owners, developers and industry.

The EPA is advising and recommending the use of the NEPM as guidelines for the assessment of site contamination in South Australia. Environmental auditors (contaminated land) and environmental consultants have been specifically targeted in this respect.

The NEPM was officially made in April 2000, which allowed insufficient time to make an assessment of its effectiveness. A more considered assessment of the effectiveness of the NEPM will be made in future years.



REGULATING ENVIRONMENTALLY SIGNIFICANT ACTIVITIES

The Objects of the Environment Protection Act place many duties upon the Authority which it must enact under the principles of ecologically sustainable development. Broadly, these objects call on the Authority to regulate and protect the environment in such a manner that the economic, social and physical wellbeing of people and communities is safeguarded. The Authority must also promote industry and community education and involvement in decisions about the protection, restoration and enhancement of the environment.

The environmental decisions made on a daily basis by the EPA in licensing and development applications are closely assessed against the objects of the Act. Similarly, the objects of the Act direct the strategic thinking of the EPA for the long-term sustainability of the environmental, social and economic fabric of this State.

EPA Assessment of Development Applications

Councils and the Development Assessment Commission are required to refer development proposals that involve an activity of environmental significance to the EPA for comment. Since the referral process commenced in mid-1995, the EPA has assessed nearly 3000 development applications—an average of almost 600 per annum. A number of improvements have recently been incorporated into the development assessment process. They include:

- the appointment of two additional environmental planners
- reorganisation of the team which coordinates the assessment process to incorporate greater management involvement
- the establishment of a team within the EPA dedicated to the assessment of development proposals.

Where appropriate, the EPA exercises the right to seek further information from applicants to enable a rigorous assessment of the potential environmental impacts of proposals.

To assist proponents to provide the required information, the EPA is working with Planning SA, Department of Industry and Trade and the Local Government Association to prepare a series of guides for applicants; these will be made available on the EPA website and at council offices throughout the State. Details of development applications referred to the EPA during the 1999–2000 financial year appear below.



Development application referrals	1998-1999	1999-2000	Variation (%)
Schedule 8 (Water Protection Area)	55	209	280
Schedule 21	184	208	13
Schedule 22	188	166	12
Section 46 (major projects or developments)	12	6	50
Non-scheduled	63	82	30
Total	502	671	33

No. of authorizations under the Environment Protection Act	1998-1999	1999-2000	Variation (%)
Licences & exemptions	1850	1844	1
Ozone exemptions	1317	1293	2
Total	3167	3137	1

Emergency Planning

During 1999-2000 the EPA continued to maintain a roster of experienced staff who responded to emergency pollution incidents when notified through the EPA's emergency 24-hour pager number.

The EPA continued to maintain an emergency pollution incident response system in order to:

- participate in the 'whole-of-government' (Blue Book) procedure for dealing with spillages or leakages of hazardous substances onto land or into non-marine waters
- participate in the national plan for responding to oil or chemical spills at sea
- deal with major breaches of the Environment Protection Act which are reported to the EPA outside normal office hours.

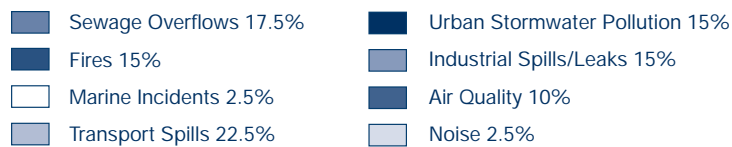
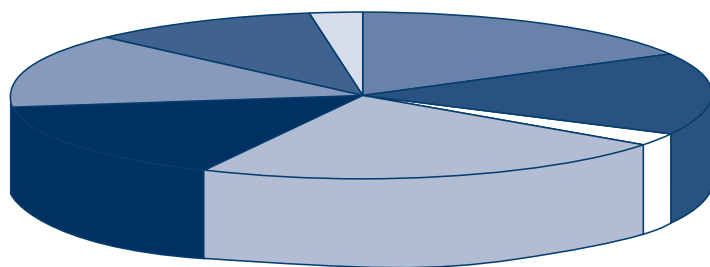
The Blue Book procedure is initiated if the police or fire service decide that any spilled or leaked material may adversely affect human health, the environment, public facilities, private property and/or stock. The fire service acts as the combating authority. The Department of Administrative and Information Services coordinates technical advice from support agencies, such as the EPA, Department of Human Services, Department of Transport, Urban Planning and the Arts (DTUPA), SA Water and local councils, to the combating authority at an incident.

The national plan for responding to oil and chemical spills at sea is initiated through the DTUPA Marine Safety Unit on the basis of information supplied from the public, industry, local councils, other government organisations and vessel operators. Any call that is received by the EPA through its



emergency pollution incident response system and which relates to oil spills at sea is redirected to the DTUPA Marine Safety Unit 24-hour phone number. DTUPA acts as the combating authority for oil and chemical spills at sea in South Australia. The Australian Maritime Safety Authority provides resources at major incidents. When requested, the EPA provides advice to the combating authority about the environmental implications and response priorities at an oil or chemical spill.

During 1999-2000 the EPA received notification of 40 incidents through its emergency pollution incident response system. Below is a breakdown of incidents about which the EPA was notified and/or became involved in responding to via its emergency pollution incident response system.



The following incidents were most noteworthy:

- Rain had washed sealer from the resurfacing of four tennis courts, which resulted in a black sticky substance in a creek. Members of the RSPCA were involved as a number of ducks had been affected.
- A large fire at Wingfield saw contaminated runoff from fire fighting enter the stormwater system. This then needed to be collected and disposed of appropriately.



COMPLIANCE, ENFORCEMENT AND INVESTIGATIONS

Enforcement

The EPA carries out inspections to check compliance and, where deliberate or continuous breaches occur, enforcement is carried out.

If an individual or business fails to comply with the Environment Protection Act, the EPA has two alternatives: to correct the non-compliance, or to prosecute and correct the non-compliance.

Civil Enforcement

To correct non-compliance, the EPA may issue a warning, strengthen licence conditions, negotiate environmental improvement programs or undertake civil enforcement action (for example, using Environment Protection Orders and Clean up Orders). The choice of action is dependent on the degree of risk or extent of environmental harm that has occurred and the timeliness of action required to protect the environment.

Prosecution is undertaken in order to punish the individual concerned, deter others from taking similar action, and encourage the community and industry to proactively address their environmental responsibilities. In all cases where prosecution is undertaken, the EPA will also act to ensure that non-compliance is corrected.

Environment Protection Orders issued by the EPA for 1999–2000

DATE	NAME	LOCATION
15/07/1999	Mid Murray Council	Swan Reach
22/07/1999	SA Water Corporation	Metropolitan
06/08/1999	Mount Barker Products Pty Ltd	Mount Barker
12/08/1999	Bitumax Pty Ltd	Seacliff Park
11/08/1999	Cargroomers Goodwood	Metropolitan
06/09/1999	Dazzlers Car Wash	Bedford Park
03/09/1999	J G Goldner Pty Ltd	Somerton Park
02/09/1999	South West Freight	Mount Gambier
16/09/1999	Complete Crash Repairs Pty Ltd	West Richmond
16/09/1999	Everglo	Metropolitan
10/09/1999	SA Water Corporation	Metropolitan
28/09/1999	SA Water Corporation	Metropolitan
16/09/1999	District Council of Mount Barker	Mount Barker
01/10/1999	District Council of Mount Barker	Mount Barker
20/10/1999	SAFCOL Australia Pty Ltd	Elizabeth South
08/10/1999	Gilbert Motors Pty Ltd	Mount Barker



01/11/1999	Kingston Estate Pty Ltd	Kingston-on-Murray
06/01/2000	Mount Barker Products Pty Ltd	Mount Barker
24/12/1999	Flagstaff Piggery Pty Ltd	Shea-oak Log
24/12/1999	Brinkley Piggery Investments P/L	Shea-oak Log
11/01/2000	Samantha Massie	Fairview Park
08/02/2000	Barry Ronald Smith	Mount Gambier
17/02/2000	Conroy's Smallgoods Pty Ltd	Bowden
07/03/2000	Mr Dean Maxwell	Strathalbyn
07/03/2000	Mr Colin Clark	Wingfield
04/05/2000	SA Water Corporation	Greenwith
02/05/2000	SA Water Corporation	Bolivar
10/05/2000	SA Recycling Pty Ltd	Wingfield
11/05/2000	Forwood Products Pty Ltd	Mount Gambier
22/05/2000	Lucas Earthmovers Pty Ltd	Maslin Beach
28/5/2000	DC of Lower Eyre Peninsula	Cummins
9/6/2000	Coorong District Council	Tailem Bend
22/6/2000	Mr Dean Maxwell	Strathalbyn
23/6/2000	PT Building Supplies Pty Ltd	Mawson Lakes
28/6/2000	Premier Roadlines Pty Ltd	Mile End South
10/2/2000	Mr C Hanel	Kongorong
8/2/2000	Mr A Michelmore	Naracoorte
8/2/2000	Mr R Purvis	Penola
8/2/2000	Mr I Robinson	Kalangadoo
8/2/2000	Mr R Heinrich	Mingbool
22/12/1999	Mr K Dohnt	Bordertown
7/2/2000	Mr G Howard	Mount Schanck
11/2/2000	Mr W Reid	Mount Gambier
7/2/2000	Mr D Hutchesson	Eight Mile Creek
7/2/2000	Mr N Gilmore	Eight Mile Creek
10/2/2000	L & E E Perkins	Kongorong
10/2/2000	M R & J B Saffin	Mount Gambier
9/2/2000	Mr N Van Rijthoven	Mount Gambier
9/2/2000	Mr L Burgman	Glencoe West
30/6/2000	Lawrys Landscapes Pty Ltd	Hd of Noarlunga



Four-year Summary

	Issued by	1996-97	1997-98	1998-99	1999-2000
Environment Protection Orders	EPA	28	29	37	50
	Police	287	292	266	221
	Local Govt.	0	0	0	3
Clean-up Orders	EPA	2	1	0	0
	Local Govt.	0	0	0	1

(Note: Most EPOs issued by police are for domestic noise, for example, parties.)

Prosecutions

On 18 October 1999 the Environment Resources and Development Court handed down a penalty regarding Holden's plea of guilty to causing an environmental nuisance and to breaching the conditions of licence by failing to train its staff regarding its environmental obligations.

The court convicted Holden on both counts, and ordered that it pay a fine of \$20 000 for causing an environmental nuisance (of a maximum \$30 000 fine), and \$5000 for the breach of licence condition (of a maximum \$120 000 fine).

Investigations

Mobil Oil Spill

A prosecution against Mobil commenced at Christies Beach Magistrates Court on 5 May 2000. Mobil Refining Australia Pty Ltd is charged with two counts of contravening a condition of an environmental authorisation (Section 45 of the Act) and one count of discharging oil from an apparatus into State waters (Section 26 (2) of *Pollution of Waters by Oil and Noxious Substances Act 1987*).

Documentation, including witness statements, interviews and expert reports, has been lodged with the Court and also given to Mobil.

The investigation was conducted by two investigators from the EPA and headed by an investigator from the Government Investigations Office. An officer from Transport SA also gave support to the investigation team.

The investigation commenced on 28 June 1999 and culminated with the laying of charges on 5 May 2000. The investigation has been very complex and several experts have been retained to report upon metallurgical, hydraulic and surge pressures relating to the incident.

At the hearing on 16 June 2000 the matter was again adjourned until August 2000.



North Para River Pollution Incident

In early March 2000, an effluent discharge took place into the North Para River. EPA officers took water samples that were analysed and it was announced that testing results indicated that the effluent was winery waste.

The spill is regarded as a major pollution incident. A six-kilometre section of the North Para River, extending from Nuriootpa to Tanunda, was denuded of biological life. This included extensive fish kills. The resultant black anaerobic (no oxygen) liquor, while being visually offensive, also developed a strong odour which resulted in numerous complaints to both council and the EPA.

A further impact related to mosquitoes. Without predators in the river to control mosquito larvae, the incidence of mosquitoes increased in and around the river.

EPA investigations sought to identify the source of the effluent and obtain evidence for a prosecution. Southcorp Ltd volunteered to assist in a clean-up of the river and an EPA remediation strategy was carried out.

As of 1 June 2000 most sites in the affected area had shown an improvement in oxygen levels and at least some recovery of aquatic organisms; a more complete biological recovery from the incident will, however, take some time.

The investigation file has been sent to the Crown Solicitors Office for advice regarding possible offences and potential prosecution.

Chemical Fire Involving MEKP

In March 1999 a chemical fire occurred on a company premises at which methyl ethyl ketone peroxide (MEKP) was stored. At 30 June 2000 investigation into this matter was nearing completion. All statements and interviews were signed and a brief has been completed and forwarded to the Crown Solicitor's Office for advice regarding possible offences and potential prosecution.

It is likely that charges for causing material harm and breach of licence conditions will be laid later in 2000.

Discharge of Spent Zinc Electrolyte

In May 1999 a substantial discharge of spent zinc electrolyte occurred into the marine environment in a regional centre. The Crown Solicitor's office was consulted for an opinion as to the likelihood of a successful prosecution. A possible charge of causing material harm to the environment for discharge of spent zinc electrolyte into the marine environment is likely.

The investigation file was sent to the Crown Solicitors Office in January 2000 and is awaiting advice concerning possible offences and potential prosecution.



APPENDIX 1

Environment Protection Authority Publications List

Information Sheets

No 1	A New Approach in SA to Environment Protection	January 1995
No 2	Objects of the Environment Protection Act 1993	January 1995
No 3	How Your Company will Benefit from the Environment Protection Act	January 1995
No 4	EPA Organisational Structure	September 1999
No 6	Environment Improvement Programs	July 1999
No 7	Construction Noise	September 1999
No 8	Assessment Procedure for Contaminated Sites (Includes Special Bulletin No 1 – <i>The use of Environmental Auditors: Contaminated Land</i> , October '95)	November 1999
No 9	Noise Control	April 1998
No 10	Burning on Non-Domestic Premises	May 1999
No 11	Burning on Domestic Premises,	May 1999
No 12	Air Conditioner Noise	September 1996
No 13	Disposal of Backwash Water from Swimming Pools	September 1999
No 14	The Disposal of Refrigeration and Airconditioning Equipment Containing Prescribed CFCs and HFCs,	January 2000
No 15	Waste Tyres Disposal	January 2000
No 16	Detergents	November 1999
No 17	Environment Protection Compliance and Enforcement	March 1999
No 18	Solid Fuel Fires	May 1999
No 19	Environment Protection Act - Civil Remedies	March 2000
No 20	Container Deposit Legislation	April 2000

Technical Bulletins

No 1	Requirements for the Safe Handling, Transport, Storage and Disposal of Wastes Containing Asbestos	March 2000
No 2	Storage, Transport and Disposal of Medical Wastes	July 1999
No 3	Independent Verification of Monitoring Programmes	May 1996
No 5	Disposal Criteria for Contaminated Soil	November 1997
No 6	Landfill Environment Management Plans	January 2000
No 7	Closure and Post-Closure Plans for Major Landfills	January 2000
No 8	Determination of Classification of Waste as a Liquid	March 2000
No 9	Minor Landfill Proposal Plans	June 2000
No 10	Assessment of Proposals for Developments Where Music May Be Played	March 2000
No 11	Winery and Distillery Wastewater Monitoring Programmes	November 1996
No 12	Land Application of Alum Sludge from Water Treatment	November 1996
No 13	Irrigation with Water Reclaimed from Sewage Treatment on Pastures Used for Grazing of Cattle and Pigs	September 1999
No 18	Air conditioning and Pipework Systems	May 2000
No 22	Protection for Voluntary Environmental Audits	May 1996



Annual Reports

Environment Protection Authority

Environment Protection Authority Annual Report—1995/96

Environment Protection Authority Annual Report—1997/98

Environment Protection Authority Annual Report—1998/99

Round Table Conference

Round-table Conference Report 1998, April 1998

Round-table Conference Report 1999, June 1999

Codes of Practice and Guidelines

South Australian Biosolids Guidelines	Dec 1996
Stormwater Pollution Prevention—Code of Practice for the Community	Sept 1997
Stormwater Pollution Prevention—Code of Practice for the Building and Construction Industry	March 1999
Stormwater Pollution Prevention—Code of Practice for Local, State and Federal Government	March 1999
Guidelines for Establishment and Operation of Cattle Feedlots in SA (EPA and Primary Industries)	June 1994
Guidelines for Major Solid Waste Landfill Depots	Oct 1998
South Australian Reclaimed Water Guidelines—Treated Effluent	April 1999

Public Consultation Drafts

Guidelines for Resource Recovery Centres and Transfer Stations (Consultation draft) February 2000

Other Publications

Ambient Air Monitoring Report - January to December 1996	April 1995
Ambient Water Quality Monitoring of Gulf St Vincent Metropolitan Bathing Waters - Report No 1	Nov 1997
Ambient Water Quality Monitoring of Lake Alexandrina and Lake Albert - Report No 1	Sept 1998
Ambient Water Quality Monitoring of South Australia's Rivers and Streams (Chemical and Physical Quality) - Report No. 1	Sept 1998
Ambient Water Quality Monitoring of the Port River Estuary - Report No. 1	Nov 1997
Changes in Seagrass Coverage and Links to Water Quality off the Adelaide Metropolitan Coastline	Sept 1998

Cleaner Production Case Studies

- Bordex Wine Racks Australia
- Carramar Lighting Pty Ltd
- Coating Australia Pty Ltd
- Cutler Brands Pty Ltd
- Heyne's Wholesale Nursery
- Joe's Poultry Processors
- Korvest Galvaniser
- Monroe Australia Pty Ltd
- SA Meat Corporation (SAMCOR)
- The Smith's Snackfood Company Ltd
- The South Australian Brewing Company
- Quality Dry Cleaners



Cleaning up the Port Waterways	Oct 1998
EPA Monitoring Manual - Volume 1: Air Quality Emission Testing Methodology for Air Pollution	Mar 1995
Final Report on the Environmental and Economic Impacts of the Pollution Prevention Fund	June 1999
Integrated Waste Strategy for Metropolitan Adelaide - Progress on Implementation (joint publication with Planning SA)	Jan 1999
Integrated Waste Strategy for Metropolitan Adelaide 1996-2015	June 1996
Landfill Audit	Feb 2000
Review of the Landfill Disposal Risks and the Potential for Recovery and Recycling of Preservative Treated Timber	Nov 1999
Review of On Farm Disposal Treatment Risks and the Potential for Recycling of Wastes produced from Commercial Chicken Farms and Processors	Nov 1999
Review of Organic Recycled Wastes in South Australia	Nov 1999
Sediment Quality Monitoring of the Port River Estuary - Report No. 1	Nov 1997
Semaphore Park Foreshore Protection Strategy Re-examination: Background and Alternatives	Oct 1999
South Australia: Reducing the Greenhouse Effect	Jan 2000
South East Waste Management Strategy Plan, South East Local Government Association & EPA	Nov 1994
State of the Environment Report for South Australia 1998	
State of the Environment Report for South Australia 1998 - Summary	
Summary Report on Responses to the Integrated Waste Management Strategy: Public Discussion Paper	Jan 1996
Three Decades of Air Pollution Control 1961-1991	
Waterwatch South Australia 1999 Yearbook	

Pamphlets

- Household Hazards
- Don't Let Our Waterways Go Down the Drain
- Stop Our Waterways Going Down the Drain Series:
 - How Your Shop or Restaurant Can Help
 - How to Dispose of Problem Household Waste
 - How You and Your Household Can Help
 - How Cleaning Contractors Can Help
 - How Your Mobile Vehicle Service Business Can Help
 - How Your Workshop Can Help
 - How Your Factory Can Help
 - How Builders and Do-It-Yourselfers Can Help
- Frog Census
- How Healthy are our Streams
- Protecting Our Coast
- Waterwatch South Australia



APPENDIX 2 - Audited Financial Statements

ENVIRONMENT PROTECTION FUND

Operating Statement for the year ended 30 June 2000

	Note	2000 \$'000's	1999 \$'000's
OPERATING EXPENSES			
Goods and Services	4	40	56
Grants	5	1,051	860
Total Operating Expenses		1,091	916
OPERATING REVENUES			
Fees and Charges	6	1,490	1,268
Interest Revenue		54	58
Total Operating Revenues		1,544	1,327
OPERATING SURPLUS BEFORE ABNORMAL ITEM		453	410
<i>Less: Abnormal Items</i>	10	-	(3,604)
OPERATING SURPLUS/(DEFICIT) AFTER ABNORMAL ITEMS	14	453	(3,194)

The accompanying notes form an integral part of these accounts.

Statement of Financial Position as at 30 June 2000

	Note	2000 \$'000's	1999 \$'000's
CURRENT ASSEST			
Cash on Hand and on Deposit	7	1,225	813
Receivables	8	152	134
Total Current Assest		1,377	947
TOTAL ASSETS		1,377	947
CURRENT LIABILITIES			
Payables	9	187	210
Total Current Liabilities		187	210
TOTAL LIABILITIES		187	210
NET ASSETS		1,190	737
EQUITY			
Accumulated Surplus	14	1,190	737
TOTAL EQUITY		1,190	737

The accompanying notes form an integral part of these accounts.



ENVIRONMENT PROTECTION FUND

Statement of Cash Flows for the year ended 30 June 2000

	Note	\$'000's Inflows (Outflows)	\$'000's Inflows (Outflows)
CASHFLOWS FROM OPERATING ACTIVITIES			
Payments			
Goods and services		(54)	(255)
Grants		(1,060)	(924)
Transfer to Interim Waste Committee	10	-	(1,365)
Receipts			
Fees and Charges		1,466	1,200
Transfer from former LR and WMB	10	-	1,365
Interest Income		60	58
Net Cash Provided by Operating Activities	15	412	79
CASH FLOWS FROM FINANCING ACTIVITIES			
Payments			
Transfer to the Department for Environment, Heritage and Aboriginal Affairs	10	-	(2,788)
Net Cash used in Financing Activities		-	(2,788)
Net Increase/(Decrease) in Cash Held		412	(2,709)
Cash at the Beginning of the Reporting Period		813	3,522
Cash at the End of the Reporting Period	7	1,225	813

The accompanying notes form an integral part of these accounts.



1. OBJECTIVES AND FUNDING

Objectives

The major objectives of the Environment Protection Authority (the Authority) are to establish environment protection standards and policies, to improve, protect and monitor water and air quality, to regulate waste management and promote waste minimisation practices, to promote cleaner production techniques, and to regulate industrial emissions.

The Authority is also responsible for the administration of the Environment Protection Fund (EPF), in accordance with section 24 of the *Environment Protection Act 1993*.

Subsection 24(4) of the Act sets out the purposes to which moneys held in the EPF can be applied.

Financial Arrangements

Since 1 July 1998, the Department for Environment and Heritage (DEH) directly meets the cost of administering the Act; consequently the financial activity of the EPF is restricted to those monies directed through the Fund as specified in the Act and various other arrangements.

The EPF's sources of funds consist of a prescribed percentage of fees, licences and levies charged under the Act, fines and expiation fees, interest revenues, sundry charges for services to the public and industry.

The EPF is an interest bearing Deposit Account pursuant to subsection 21(1) of the *Public Finance and Audit Act 1987*.

In accordance with the provisions of the Act, the Authority has delegated certain powers and functions to officers within the Environment Protection Agency (EPA). The EPA is one of six operational divisions of DEH, and is responsible for providing the necessary technical and administrative support to the Authority. As such, DEH employs the staff providing the administrative and support services and the EPF does not have any plant and equipment under its control.

The direct costs of providing these services are provided by the EPA at no charge to the EPF.

2. SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of Accounting

The financial statement is a general purpose financial report, and has been prepared in accordance with Statements of Accounting Concepts, Australian Accounting Standards, Treasurer's Instructions and Accounting Policy Statements issued by the Department of Treasury and Finance, and in a manner consistent with the requirements of the *Environment Protection Act 1993*.

The financial report has been prepared on the accrual basis of accounting. Accordingly, revenues are



recognised when they are earned or when the Authority has control over them, rather than when they are received, and expenses are recognised when they are incurred, rather than when they are paid. Some revenues are recognised when cash is received because only at this time can the Authority be certain about the amounts to be collected. These revenues include items such as licence and accreditation fees (refer 2(b)).

(b) Income Recognition

All revenues are recorded in the Operating Statement. Grants, donations and other contributions are recognised as revenues when the Authority obtains control over the assets comprising the contributions. Control over granted assets is normally obtained upon their receipt.

Authorisation revenues, comprising licence, exemption and accreditation fees, are recorded in their entirety as revenue in the period in which the Authority obtains control over the assets comprising the fees. Control over such fees is normally obtained when commitments to renew authorisations are received from users of the Authority's services.

All other revenues are accrued in the period in which they are earned.

(c) Cash and Bank Balances

Deposit Account balances are at call amounts, which earn interest at a rate determined by the Treasurer. Interest is received quarterly in arrears. The average effective interest rate for the reporting period was 4.97 percent.

(d) Receivables

Receivables in respect of fees and charges are recorded at their recoverable amount. At the end of each reporting period, receivable balances are reviewed and a provision is raised in respect of any balance where recoverability is considered doubtful. Bad debts are written off in the period in which they are identified. Credit risk therefore is confined to the amount set aside as provision for doubtful debts. The resulting carrying amount of receivables is considered to approximate their net fair values.

The Authority does not have any significant exposure to any individual customer, thus its credit risks are due to its customer base being influenced by the South Australian economy.

(e) Cash Flows

For the purpose of the Statement of Cash Flows, cash includes cash on hand, Deposit Accounts with the Department of Treasury and Finance, and cash in transit.

(f) Rounding

All amounts are rounded to the nearest thousand dollars.



3. OUTPUT CLASSES

The Authority operates solely in the Output Class area of Environment Protection, thus no further information is provided as the expenses, revenue, assets and liabilities attributable to that Output Class are set out in the Operating Statement and the Statement of Financial Position.

4. GOODS AND SERVICES

	2000 \$'000's	1999 \$'000's
Goods and service expenses for the reporting period comprised:		
Conference/seminar presentation	15	-
Exhibition and promotional expenses	14	-
Materials and consumables	1	-
Publications, reports and advertising	2	34
Consultancies	6	2
Audit Fees	2	14
Other	-	6
Total	40	56

5. GRANTS AND TRANSFERS

	2000 \$'000's	1999 \$'000's
Grant expenses for the reporting period comprised:		
Waste Levies remitted to SAECCI *	105	211
Waste Levies remitted to LGFA #	944	649
Other	2	-
Total	1 051	860

* South Australian Employers' Chamber of Commerce and Industry Inc.

Local Government Finance Authority – Interim Waste Management Committee for Kerbside Recycling .



6. FEES AND CHARGES

	2000 \$'000's	1999 \$'000's
Fees and charges for the reporting period comprised:		
Prescribed percentage of licences and levies	441	408
Waste Levy receipts	1 049	860
Total	1 490	1 268

7. CASH AND BANK BALANCES

	2000 \$'000's	1999 \$'000's
Special Deposit account with the Treasurer	1 225	813
Total	1 225	813

8. RECEIVABLES

	2000 \$'000's	1999 \$'000's
Current		
Fees and charges*	130	122
Accrued interest income	6	12
Other	16	-
Total	152	134

* The "fees and charges" receivables figure at 30 June 2000 is comprised of the waste levies due in respect to Kerbside Recycling (\$77,000) and the balance being the 5% statutory percentage of fees and charges due under the *Environment Protection Act 1993*.

9. PAYABLES

	2000 \$'000's	1999 \$'000's
Current		
Creditors	181	197
Accruals	6	13
Total	187	210



10. ABNORMAL ITEMS

	2000 \$'000's	1999 \$'000's
Receipts from former Local Government Recycling And Waste Management Board liquidator ^(a)	-	1365
Payments to the Interim Waste Management Committee Trust Account ^(a)	-	(1365)
Transfer of funds ^(b)	-	(3604)
Total	-	(3604)

(a) The cash assets of the former Local Government Recycling and Waste Management Board, totalling \$1.4 million, were paid into the Environment Protection Fund and subsequently paid into the Interim Waste Management Committee Trust Account at the Local Government Finance Authority.

(b) During the 1998–99 reporting period, funds totalling \$3.6 million which related to projects and cash balances (\$2.8 million) no longer controlled by the Authority, were transferred from the Environment Protection Fund to the Department for Environment, Heritage and Aboriginal Affairs (DEHAA) Deposit Account.

11. REMUNERATION OF AUDITORS

Amounts paid or due and payable to the Auditors for auditing the accounts for the year were \$2,000.

12. CONSULTANCIES

The cost of consultancies engaged by the Authority during the course of the year amounted to \$6,000.

13. REMUNERATION OF AUTHORITY MEMBERS

	2000 Number	1999 Number
The number of Authority members whose remuneration received or due and receivable fell within the following bands:-		
\$NIL	1	1
\$1 - \$10,000	4	4
\$10,001 - \$20,000	1	1

Authority members' fees are paid by the Department of Environment and Heritage.



14. EQUITY

Equity represents the residual interest in the Fund's net assets. The South Australian Government holds the equity interest in the Fund on behalf of the community.

	Accumulated Surplus	
	2000	1999
	\$'000's	\$'000's
Balance at the beginning of the period:	737	3931
Surplus/(deficit) during the period	453	(3194)
Balance at the end of the period:	1190	737

15. RECONCILIATION OF NET CASH PROVIDED BY OPERATING ACTIVITIES TO OPERATING SURPLUS BEFORE ABNORMAL ITEMS

	2000	1999
	\$'000's	\$'000's
Operating surplus before Abnormal Items	453	410
<u>Movements in assets and liabilities:</u>		
(Increase)/decrease in receivables	(18)	(69)
Decrease/(Increase) in other assets	-	17
(Decrease)/Increase in payables	(23)	(279)
Net cash provided by operating activities	412	79



STATEMENT BY AUTHORITY EXECUTIVE

The financial statements and notes to the statements are to the best of my knowledge drawn up so as to present fairly, in accordance with Statements of Accounting Concepts, applicable Accounting Standards and the *Public Finance Audit Act 1987*, as amended, the financial position of the Environment Protection Fund as at 30 June 2000 and the result of its operations and its cash flows for the year then ended.

We also state that it is our opinion that, to the best of our knowledge, internal controls over financial reporting have been effective throughout the reporting period.

A handwritten signature in black ink, appearing to read 'Stephen Walsh'.

S WALSH
CHAIRPERSON, ENVIRONMENT
PROTECTION AUTHORITY

Date..... 15 / 01 / 2001

A handwritten signature in black ink, appearing to read 'Peter Castle'.

P CASTLE
FINANCIAL ACCOUNTANT, EPA

Date..... 10 / 01 / 2001