OUTCOME 1—ENVIRONMENT HUMAN SETTLEMENTS

Human settlements

The Department of the Environment and Heritage works with all levels of government, and with the community and industry to minimise the impact of human settlements and industrial processes on Australia's environment.

Main responsibilities for this output

• Commonwealth Environment Research Facilities • National Pollutant Inventory	Policy Coordination Division
• Environmental impact assessments and approvals • Sea dumping and sea installations regulation	Approvals and Wildlife Division
• Support for the Environment Protection and Heritage Council and the National Environment Protection Council • Air quality • Vehicle emissions and fuel quality • Ozone layer protection • Product stewardship schemes • National Packaging Covenant • Water efficiency labelling • Hazardous substances regulation • Biotechnology risk assessment • Chemical risk assessment	Environment Quality Division
• Supervision of uranium mining in the Alligator Rivers Region	Supervising Scientist Division

Objectives

Environmental research

- Improve the capacity to understand and respond to current and emerging challenges facing Australia's environmental assets

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*

Pollution prevention strategies

- Facilitate consistency in national air, water, soil and noise standards, and provide all Australians with the benefit of equal environmental protection wherever they live
- Improve urban air quality in order to protect human health and the environment by reducing emissions of pollutants to the atmosphere
- Protect the stratospheric ozone layer
- Reduce pollution from waste by increasing collection, reuse and recycling
- Improve the environmental performance of industry
- Improve public information by promoting better reporting and labelling
- Protect the environment and human health from hazardous substances and organisms

Supervision of uranium mines

- Monitor, audit and supervise uranium mining in the Alligator Rivers Region of the Northern Territory

Results 2005–06

- The Minister for the Environment and Heritage announced the first four research hubs to receive $25.3 million over four years under the $60 million national component of the $100 million Commonwealth Environment Research Facilities programme. The four research hubs are the Australian Centre for Applied Marine Mammal Science in Hobart, the Tropical Rivers and Coastal Knowledge hub covering northern Australia, the University of Tasmania's Landscape Logic—Linking Land and Water Management to Resource Condition Targets and the University of Queensland's research hub for Applied Environmental Decision Analysis.
- The minister announced over $6 million would be invested in 2006–07 in 38 research projects to explore and protect some of Australia's most applauded natural assets under the $40 million Marine and Tropical Sciences Research Facility based at James Cook University campuses in Cairns and Townsville.

- Since July 2000 more than 1 250 matters of national environmental significance have been protected through the referral, assessment and approval process, with 270 of these matters protected in 2005–06.
- The department funded 13 research projects to investigate a wide range of air quality issues under the Clean Air Research Programme. The research findings will inform standard setting and air quality management strategies.
- From 1 January 2006 the fuel quality standards for benzene levels in petrol and polycyclic aromatic hydrocarbon and sulfur levels in diesel were strengthened under the *Fuel Quality Standards Act 2000*.
- The department's fuel quality sampling capability was increased this year enabling a record number of samples to be tested for compliance with the *Fuel Quality Standards Act 2000*. For the first time samples of liquefied petroleum gas (LPG) were tested. Increased fuel sampling will lead to cleaner fuels and lower emissions of pollution.
- The network of oil recycling facilities was extended into remote pastoral and Indigenous areas in northern and central Australia. Since the implementation of the Product Stewardship for Oil Programme, used oil recycling has increased by about 40 per cent. These efforts significantly reduce the amount of oil being dumped and polluting the environment.
- National end use regulations were introduced for the refrigeration and air conditioning and the fire protection industries. The regulations set minimum skill and working standards and will directly lead to reduced emissions of ozone depleting substances and their synthetic greenhouse gas replacements.
- A recent report indicates that plastic bag consumption in Australia has fallen by 34.2 per cent or over two billion bags over the last three years. This means fewer plastic bags are entering the waste stream and polluting the environment.
- The department received 4 000 registrations under the new labelling scheme for water efficient products (Water Efficiency Labelling and Standards Scheme), and began to inform the water appliance industry of the scheme and its requirements. The scheme will enable consumers to choose the most water efficient appliances, and will encourage innovation by industry, leading to less wastage of precious water supplies.
- Research, monitoring and supervision indicate that the environment of the Alligator Rivers Region remains protected from the impacts of uranium mining.

Environmental research

Scientific research and data are essential for the development of sound environmental policy. The department aims to improve Australia's capacity to understand and respond to current and emerging priorities for the conservation and use of the nation's environmental assets by supporting research and providing information to the community.

Commonwealth environment research facilities

In September 2005 the Minister for the Environment and Heritage launched the Commonwealth Environment Research Facilities programme, a $100 million programme to address critical gaps in knowledge and understanding of the pressures facing Australia's unique environment. The programme will foster professional partnerships between researchers, end users and policy makers through funding collaborative, multi-institutional research hubs or networks.

The Australian Government is investing $60 million over four years for national environmental research. During 2005–06 the department received 149 expressions of interest for a series of competitive grants. Funding totalling $25.3 million will be provided to the following four research hubs:

Research hub for Applied Environmental Decision Analysis: The University of Queensland will receive $6.9 million to establish a research hub addressing Australia's environmental planning, decision making and policy approaches.

Research hub for Tropical Rivers and Coastal Knowledge: A group of seven researchers from research institutes in Western Australia, the Northern Territory and Queensland will receive $8 million to improve management information for northern Australia's catchments.

Research hub for Landscape Logic—Linking Land and Water Management to Resource Condition Targets: The University of Tasmania will receive $7.9 million to establish a research hub that will develop tools to improve the sustainability of natural resource management practices.

Australian Centre for Applied Marine Mammal Science: The Australian Antarctic Division will receive $2.5 million over four years to establish a research hub to address critical gaps in understanding about the conservation of Australia's 40 species of whales and dolphins, as well as dugongs and 10 species of seals.

These research hubs will make a significant contribution to addressing knowledge gaps for environmental decision-making in areas of key policy interest to the Australian Government. Additional research will be announced early in 2006–07.

Marine and Tropical Sciences Research Facility

As part of the Commonwealth Environment Research Facilities programme $40 million will be invested over five years for a Marine and Tropical Sciences Research Facility based at James Cook University campuses in Cairns and Townsville.

In 2005–06 $2.5 million was spent on a range of research projects under the Marine and Tropical Sciences Research Facility transition contracts.

In the first half of 2006, a four-year research investment strategy was developed to guide the strategic direction of the research. The strategy is accompanied by an annual research plan, detailing the research to be conducted in the first year of operation. The research plan for 2006–07 covers:

- the Great Barrier Reef, wet tropics rainforests and Torres Strait ecosystems
- conservation issues and protecting species
- evidence of climate change on the Great Barrier Reef, rainforests and catchments
- threats and impacts of invasive pests
- water quality
- sustainable use and management of marine resources of the Great Barrier Reef
- planning and management of tropical rainforest landscapes.

The minister announced that over $6 million would be invested in 2006–07 covering 38 research projects to explore and protect some of Australia's most valued natural assets. Research being conducted by the facility will focus on identifying, understanding and ameliorating a range of pressures currently facing the Great Barrier Reef, tropical rainforests including the Wet Tropics World Heritage Area, and the Torres Strait.

National Pollutant Inventory

The National Pollutant Inventory 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 National Environment Protection (National Pollutant Inventory) Measure is the statutory basis for the inventory. The measure requires industry to report on emissions if they exceed certain levels and the department to publish the results each year in the National Pollutant Inventory.

One of the aims of the National Pollutant Inventory is to encourage government, industry and the community to improve their environmental performance by reducing emissions.

The National Pollutant Inventory provides Australians with free access to information on the types and amounts of pollutants being emitted in their community. Photo: Greg Rippon

The Australian Government provided funding of $4 million over three years (2005–2008) for the National Pollutant Inventory. Funding was extended by $5.2 million in 2005 for the period 2005–2009.

The National Pollutant Inventory database is available at www.npi.gov.au.

Annual results

The 2004–05 National Pollutant Inventory results were published in January 2006. The number of facilities reporting to the inventory rose from 3 629 in 2003–04 to 3 826 in 2004–05. The number of facilities reporting each year is steadily increasing as more companies become aware of their obligations.

There are 90 chemical substances listed in the National Pollutant Inventory for which emissions must be reported. For 2004–05 just over half of these substances had decreased emissions compared to the previous year. For example, the amount of phosphorus entering the Murray–Darling Basin from sewerage and water treatment plants fell 31 per cent during 2004–05. In other cases emissions rose, for example, the amount of benzene rose 33 per cent over the previous year, reflecting an increase in manufacturing and processing activities.

It is not clear what proportion of the lower emissions is attributable to improved environmental performance from installing new equipment or changing the way facilities operate. Several industries undertook work to improve the accuracy of their data, and this may have had an impact on calculation of emissions. Some industries may also have reduced their production levels, thereby reducing emissions.

Review of the National Pollutant Inventory

The National Environment Protection Council commenced the statutory process to make a variation to the National Environment Protection (National Pollutant Inventory) Measure in July 2005. The council will consider ways to improve the inventory's effectiveness both as a source of information and as a driver of cleaner

production. A project team and a technical advisory panel were established and have provided documentation on:

- including data on the transfer of substances in waste
- adding industries such as aquaculture and crematoria
- including greenhouse gases as National Pollutant Inventory substances
- adding or removing substances from the list
- changing the reporting timeframes
- reducing the reporting threshold for some substances including mercury and particulate matter.

The council agreed in June 2006 to release the draft National Environment Protection Measure variation, impact statement and other supporting documents for public consultation. The public consultation will commence in late July 2006.

An associated project is under way to upgrade, improve and streamline the data collection, approval, analysis and public reporting processes of the National Pollutant Inventory.

Environmental assessment

The Department of the Environment and Heritage manages referral, assessment and approval processes under the *Environment Protection and Biodiversity Conservation Act 1999*.

The department also manages assessment and approval processes under other federal laws, particularly the *Environment Protection (Sea Dumping) Act 1981* and the *Sea Installations Act 1987*.

Environmental assessments and approvals

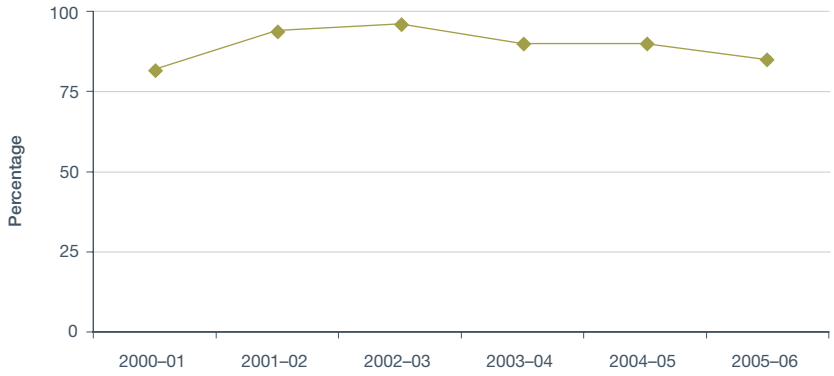
The *Environment Protection and Biodiversity Conservation Act 1999* establishes procedures for determining which actions require approval under the Act, and the related environmental assessment and approval processes. Approvals are required for actions that are likely to have a significant impact on those matters of national environmental significance protected under Part 3 of the Act. Approval is also required for actions of the Australian Government and actions involving Commonwealth land that are likely to have a significant impact on the environment.

Since the commencement of the Act in July 2000, more than 1 250 matters of national environmental significance (including aspects of the environment for actions of the Australian Government or actions involving Commonwealth land) have been protected through the referral, assessment and approval process, with 270 of these matters being protected in 2005–06. The matters of national environmental significance protected include world heritage properties, Ramsar wetlands of international importance, threatened species and ecological communities, migratory species, and the Commonwealth marine environment.

Timeframes for all decision-making in the referral, assessment and approval process are fully specified in the Act. The chart (below) shows the percentage of such decisions that have been made within statutory timeframes since the commencement of the Act. In 2005–06, 85 per cent of decisions were made within statutory timeframes.

Timeliness of decision-making in the referral, assessment and approval process is an ongoing challenge for the department.

Percentage of statutory timeframes met, 2000 to present



A full report on the department's environmental assessment and approval activities can be found in the detailed report on the operation of the *Environment Protection and Biodiversity Conservation Act 1999* included in the second volume of this set of annual reports. The detailed report also includes information on:

- compliance activities being undertaken by the department, including the operation of the department's Environment Investigations Unit
- new guidelines to help the public understand what impacts could be classed as significant and hence require detailed assessment and approval under the Act
- stakeholder and public awareness activities undertaken by the department, including successful training and information sessions on the Act held for local and regional bodies across Australia and strategic regional planning projects in two high growth regions in Western Australia and Queensland.

Project work is partly funded through the national component of the Natural Heritage Trust. During 2005–06, $2 million was invested from the Natural Heritage Trust in environmental assessment and approval related projects—this figure includes funding for projects related to assessments under the *Environment Protection (Sea Dumping) Act 198*1, discussed on next page.

Sea dumping and sea installations regulation

The *Environment Protection (Sea Dumping) Act 1981* was enacted to fulfil Australia's international responsibilities under the London Convention of 1972 and has been amended to implement the 1996 Protocol to the London Convention, which Australia ratified in 2001. The Act regulates the deliberate loading and dumping of wastes and other matter at sea.

In 2005–06, 21 sea dumping permits were issued. This reflected the continual need to dispose of dredged material at sea due to expansion of ports across Australia particularly as a result of the increase in the resources export market. Reviews of applications for offshore disposal of dredged material involve detailed environmental impact assessments in accordance with the National Ocean Disposal Guidelines for Dredged Material.

This year the department investigated a breach of the *Environment Protection (Sea Dumping) Act 1981* by Robe River Mining Co Pty Ltd, a member of the Rio Tinto Group, in relation to an extension of the Cape Lambert Tug Pen basin. The company received an official warning after it agreed to make substantial improvements in environmental management, including improved auditing and reconciliation of projects against environmental mitigation conditions and the creation of an environmental manager position within its business unit. The department accepted that the breach primarily occurred as a consequence of project modifications and inadequate monitoring, rather than a deliberate decision to contravene the Act.

There was a continual request for 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 the 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. In 2005–06 the department issued six permits/exemptions for sea installations under the Act.

Pollution prevention strategies

Developing and implementing strategies to prevent pollution are important parts of the department's activities. The department's pollution prevention strategies focus on reducing pollution at the source, and promoting the collection, reuse and recycling of waste materials. The successful delivery of these strategies relies on cooperation with the state and territory governments and with industry. Ministerial councils are the key forum for making decisions on priorities and agreed management actions.

Environment Protection and Heritage Council

The Environment Protection and Heritage Council comprises environment and planning ministers from Australia's federal, state and territory governments. The scope of the council includes environment protection and heritage responsibilities and it is the key forum in which the department pursues activities for pollution prevention and managing impacts from human settlements. The council incorporates the National Environment Protection Council (see below).

In February 2006, the Council of Australian Governments set priorities for the Environment Protection and Heritage Council on climate change, transport, greenhouse gas emissions reporting, chemicals regulation and reducing the regulatory burden on industry. Other priorities include air quality standards, varying the National Pollutant Inventory, water recycling guidelines, water efficiency labelling, product stewardship for used materials such as tyres, computers and televisions, and an environmental risk management framework for chemicals. All of these priorities are embraced in the strategic plan for 2006–2008 which the Environment Protection and Heritage Council agreed in June 2006.

Support for the National Environment Protection Council

The National Environment Protection Council is a statutory body with law-making powers established under the *National Environment Protection Council Act 1994* and corresponding legislation in the states and territories.

Each jurisdiction contributes funding to support the National Environment Protection Council with the Australian Government contributing 50 per cent. The department paid the Australian Government's annual contribution which in 2005–06 was $440 000. This contribution goes to the National Environment Protection Council Service Corporation which provides secretariat, project management and administrative services.

Detailed outcomes are reported in the annual report on the operation of the *National Environment Protection Council Act 1994* available at www.ephc.gov.au/nepc/annual_reports.html.

See page 203 for information on the Governance Review of Statutory Authorities and Office Holders: National Environment Protection Council.

Air quality

Australians consistently rank air pollution as a major environmental concern although Australia's air quality is generally good. Actions taken by Australian governments to improve air quality have already delivered billions of dollars in avoided health costs.

The department works with other governments and industry to reduce air emissions of major pollutants. The department's work focuses on tackling the major sources of air pollution, including motor vehicles, woodheaters, and industry as well as specific pollutants that pose threats to human health and the environment. Another focus is improving the quality of indoor air in non-industrial settings.

As a result of these collaborative efforts, the levels of major pollutants including nitrogen dioxide, lead, carbon monoxide, nitrogen dioxide and sulfur dioxide in Australian cities are generally lower now than they were 10 to 15 years ago.

Particles and ozone levels are still a major concern in some cities. In larger cities, the levels of ozone exceed the national standard several times a year. Particle levels continue to exceed the national standard in some areas. Smoke from woodheaters is a common cause of elevated particle levels, particularly during the cooler months.

To improve access to air quality data the department is establishing a national air quality database, which is expected to be operational in early 2007. These data will inform future decisions on standard setting and management strategies, and allow better assessment of the status and trends in air quality.

Trends in air quality for the period 1991–2001 are available in the *State of the Air Report* at www.deh.gov.au/atmosphere/airquality/publications/status.

Air quality standards

National Environment Protection Measures outline agreed national objectives for protecting or managing particular aspects of the environment. These measures have the force of law under the *National Environment Protection Council Act 1994* and mirror legislation in the states and territories.

In 1998 the National Environment Protection (Ambient Air Quality) Measure was made to set acceptable levels for the six common air pollutants: particles, ground-level ozone, carbon monoxide, lead, nitrogen dioxide and sulfur dioxide.

The National Environment Protection Council began a review of the Ambient Air Quality Measure in April 2005. The review is due to be completed in 2008, and resulting changes to the measure will ensure that Australia has the most up-to-date and effective policy framework to protect human health from exposure to air pollution. As part of the review, the department contributed to a preliminary review of the ozone and sulfur dioxide standards, and to a scoping paper that sought public views on issues that ought to be considered by the review.

The National Environment Protection Council made the National Environment Protection (Air Toxics) Measure in December 2004. The purpose of the Air Toxics Measure is to gather information about the concentrations and distribution of air

toxics compounds in the environment for the purpose of setting new national air quality standards for these pollutants. The measure sets benchmarks (monitoring investigation levels) for five air toxic pollutants—benzene, formaldehyde, polycyclic aromatic hydrocarbons, toluene and xylenes—against which to assess the information being gathered.

In October 2005 the department assisted with the development of a methodology for ranking air toxics for possible future inclusion in the measure.

Information on National Environment Protection Measures is available on the Environment Protection and Heritage Council website at www.ephc.gov.au/nepms.

Managing woodsmoke pollution

Woodheaters are a major source of urban air pollution in some areas in winter. During 2005–06 the department developed a certification procedure to improve woodheater compliance with pollutant emission standards. Work will continue with other jurisdictions and industry over 2006–07 to implement the procedure, including an ongoing audit of woodheaters and actions to increase public access to details on woodheater performance.

While marked improvements have been made, Launceston in Tasmania continues to experience poor air quality during the cooler months. In response to this problem, the department provided grants to four industrial facilities under the Launceston Clean Air Industry Programme to assist them to make technological changes to reduce pollutant emissions. This three-year, $1 million programme will build on a previous grants programme that helped 2 242 householders to replace woodheaters with less-polluting alternatives. Together these initiatives will help to continue the current trend of decreasing the number of annual exceedences of particle pollution in the region.

CycleConnect

The $2.4 million CycleConnect Grants Programme promotes cycling as a way of reducing air pollution in cities by installing secure bicycle parking facilities at city bus and train stations. In 2004–05, the department provided $0.9 million in grants to partners in Sydney, Melbourne, Brisbane, Adelaide, Fremantle and Bendigo to extend existing bicycle locker schemes by 1 100 lockers or cage spaces. In 2005–06 the department paid a further $1.2 million to partners in Sydney, Melbourne, Perth, Adelaide and Darwin to increase bicycle locker and cage capacity by 1 200 spaces at train or bus stations.

Clean Air Research Programme

In April 2006 the department provided funding of $1.4 million for 13 research projects to investigate important air quality issues under the Clean Air Research

Programme. These research projects will be funded until June 2008 and will address a broad range of priority research questions such as ground-level ozone formation, public exposure to air pollutants and the estimated health benefits of improved air quality. When completed, the findings of these research projects will help inform policy to address the risks associated with air pollution and develop effective strategies for its reduction.

Indoor air quality

During 2005–06 the department consulted with key stakeholders to identify priority pollutants for action and research, and to identify strategies to improve air quality in non-industrial indoor settings. Building on this work, the department is funding a new formaldehyde study in 2006. This national study will measure levels of formaldehyde in a range of indoor environments, including mobile homes, caravans and demountable buildings where formaldehyde-containing materials are typically used in high amounts, to determine if this pollutant poses a risk to people's health and requires management action.

Vehicle emissions and fuel quality standards

Motor vehicles are the largest contributor to urban air pollution in Australia and have a major influence on the incidence of smog and haze. To reduce motor vehicle pollution the Australian Government has introduced national fuel quality standards and is improving emissions standards for cars, buses and trucks. The standards are contributing to improvements in environmental and health outcomes. The standards also pave the way for new, cleaner vehicle technologies, which will bring fuel consumption benefits.

The Department of the Environment and Heritage administers the *Fuel Quality Standards Act 2000*. These standards currently apply to the quality of petrol, diesel, biodiesel and autogas sold in Australia. The Department of Transport and Regional Services is responsible for developing vehicle emission standards through progressive tightening of vehicle design which is set to continue until 2010.

The limits for a number of key parameters regulated under the petrol and diesel standards were either introduced or tightened from 1 January 2006 including:

- sulfur levels in diesel were limited to 50 milligrams per kilogram
- maximum diesel density level was limited to 850 kilograms per cubic metre
- polycyclic aromatic hydrocarbon levels in diesel were limited to 11 per cent of total mass
- benzene levels in all grades of petrol were limited to no more than 1 per cent of total volume.

The department is responsible for monitoring fuel at outlets including terminals, depots and service stations to ensure it complies with the standards.

The Australian Government runs a fuel sampling programme to monitor the quality of fuels sold in Australia. Fuels are sampled throughout the fuel supply chain, including at service station forecourts. Photo: Alastair Betts

The department will spend $6.3 million over four years from 2006–07 to increase fuel quality compliance inspections. This will help to ensure fuel quality standards are being met, thereby increasing consumer confidence. It will also help prevent poor quality fuel having negative impacts on vehicle operability and on the environment, through increased emissions of pollutants. In 2005–06 the department extended fuel quality sampling to include liquefied petroleum gas (LPG). This year the first samples of LPG were tested for compliance with the *Fuel Quality Standards Act 2000*.

The *Fuel Quality Standards Act 2000* was reviewed during 2005–06. The review concluded that the overall policy objectives of the Act are being met and should not be altered, but recommended strengthening the monitoring, compliance and enforcement programme, and simplifying administration of the Act, in particular the current approvals system for variations to standards. Work commenced in April 2006 to implement the recommendations arising from the review.

A full report on the operation of the Act including details of the outcomes of the review appears in the second volume of this set of annual reports.

Reducing diesel emissions

Diesel vehicles make a disproportionately high contribution to oxides of nitrogen and particle air pollution from the transport sector. Emissions from diesel vehicles have the potential to cause adverse health impacts and detract from urban amenity.

The department supports in-service emissions testing for diesel (and petrol) vehicles through funding agreements with the states and territories. Diesel vehicles are tested for compliance with the exhaust emissions standards in the National Environment Protection (Diesel Vehicle Emissions) Measure. In-service emission testing helps to promote compliance with the standards and to reduce particle pollution, smoke and smog-forming pollutants emitted from these vehicles.

During the year, the department signed a $480 000 funding agreement with the Tasmanian Department of Primary Industries, Water and Environment for a programme to reduce diesel emissions.

The Australian Government's energy white paper *Securing Australia's Energy Future* announced the introduction from 1 July 2006 of tax credits for users of heavy diesel vehicles who can demonstrate that their vehicle is not a high polluter. One of the five permissible criteria for eligibility is to pass the in-service emission standard referred to in the National Environment Protection (Diesel Vehicle Emissions) Measure.

Biofuels

The Prime Minister released the Biofuels Taskforce report in September 2005. The taskforce examined the latest scientific evidence on the impacts of ethanol and other biofuels on human health, the environment, and the operation of motor vehicles. The department commenced work on aspects of the government's response to the Biofuels Taskforce report, including:

- a study on the health impact of ethanol. The study will assess the comparative impact of low ethanol blend fuel on tailpipe particulate and evaporative emissions and the resulting impacts under Australian conditions. Reliable Australian data will assist in quantifying the health costs and benefits of using low ethanol blend fuels
- a testing programme to assess how vehicles in the Australian market operate on E5 (5 per cent ethanol and 95 per cent petrol) and E10 (10 per cent ethanol and 90 per cent petrol). The study will focus on vehicle performance, compatibility of engine components and engine durability. Results will provide further information on the suitability of low ethanol blends and inform decision-making on whether E5 blends may be sold unlabelled
- simplified labelling requirements for fuels containing ethanol. In January 2006 the existing, complex E10 fuel label was replaced with simplified labelling that is more easily understood
- biodiesel blend standards. Standards already exist under the *Fuel Quality Standards Act 2000* for 100 per cent biodiesel and for automotive or petroleum diesel, but not for blends of the two. Blends have proliferated on the Australian market. Establishing standard forms of biodiesel will increase consumer confidence and provide certainty to the market.

Emissions studies

Motor vehicles are well-known sources of air pollution and their emissions are being regulated through fuel quality standards and emissions testing. With no or low emissions control, often primitive combustion technology and widespread use, small engines are also a significant source of pollution. This year the department supported a study examining how much pollution comes from small

engines (two and four stroke cycle), including lawn mowers, hand-held garden equipment and outboard motors.

So far a national inventory and a model to benchmark the environmental performance of garden equipment and marine outboards (the two major non-road contributors) have been completed. This information will inform air quality management strategies in relation to emissions from small engines.

The department is providing funds for the second National In-service Emissions Study. This study will test emissions from passenger vehicles, four wheel drives and light commercial vehicles. The data will be used for emissions modelling and to inform policy development with respect to vehicle emissions management.

A preliminary study was completed in September 2005. This study tested 60 light duty petrol vehicles built in the period 1986–2002 for their emissions performance. Further testing is expected to commence in 2007.

Ozone layer protection

Some chemicals used by industry for applications such as refrigeration, air conditioning, foam production and fire protection deplete the earth's stratospheric ozone layer. Ozone depletion allows biologically harmful ultraviolet rays to reach the earth's surface. Under the Montreal Protocol to the Vienna Convention for the Protection of the Ozone Layer countries have agreed on dates for phasing out ozone depleting substances.

Australia meets its obligations under the protocol through the Commonwealth *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* administered by the department. Under the Act, the department controls the manufacture, import and export of all ozone depleting substances and their synthetic greenhouse gas replacements, as well as regulating the end uses to minimise emissions of these harmful gases. The department also develops policy responses and programmes to phase out ozone depleting substances and to minimise emissions of ozone depleting substances and their synthetic greenhouse gas replacements.

In 2005–06 Australia continued to meet or exceed its responsibilities under the Montreal Protocol. Australia will cease consumption of hydrochlorofluorocarbons by 2015, five years ahead of its obligations under the Montreal Protocol. In doing so, Australia will use 60 per cent less hydrochlorofluorocarbons than permitted under the Montreal Protocol in the period to 2020 (see chart on page 150).

Under the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* a licence is required to import, export and manufacture ozone depleting substances. Section 40 of the Act allows the Minister for the Environment and Heritage to grant exemptions to import products containing prohibited ozone depleting substances where they are essential for medical, veterinary, defence, industrial safety or public safety purposes, and where no practical alternatives are

available. More information is available at www.deh.gov.au/atmosphere/ozone/licences/index.html.

This year the department received 568 licence applications. All applications were assessed within the statutory timeframe, with no disruption to applicants' business when the new licence period commenced on 1 January 2006.

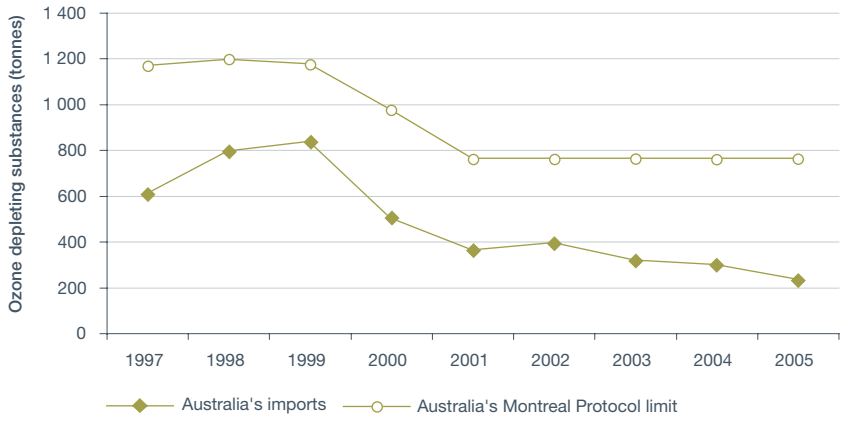
The department received 11 applications for an exemption under section 40 of the Act, and all these exemptions were granted to qualifying applicants.

In 2005 consumption of methyl bromide for non-quarantine and pre-shipment purposes was reduced to 117.5 tonnes for approved critical uses. The department has put in place supply controls to ensure that methyl bromide is used only by critical use exemption holders.

The department manages Australia's National Halon Bank. The facility recovers and stores halon that is required for essential aviation and maritime use. It also collects and destroys surplus halon from Australian business and the community. In 2005–06 the department oversaw the collection and destruction of 10 tonnes of halon, 21 tonnes of chlorofluorocarbon from decommissioned mining equipment in Indonesia, and 28 tonnes of chlorofluorocarbon from the United States and New Zealand.

The department implemented a national end use system to minimise emissions of ozone depleting substances and synthetic greenhouse gases used in the fire protection and refrigeration and air conditioning industries. Under this system, businesses and technicians who handle these products must be licensed, demonstrate skills to an appropriate level and adhere to relevant Australian standards.

Australia's performance against Montreal Protocol obligations



Australia's consumption of ozone depleting substances has decreased in advance of our responsibilities due to government and industry initiatives to accelerate the phase-out of these substances.

Detailed performance results on the operation of the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* appear in the second volume of this set of annual reports.

Product stewardship schemes

The department works closely with industry and with state, territory and local governments to address waste issues through product stewardship initiatives. The department is working with the states and territories to investigate the scope for implementing stewardship programmes for tyres, televisions, mobile phones, computers and plastic bags. Stewardship programmes are already operating for newsprint, packaging and waste oil.

Product Stewardship for Oil Programme

Each year, about 520 million litres of lubricating oil is sold in Australia. Of this amount, about 280 to 300 million litres of used oil is generated. If disposed of incorrectly, this oil can cause serious damage to the environment. It can contaminate the soil, groundwater, streams, rivers, lakes and drinking water.

The Product Stewardship for Oil Programme came into effect on 1 January 2001 to encourage used oil recycling by providing benefit payments to used oil recyclers. The department has policy responsibility for the programme, while the Australian Taxation Office administers the levy and benefit elements of the programme.

A total of $17.2 million in product stewardship benefits was paid in 2005–06, with $14 million paid to recyclers for recycling used oil, an increase of almost 10 per cent from 2004–05. The volume of oil for which benefits were paid this year was 210 million litres, compared to 220 million litres in 2004–05.

Industry estimates that about 150–165 million litres of used oil was being recycled prior to the implementation of the programme. Since its implementation, used oil recycling has increased by about 40 per cent.

The Australian Government provided $34.5 million in transitional assistance funding from July 2000 until June 2007 as an interim mechanism to engender change that will underpin the long-term viability of the oil recycling industry. This assistance complements the stewardship levy-benefit arrangements.

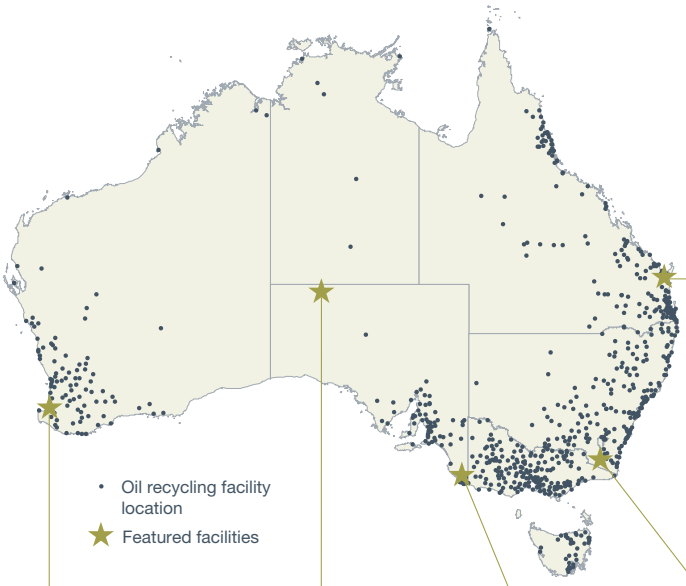
Since it began, the Product Stewardship for Oil Programme has funded the installation of 850 used oil collection facilities, with over 80 additional facilities funded in 2005–06. This year 37 grants worth a total of $2.7 million were also approved. Five of these grants, worth about $0.9 million, extend the used oil collection infrastructure network into remote pastoral and Indigenous areas in northern and central Australia.

Detailed performance results on the operation of the *Product Stewardship (Oil) Act 2000* appear in the second volume of this set of annual reports.

Reusing waste oil

Oil is a valuable and finite resource. Each year more than 500 million litres of lubricating oil is sold in Australia, of which at least 280 million litres is available for recycling.

The Product Stewardship for Oil Programme aims to increase recycling. The programme provides benefit payments to used oil recyclers and provides funds for used oil collection facilities. Since it began in 2000, the programme has helped establish 850 collection facilities across Australia and has increased oil collection and recycling by about 40 per cent, from 160 million litres to 210 million litres per year.



Collection facility, Maryborough, Qld
This new collection facility at Maryborough will allow the city to collect and recycle an extra 5 640 litres of used oil per year.

Bitumen blowing test plant, Bunbury, WA
Treating used oil as part of the recycling process leaves a residue; this partly completed test plant for Wren Oil will allow the company to process the residue so that it can be used in road bitumen.

Recycling centre, Umuwa, SA
Establishing a recycling centre at Umuwa in the Anangu–Pitjantjatjara lands will provide safe storage for the oil in these drums and other waste before it is sent for recycling, and will also create employment opportunities.

Collection facility, Penola, SA
This new collection facility at Penola will enable the collection and recycling of up to 10 000 litres of used oil per year.

Collection facility, Dalgety, NSW
A regional upgrade of collection facilities at Jindabyne, Adaminaby, Eucumbene and Dalgety (pictured) will allow 35 000 litres of used oil to be collected each year for recycling.

National Packaging Covenant

The National Packaging Covenant is a voluntary arrangement to reduce the environmental impacts of packaging. Companies that sign the covenant develop plans to reduce the impacts of their packaging.

The National Packaging Covenant Council with membership from industry and governments has overall responsibility for the implementation and management of the covenant. The department provides secretariat support and administration services for the covenant. In 2005–06 the Natural Heritage Trust contributed $116 875 toward administration and has committed funding for a further two years.

The National Packaging Covenant commenced in 1999 and by 2005 had over 600 signatories. After extensive review in 2004 the covenant was strengthened and renewed for a further five years commencing in July 2005. The revised covenant commits signatories to new performance targets, including:

- a national recycling target of 65 per cent for packaging by the end of 2010
- no new packaging waste (above 2003 levels) going to landfill
- a national recycling rate of 25 per cent for materials that are currently not recycled.

Sector representation in the National Packaging Covenant

Signatories are now required to provide data against the key performance targets and for the first time this will allow national data to be generated on packaging waste and recycling. This will allow determination to be made of whether the desired outcomes are being delivered by the covenant.

The National Packaging Covenant is underpinned by the National Environment Protection (Used Packaging Materials) Measure. Under this measure governments agree to require brand owners who are not covenant signatories to take back and recycle a percentage of their packaging products. The covenant council is aiming to increase recycling and reduce packaging by focusing on retrieving beverage containers from pubs, clubs and events and ensuring they are recycled.

In July 2006, 423 signatories had either re-signed or were new signatories to the covenant. All sectors of the packaging supply chain and governments are represented with the highest number of signatories being brand owners (refer to chart on page 153).

Many plastic bags end up as litter and find their way into waterways. The department works with industry and the community to reduce the environmental impact of plastic bags and other waste.

Plastic bags

A 2002 study estimated that 50 to 80 million plastic bags end up as litter in Australia each year. They can harm aquatic and terrestrial animals. In 2002 the Environment Protection and Heritage Council asked the retail industry and the community to work together to cut plastic bag litter by 75 per cent by the end of 2004. Retailers responded by adopting targets in a code of practice for reducing the use of single use, light weight plastic shopping bags, including a 25 per cent reduction by code of practice signatories in the use of plastic bags by the end of 2004 and a 50 per cent reduction by the end of 2005. Reduced household consumption of such bags over time was expected to lead to a reduction of plastic bag litter.

The department is working with retailers to develop a new voluntary arrangement to reduce plastic bag litter following the expiry of the 2003–2005 Australian Retailers Association Code of Practice for the Management of Plastic Bags. The department is also working with the states and territories to examine the various options available to the Environment Protection and Heritage Council to regulate

plastic bags should voluntary measures be assessed as inadequate. This year the department provided $50 000 toward the development of a cost-benefit analysis on these options.

During 2005–06 the department supported educational efforts about plastic bags, and provided $158 000 from the Natural Heritage Trust to fund a campaign aimed at small business. This campaign was run in partnership with Clean Up Australia and the Australian Retailers Association (NSW), and included the creation of a website (www.noplasticbags.org.au) and hotline.

Water efficiency labelling

On 18 February 2005 the parliament passed the *Water Efficiency Labelling and Standards Act 2005*, which establishes the national Water Efficiency Labelling and Standards Scheme. The scheme came into operation on 1 July 2005 on a voluntary basis and became compulsory from 1 July 2006.

The scheme encourages industry to produce water efficient appliances in order to conserve national water supplies particularly in urban areas. The scheme requires seven products to be rated and labelled for their water efficiency. These are showers, dishwashers, clothes washing machines, lavatory equipment, tap equipment, urinal equipment and flow controllers. Consumers will be able to save water by selecting appliances based on their water efficiency rating.

The department administers the Act and manages all aspects of the scheme including product registrations, inspections and compliance. Work is under way in all these areas. Since 1 July 2005 the department has registered 4 000 products under the scheme.

The scheme will be supported by complementary legislation enacted by all states and territories. Complementary legislation has been enacted in New South Wales, Victoria, Tasmania and the Australian Capital Territory. Queensland and Western Australia are in the final stages of enacting their legislation and South Australia and the Northern Territory are preparing legislation.

More information on the operation of the *Water Efficiency Labelling and Standards Act 2005* is available in the second volume of this set of annual reports.

Hazardous substances regulation and management

The department is involved in a range of Australian Government initiatives to minimise the environmental and health impacts of hazardous substances. Internationally the department represents Australia's interests in the development of agreements designed to control hazardous chemicals. The department is the lead Australian agency on 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.

Within Australia the department works through the Environment Protection and Heritage Council to develop nationally applicable guidelines and standards for hazardous chemicals in consultation with the states and territories, industry and community groups.

Hazardous waste

The department administers the *Hazardous Waste (Regulation of Exports and Imports) Act 1989* which implements Australia's obligations under the Convention on the Control of the Transboundary Movements of Hazardous Wastes and Their Disposal (the Basel Convention).

The Act 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. Compliance and education are important aspects of administering the Act.

In 2005–06 37 permit applications were processed (22 export, 11 import and one transit), and 20 permits were granted, with one application refused and two withdrawn.

The definition of 'hazardous waste' is often a highly complex issue. The department developed criteria for used electronic equipment to determine when it is hazardous waste. In 2005 the department surveyed companies using the criteria to see how the criteria were being implemented and if revision was required.

The survey indicated that the larger and more established companies were in compliance with the criteria, primarily because the criteria were similar to their own in-house operating procedures. Smaller companies (often sole traders), while believing they were in compliance, often did not have the physical infrastructure (e.g. test equipment) required for complete compliance.

A notable feature this year arising from high metal prices overseas has been the development of an illegal trade in the export of used lead acid batteries. Several shipping containers of batteries have been seized in Sydney and Melbourne. The seized containers were sent to two authorised facilities where the batteries were broken to recover lead scrap which was used as a feed for production of refined lead metal. Acid from the batteries was neutralised at a liquid waste disposal facility while plastics were collected for recycling.

In order to improve understanding of the Act, the department has been developing a new education strategy. The strategy targets specific audiences in the private and government sectors. These include the waste sector industry,

the freight forwarding and shipping industries, and the Australian Customs Service. The strategy deals particularly with electronic equipment, used lead acid batteries, and mobile phones, which are wastes that pose a significant risk to the environment and human health because of their toxic constituents.

More information on the operation of the *Hazardous Waste (Regulation of Exports and Imports) Act 1989* is available in the second volume of this set of annual reports.

Computer waste

An estimated 1.6 million computers are thrown away each year, most of them into landfill. Computers contain many valuable products which can be salvaged through recycling, but they also contain some chemicals and hazardous substances such as lead, mercury and cadmium, most of which are not recovered in the recycling process. This year a roundtable meeting of governments and industry, chaired by the Minister for the Environment and Heritage, agreed on a key set of guidelines to develop a computer recycling scheme. Industry is currently developing a national programme to take back computer waste within Australia.

Persistent organic pollutants

Persistent organic pollutants are chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of living organisms and are toxic to humans and wildlife.

Australia has obligations under the Stockholm Convention on Persistent Organic Pollutants, which it ratified on 20 May 2004, to restrict, reduce or eliminate the release of the 12 chemicals listed as persistent organic pollutants.

This year the department finalised a national implementation plan that sets out how Australia will meet its obligations under the Stockholm Convention. The plan identifies actions Australia will take to reduce and eliminate persistent organic pollutants. The National Strategy for the Management of Scheduled Waste, an agreement of more than 10 years standing between the Australian Government, states and territories, already provides for the safe management and disposal of a number of persistent organic pollutants, including polychlorinated biphenyls, hexachlorobenzene and organochlorine pesticides.

The department established the National Dioxins Programme in 2001, which funded research to inform Australia's policy response to address dioxins—one of the 12 chemicals listed as persistent organic pollutants. The department released the National Action Plan for Addressing Dioxins for public comment on 1 July 2005. Fourteen submissions were received and were mostly of a minor nature. The Environment Protection and Heritage Council adopted the National Action Plan at its meeting in October 2005.

During the year the department funded additional research to determine the extent to which dioxins are formed in bushfires. A report is being finalised and results are expected later in the year.

In November 2005 Australia participated in the first meeting of the Persistent Organic Pollutants Review Committee in Geneva, which assessed proposals to include five new chemicals on the Stockholm Convention. A decision will be made in November 2006. Australia also participated in a meeting in December 2005 of an expert group which is developing guidelines for reducing emissions of persistent organic pollutants including dioxins. The expert group will meet again in December 2006 to finalise the guidelines.

Some countries are seeking to include brominated flame retardants in the Stockholm Convention. The department funded three studies to investigate the levels of these chemicals in the Australian population, in indoor air, and in aquatic sediments. The results are expected in the second half of 2006. The research will contribute to Australia's policy position on these chemicals and to risk assessments being undertaken by the National Industrial Chemicals Notification and Assessment Scheme.

The department led the Australian delegation to the 2nd meeting of the conference of the parties to the convention, held in Geneva, Switzerland from 1–5 May 2006. The parties agreed to enhance synergies with the Basel and Rotterdam conventions by exploring how secretariat functions could be shared, agreed to continue the development of a non-compliance mechanism for the convention, and agreed to develop a process to evaluate the effectiveness of the convention.

Informed consent to imports

In February 2004 the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade came into force. The procedure set up under this convention enables countries to decide whether to allow the import of chemicals listed under the convention. Australia became a party to the convention on 18 August 2004.

The department led the delegation to the 2nd meeting of the conference of the parties, held in Rome, Italy from 26–30 September 2005. The conference made decisions on operational issues necessary for the functioning of the convention. The department also participated in the 2nd meeting of the convention's Chemical Review Committee, held in Geneva, Switzerland from 13–17 February 2006. The committee will seek agreement to list Australia's nomination of chrysotile asbestos under the convention at the next meeting of the conference of the parties in October 2006.

Strategic international approach to chemicals

In 2002 the World Summit on Sustainable Development urged international organisations to cooperate in improving international chemicals management. The Governing Council of the United Nations Environment Programme in February 2003 began developing a Strategic Approach to International Chemicals Management. The purpose of the strategic approach is to ensure that internationally chemicals are used and produced in ways that mitigate significant adverse impacts on human health and the environment by the year 2020.

The department led the delegation to the International Conference on Chemicals Management in Dubai, United Arab Emirates from 4–6 February 2006. Final agreement was reached on the strategic approach, which focuses on building national governance for chemicals management in developing countries. The Global Ministerial Environment Forum adopted the strategic approach in February 2006.

National risk management framework

The department continued to work with the states and territories to develop the National Framework for Chemicals Environmental Management (NChEM). The framework aims to provide a nationally consistent approach to regulating and managing the environmental impacts of chemicals, including ensuring consistent implementation of chemical assessment decisions. Other aims are to address current gaps in environmental chemicals management and to simplify chemicals management in Australia. In June 2006, the Environment Protection and Heritage Council agreed to the release of a public discussion paper on NChEM. The council expects to finalise the framework in 2007.

National approach to industrial residues

While there are benefits from the reuse and recycling of industrial residues in land management applications, there is also potential for harm to human health and the environment if these materials are used inappropriately. The department has been developing a national approach to assessing the beneficial reuse of industrial residues in land management applications with the release of a public discussion paper in September 2005. The national approach will increase environment protection by providing nationally consistent criteria and information that environment agencies can use to assess proposals for the reuse of industrial residues. Based on the comments received in response to the discussion paper, the national approach will be provided to the Environment Protection and Heritage Council for approval in the second half of 2006.

Biotechnology risk assessments

The Gene Technology Regulator, within the Department of Health and Ageing, regulates genetically modified organisms under the *Gene Technology Act 2000*. The Act requires that the regulator seek advice from the Minister for the

Environment and Heritage on each intentional release of a genetically modified organism into the environment. The Department of the Environment and Heritage prepares advice for the regulator on environmental issues to be considered when preparing the risk assessment and risk management plan, and then on the draft plan once prepared.

In 2005–06 the Gene Technology Regulator sought the minister's advice on 12 occasions in relation to nine licence applications. The minister provided advice to the regulator on all occasions. As a result environmental risks were adequately assessed and managed by the regulator for each licence granted.

The department also prepares risk assessments of genetically modified organisms and other biological agents for the Australian Pesticides and Veterinary Medicines Authority. In 2005–06 the department assessed two applications to ensure there were no unintended adverse environmental effects as a result of these releases.

The department participates, as a member agency of Biotechnology Australia, in the implementation of the National Biotechnology Strategy, and supports the minister's involvement in the Commonwealth Biotechnology Ministerial Council. A number of research projects and workshops were funded under the strategy with the aim of improving basic knowledge of environmental risks associated with genetically modified organisms. The department received $500 000 over a four-year period for this work, including:

- work on future genetically modified organisms and their environmental impacts
- a survey of feral cotton in northern Queensland
- a study of the risks associated with the use of new and emerging technologies
- a review of viral vectors and viral genes used in genetically modified organisms, and their impacts
- modeling the environmental impacts of genetically modified versus non-genetically modified, herbicide-tolerant canola
- work on the persistence and effects on soil organisms of Bt-toxin (insecticide) from genetically modified cotton
- research into viral recombination and its environmental effects.

Two additional studies were commissioned this year to examine the potential environmental risks of genetically modified organisms that have been developed overseas being brought into Australia unintentionally or illegally. This research will assist with the development of policies to manage the risk of genetically modified organisms imported into Australia unintentionally.

The department also participated in the current reviews of the *Gene Technology Act 2000* and its Regulations, ensuring that the level of environmental protection afforded by the regulatory system has been fully considered in the review processes.

Chemical risk assessments

The department provides other Australian Government regulators with advice on the environmental impacts of new industrial, agricultural and veterinary chemicals.

Agricultural and veterinary chemicals

The Australian Pesticides and Veterinary Medicines Authority regulates agricultural and veterinary chemicals. One test for registering a new chemical product is whether the product is likely to harm the environment when used according to its instructions. The authority seeks the department's advice when applying this test. The authority provides funding in return for this service under an agreement with the department.

In 2005–06 the department received $1 million under this agreement in return for carrying out 102 environmental risk assessments for new uses of agricultural and veterinary chemicals.

As part of the Australian Pesticides and Veterinary Medicines Authority's ongoing review of existing chemicals, the department prepared a range of environmental risk assessments for paraquat, diuron and 2,4-D. These assessments and the department's recommendations were forwarded to the authority for consideration. Chemicals which have reached the public comment phase of the authority's process included 2,4-D volatile esters and diuron.

Industrial chemicals

The National Industrial Chemicals Notification and Assessment Scheme regulates industrial chemicals. The department assesses the potential environmental impact of new industrial chemicals on behalf of the scheme. The scheme provides funding in return for this service under an agreement with the department. In 2005–06 the department received $690 000 under this agreement in return for carrying out 270 environmental risk assessments for new industrial chemicals and the priority review programme. The number of new chemicals assessed continues a long-term trend of increasing numbers of industrial chemical assessments being undertaken by the department.

Supervision of uranium mining

The Supervising Scientist is a statutory office under the *Environment Protection (Alligator Rivers Region) Act 1978* and 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, which includes Kakadu National Park. The department works closely with the Department of Industry, Tourism and Resources 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 impacts of uranium mining. The roles and responsibilities include environmental monitoring, supervision, and research into the impact 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 are 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.

The Supervising Scientist Division continued to conduct research, monitoring, supervision and audit activities during 2005–06. During the year the monitoring programme was enhanced, with the introduction of continuous monitoring of water quality parameters in Magela Creek adjacent to the Ranger mine. A first stage trial of in situ biological monitoring was also successfully undertaken. Second stage testing of this methodology will be carried out during the 2006–07 wet season. If successful, the current resource-intensive creekside monitoring programme will be replaced in subsequent years with this streamlined procedure.

Work to date indicates that the environment of the Alligator Rivers Region remains protected from the impacts 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.deh.gov.au/about/publications/annual-report/.

Results for performance indicators

Performance indicator	2005–06 result
Environmental assessments	
Number of actions affecting matters protected by Part 3 of the *Environment Protection and Biodiversity Conservation Act 1999* whose adverse environmental impacts have been addressed	270 matters protected under Part 3 of the *Environment Protection and Biodiversity Conservation Act 1999* were afforded protection through the referral, assessment and approval process. This is an increase of 77 matters from the previous year
Air pollution	
Number of occasions where concentrations of key air pollutants exceeded the standards for ambient air quality in major urban areas	In accordance with the Ambient Air Quality National Environment Protection Measure, data reporting is on a calendar year basis. Current data is for 2004 and is sourced from the National Environment Protection Council annual report for 2004–05 No exceedences were experienced in urban areas for 4 (carbon monoxide, sulfur dioxide, lead and nitrogen dioxide) of the 6 key pollutants The ozone standards were exceeded occasionally in Vic, Qld and WA, while NSW (Sydney) experienced widespread exceedences of the standards There were widespread exceedences of the particle standard in NSW and Vic, and occasional exceedences in WA, SA and ACT. A significant number of exceedences of the particle standard were experienced in Wagga Wagga (NSW) and Launceston (Tas) Exceedences of the sulfur dioxide (1 hour average) standard were significant in 2 regional areas, Mount Isa in Qld and Port Pirie in SA. The lead standard was also exceeded at Port Pirie
National Environment Protection Measures for air quality are implemented and reviewed to provide world best-practice in the protection of community health	The department contributed to the review of the National Environment Protection (Ambient Air Quality) Measure in conjunction with the states and territories. The review commenced in April 2005 and is scheduled to conclude in 2008
Australian Fuel Quality Standards are implemented, and further harmonised with international standards	Diesel sulfur standard was tightened to 50 mg/kg and maximum density level reduced to 850 kg/m^3 Standards for petrol benzene and diesel polycyclic aromatic hydrocarbon levels were introduced 1 067 fuel samples were taken and 500 fuel supply sites tested. 6.7% of samples were non-compliant (note: does not include non-compliance with ethanol information standard). Details are contained in the *Fuel Quality Standards Act 2000* annual report in volume 2, legislation annual reports

Performance indicator	2005–06 result
Hazardous substances and new organisms	
Number of environmental risk assessments of (i) industrial chemicals and (ii) agricultural pesticides and veterinary medicines completed	(i) 270 industrial chemicals assessed (ii) 102 agricultural pesticides or veterinary medicines assessed
Number of genetically modified organism release proposals for which environmental risk advice was prepared	12 advices on 9 applications
Used oil	
Number of used oil collection facilities under the Product Stewardship for Oil Programme	Over 850 (more than 80 additional facilities funded in 2005–06)
Area serviced by collection facilities	Urban and regional areas are well serviced and the 2005–06 grants have also extended used oil collection facilities into remote and Indigenous areas across Australia
Ozone depleting substances	
Mass of imports compared to Montreal Protocol limits	All phase-out obligations were met or exceeded HCFC consumption 152 ozone-depleting potential tonnes compared to Montreal Protocol limit of 357 ozone-depleting potential tonnes Methyl bromide consumption 119 metric tonnes compared to Montreal Protocol limit of 147 metric tonnes. All other consumption was nil
Packaging waste	
Number of company signatories to the National Packaging Covenant	423 as of July 2006
Agreement is reached by 2006 to phase out plastic bags by 2008	Draft phase-out agreement negotiated, considered by Environment Protection and Heritage Council in October 2005 Department is negotiating an alternative voluntary option with retailers Department is working with states and territories to develop legislative options for consideration by ministers should voluntary approach be assessed as unlikely to succeed Department is contributing to a regulatory impact statement for consideration by ministers. This includes providing $50 000 towards development of cost-benefit analysis Ministers considered options at June meeting of Environment Protection and Heritage Council

Performance indicator	2005–06 result
Uranium mining	
Percentage measured as (i) median and (ii) maximum annual concentrations of the limit of uranium concentrations allowed downstream of the Ranger mine (6 micrograms per litre) [The limit value was recalculated from 5.8 micrograms per litre to 6 micrograms per litre. The figure of 5.8 incorrectly appears in the Portfolio Budget Statements]	(i) 0.055 µg/l or 0.93% of limit (ii) 0.153 µg/l or 2.55% of limit
Number of times limit exceeded	None
Ozone Protection and Synthetic Greenhouse Gas Account (administered item)	
The Australian Government's obligations under the *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* (the Act) are met, including effective administration of the Act, management of the Halon Bank and programmes to phase out ozone depleting substances and minimise emissions of ozone depleting substances and synthetic greenhouse gas	8.9 tonnes of halon 1211 and 1.6 tonnes of halon 1301 were collected from the community for safe disposal at the National Halon Bank No significant losses were recorded from stored halon at the National Halon Bank
Licence and enforcement actions are undertaken within statutory timeframes	100%. 568 applications assessed within statutory timeframes
Supplies of essential use halon are provided within the requested timeframe	100%. 9 requests for halon met within customer's timeframe
Number of facility inspections meets local ordinance requirements	3. Inspections covered water quality and effluent; air quality and stack emissions; occupational health and safety and industrial safety
Launceston's air quality (administered item)	
Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%)	100%
Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%)	100%
Commonwealth Environment Research Facilities (CERF) (administered item)	
The extent to which funded projects successfully contribute to furthering Australia's understanding of critical areas of environment research	19 transition projects were funded under the Marine and Tropical Sciences Research Facility which will contribute significantly to understanding of how to conserve and manage north Queensland's environmental assets within the Great Barrier Reef, tropical rainforests and the Torres Strait. Many of these projects will be further developed under the first annual research plan in 2006–07 4 research hubs were announced with grants totaling $23.5 million. Research will commence in 2006–07

Performance indicator	2005–06 result
Commonwealth Environment Research Facilities (CERF) (administered item) *continued ...*	
Percentage of projects delivered to a satisfactory standard in accordance with the terms and conditions of the project contract (Target: 100%)	95% under Marine and Tropical Science Research Facility Transition Projects
Number of projects funded	19 under Marine and Tropical Science Research Facility Transition Projects
Sub-output 1.5.1—Environmental assessments	
Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%)[a]	100%
Percentage of statutory timeframes triggered that are met (Target: >90%)[b]	85% of statutory timeframes were met for decision-making in the referral, assessment and approval process. Details and reasons are contained in the EPBC Act annual report volume 2, legislation annual reports Note: A review of EPBC Act statistics undertaken after the 2004–05 reporting period revealed that 90% of statutory timeframes were met, rather than 83% as reported in the 2004–05 annual report
Sub-output 1.5.2—Pollution prevention—Air quality	
Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%)	90%. Some milestones were not met under the CycleConnect Programme due to delays in infrastructure projects
Sub-output 1.5.2—Pollution prevention—Fuel quality	
Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%)[a]	100%
Sub-output 1.5.2—Pollution prevention—Used oil	
Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%)	100%
Sub-output 1.5.2—Pollution prevention—Packaging	
Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%)	90%
Sub-output 1.5.2—Pollution prevention—Hazardous waste	
Percentage of statutory timeframes triggered that are met (Target: >90%)	>90%

[a] Applies to provision of grants programmes funded entirely from the Department of the Environment and Heritage appropriations for the output (i.e. not those marked administered items).

[b] Applies to areas that administer legislation, for example reporting timeframes triggered under the *Environment Protection and Biodiversity Conservation Act 1999.*

Resources

Departmental outputs	Budget prices $'000	Actual expenses $'000
Sub-output: 1.5.1 Environmental assessments	14 202	14 912
Sub-output: 1.5.2 Pollution prevention strategies	40 047	40 383
Sub-output: 1.5.3 Supervision of uranium mines	8 630	9 306
Total (Output 1.5: Response to the impacts of human settlements)	**62 879**	**64 601**
Administered items		
Commonwealth Environment Research Facilities	2 885	2 815
Ozone Protection and Synthetic Greenhouse Gas Account	1 600	1 294
Bio Fuels – Ministerial Council on Energy Additional and Australian Government Task Force	355	356
National Environment Protection Council	429	429
Water Efficiency Labelling Scheme	582	245
Australian Wildlife Hospital[a]	2 500	2 500
Launceston's air quality	200	200
Total (Administered)	**8 551**	**7 839**

[a] Results appear in the chapter on Land and Inland Waters on page 46.

Other annual reports providing information on this output

Included in the second volume of this set of annual reports are the annual reports on the operation of the following legislation administered by the department:

Environment Protection and Biodiversity Conservation Act 1999

Product Stewardship (Oil) Act 2000

Water Efficiency and Labelling Standards Act 2005

Hazardous Waste (Regulation of Exports and Imports) Act 1989

Ozone Protection and Synthetic Greenhouse Gas Management Act 1989

Fuel Quality Standards Act 2000

Other relevant reports are:

Annual report on the operation of the *National Environment Protection Council Act 1994* at www.ephc.gov.au/nepc/annual_reports.html

Annual report of the Supervising Scientist at www.deh.gov.au/about/publications/annual-report/