

# Department of the Environment, Water, Heritage and the Arts

Volume 1  
Outcome 1.5

ANNUAL REPORT 2007–08

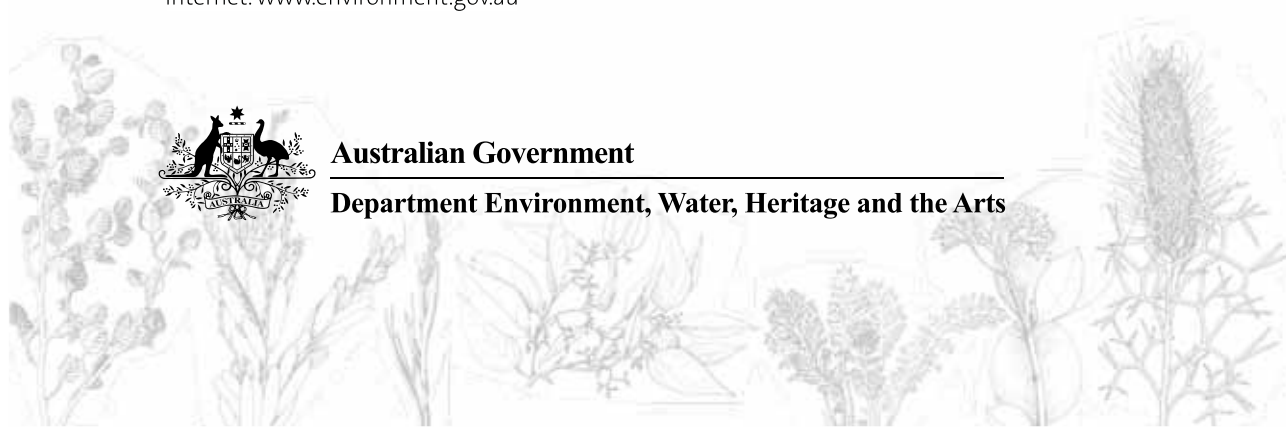
How to contact the department  
Main office: John Gorton Building,  
King Edward Terrace, Parkes ACT 2600  
Post: GPO Box 787, Canberra ACT 2601

Phone: 02 6274 1111  
Fax: 02 6274 1666  
Internet: [www.environment.gov.au](http://www.environment.gov.au)



**Australian Government**

**Department Environment, Water, Heritage and the Arts**



## Output 1.5 Human Settlements



### Introduction

The department works with all levels of government, and with the community and industry to minimise the impact of human settlement and industrial processes on Australia's environment and biodiversity.

In particular, the department helps to protect human health through reducing emissions of air pollutants, particularly in Australia's major cities. It also works to protect and restore the stratospheric ozone layer and protect the environment and human health from hazardous substances and organisms.

The department administers the *Environment Protection and Biodiversity Conservation Act 1999* and the *Environment Protection (Sea Dumping) Act 1981*, that respectively include protection for matters of national environmental significance and for the marine environment through managing sea dumping. The department manages referral, assessment and approval processes under these Acts. The *Environment Protection and Biodiversity Conservation Act 1999* also regulates wildlife trade to protect Australia's native wildlife from overexploitation. Protection of Australia's native ecosystems from the threat of alien invasive species is achieved by regulating imports of live specimens.

### Main responsibilities for this output

<ul style="list-style-type: none"> <li>National Pollutant Inventory</li> </ul>	Policy Coordination Division
<ul style="list-style-type: none"> <li>Support for the Environment Protection and Heritage Council and the National Environment Protection Council</li> <li>Air quality</li> <li>Vehicle emissions and fuel quality</li> <li>Ozone layer protection</li> <li>Product stewardship schemes</li> <li>National Packaging Covenant</li> <li>Hazardous substances regulation</li> <li>Biotechnology risk assessment</li> <li>Chemical policy</li> <li>Chemical risk assessment</li> </ul>	Environment Quality Division
<ul style="list-style-type: none"> <li>Supervision of uranium mining in the Alligator Rivers Region</li> </ul>	Supervising Scientist Division
<ul style="list-style-type: none"> <li>Environmental impact assessments and approvals</li> <li>Sea dumping and sea installations regulation</li> </ul>	Approvals and Wildlife Division
<ul style="list-style-type: none"> <li>Wildlife protection (threatened species recovery, threatened species protection, wildlife industries regulation)</li> </ul>	Approvals and Wildlife Division
<ul style="list-style-type: none"> <li>Water efficiency labelling and standards</li> </ul>	Water Governance Division

## Highlights

- A new process for listing nationally threatened species, ecological communities and key threatening processes was implemented, and 12 (species) amendments to the lists were approved.
- The department's post-approvals monitoring and audit, compliance and enforcement activities expanded in 2007–08, with an increase in resources and the formation of a Compliance and Enforcement Branch.
- To improve the quality of information available on threatened species, the department set up a new Species Information Section and began an audit of state and territory ecological community lists.
- The department continued to monitor the concentration of uranium measured

- in surface water downstream of mines in Australia's north. Work to date indicates that the environment of the Alligator Rivers Region remains protected from the effects of uranium mining.
- Adjustment to the Montreal Protocol on Substances that Deplete the Ozone Layer was negotiated to accelerate the final phase-out of hydrochlorofluorocarbons.
  - The department obtained the first conviction under the *Fuel Quality Standards Act 2000* when a company was found guilty of three breaches of the fuel quality standards and was fined a total of \$150,000.
  - At the ninth conference of the parties to the Basel Convention (Bali, June 2008), agreement was reached on developing the next ten year strategy for implementing the convention and action to achieve closer cooperation with the related Stockholm and Rotterdam Conventions.
  - The Fourteenth Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Conference of the Parties (the Hague, June 2007) agreed on several amendments to Appendices I and II, which list species that are either endangered, or may become endangered by international trade. These amendments came into effect in September 2007.
  - The department continued to protect Australia's marine environment using permit systems under the *Environment Protection (Sea Dumping) Act 1981* that regulates the deliberate loading and dumping of wastes and other matter at sea, and the *Sea Installations Act 1987* that regulates construction and operation of human-made devices, equipment and other installations at sea, including tourism pontoons and fish aggregation devices.
  - The *Water Efficiency Labelling and Standards Act 2005* has been reviewed to assist the effective operation of the scheme.
  - An industry forum, held in March 2008, engaged nearly 100 stakeholders in debate on the progress and future directions of the Water Efficiency Labelling and Standards (WELS) scheme.
  - Development of a new registration database is underway and will improve the operation and efficiency of the WELS registration process. Over 10,000 product models have been registered under the WELS scheme.

## Objectives

### Pollution prevention strategies

- Achieve consistency in standards to improve of air quality, chemical management, water quality and efficiency, waste management and particular environment protection challenges relating to climate change.
- Protect and restore the stratospheric ozone layer.

### Support for the Environment Protection and Heritage Council and the National Environment Protection Council

- Achieve a cooperative national approach for identifying, protecting and promoting Australia's heritage across national, state, territory and local levels of government and for enhancing Australia's ability to meet its World Heritage Convention.

### Supervision of uranium mining

- Protect the environment of the Alligator Rivers Region from the effects of uranium mining.

### Environmental assessments

- Protect the matters of national environmental significance defined in the *Environment Protection and Biodiversity Conservation Act 1999*.

- Protect the marine environment through the management of dumping under the *Environment Protection (Sea Dumping) Act 1981* and of installations under the *Sea Installations Act 1987*.

### Wildlife protection

- Protect biodiversity, including wildlife and their habitats.
- Implement Australia's international obligations.
- Work to ensure that Australia's use of biological resources is ecologically sustainable.

## Results

- Australia exceeded its obligations to phase-out the use of ozone depleting substances. Total imports in 2007 were 156.35 ozone-depleting tonnes, a decrease of approximately 81 per cent since 1999, when imports peaked at over 800 tonnes.
- In 2007–08 the department supervised the collection of approximately 7,000 kilograms of halon from Australia. In addition, 9,400 kilograms of mixed waste refrigerants were imported from New Zealand for disposal.
- The 2006–07 National Pollutant Inventory results were published on 31 March 2008. This was the ninth annual data release. Since reporting started in 1999, the number of facilities reporting each year has risen from 1,199 to 3,954 in 2007.
- During the 2007–08 wet season the maximum uranium concentration measured downstream of the Ranger mine was 0.185 micrograms per litre. This value is consistent with the result from previous years and represents a peak value that is 3 per cent of the local ecotoxicologically-derived limit of 6 micrograms per litre and less than 1 per cent of the 20 micrograms per litre guideline for potable water. The local ecotoxicological limit is a guideline value derived from toxicity testing using five sensitive local aquatic species.
- In 2007–08 the department took 4,214 fuel samples, almost doubling the previous year's 2,321 samples. Of these, 98 per cent tested as compliant with fuel standards.
- The department used the injunction powers in the *Fuel Quality Standards Act 2000* for the first time in relation to non-compliant fuel, resulting in a court order restraining a company from supplying or selling petrol with an ethanol content in excess of 10 per cent.
- In 2007–08 the department issued four permits under Part 13 of the *Environment Protection and Biodiversity Conservation Act 1999* for listed threatened species.
- During 2007–08 the department received seven applications to amend the Live Import List. The minister decided to make 19 amendments to the live import list and refused to make a further six. Many applications to amend the live import list take several months until a decision is made. As a result, they may span financial years. Many of the decisions that were made in 2007–08 relate to applications submitted in 2006–07.
- In 2007–08 five new wildlife trade management plans, three wildlife trade operations, thirteen artificial propagation programs, and five captive breeding programs were approved. The department issued 2,383 permits to export or import wildlife, including 440 'multiple-consignment' permits.
- A total of 7,016 seizures of wildlife and wildlife products were made under Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999* and 13 successful prosecutions were undertaken.

- During the year 2,336 products were registered under the Water Efficiency Labelling and Standards Scheme, bringing to 10,095 the total number of product models labelled.
- 418 projects were assessed to ensure their environmental impact on Matters of National Environmental Significance was acceptable. Almost 1,000 incidents were reported to the department and assessed for compliance with the *Environment Protection and Biodiversity Conservation Act 1999* (see Volume 2—Legislation Annual Reports for a full report).

## National Pollutant Inventory

The department hosts the National Pollutant Inventory which is a free, publicly available, database of chemical emissions information. People use it to find out the types and amounts of chemical substances being emitted into the air, land and water from industrial processes and other activities. The 93 substances included in the inventory have been identified as important because of their possible health and environmental effects. The database is at [www.npi.gov.au](http://www.npi.gov.au).

The National Environment Protection Measure is the statutory basis for the Inventory. The Measure requires industry to report to state and territory environment agencies if emissions exceed certain levels. It requires the department to publish the results each year in the National Pollutant Inventory (NPI). One of the aims of the inventory is to encourage government, industry and the community to improve their environmental performance by reducing emissions.

In the May 2005 Budget the Australian Government approved funding of \$5.2 million for the implementation of the NPI program for the period 2005–2009.

## Main achievements

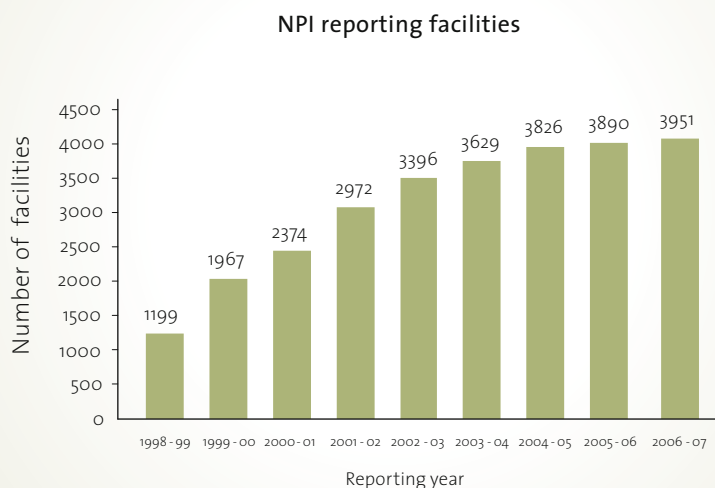
In 2007–08, the department focussed on improvements to the systems and processes that are essential to the NPI program. Some of these included:

- updating and improving guidance materials for industry reporting, to reflect changes in emission factors as well as industrial processes
- streamlining the collection, analysis and management of NPI data with the launch of the new NPI Online Reporting System
- redesigning the NPI website
- consultation with a diverse range of stakeholders from around Australia, resulting in the establishment and first meeting of the NPI Industry Liaison Group and the first NPI conference in May 2008 with over 160 delegates attending
- attending the annual meeting of the OECD Pollutant Release and Transfer Register Taskforce, where Australia was congratulated on the quality of the guidance and training it provides to industry to facilitate reporting compliance.

## Annual results

The 2006–07 NPI facility data were published on 31 March 2008 and each year the number of facilities reporting continues to rise.

## Facilities reporting to the National Pollutant Inventory



In any one year, the inventory data present a mixed picture, with some emissions up and others down, compared with the previous year. For example, in 2006–07 emissions of 37 substances increased over the previous year, while emissions of 47 substances decreased. Real changes in reported emissions data usually result from changes in the way a facility is operated.

### Variation to the National Pollutant Inventory National Environment Protection Measure

In June 2007, the National Pollutant Inventory National Environment Protection Measure was amended to improve its capability as a major environmental management tool and an aid to cleaner production. One key change was that industries are now also required to report on the transfers of listed substances in waste. Another change was the inclusion of greenhouse gases on the substance list—this was an interim measure, since superseded by the enactment of the *National Greenhouse and Energy Reporting Act 2007*. In April 2008, the National Environment

Protection Council agreed to begin the process required to vary the Measure to remove its interim (and now redundant) greenhouse gas and energy reporting provisions.

### Pollution prevention strategies

The department manages Australia's efforts to reduce ozone depletion. It manages Australia's international responsibilities and obligations for chemical products: persistent organic pollutants, prior informed consent for the export of certain hazardous chemicals, and also addresses other emerging chemical issues. Domestically the department works with Commonwealth, state and territory agencies and a number of other stakeholders on a range of environmental aspects of the regulation and management of chemicals.

The department assesses the environmental risks of new and existing chemicals for the Australian Pesticides and Veterinary

Medicines Authority and the National Industrial Chemical Notification and Assessment Scheme. It provides advice on, and input to, improvements in chemical safety, especially on regulatory issues. This is provided within the performance parameters agreed in service level agreements.

The department ensures that environmental risks arising from emerging and enabling technologies, such as biotechnology and nanotechnology, are appropriately assessed.

## Environment Protection and Heritage Council

During 2007–08 the department supported the Commonwealth's role as member and Chair of the Council and its Standing and Strategic Committees. The Commonwealth's engagement in Council decision-making resulted in the following national achievements:

- agreement to vary the Diesel Vehicle Emissions National Environment Protection Measure to adequately reflect the availability of new technologies, and building on experience gained in implementing the measure
- release of a public consultation package on tyres outlining a joint industry and government approach to drive innovation, decrease environmental impacts and build end-of-life management of tyres. The public consultation period is May to July 2008.
- agreement to pursue action on alternatives to plastic bags, including biodegradables.

## Air Quality

Australia's air quality is generally good, with our cities usually having much lower levels of pollution than comparable cities in other OECD countries. A major contributor to our improved air quality is effective Commonwealth regulation to reduce new vehicle emissions and improve fuel quality.

However, there are still challenges in keeping our air clean. The department is continuing to work with the states to reduce ground-level ozone and particles, which remain relatively high in some cities. The department's work focuses on tackling the major sources of air pollution that can be addressed at the national level, which include motor vehicles, woodheaters and non-road engines (for example, garden equipment and outboard motors).

### Reducing vehicle emissions

Motor vehicles are one of the largest contributors to urban air pollution in Australia and have a major influence on the incidence of smog and haze. Management strategies are focused on making sure that vehicles meet effective emission standards when they first enter the market; ensuring that they continue to meet these emission standards while they are in use; and providing them with the cleanest, economically viable fuels available.

### Fuel quality

The quality of fuel supplied in Australia has been a key determinant for the introduction of tighter new vehicle emissions standards, which are established under the *Motor Vehicle Standards Act 1989* administered by the Department of Infrastructure, Transport, Regional Development and Local Government.

National fuel quality standards have been implemented under the *Fuel Quality Standards Act 2000*, which is administered by the department. Fuel quality standards have been introduced for petrol, diesel, biodiesel

and autogas sold in Australia. The fuel standards facilitate advanced emissions control technology required to meet tighter emissions standards, reduce the level of harmful pollutants in fuel, and ensure the efficient operation of engines.

During the year, amendments to the Act were progressed to implement recommendations from a major review, which took place in 2005–06.

A 2007 study identified the potential environmental and commercial impacts of companies being granted approvals to vary fuel standards and how these impacts could be offset. The study recommended an amendment to the Act to allow the minister to require companies to fund measures such as air quality monitoring programs. The necessary amendments to the Act are being prepared.

#### Monitoring compliance and enforcement of fuel standards

The department monitors fuel at outlets including terminals, depots and service stations to ensure it complies with the standards. It is spending \$6.3 million over four years from 2006–07 to increase fuel quality compliance inspections. These inspections will help to ensure fuel quality standards are being met; increasing consumer confidence and preventing poor quality fuel having negative effects on vehicle operability and air quality.

In 2007–08, the department took 4,214 fuel samples, almost doubling the previous year's 2,321 samples. Of these, 98 per cent tested compliant with fuel standards. Incidents of non-compliance were dealt with either through administrative actions (warnings and education), civil action or prosecution, depending on the seriousness of the offence.

The department obtained the first conviction under the *Fuel Quality Standards Act 2000* when a company was found guilty of three breaches of the fuel quality standards. It was fined a total of \$150,000. The department also used the Act's injunction

powers for the first time, resulting in a court order restraining a company from supplying or selling petrol with an ethanol content in excess of 10 per cent.

A full report on the operation of the *Fuel Quality Standards Act 2000* is in the second volume of this set of annual reports.

#### Biofuels

Work continued to implement projects on the impacts of ethanol and other biofuels on human health, the environment, and the operation of motor vehicles. Progress in 2007–08 included:

- The department commissioned a study on the health effects of the use of up to 10 per cent ethanol blended with petrol, to be completed in mid-2008. The study assessed the comparative effects of low ethanol blend fuel on: tailpipe particulate and evaporative emissions, and smog production under Australian conditions.
- Amendments to the *Fuel Standard (Petrol) Determination 2001* were put in place to provide a fuel quality standard for ethanol that can be blended up to ten per cent with petrol.
- A position paper on proposed management of diesel/biodiesel blends was released in January 2008.

#### In-service emissions from motor vehicles

In addition to monitoring the quality of fuels supplied to the current vehicle fleet, work has continued on key projects to help manage emissions from the vehicles themselves.

The department continued to support in-service emissions testing for diesel vehicles through funding agreements with the states and territories. Diesel vehicles are tested for compliance with the exhaust emissions standards set by the Australian Transport Council. Through funding from the Australian Government, testing facilities to measure diesel emissions from motor vehicles have been established in all states.

A comprehensive petrol vehicle testing program is underway, through the \$2.5 million second phase of the National In-Service Emissions study. Air pollutant emissions from a range of passenger vehicles are being measured under actual Australian driving conditions, rather than ideal driving conditions. Results from this study will provide more accurate information on the contribution of petrol vehicles to urban air pollution, so that pollution management strategies can be better targeted.

#### **Managing woodsmoke pollution**

Woodheaters are the major source of particle pollution in many regions of Australia during the cooler months of the year. The department is leading work, under the Environment Protection and Heritage Council, to develop a nationally consistent approach to woodheater management. It is currently undertaking a detailed assessment of regulatory options. During 2007–08, the department also conducted a survey of woodheater operator behaviour to help develop new measures that lead to improved woodheater emissions performance in homes.

Launceston in Tasmania often experiences poor air quality during winter due to the combination of particle emissions from woodheaters and industry. Building on the Australian Government's previous program to replace woodheaters in Launceston, funding was provided to Launceston City Council during 2007–08 to help improve air quality through a woodheater buy-back program for the Tamar Valley. This activity complemented projects being delivered under the Launceston Clean Air Industry Program to reduce emissions from some of the major industrial sources of particle pollution in that city. Under the program, funding has been provided to four facilities for the installation of equipment that will significantly reduce emissions. To date, two facilities, a brewery and a sawmill, have completed installation of the new equipment.

#### **Emissions from non-road engines**

The department is leading work, through the Environment Protection and Heritage Council, to consider options for managing emissions from a range of non-road engines, including lawnmowers and other garden equipment, and outboard motors. A study was undertaken to measure emissions from garden equipment engines and it found that engines certified to overseas standards generally produce significantly lower emissions than uncertified engines. A cost-benefit analysis is underway to determine whether there is a net benefit in regulating emissions from these engines.

#### **Clean Air Research Program**

The Clean Air Research Program is a \$1.4 million program, established in 2006, to fund 13 research projects that address the major research gaps in the management of air quality in Australia. Nearly all projects have been completed. The results will be used to develop innovative policies and management actions to help reduce the impacts of air pollution in Australia's urban centres.

#### **Indoor Air Study**

As for ambient air, exposure to high levels of air pollution in indoor environments can cause ill-health. Despite the long periods of time Australians spend indoors, little is known about the quality of air in our homes and other buildings. A number of overseas studies show that indoor levels of many pollutants are often far in excess of outdoor levels. The department has commissioned a study to measure levels of major indoor air pollutants in the average Australian home. This study will also assess the influence of a range of factors, including proximity to major roads, on levels of indoor air pollutants. It will help determine the need for management strategies to minimise health impacts.

## Protection of the Ozone Layer

The department is responsible for ensuring that Australia meets its Montreal Protocol phase-out obligations. Under the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989*, the department controls the manufacture, import and export of all ozone-depleting substances and their synthetic greenhouse gas replacements. It also regulates end-uses, to minimise emissions to the atmosphere. The department works with industry and the community to implement a program to phase-out ozone-depleting substances and to minimise emissions of these substances and their synthetic greenhouse gas replacements.

## Hazardous substance regulation and management

The *Hazardous Waste (Regulation of Exports and Imports) Act 1989* permits the import, export and transit of hazardous wastes under certain conditions, including the environmentally sound management of the waste to protect both the environment and human health. The Act implements Australia's obligations under: the Basel Convention on the Control of the Transboundary Movements of Hazardous Wastes and their Disposal; and the Waigani Convention to Ban the Importation Into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region.

The department is the lead Australian agency for the Stockholm Convention on Persistent Organic Pollutants, the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals

and Pesticides in International Trade, and the Strategic Approach to International Chemicals Management. It works to ensure that Australia meets its obligations under such environmental agreements, and ensures that Australia's views are represented in such forums. The department also engages in other international discussions on emerging chemical issues, such as the OECD Joint Meeting of the Chemicals Committee and the Working Party on Chemicals, Pesticides and Biotechnology. Domestically the department works with other Commonwealth, state and territory agencies and a number of other stakeholders on implementation of Australia's international chemicals obligations. It also develops and implements reforms to the environmental risk management of chemicals through the National framework for Chemicals Environment Management.

Every year the department assesses hundreds of new and existing chemicals for the Australian Pesticides and Veterinary Medicines Authority and the National Industrial Chemicals Notification and Assessment Scheme. It provides advice on, and input to, improvements in chemical safety, especially on regulatory issues. The department also contributes to each agency's reform agenda, by contributing to improved systems for the regulation of chemicals and the department's role in those systems. Specific strategies include: increasing expertise in modelling techniques for rapid assessment of existing chemicals; the development of prioritisation and screening criteria for selecting chemicals for review; updating the Manual of Requirements and Guidelines for submission of environmental data; participating in the international work-share process for parallel assessment of chemicals between several countries; and contributing to the Low Regulatory Concern Chemical reforms for industrial chemicals.

### Chemical Monitoring Initiative

Australia's current lack of ability to determine the fate of chemicals in the environment is a significant issue. It means that the full risks to the environment and human health cannot be determined with certainty. Australia has obligations under the Stockholm Convention on Persistent Organic Pollutants to measure the effectiveness of actions taken under the Convention. A large part of the Effectiveness Evaluation comprises global monitoring activities, which must include ongoing environmental sampling and human biomonitoring for persistent organic pollutants. The department has responsibility for the Stockholm Convention in Australia and accordingly seeks to:

- meet the requirements of the Effectiveness Evaluation
- improve Australia's capacity to evaluate the environmental impacts of chemicals of concern in response to domestic priorities.

The department is piloting a program called the Chemical Monitoring Initiative, which will include measurement of chemicals of concern in air and other media. It will include targeted research into areas of potential environmental concern on chemicals.

The department is taking a collaborative approach to this work, and has sought engagement from the Department of Health and Ageing on human biomonitoring. The department is also working with state and territory environment departments to identify regional priorities for this initiative.

### Biotechnology Risk Assessment

The Gene Technology Regulator, within the Department of Health and Ageing, regulates genetically modified organisms under the *Gene Technology Act 2000*. The Act requires the regulator to seek advice from the Minister for the Environment, Heritage and the Arts on each intentional release of a genetically modified organism into the environment. The department prepares briefing for the minister to assist with the advice to the regulator on the risk assessment and risk management plan, to ensure that environmental risks are adequately assessed and managed.

To stay abreast of developments in this evolving field, the department is managing a number of research projects and workshops to improve basic knowledge of environmental risks associated with genetically modified organisms, funded partly through the National Biotechnology Strategy. The department participated, as a member agency of Biotechnology Australia, in the implementation of this strategy. It supported the minister's involvement in the Commonwealth Biotechnology Ministerial Council.

Biotechnology research and trade in biotechnology products is an international issue. The department is involved with Biotechnology issues in the Convention on Biological Diversity, the associated Cartagena protocol on Biosafety and a variety of OECD working groups, including preparation and finalisation of international scientific guidance documents for the OECD.

### Nanotechnology

Like biotechnology, nanotechnology is a relatively new field that has the potential to provide human health and environmental benefits. It is important, however, that appropriate regulatory arrangements are in

place to manage any human health or environmental risks deriving from this technology.

The department is currently engaged on an Interdepartmental Committee, convened by the Department of Innovation, Industry, Science and Research, to provide input into the development of a National Nanotechnology Strategy. The department contributes to the ongoing development of policy and risk analysis in this rapidly evolving area.

## Product stewardship schemes

Although the states, territories and local governments have primary responsibility for managing wastes in Australia, the Department works with them on a number of wastes of national significance, including plastic bags, end-of-life tyres, televisions and computers.

### Plastic Bags

At its April 2008 meeting, the Environment Protection and Heritage Council decided not to endorse uniform regulatory action at this time to ban or place a mandatory charge on plastic bags. Instead, ministers agreed to take a number of other actions to reduce the effects of plastic bags. The Commonwealth will take the lead on two of these actions.

A high level government-industry working group, chaired by the Commonwealth, was convened in May 2008. The group is working to identify additional measures by which retailers can increase the voluntary uptake of 'green' reusable bags and reduce the use of plastic bags. The group is due to report back to Council at the November 2008 meeting.

Concurrently, Council agreed to pursue action on alternatives to plastic bags, including biodegradables. This will include Australian standards for degradable and

biodegradable plastics. Australian standards have already been completed for the commercial composting environment, but what happens in non-commercial environments is not yet known. The development of these standards will allow consumers and the suppliers of these bags to verify the marketing claims of biodegradable and degradable plastic bags.

### National Packaging Covenant

During the year the department implemented the National Packaging Covenant Action Plan covering the period July 2006 to June 2008. Although the Action Plan was agreed in April 2007, the implementation process commenced in 2006 prior to its finalisation. By May 2008 the Australian Government had implemented all activities outlined in the action plan and had paid all funding grants.

### Product Stewardship for Oil Program

About 520 million litres of lubricating oil are sold each year in Australia and about 280 to 300 million litres of used oil are generated. If disposed of incorrectly, this oil can cause serious damage to the environment by contaminating the soil, groundwater, streams, rivers, lakes and drinking water.

The Product Stewardship for Oil Program aims to reduce this damage through encouraging used oil recycling by providing benefit payments to used oil recyclers. The department has policy responsibility for this program, while the Australian Taxation Office administers the levy and benefit elements of the program.

A total of \$34 million in product stewardship benefits was paid to recyclers for recycling 253 million litres of used oil in 2007-08, an increase of \$3.3 million from 2006-07.

Industry estimates that about 150-165 million litres of used oil were being recycled before the program's implementation on 1 January 2001. Since then, used oil recycling has increased by about 42 per cent.

The Product Stewardship for Oil Program provided a total of \$22 million in grants from July 2000 to June 2007, for:

- used oil collection infrastructure
- raising public awareness
- developing technology
- remote and Indigenous projects
- developing markets for used oil products.

In 2005 a grant of \$2 million was awarded to Transpacific Industries Pty Limited, to support the construction of a hydrogenation plant to re-refine used motor oil at Rutherford in the Hunter Valley. The plant commenced operation in September 2007.

The implementation of a small number of projects funded by transitional assistance grants is continuing and all projects will be completed by mid-2010.

## Supervision of uranium mining

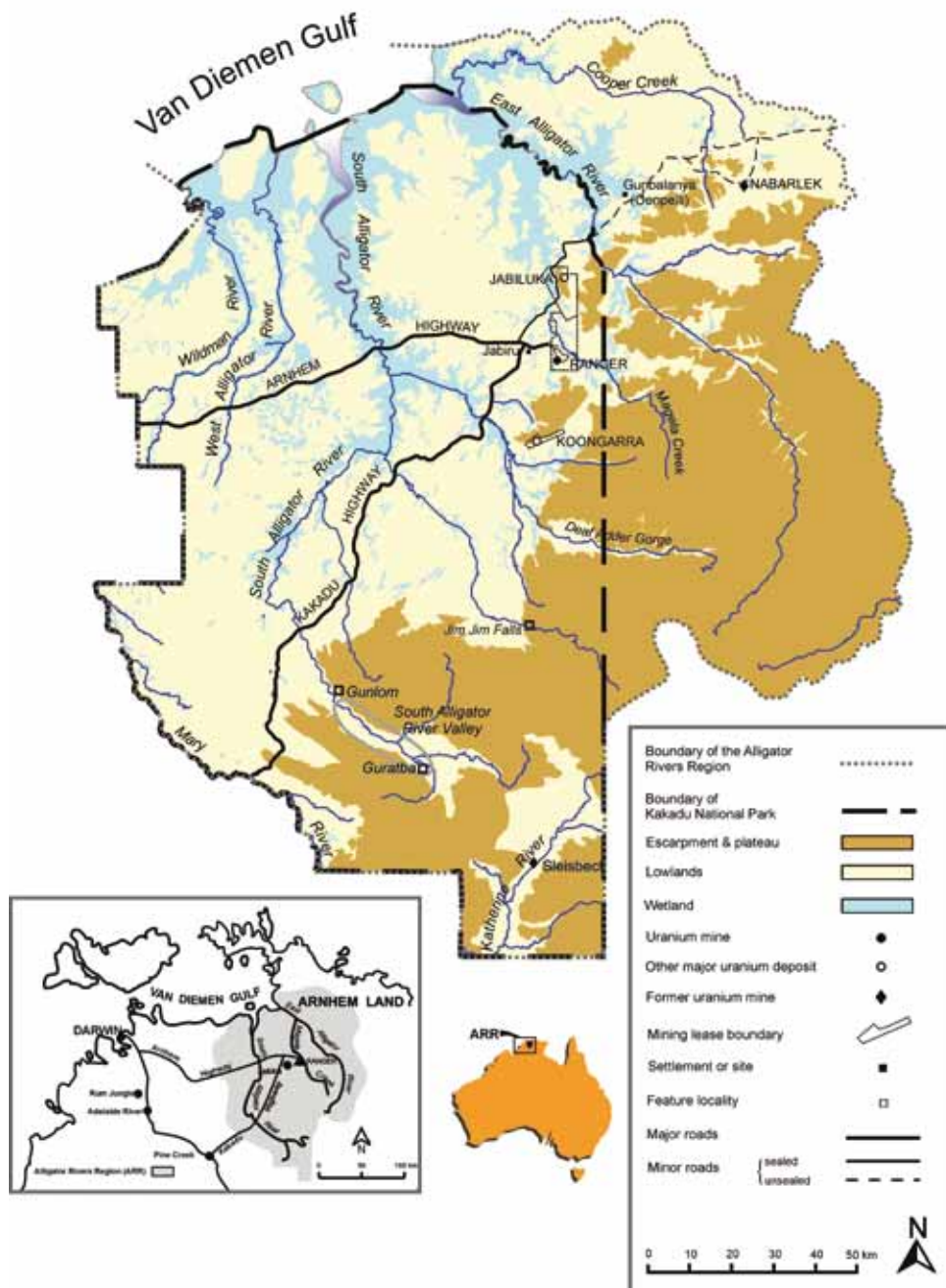
The Supervising Scientist is a statutory office under the *Environment Protection (Alligator Rivers Region) Act 1978*. The occupant of the office is the head of the Supervising Scientist Division within the department. The Supervising Scientist Division supervises uranium mining in the Alligator Rivers Region. The department works closely with the Department of Resources, Energy and Tourism and the Northern Territory Department of Primary Industry, Fisheries and Mines in fulfilling this role.

The department has specific roles and responsibilities under the Act to protect the environment of the Alligator Rivers Region from the potential effects of uranium mining. The roles and responsibilities include environmental monitoring, supervision, and research into the effect of uranium mining.

The Alligator Rivers Region, some 220 kilometres east of Darwin, includes Kakadu National Park. The region contains a number of former, current and potential uranium mines, including:

- Ranger, which is currently being mined
- Nabarlek, where mining has ceased and rehabilitation is under way
- Jabiluka, which has been in long-term care and maintenance since December 2003
- Koongarra, a potential mine that is the subject of discussions between the traditional Aboriginal owners and the mining company, Koongarra Pty Ltd.

None of these sites is part of Kakadu National Park. A number of smaller uranium deposits were mined during the 1950s and 1960s in what is now the southern portion of Kakadu National Park.



Map of the Alligator Rivers Region, Northern Territory

To achieve its objectives, the Supervising Scientist Division:

- plays a key role in supervising the environmental aspects of regulatory arrangements applying to uranium mining within the region
- works closely with the Northern Territory Government regulatory body and other stakeholders to ensure that regulatory decisions are based on the best available scientific knowledge and are in accordance with the environmental requirements attached to the Australian Government approvals for the mining activities
- undertakes a comprehensive regime of regular audits and inspections of existing and former uranium mine sites within the region
- undertakes detailed, independent, scientific investigations into incidents and breaches of approval conditions and environmental requirements of uranium mining operations
- oversees the regulation of uranium mining in the region to ensure that the government and community can be confident that expected standards are being met
- undertakes an ongoing independent, comprehensive, chemical, biological and radiological monitoring program, designed to ensure and confirm protection from the effects of uranium mining in the region
- undertakes targeted scientific research to optimise the monitoring programs and to provide early warning of any potential effects of uranium mining on the environment of the region.

## Environmental Assessments and Approvals

The *Environment Protection and Biodiversity Conservation Act 1999* requires certain actions, specified in the Act, to be approved before they can be undertaken. Approvals are needed for any actions that are likely to have a significant impact on matters of national environmental significance protected under Part 3 of the Act. Any action taken by the Commonwealth, or that involves Commonwealth land, that is likely to have a significant impact on the environment also requires approval under the Act. The Act also establishes environmental assessment processes.

Matters of national environmental significance include: world and national heritage properties; wetlands of international importance; threatened species and ecological communities; migratory species; nuclear actions; and the Commonwealth marine environment. During 2007–08 matters of national environmental significance have been protected through the referral of 418 actions, and the subsequent assessment and decision-making process under the Act. Since its commencement in July 2000 a total of 2,696 actions have been referred for assessment of their effects on matters of national environmental significance.

The Act prescribes timeframes for decision-making in the referral, assessment and approval process. In 2007–08, 96 per cent<sup>1</sup> of decisions were made within statutory timeframes.

For more information see the report on the operation of the *Environment Protection and Biodiversity Conservation Act 1999* in the second volume of this set of annual reports.

<sup>1</sup> Note: method for calculation has changed this year so cannot be compared to previous years.

## Compliance, monitoring and audit

The department's compliance activities expanded in 2007–08 with an increase in resources and the formation of the Compliance and Enforcement Branch.

The department dealt with almost double the number of incident reports handled in the previous year. Although many of these reports do not require further compliance action, they provide an opportunity to enhance the community's awareness and understanding of the *Environment Protection and Biodiversity Conservation Act 1999*.

The department significantly expanded its post-approvals monitoring, with desktop monitoring of reporting requirements combined with a program of site inspections for selected higher risk projects. A departmental team was established in January 2008 to oversee the post approval management of the Gunns pulp mill project in Tasmania.

The amendments to the Act that commenced in February 2007 established a range of new compliance and enforcement options as an alternative to court proceedings. These options include enabling the minister to require remediation action where matters of national environmental significance have been affected.

For more information see the report on the operation of the *Environment Protection and Biodiversity Conservation Act 1999* in the second volume of this set of annual reports.

## Sea dumping and sea installations regulation

The *Environment Protection (Sea Dumping) Act 1981* fulfils Australia's international responsibilities under the 1996 Protocol to the London Convention on Sea Dumping, which Australia ratified in 2000. The Act regulates the deliberate loading and dumping of wastes and other matter at sea.

In 2007–08, 15 sea dumping permits were issued (13 by the department and two by the Great Barrier Reef Marine Park Authority). This reflected the ongoing need to dispose of dredged material at sea due to the expansion of ports around Australia, particularly as a result of the resources boom. Reviews by the department of applications to dispose of dredged material offshore involve detailed environmental impact assessments in accordance with the National Ocean Disposal Guidelines for Dredged Material.

There were ongoing enquiries about permits under the *Environment Protection (Sea Dumping) Act 1981* to place artificial reefs and to dispose of unwanted vessels at sea.

The *Sea Installations Act 1987* regulates construction and operation of human-made devices, equipment and other installations in the marine environment including tourism pontoons and fish aggregation devices. The Act ensures that sea installations are operated safely, are environmentally sound and are operated in a manner that is consistent with the protection of the environment.

Most sea installations in Australia are within the Great Barrier Reef Marine Park. This year five permits or permit exemptions were issued for sea installations under the Act (three by the department and two by the Great Barrier Reef Marine Park Authority).

## Changes to the lists of threatened species and ecological communities 2007–08

	Species	Ecological communities
Nominations on which the Threatened Species Scientific Committee has provided advice to the minister	12	1
Ministerial decisions made on Threatened Species Scientific Committee advice	12	1
Number of new listings	7	1
Number of uplistings	1	0
Number of delistings	4	0

## Wildlife protection

### Protecting threatened species and ecological communities

Under the *Environment Protection and Biodiversity Conservation Act 1999* actions require approval if they are likely to have a significant impact on wildlife and ecological communities that are listed as nationally threatened. Activities that may affect listed threatened species or ecological communities in Commonwealth areas may require permits. In 2007–08 the department issued four permits under Part 13 of the Act for listed threatened species.

In 2007–08 the department's Approvals and Wildlife Division issued four Part 13 permits. These permits were for:

1. incidental impacts on marine turtles from the family *Cheloniidae* and *Dermochelyidae* during deep sea trawling for crustaceans in the Coral Sea
2. taking, keeping and moving specimens landed dead as by-catch from the families *Syngnathidae*, *Solenostomidae*, *Hydrophiidae* and *Laticaudidae* from Commonwealth waters from the Queensland coast to the limits of the managed area under the Offshore Constitutional Settlement
3. tagging whale sharks (*Rhincodon typus*) at Ningaloo Reef and on Christmas Island

4. collecting and propagating seeds from the ecological community Cumberland Plain Woodlands and Shale Sandstone Transition Forests.

Permit one was issued as the impact of the specified action on members of the listed species concerned was incidental to, and not the purpose of, the taking of the action. Permits two, three and four were issued on the basis that the actions will contribute to the conservation of the threatened species or endangered ecological community.

One application was refused. The application was to take seven individual grand spider-orchids (*Caladenia huegelii*) from Jandakot airport, Western Australia. The application was refused on the basis that relocation of this species has not yet been determined to be successful and the potential loss of any individuals may have an adverse impact on the species as a whole.

In 2007–08 the department fully implemented the amendments to the *Environment Protection and Biodiversity Conservation Act 1999*, which focus on species and ecological communities in greatest need of protection, provide clearly defined assessment timeframes and provide more open public nomination and consultation processes.

In September 2007 the minister announced the first Finalised Priority Assessment List

of species, ecological communities and threatening processes for assessment starting on 1 October 2007. As part of the department's commitment to meeting obligations to protect marine species, assessments of four marine species started in 2007–08. Three of these species occur in Australian commercial fisheries.

The minister also called for public nominations for the assessment period starting 1 October 2008 and set a conservation theme of 'Rivers, wetlands and groundwater dependent species and ecosystems of inland Australia' to guide these public nominations.

### Threatened species recovery

Under the *Environment Protection and Biodiversity Conservation Act 1999* the department is working to prevent nationally threatened species from becoming extinct and to recover their populations. The department develops recovery plans for threatened species when the minister, on advice from the Threatened Species Scientific Committee, has determined that there is a need to have a plan in force.

In 2007–08 the minister approved 20 recovery plans under the Act, covering 38 species. This brings the total number of recovery plans in force to 324, covering 426 species and 15 ecological communities. A further 275 plans are in preparation covering 369 species and 16 ecological communities.

The total number of species and ecological communities covered by plans in place or in preparation is 826, or 51 per cent of listed threatened species and ecological communities.

During 2007–08 the department invested almost \$2 million in developing and implementing plans to recover terrestrial threatened species. In addition, almost \$3 million, through the national component of the Natural Heritage Trust, was directed to saving the Tasmanian devil and the orange-bellied parrot.

### Threatened Species Network

The department supported the Threatened Species Network, a community-based program of the Natural Heritage Trust and World Wide Fund for Nature-Australia. Among other work, the network assists all Australians to be involved in hands-on conservation. The network's projects were funded through the Natural Heritage Trust's Threatened Species Network Community Grants Program.

The network's activities during the year benefited more than 60 species and ecological communities listed under the *Environment Protection and Biodiversity Conservation Act 1999*. Those activities included developing 35 new projects that were funded under the grants program. The network also provided advice on threatened

### Recovery plans brought into force 2003–04 to 2007–08

Year	Plans brought into force	Total plans in place <sup>1</sup>
2007–08	20	324
2006–07	66	308
2005–06	31	264
2004–05	67	216
2003–04	23	126

<sup>1</sup>Total includes revised recovery plans and is adjusted for revoked plans, including where the species or community is no longer listed.

species to more than 110 advisory panels, recovery teams, assessment panels, and survey and research teams.

The department also provided additional funding to the network's community-based Conservation on Country threatened species program. The program aims to address gaps in conservation efforts and to increase engagement in threatened species recovery in priority areas such as the Kimberley region in the north of Western Australia.

#### *Tasmanian devil facial tumour*

The Australian Government provided \$1 million in 2007–08 from the Natural Heritage Trust to continue the work of the Save the Tasmanian Devil program (adding to the \$2 million provided previously under the Tasmanian Community Forest Agreement). This funding is to help prevent the Tasmanian devil's extinction from facial tumour disease.

The impact of the facial tumour disease prompted the listing of the Tasmanian devil as a vulnerable species under the *Environment Protection and Biodiversity Conservation Act 1999* in July 2006. First detected in Tasmania in the mid-1990s, the disease is a fatal cancer that has killed up to 60 per cent of Tasmania's wild population of devils. The disease has been confirmed at 61 different locations across more than 60 per cent of the Tasmanian mainland.

The Save the Tasmanian Devil program has made significant progress in determining the cause and mode of transmission of the disease. Insurance populations have been established, with 86 devils placed in breeding facilities on the Australian mainland and 69 in Tasmanian facilities. Sixty-three of the devils held in Tasmania were recently captured, and will remain in quarantine until confirmed disease free.

Disease suppression trials are under way on the Forestier Peninsula in Tasmania. Genetic

investigations, immune response and transmission trials are being conducted to find out what makes the devils susceptible to this cancer. Results of the toxicological investigations to assess the level of chemicals in the devils' tissue are being analysed. To gain a better understanding of the progress of the disease across Tasmania, mapping and monitoring of the disease within populations is under way.

The plight of the Tasmanian devil has attracted international interest resulting in both financial contributions to save the species and an investigation of opportunities to involve international zoos in education programs and managing the insurance populations.

The Australian Government has committed a further \$10 million over the next five years from the Caring for our Country Program to implement a strategic plan for recovery of the Tasmanian devil.

#### *Improving species information*

The department recognises the need for more comprehensive information on listed species and ecological communities, and has set up a new Species Information Section dedicated to improving the quality of information available. A major task in 2007–08 was the development of conservation advice for listed entities for which there was no recovery plan in existence or in preparation. Under amendments to the *Environment Protection and Biodiversity Conservation Act 1999*, this activity is required to be completed by December 2008. In 2007–08 the department drafted 306 conservation advices for scientific review. The department has set a target of having conservation advices for all remaining listed species delivered to the minister by 31 December 2008.

The Species Profile and Threats database brings together available information about species and ecological communities listed

under the Act. Data added or reviewed this year included:

- 136 species profiles updated (8 per cent of total 1,700)
- 17 new species profiles added
- 59 species profiles publicly released (3.5 per cent of total 1,700)
- 22 species maps updated
- 17 new species maps added
- 7 new species nominations mapped (to draft only)
- 7 species maps under review.

In 2007–08 the department added to the species information products available by releasing six new guidelines and policy statements and holding four species information workshops.

The Australian Government has contracts in place with the governments of South Australia, Western Australia, Northern Territory, Tasmania and Victoria, to prepare data sheets for threatened species listed under relevant state and territory legislation. The purpose of these Species Information Partnerships is to achieve consistency between the lists held by the Australian Government and those held by the states and territories, and to increase the exchange of information in the listing and recovery of threatened species. The Partnerships allow for targeted expenditure of limited conservation resources and facilitate the best possible conservation outcomes for threatened species.

The Threatened Species Scientific Committee is using the data sheets as the basis for its assessment of species for listing under the *Environment Protection and Biodiversity Conservation Act 1999*.

In 2007–08, information provided by the states and territories under the agreements supported listing decisions under the Act for one Western Australian species and four Tasmanian species.

### *Review of the 1998 National Koala Conservation Strategy*

In 1998 state and federal natural resource management ministers approved the National Koala Conservation Strategy, which aimed to provide a national framework for koala conservation in all states and territories where they occur naturally. It was agreed at the time that the strategy would be reviewed regularly. The koala is subject to a variety of pressures, including clearance of habitat for urban development in some states. In other parts of Australia koalas are over-abundant, and in some cases are the cause of pressures on vegetation.

In 2006 the koala was assessed for listing as a threatened species under the *Environment Protection and Biodiversity Conservation Act 1999* but, despite the koala being under pressure in some areas, it did not meet the criteria for listing across its national range. Natural resource management ministers subsequently agreed to review the strategy, to determine its effectiveness as a national framework and determine whether the objectives are still appropriate. The review includes an evaluation of current state and territory approaches to koala conservation and management. The review will inform any future assessment of the koala's conservation status under the *Environment Protection and Biodiversity Conservation Act 1999*.

At the request of the Natural Resource Management Ministerial Council, during 2007–08 the department set up and chaired a steering committee of range states (Queensland, New South Wales, Victoria and South Australia) and the Australian Koala Foundation, to establish the terms of reference and to oversee the review. As a first step the department arranged for an independent consultant to report on progress and make recommendations for modifications to the strategy. The consultant was engaged in June 2008 and the consultancy report should be ready for consideration by the steering committee by September 2008.

### Wildlife industry and trade

The department protects animal and plant species and ecosystems by regulating the import of live specimens and the import and export of certain wildlife and wildlife products under Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999*. The export of Australian native species is regulated to protect them from overexploitation. Protection of Australia's native ecosystems from the threat of alien invasive species is achieved, in part, by regulating imports of live specimens.

All species permitted for import into Australia are included on the list of specimens suitable for live import (the live import list). Species not identified on this list cannot be legally imported into Australia. Anyone, whether a member of the public, a public institution or a commercial enterprise, can apply to the Minister for the Environment, Heritage and the Arts to amend the live import list to include a new species. In 2007–08 the department received seven applications to amend the live import list. The minister decided to make 19 amendments to the live imports list and refused to make a further six.

To help reduce the potential for illegal trade in live exotic animals, the department works with the exotic bird-keeping sector and the ornamental fish industry. In 2007 the department completed extensive consultation with the exotic bird-keeping sector, which, in 2006 had begun to address concerns about the adequacy of documentation held by bird keepers to verify that specimens were lawfully held. The department implemented the exotic bird record-keeping scheme on 7 December 2007. The scheme encourages exotic bird keepers to keep standard records of the exotic birds they hold. The scheme is being evaluated over 12 months to assess its effectiveness in minimising illegal trade and reducing risks of exotic pests and diseases affecting the Australian environment.

The department uses its regulatory powers to encourage management practices that are humane and not detrimental to the survival of species in the wild. In supporting responsible wildlife-based industries, the department approved five new wildlife trade management plans, three wildlife trade operations, thirteen artificial propagation programs, and five captive breeding programs in 2007–08. The department also issued 2,383 permits to export or import, including 440 multiple consignment permits.

Wildlife trade management plans were approved for the commercial harvest of kangaroos in Queensland, South Australia and Western Australia. The decision to approve the New South Wales kangaroo management plan was appealed to the Administrative Appeals Tribunal. The hearing took place 31 March–4 April 2008 and as at 30 June 2008 a decision was pending.

The department is represented on the Natural Resource Management Ministerial Council working group that is reviewing the Code of Practice for the Humane Shooting of Kangaroos. The working group has developed a revised draft code. Once finalised the draft code will be submitted to the Natural Resource Management Ministerial Council for endorsement.

The department is in the process of developing a national strategy for the commercial harvest of kangaroos. As a first step the department liaised with the relevant state agencies about a consultancy to look at the future direction of kangaroo harvesting. It is proposed that the consultancy will be undertaken in 2008–09.

A total 7,016 seizures of wildlife and wildlife products were made under Part 13A of the *Environment Protection and Biodiversity Conservation Act 1999* and 13 successful prosecutions were undertaken.

In combating illegal trade, the department works closely with partner agencies, sharing

intelligence and resources. The department works with state and territory wildlife authorities, the Australian Customs Service, the Australian Federal Police, overseas Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) management authorities, Interpol, and some non-government organisations such as TRAFFIC—the joint wildlife trade monitoring program of the World Wide Fund for Nature and the International Union for Conservation of Nature (formerly known as the World Conservation Union).

The department has enhanced its compliance capability in international wildlife trade by implementing a permit verification program. Selected permits are reviewed to ensure that permit conditions have been met. Conditions attached to permits authorising international wildlife trade aim to ensure that the trade is conducted at a level that is not detrimental to the survival of species in the wild. Benefits from the permit review program are expected to flow to:

- wildlife business operators, through improved education and awareness of the regulatory process
- the department, through feedback received from international wildlife industry participants on areas where it may improve the level of service provided to permit holders, or more effectively regulate their industry
- the environment, through more effective regulation of international wildlife trade.

Australia has identified species for which there are significant levels of illegal trade, such as *Hoodia* spp. (used in weight loss products), Ramin timber (*Gonystylus* spp.), and traditional medicines. It has developed compliance plans to focus enforcement activities.

The department continued to work closely with the Australasian Regional Association of Zoological Parks and Aquaria to finalise new assessment arrangements for

cooperative conservation programs. Also for zoos, conditions for the overseas transfer of wombats and Tasmanian devils were finalised.

For more details see the annual report on the operation of the *Environment Protection and Biodiversity Conservation Act 1999* in the second volume of this set of annual reports.

#### *CITES activities*

The department represents the Oceania region on the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Standing Committee. Parties to CITES protect endangered species from overexploitation that may result from international trade by regulating imports and exports through a permit system.

Activities this year have included follow-up work from the most recent CITES Conference of the Parties held in June 2007 and preparation for the Fifty-seventh Standing Committee meeting in July 2008.

The Fourteenth CITES Conference of the Parties (The Hague, June 2007) agreed on several amendments to Appendices I and II, which list species that are either endangered, or may become endangered through international trade. These amendments came into effect in September 2007, and include:

- the listing of all species of sawfish (family: Pristidae) in Appendix I, with the exception of *Pristis microdon*. The latter species was included in Appendix II for the exclusive purpose of allowing international trade in live animals to appropriate and acceptable aquaria for primarily conservation purposes
- amendment of the annotation for the Appendix II listing of the African elephant to allow a one-off sale of government owned ivory stocks to countries deemed to have sufficient trade controls
- the removal of three genera of cactus from Appendix II; and the inclusion of two species of gazelle in Appendix I.

As part of its regional representative and advocacy role, Australia led a number of CITES initiatives. These included:

- establishment of a Timber Officer position in the CITES secretariat, with initial funding of \$350,000 provided by Australia. The officer's role is to help increase international capacity to effectively address deforestation, illegal logging and unsustainable trade in timber species
- ongoing support for an Australian Youth Ambassador for Development, to assist the CITES management authority of Vanuatu to implement its obligations under CITES. This project is at the invitation of Vanuatu
- wildlife trade enforcement training provided to Customs officers and executives from the Asia-Pacific region. This is part of the Customs International Executive Management Program and the Pacific Customs Management Forum
- CITES species identification and training resources distributed to regional parties at their request
- hosting an officer from the CITES management authority of Papua New Guinea in the department for training and information sharing. This project is at the request of Papua New Guinea
- funding attendance of the regional representative at CITES Plants Committee meetings.

These cooperative efforts to improve environmental governance have strengthened bilateral relationships and will contribute to biodiversity conservation in the Oceania region.

#### *Coalition Against Wildlife Trafficking*

Australia is a member of the Coalition Against Wildlife Trafficking. Coalition partners have agreed to jointly, and separately, reduce consumer demand for illegally traded wildlife; improve wildlife law enforcement; and catalyse high level political will to fight wildlife trafficking.

As a coalition partner Australia provided sponsorship (chief supporter category) of *The Thin Green Line*, a documentary launched on 31 July 2007. It raises awareness about the work of park rangers around the world in protecting many of the species threatened by illegal international wildlife trade.

Other coalition related activities include the Australian Acupuncture and Chinese Medicine Association Certification Scheme launched in May 2008 and other education and awareness raising activities (see case study).

## Water efficiency

The Water Efficiency Labelling and Standards (WELS) Scheme is a national regulatory system administered by the Australian Government on behalf of all Australian governments. The WELS Scheme provides for national, mandatory labelling of products to indicate their water efficiency. Current WELS products are clothes-washing machines, dishwashers, toilets, urinals, taps and showers. Labelling of flow controllers is optional. There is currently a minimum water efficiency standard for toilets, but not for other WELS-regulated products.

The star rating label and a searchable database of registered products, at [www.waterrating.gov.au](http://www.waterrating.gov.au) provide consumers with information on the water consumption of the product, allowing them to take this into account in their purchasing decisions. As these products appear in many different types of buildings, the consumers targeted include households, facility managers, building owners, building designers, developers, specifiers and plumbers. Over 10,000 product models are currently registered, and a program of work is underway to examine the possible introduction of minimum water efficiency standards for WELS products, and expansion of the Scheme to include additional products.

## Key results achieved by the (WELS) scheme in 2007–08.

Theme	Key results
Registration, Legal and Standards	<p>2,336 product models registered in 2007–08</p> <p>New registration database under development and to be trialed in August 2008</p> <p>WELS legislation reviewed</p> <p>Improvements made to the AS/NZS 6400 standard and expanded involvement with related Standards Committees</p>
Compliance	Appointment of WELS inspectors and schedule of inspection visits to retail outlets implemented
Possible Expansion	<p>Cost-Benefit Analysis and Regulation Impact Statements are underway to investigate possible expansion of the scheme to include new products and minimum water efficiency standards</p> <p>A range of technical background research projects and major Toilet Opportunities study completed</p>
Communication and uptake	<p>Mailouts to industry regarding whitegoods transition period ending 31 December 2007</p> <p>Boxing Day and end of financial year sales advertising of WELS to consumers</p> <p>National market research on consumer awareness and use of the WELS label conducted</p> <p>Industry Forum held with 100 stakeholders in March 2007</p>

In 2007–08, the Scheme developed and implemented a range of strategies:

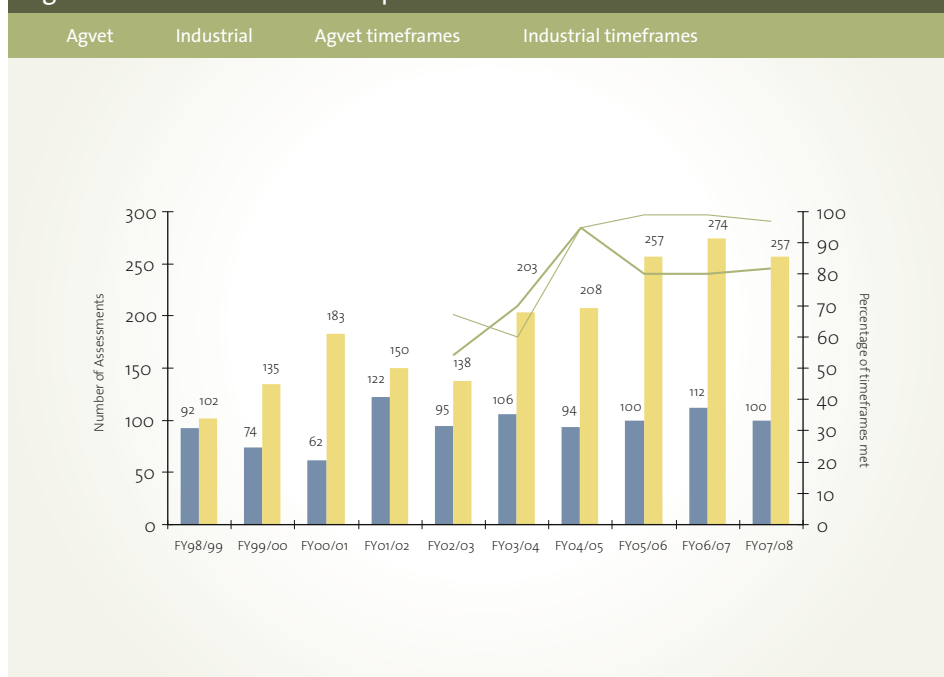
- A ten-year strategy for the WELS Scheme, including Key Performance Indicators, is under development in collaboration with state and territory governments.
- A consumer communications strategy was developed, covering key messages and channels for reaching household and non-household consumers of WELS products.
- A compliance strategy was developed and endorsed by states and territories.
- An analysis of data gaps and development of a strategy for data acquisition was undertaken. The acquisition of key data sets on WELS products commenced.
- Cost recovery has been reviewed and a new strategy developed.

## Evaluations

### *Ozone protection*

The department achieved its objectives for protection of the ozone layer and Australia has exceeded its international obligations to phase-out the use of ozone-depleting substances. All statutory requirements of the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* were met, including completion of licensing for the new two-year licence period, which commenced on 1 January 2008. Detailed performance results on the operation of the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* are in the second volume of this set of annual reports.

Figure 1 Assessment timeframe performances.



Source: IPA Project Management Data Base

### Hazardous Waste

The department achieved its objectives of protecting the environment and human health from hazardous substances. In 2007–08, 33 permit applications were processed (23 export, 10 import). Of these, four permits were granted, six applications were refused, one was withdrawn and 22 applications were still to be resolved as at 30 June 2008. The department carried out assessments of all export and import applications in accordance with statutory requirements. It responded to, and resolved, all alleged breaches of the *Hazardous Waste (Regulation of Exports and Imports) Act 1989*.

Throughout the year, the department continued to work closely with the Secretariat of the Pacific Regional Environment Program and the Secretariat of the Basel Convention, to promote the environmentally sound management of

hazardous wastes in the Pacific Region and to enhance capacity building in the region.

The department continued to participate, and contribute to, meetings under the Stockholm and Rotterdam Conventions, the Strategic Approach to International Chemicals Management and meetings on possible international responses to mercury issues.

The department also achieved its objective of protecting the environment and human health from hazardous chemicals. This was achieved by meeting agreed quality and performance measures, as required under service level agreements in the provision of advice on environmental risks provided to the national chemicals regulators for industrial chemicals and agricultural and veterinary chemicals. Performance against timeframes is included in figure 1.

The department's effectiveness in helping to contribute to the better management of chemicals within Australia was substantially strengthened through close consultation with state and territory environment agencies through the National Framework for Chemicals Environment Management.

To ensure that any possible environmental impacts of proposals to introduce genetically modified organisms to Australia were properly assessed and managed, the department provided briefing to the minister to assist him with his advice to the Gene Technology Regulator. Advice was provided for all applications referred by the Gene Technology Regulator and all advice met the statutory timeframes.

#### *Supervision of Uranium mining*

The Supervising Scientist Division continued to conduct research, monitoring, supervision and audit activities during 2007–08. During the year the division carried out a second year of trials of continuous monitoring of water quality in Magela Creek, adjacent to the Ranger mine, including second stage testing of an on-site biological monitoring methodology during the 2007–08 wet season. This proved to be successful, and provides further support for replacing the current resource-intensive creekside monitoring program with this streamlined procedure.

Work to date indicates that the environment of the Alligator Rivers Region remains protected from the effects of uranium mining. Detailed performance results are provided in the Supervising Scientist's annual report on the operation of the *Environment Protection (Alligator Rivers Region) Act 1978* at [www.environment.gov.au/about/publications/annual-report/](http://www.environment.gov.au/about/publications/annual-report/).

#### *Wildlife Protection*

In 2006 the Australian National Audit Office undertook an audit<sup>2</sup> to assess and report on the department's administration of the

*Environment Protection and Biodiversity Conservation Act 1999* and whether the department is protecting and conserving threatened species and threatened ecological communities in Australia.

The audit recommended improvements to the listing cycle for terrestrial and marine species, improved timeliness, prioritisation and reporting on recovery plans; with sufficient resources allocated to ensure that future reviews are completed within their statutory timeframes. Establishing an audit program was also recommended, to audit compliance with conditions applied to approvals under the Act.

In response to the audit's recommendations:

- An annual assessment cycle for species listing nominations has been established. Four marine fish species were included in the Finalised Priority Assessment List.
- A new Species Information Section was created to improve the quality of information available on threatened species. An audit of state and territory ecological community lists was commenced.
- The department established timetables for completing and reviewing recovery plans and created a new Compliance and Enforcement Branch to promote awareness of, and compliance with, the *Environment Protection and Biodiversity Conservation Act 1999*.
- Resources applied to strategic approvals to improve the quality of information available to proponents and local governments on the significance of developments in growth areas. This work is based on partnerships with state/territory and local governments.
- An audit program was established to audit compliance with conditions applied to approvals under the Act, with the results distributed to relevant staff to improve decision-making.

Evaluation of the preliminary results from implementing audit recommendations has commenced. A comprehensive assessment will be conducted over the next year as additional outputs accrue from changes in prioritisation and the effect of increased resourcing.

<sup>2</sup> *Audit Report No. 31, 2006–07, Performance Audit of the Conservation and Protection of National Threatened Species and Ecological Communities*

#### Water Efficiency Labelling Scheme (WELS)

In support of WELS Scheme objectives, significant evaluation studies have been conducted in 2007–08. These include:

- Comparative cost effectiveness of WELS.** This study compared the cost effectiveness of WELS (\$/litre of water saved) with other urban water management options, such as desalination or rainwater tanks. The study found that WELS was the second most cost-effective urban water management option, with only outdoor water use restrictions being more cost-effective.
- Cost recovery review.** Conducted by KPMG, this study evaluated the performance of the Scheme against the original cost recovery projections. It made recommendations for alternate cost recovery arrangements that will be taken to public consultation through a Cost Recovery Impact Statement later in 2008.
- Review of registration processes.** Conducted by Acumen Alliance/Oakton, this review focussed on the possibility of online data entry of laboratory test reports, but also included a wider evaluation of the efficiency of registration systems and processes. The review recommended a mix of short- and longer-term performance improvement, many of which are to be implemented in 2008–09.

- Cost-benefit analysis and regulation impact statement for whitegoods.** As part of this study, the transformation of the water efficiency of the stock of clothes washers and dishwashers in Australia was determined (using sales data and registration data). Figure 2 below demonstrates the significant transformation that has occurred in the sales-weighted average of litres of water per kilogram of clothes washed by Australian washing machines.

**YOU CAN SAVE WATER ALL OVER THE HOUSE!**

Make sure you choose water efficient products  
More stars = water and money saved

The stars show water efficiency

The number shows the:  
- average water consumption per use (dishwashers, washing machines, toilets, urinals);  
or  
- average water flow per minute (taps, showers, flow controllers)

[www.waterrating.gov.au](http://www.waterrating.gov.au)

Australian Government  
Department of the Environment, Water, Heritage and the Arts

Figure 2 Sales-weighted average litres per kilogram of clothes washed 1993–2006



## Case studies

### Case Study 1 - Communication on Strategy for the Water Efficiency Labelling and Standards Scheme

The Water Efficiency Labelling and Standards Scheme is currently expanding and strengthening the existing communications strategy. As part of this strategy, Quantum Market Research is undertaking a project to assess consumer awareness of the Water Efficiency Labelling and Standards star rating label. The project examines understanding of the label, its use in decision making, the preferred communication channels, and key messages for consumers about water efficiency.

To raise awareness of the Scheme during key retail events, Water Efficiency Labelling and Standards Scheme advertisements were strategically placed within Boxing Day and end of financial year sales advertisements in newspapers.

The Water Services Association of Australia held a communication manager's forum in Canberra, which was attended by two Water Efficiency Labelling and Standards Scheme representatives. The forum established a stronger link between the Scheme and key water utilities and an agreement was made to distribute Scheme flyers or include key information in water bills in different states and territories. Through the Water Efficiency Labelling and Standards Scheme Advisory Committee, an agreement was reached between the Scheme and Queensland Water Commission, to distribute Scheme postcards during billing periods.

Finally, to improve transparency and establish better relationships with key stakeholders, a stakeholder forum was held in early 2008. It provided stakeholders with a greater understanding of all aspects of the Scheme, its progress, future developments, and opportunities for engagement. Further forums will be scheduled as appropriate.

## Quantum Market Research Results

The May 2008 Quantum survey found that 59 percent of survey respondents were already aware of Water Efficiency Rating Labels on appliances.

When asked how influential are these Water Rating Labels when you are choosing products, 39 percent of survey respondents said they were 'very influential', while 54 percent said they were 'quite useful'.

When survey respondents were asked to what extent Water Rating Labels helped in their purchase decisions, 57 percent chose 'to a great extent', while, 35 percent chose to a 'moderate extent'.

### Case Study 2 - Chinese medicine certification scheme

Australia is a party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), ratified in 1975. The aim of the Convention is to ensure that international trade in specimens of wild animals and plants does not threaten their survival. CITES works by listing more than 30,000 species of animals and plants in three appendices which imply varying levels of regulation. The framework of CITES is implemented in Australia through the *Environment Protection and Biodiversity Conservation Act 1999*, using a permit system.

Trade in traditional medicines (also known as alternative or complementary medicines) containing ingredients derived from endangered species such as bears and tigers continues to stimulate international demand. While products are still commercially available in some countries, practitioners and traders of traditional medicines in Australia are keen to demonstrate that their products are free of such ingredients. The department, in cooperation with the Australian Acupuncture and Chinese Medicine Association (AACMA), has introduced a certification scheme that allows professionals in the industry to do just that.

The Endangered Species Certification Scheme (ESCS) was launched by the minister in May 2008 at the AACMA annual conference. A senior departmental official presented the first 13 certificates under the scheme. Delegates and visitors were directed to the department's information booth for information on endangered species conservation and CITES.

The ESCS enables traditional medicine professionals to obtain official acknowledgement that the products they use or sell do not contain ingredients from threatened species. Traditional medicine practitioners and suppliers will be able to use an accreditation logo on their shop front, in any printed material or on websites, to communicate publicly that they only use wildlife products that are legally acquired.

This scheme and ongoing education and awareness initiatives will encourage consumers to make informed choices when buying products. Lower market demand in Australia for complementary medicines containing threatened species will help reduce illegal international trade. It is a good example of government working with the community and industry to meet international conservation objectives and to ensure trading occurs in line with the law.

### Case Study 3 – Blue Whales

At up to 180 tonnes, blue whales are the largest animals to have lived on earth. Australia has two of the three subspecies of blue whales in its waters: the Southern Hemisphere 'true' Antarctic blue whale and the pygmy blue whale. In summer, blue whales are known to feed in the waters off Victoria, South Australia and in the Perth Canyon off Western Australia.

In the twentieth century blue whales were hunted almost to extinction. When whaling stopped, roughly 1 per cent of the whales remained. There are no reliable estimates for the current global population, however we know that this species has been slow to recover, and Antarctic blue whales are internationally listed as endangered. Recent research suggests that Antarctic blue whales may be increasing at an annual rate of around 7 per cent, from an estimated population of 1700 in 1996. We don't know the size of other populations, but higher recent sightings suggest they are less depleted than Antarctic blue whales. Blue whales reproduce at a low rate. Gestation lasts around 11 months and is thought to result in a calf every two or three years. Calves gain weight at about 90 kilograms a day and only stay with their mothers for six to eight months.

Pollution, shipping, climate change and fisheries could all threaten the recovery of whale populations. As blue whales tend to reside further offshore they are less vulnerable to the effect of pollution from coastal developments and fisheries than other baleen whales. The effect of climate change on sea ice and marine food webs may also threaten blue whales, as they feed almost exclusively on krill. Collision with shipping is another concern, as indicated by the death of a pygmy blue whale near Fremantle, Western Australia following a ship strike in December 2006. In 2007 departmental officers worked with the

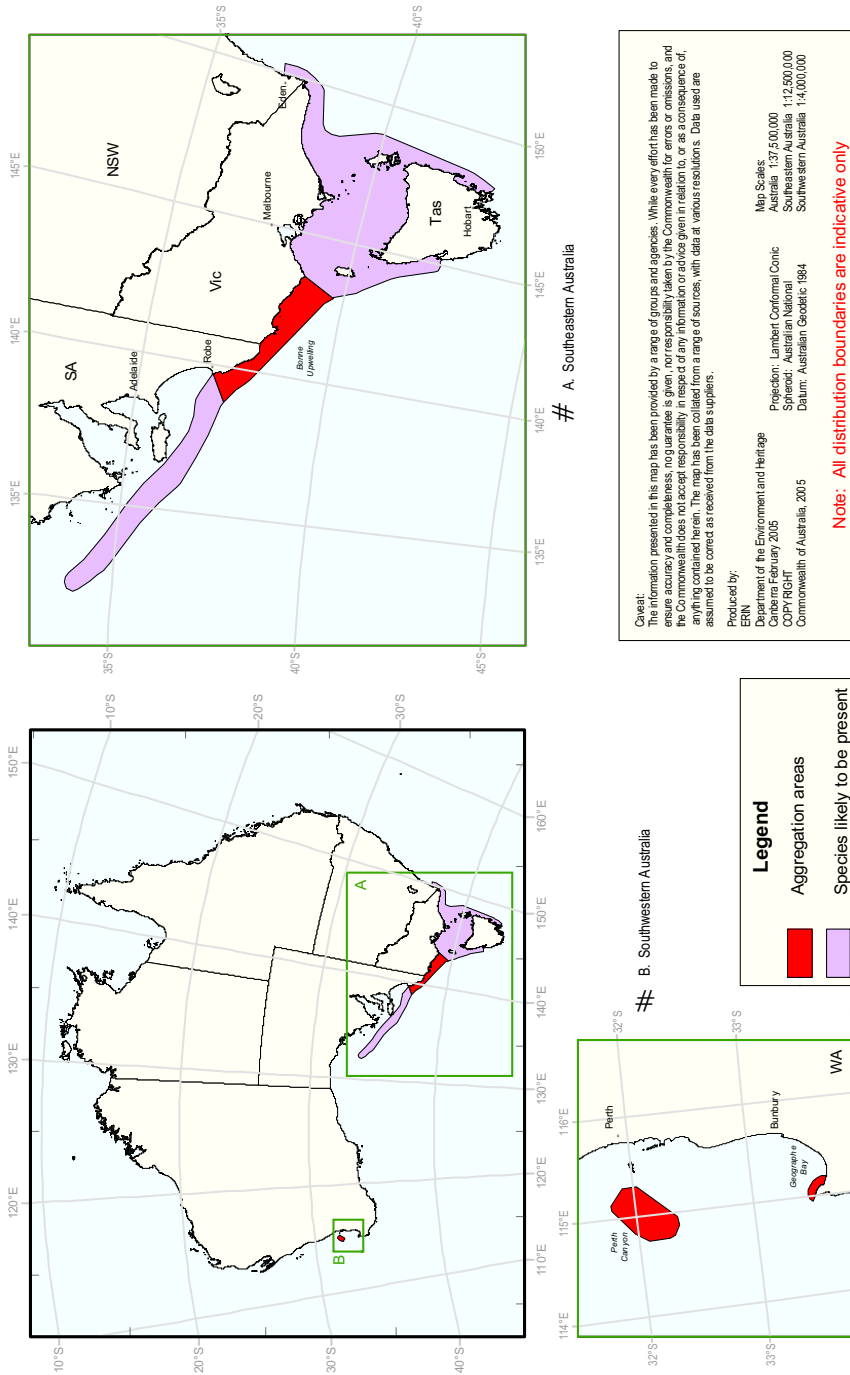
management of Fremantle Ports to initiate an education campaign for port users to raise awareness of increased numbers of blue whales in the vicinity.

Blue whales are listed as endangered under the *Environment Protection and Biodiversity Conservation Act 1999* and the department has a recovery plan in place to ensure their protection. The Act established the Australian Whale Sanctuary, and gives a high level of protection to blue whales in Commonwealth waters by requiring a permit for any activity that may interfere with, or impact on, cetaceans. The Australian Government has issued a policy under the Act to regulate interactions between offshore seismic operations and whales. These were revised in 2007 in consultation with whale scientists, environmental non government organisations (NGOs) and representatives from the oil and gas industry, and include world's best-practice management measures to minimise the risk of impacts on whales. Seismic surveys should avoid areas at times when whales are likely to be feeding, breeding, calving or resting. Proposed actions in these areas are subject to a high level of scrutiny and may require further assessment under the Act.

In 2005, the department, in conjunction with state and territory governments, developed national guidelines for whale and dolphin watching. These guidelines set standards for minimising the impacts on individual animals and populations by ensuring people know how to act appropriately when whale watching.

The department also engages with interested NGOs through the Cetaceans Roundtable consultative forum. The Roundtable meets at least three times a year to discuss current and emerging conservation issues, often with a focus on Australian objectives at International Whaling Commission meetings.

**Figure 1: Recognised aggregation areas of the blue whale**



Recognised aggregation areas of the blue whale

#### Case Study 4 - Singleton Grey-headed Flying-foxes

In December 2007 the Singleton Council in New South Wales applied for approval to shoot an unspecified number of grey-headed flying-foxes (*Pteropus poliocephalus*) roosting in the town's Burdekin Park, to persuade the colony to stop using the park as a permanent camp.

In January 2008 the delegate for the minister decided the proposed action would have unacceptable effects on a matter protected under the *Environment Protection and Biodiversity Act 1999*, namely flying-foxes listed as a threatened species. The rejection of this application illustrates how the Act provides for the protection of a vulnerable species where they coexist with humans.

In 2001 the grey-headed flying-fox was listed under New South Wales and Australian Government legislation as a vulnerable species. Vulnerable means facing a high risk of extinction in the wild in the near future, unless the factors threatening its survival cease to operate. The grey-headed flying-fox is under pressure largely due to loss of habitat and past illegal culling. As recently as the 1930s, millions were counted in Australia, but this number has fallen to an estimated 450,000 in 2000.

Social by nature, flying foxes like to gather and breed in 'roosts' or 'camps' atop stands

of undisturbed large trees, and have been known to utilise the same site for 100 years. Burdekin Park is a known maternal camp supporting between 1,800 and 22,000 flying foxes, the majority of which are grey-headed flying-foxes. The camp contains pregnant females and females with dependant young during the breeding season.

With some residents unhappy about flying-fox urine and faeces in the park, the Singleton Council received approval to disturb the flying-foxes with noise. Initial attempts were unsuccessful and ceased due to costs. After ruling out other methods, such as bright lights, as too costly, Singleton Council then applied to remove the flying foxes from the park by intermittent shooting. In refusing the proposal to cull unspecified numbers, the minister was aware of the disturbance they can cause and the ongoing community support for their protection. The proposed action was inconsistent with recovery plans for the grey-headed flying-fox.



Singleton Grey-headed Flying-foxes Photo: David Jackson

## Results for performance indicators

Focus of work	Performance indicator
<b>Environmental Assessments</b>	
Number of actions affecting matters protected by Part 3 of the EPBC Act whose adverse environmental effects have been addressed	435 matters protected under Part 3 of the Act were protected through the referral, assessment and approval process. This is an increase of 159 matters from 2006–07.
<b>Wildlife protection</b>	
Number of recovery plans (i) being prepared and (ii) in operation.	(i) 275 recovery plans in preparation (ii) 324 plans in operation.
Percentage of listed threatened species and ecological communities with recovery plans in operation.	26% of listed threatened terrestrial species and ecological communities have a recovery plan in operation. This increases to 51% when including plans in preparation.
<b>Air Pollution</b>	
Trends in the concentrations of key air pollutants in ambient air in major urban areas	Overall, air quality in Australia's urban centres compares well against major overseas centres. Particle and ozone levels, however, continue to exceed national standards in some major cities.
National Environment Protection Measures for air quality are implemented and reviewed to provide worlds best practice in the protection of community health	Monitoring has continued under the National Environment Protection Measures (NEPM) for both Ambient Air and Air Toxics. The Ambient Air NEPM is currently being reviewed, with the review scheduled to finish in 2008. Following on from its own review, the Diesel NEPM is currently undergoing minor variation.
Australian Fuel Quality Standards are implemented, and further harmonised with international standards	No new standards came into force.
<b>Packaging waste</b>	
Australian Government National Packaging Covenant action plan developed and implemented by 2007	The Australian Government Action Plan covering the period July 2006 to June 2008, was finalised in April 2007. The implementation process commenced in 2006 prior to finalisation of the Plan. As at May 2008 the Australian Government had implemented all activities outlined in the action plan and made payment of all funding grants.
By the end of 2007, ensure the Environment Protection and Heritage Council is provided with accurate and comprehensive advice on available policy options to manage the environmental impacts of plastic bags	The Environment Protection and Heritage Council was provided with a comprehensive analysis of options for managing the environmental effects of plastic bags.  At this meeting, Council agreed to establish a government/industry working group to identify measures to reduce plastic bag use, to promote the use of long-life bags and to undertake further work to investigate biodegradable alternatives. Results from the Victorian pilot programs will further inform Council on options for nationally consistent action on plastic bags.

<b>Waste oil</b>	
Number of waste oil collection facilities under the Product Stewardship for Oil Program	950
Area serviced by collection facilities	National Coverage
<b>Ozone-depleting substances</b>	
Mass of imports compared to Montreal Protocol limits	Imports of 156.35 ozone-depleting potential (ODP) tonnes, compared with Montreal Protocol limits of 404 ozone depleting tonnes
<b>Hazardous substances and new organisms</b>	
Number of environmental risk assessments of (i) industrial chemicals and (ii) agricultural pesticides and veterinary medicines completed	(i) 257 industrial chemical assessments completed. (ii) 100 agricultural and veterinary environmental risk assessments completed.
Number of genetically modified organism release proposals for which environmental risk advice was prepared	4 ~\$1.7 million in fees cost-recovered.
2005–06 fuel sampling numbers increased by 100% in 2006–07 and maintained until 2009–10	Fuel samples more than doubled from 1,069 in 2005–06 to 2,321 in 2006–07. Samples increased again to 4,214 in 2007–08. Samples covered petrol, diesel, biodiesel and autogas from approximately 1,300 sites around Australia, and 230 compliance incident reports were received.
Health Study completed by early 2008	In 2007 the department commissioned a \$3.9 million study by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and Orbital Australia to determine the health impacts of the use of up to ten per cent ethanol blended with petrol. The final report was released on 15 August 2008.
<b>Uranium mining</b>	
The (i) median and (ii) maximum concentration of uranium measured in surface water downstream of Ranger mine	(i) 0.042 micrograms per litre (ii) 0.185 micrograms per litre
The number of times the uranium concentration limit of six micrograms per litre was exceeded	0
<b>Water Efficiency Labelling</b>	
Number of product registrations under <i>The Water Efficiency Labelling and Standards Act</i>	Over 10,000 product models registered since scheme inception
<b>Commonwealth contribution to the National Environment Protection Council Service Corporation</b>	
Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%)	100%
<i>Price</i>	See Resources table

Ozone Protection and Synthetic Greenhouse Gas Account	
The Australian Government's obligations under the <i>Ozone Protection and Synthetic Greenhouse Gas Management Act 1989</i> (the Act) are met, including effective administration of the Act, management of the Halon Bank and programs to phase-out ozone-depleting substances and minimise emissions of ozone-depleting substances and synthetic greenhouse gases	All statutory obligations met. Import licence applications for 2008–2009 period completed. Halon safely managed and made available to exemption holders. Phase out and emission minimisation programs continue.
Licence and enforcement actions are undertaken within statutory timeframes	100%
Supplies of essential use halon are provided within the requested timeframe	100%
Percentage of facility inspections meets local ordinance requirements	100%
Percentage of payments that are consistent with the terms and conditions of funding	100%
Number of licence applications	683
Number of alleged breaches	5,539
Number of requests for halon supply	2
Number of facility inspections	4
Number of projects funded	6
	\$1.2 million for the 6 programs
<i>Price</i>	See Resources table
Launceston's air quality	
Reduction in particle emissions from industry facilities funded under the Launceston Clean Air Industry Program	New emission controls have been installed in two of the four facilities targeted by the program. These controls are anticipated to improve environmental performance to beyond statutory requirements.
<i>Price</i>	See Resources table
Output 1.5 Human settlements	
Policy Adviser Role: 95% of briefs and correspondence meet department quality control standards	–
Regulator Role: Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%)	100%
Percentage of statutory timeframes triggered that are met (Target: >90%)	Reports on the compliance with statutory timeframes triggered under relevant Acts are provided in the second volume of this set of annual reports
<i>Price</i>	See Resources table

Output 1.5: Human settlements		
Departmental outputs	Budget prices \$000's	Actual expenses \$000's
Sub-output: 1.5.1 Environmental assessments	35 626	41 131
Sub-output: 1.5.2 Pollution prevention strategies	39 141	38 258
Sub-output: 1.5.3 Supervision of uranium mines	9 959	10 782
Sub-output: 1.5.4 Wildlife Protection	10 168	10 829
<b>Total</b> (Output 1.5: Response to the impacts of human settlements)	<b>94 894</b>	<b>101 000</b>
Administered items		
Biofuels Task Force	1 851	1 850
Launceston Air Quality	203	203
NEPC Service Corporation	429	429
Commonwealth Environment Research Facilities	22 959	22 959
Ozone Protection & Synthetic Greenhouse Gas Account	2 100	1 473
<b>Total (Administered)</b>	<b>27 542</b>	<b>26 914</b>
Other (Administered)		
Scout Hall Water Saving Infrastructure Program	5884	-
Historic Hotels	-	8
A Sustainable Future for Tasmania – Private Land Program	746	728
<b>Other (Administered)</b>	<b>6 630</b>	<b>736</b>