



Outcome 1—Environment | Land and inland waters



Land and inland waters

The department develops and implements Australian Government initiatives to protect and conserve Australia’s terrestrial environments, biodiversity and inland waters. During the year, the department also became the lead department for water resource issues across the Australian Government.

Main responsibilities for this output

<ul style="list-style-type: none"> • Terrestrial biodiversity conservation • Terrestrial invasive species policy and threat abatement plans • Natural resources and native vegetation policy • Environmental aspects of regional forest agreements 	Marine and Biodiversity Division
<ul style="list-style-type: none"> • National Plan for Water Security • National Water Initiative • Murray–Darling Basin • Water quality management • Great Artesian Basin and Lake Eyre Basin • Water efficiency labelling • Protected wetlands 	Water Resources Division Water Assets and Natural Resources Division
<ul style="list-style-type: none"> • Community water grants • Administration of the Natural Heritage Trust • Support for the National Action Plan for Salinity and Water Quality • Miscellaneous investments 	Natural Resource Management Programmes Division
<ul style="list-style-type: none"> • National Reserve System • Indigenous Protected Areas • Genetic resource management • Australian Biological Resources Study 	Parks Australia Division
<ul style="list-style-type: none"> • Tropical wetlands research and ecological inventory • Risk assessment of tropical rivers 	Supervising Scientist Division

Objectives

Land strategies

- Ensure the management of Australia's terrestrial environments, including their biodiversity, is ecologically sustainable and that impacts on terrestrial biodiversity and ecosystem services, including habitat loss, invasive species and climate change, are addressed
- Protect the environmental assets and values of the land, including biodiversity and ecosystem services
- Increase efficiencies in achieving conservation outcomes through targeted use of market incentives

Water strategies

- Implement the National Plan for Water Security (from February 2007)
- Work with governments, industry and community stakeholders to assist them to achieve the more sustainable management of water resources, and to increase the efficiency with which water resources are used
- Protect the environmental values of rivers and wetlands, including wetlands of international significance

Land and water investments

- Deliver benefits from land conservation and water investments to communities

Terrestrial parks and reserves

- Protect and conserve biodiversity by establishing a comprehensive, adequate and representative system of protected areas
- Conduct taxonomic, ecological and geographic research to increase understanding of biodiversity

Tropical wetlands research

- Enhance knowledge of tropical rivers and associated wetlands in northern Australia



Results 2006–07

- The National Reserve System programme acquired 588,141 hectares, bringing the total to over 7,533,288 hectares. Three more Indigenous Protected Areas were declared covering 4,501,870 hectares, and bringing the total area to over 18.5 million hectares.
- An independent review of the Indigenous Protected Areas Programme hailed it a success for bringing significant bioregions into the National Reserve System and providing significant social benefits to Indigenous Australians.
- The Australian Government approved 10 conservation covenanting programmes for the purposes of the *Income Tax Assessment Act 1997* and entered into 322 perpetual covenants with landholders protecting 92,707 hectares of private land.
- Revolving funds established with Natural Heritage Trust funding acquired 17 properties with high conservation value. The properties are in four states and cover 98,408 hectares.
- Draft legislation was developed to give effect to key features of the National Plan for Water Security.
- Community Water Grants funded 1,759 water saving, recycling and treatment projects. These projects will save around 8,000 megalitres of water each year and treat water from a catchment area of 1,505,254 hectares. Community groups are contributing 2,981,285 volunteer hours and \$16,951,981 in leveraged funding.
- 4,161 products were registered under the Water Efficiency Labelling and Standards Scheme, bringing the number of registered products to 7,759 since the scheme began in July 2005. The scheme enables consumers to choose the most water efficient appliances and reduces water wastage.
- The Tasmanian Mole Creek Programme protected 66 hectares of forest and limestone karst on private land. The Tasmanian Forest Tourism initiative invested \$3 million to improve forest-based tourism including in the Tarkine region. The Tasmanian Forest Conservation Fund commenced its first tender round and attracted 236 landowner expressions of interest.

Land strategies

The department works with other Australian Government agencies, state and territory governments, representative and research bodies, and internationally to implement a range of strategies to ensure the long-term protection and ecologically sustainable management of Australia's terrestrial environments.

National Biodiversity Strategy

The 1996 National Strategy for the Conservation of Australia's Biological Diversity (National Biodiversity Strategy)¹ provides the framework for Australia's biodiversity policies. The strategy covered the 10 years to 2005 and fulfils Australia's obligation as a party to the United Nations Convention on Biological Diversity to have a national biodiversity strategy in place.

In 2006–07 the department initiated a review of National Biodiversity Strategy and policies following the 8th conference of the parties to the convention, which was held in Brazil in March 2006. The review will draw on biodiversity conservation work undertaken by all levels of government during the last five years.

The department is providing the secretariat to the review. In 2006–07 consultations occurred with Indigenous stakeholders and with peak industry and environment groups. The review is ongoing and its outcomes are expected to be considered by the Natural Resource Management Ministerial Council in November 2008.

International biodiversity activities

The department is responsible for Australia's implementation of the United Nations Convention on Biological Diversity, to which Australia is a party.

The department reviewed and revised Australia's Clearing House Mechanism for the United Nations Convention on Biological Diversity. Australia's Clearing House Mechanism gives the public and parties to the convention easy access to a range of technical and scientific information on Australia's activities and capabilities in biodiversity conservation. The mechanism supports technical and scientific exchange between convention parties.

The Clearing House Mechanism is available at <http://www.environment.gov.au/biodiversity/international/clearing-house-mechanism/index.html>.

The department is also responsible for Australia's response to the United Nations Convention to Combat Desertification, which provides a framework for Australia's technical assistance to developing countries combating the environmental, social and economic consequences of land degradation and desertification. As part of

1 The National Biodiversity Strategy addresses terrestrial, aquatic and marine biodiversity.





Australia's support for the 2006 International Year of Deserts and Desertification, the department produced a series of publications, created a new website on desert knowledge and sponsored the 2006 Desert Knowledge symposium entitled Global Desert Opportunities. The symposium, which was held in Alice Springs, drew participants from around the world to explore innovative approaches to sustainable livelihoods and resources management in desert environments.

Pests, weeds and diseases

Pests, weeds and diseases threaten Australia's terrestrial environments and their biodiversity, and the department is working in a number of ways to reduce these threats.

Threat abatement plans

Under the *Environment Protection and Biodiversity Conservation Act 1999*, the department develops and supports the implementation of threat abatement plans. These plans set out the actions needed to reduce the impacts of listed key threatening processes, such as pests and diseases, on affected native species or ecological communities. Threat abatement plans are reviewed every five years.

To date there are nine threat abatement plans operating for the terrestrial key threatening processes listed under the Act. Five of these plans are currently under revision following a review. A threat abatement plan is also being developed to protect Australian native species from predation by exotic rodents on small offshore islands.

Status of terrestrial threat abatement plans at 30 June 2007

Title	Approved	Comment
Competition and land degradation by feral goats	1999	Under revision
Competition and land degradation by feral rabbits	1999	Under revision
Predation by the European red fox	1999	Under revision
Predation by feral cats	1999	Under revision
Dieback caused by the root-rot fungus <i>Phytophthora cinnamomi</i>	2001	Under revision
Beak and feather disease affecting endangered psittacine species	2005	Current
Predation, habitat degradation, competition and disease transmission by feral pigs	2005	Current
Infection of amphibians with chytrid fungus resulting in chytridiomycosis	2006	Current
Reduction in impacts of tramp ants on biodiversity in Australia and its territories	2006	Current
Predation of Australian native species by exotic rodents on small offshore islands		Under development

The department collaborates with the Department of Agriculture, Fisheries and Forestry and other stakeholders including the states and territories, and private landholders to develop and implement threat abatement plans and projects.

Invasive species threat abatement activities

In 2006–07 the department invested \$2.8 million from the Natural Heritage Trust to reduce threats from terrestrial invasive species to native species and ecological communities. Projects focused on research and development of new control measures for invasive species (e.g. *Phytophthora* species and feral cats); identifying the impacts of invasive species (e.g. the effects of translocated native fish and ornamental fish in the wild); and researching wildlife diseases (e.g. emerging amphibian diseases associated with chytridiomycosis).

The department continued to work with the Department of Agriculture, Fisheries and Forestry to enhance Australia's biosecurity system for primary production and the environment. Progress was made in drafting an intergovernmental agreement to give effect to this work. The Natural Resources and Primary Industries ministerial councils agreed to share the costs of responding to nationally significant incursions of invasive species.

The department helped draft the Australian Pest Animal Strategy. The Natural Resources and Primary Industries ministerial councils endorsed the strategy in April 2007. The strategy will be a key component of the Australian biosecurity system by preventing the introduction of feral animals and controlling established species.

Weed management

The department jointly manages the Defeating the Weed Menace Programme with the Department of Agriculture, Fisheries and Forestry. The programme identifies Australia's most threatening weeds and implements measures for their management.

In 2006–07, \$4.6 million was invested in research and development projects, with an extra \$3.8 million allocated for targeted on-ground weed control, to be completed by June 2008.

Specific national projects funded to meet national weed policy objectives include:

- accelerating the review of seeds approved to be imported into Australia
- a uniform national system of weed categorisation and risk assessment
- weed mapping and information.

The department is responsible for implementing the Community and Industry Engagement Plan, the major communications component of the programme.





The department coordinated the review of the 1997 National Weeds Strategy. The revised Australian Weeds Strategy was approved by the Natural Resource Management Ministerial Council in November 2006. It identifies priorities and provides a consistent national framework for weed management across Australia.

Sustainable firewood use

The unsustainable collection of firewood from native woodlands has been identified as a threat to the ongoing viability of woodland species because fallen and dead wood provides habitat and food for a wide range of species.

A revised Voluntary Code of Practice for Firewood Merchants was endorsed by the Natural Resource Management Ministerial Council in 2005. The firewood industry has formed the Firewood Association of Australia, whose members must comply with the Voluntary Code of Practice. In 2006 the department provided Natural Heritage Trust funding of \$500,000 over two years to the Firewood Association of Australia to assist it to build its membership and encourage the use of sustainably sourced firewood.

Conservation incentives

With 77 per cent of Australian land in private ownership, the department is continuing efforts to extend the protection of biodiversity on private land and to enhance the mechanisms for providing this protection.

Maintaining Australia's Biodiversity Hotspots Programme

Biodiversity hotspots are areas that support largely intact natural ecosystems where native species and communities are well represented and there is a high diversity of species which are not found or are rarely found outside the hotspot. In 2003, the Threatened Species Scientific Committee, comprising Australia's leading scientific experts in this field, identified 15 hotspots across Australia.

The Australian Government is providing \$36 million over 2004–2008 under the Maintaining Australia's Biodiversity Hotspots Programme to promote active conservation management and protect these and other hotspots. The programme supports two activities:

- It provides stewardship payments to private landholders to help them protect existing natural habitats with high conservation values on their land.
- It provides payments to conservation groups to purchase land to be managed for conservation in areas identified as biodiversity hotspots.

The programme has already invested some \$12 million in a range of initiatives and expects to invest a further \$21 million over the next year in projects across Australia. Projects funded in 2006–07 include:

- \$1,650,000 for the Daintree Conservation Initiative to acquire two high conservation value properties, employ a community conservation officer, implement a weed management strategy and feral pig control programme in partnership with Douglas Shire Council in Queensland, and undertake a national media campaign to promote rainforest conservation
- \$203,500 for the Cassowary Conservation Project to acquire property containing essential cassowary habitat, operate a cassowary hospital at Garner's Beach, and undertake various threat abatement activities. The project also contributed to cassowary DNA research undertaken by CSIRO.

The Australian Government has now approved the investment of \$12.7 million in 2007–08, including \$5.2 million to acquire 736,674 hectares of private land, and up to \$7.5 million for targeted stewardship investments in Queensland, Western Australia, the Northern Territory, New South Wales, Tasmania and South Australia.

Conservation covenants

Eligible landholders can access Natural Heritage Trust funding or Australian Government taxation incentives in return for entering into formal conservation agreements such as covenants.

Landowners entering into conservation covenants, either individually or with eligible organisations under a conservation covenanting programme, can claim income tax concessions subject to their incurring a loss of more than \$5,000 in the market value of their properties as a result of entering into the covenant.

There are currently 10 conservation covenanting programmes approved by the Australian Government for the purposes of the *Income Tax Assessment Act 1997*. In 2006–07 these covenanting programmes entered into 322 perpetual covenants with landholders protecting 92,707 hectares of private land.

Revolving funds

Revolving funds are another conservation mechanism to establish conservation covenants. The funds are used to purchase land with high conservation value and to attach a conservation covenant to the title of the land to provide for conservation management in perpetuity. The properties are then resold to buyers who have indicated their interest in maintaining biodiversity values. The proceeds from the sale of properties are used to buy more properties and to sell them with a conservation covenant in place.

The Australian Government has provided funding under the Bush for Wildlife initiative to five not-for-profit organisations to operate revolving funds. These are the Trust for Nature in Victoria, the National Trust of Australia in Western Australia, the Nature Foundation South Australia, the Queensland Trust for Nature and the Nature Conservation Trust of New South Wales. In 2006–07 the revolving funds acquired 17 properties with a total area of 98,408 hectares.





Environmental Stewardship Programme

In the 2007 Budget the Australian Government announced funding for the establishment of a new Environmental Stewardship Programme. This programme will commence in 2007–08 with a budget of \$50 million in its first four years. The programme will provide market-based incentives for private land managers to engage in the long-term protection and rehabilitation of matters of national environmental significance as listed under the *Environment Protection and Biodiversity Conservation Act 1999*.

These matters include nationally endangered or vulnerable species and ecological communities, natural values associated with world heritage and national heritage listed places, and migratory species and wetlands for which Australia has international responsibilities.

Land managers will be selected by market-based mechanisms for participation in the programme, and will be invited to enter into contracts of up to 15 years duration.

Native vegetation management

The National Framework for the Management and Monitoring of Australia's Native Vegetation is an agreement made in 2001 between federal, state and territory governments for a coordinated national approach to native vegetation management. Under the agreement, governments agreed to reverse the long-term decline in the extent and quality of Australia's native vegetation.

In 2005 the federal, state and territory governments began reviewing and revising the national framework. The revised framework will identify national policy priorities and directions for the management of native vegetation. The department provides the secretariat to the review.

In 2006–07 consultations were held with jurisdictions on the revised framework, and development continued of best practice mechanisms for management, data collection, monitoring and evaluation. A revised framework is expected to be completed in 2008.

Native vegetation information

The department continued work to improve the National Vegetation Information System, comprising maps of Australia's major vegetation types. The system provides information to assist land managers, scientists and other decision-makers involved in native vegetation management. The work is shared with the Department of Agriculture, Fisheries and Forestry.

In 2006–07 the department published Australia's Native Vegetation: A Summary of Australia's Major Vegetation Groups. The report includes vegetation maps and graphs detailing the impacts on native vegetation since European settlement in Australia. The maps and graphs substantially improve the quality of information

available to natural resource managers, researchers and educators on the distribution of native vegetation communities.

The report is available on the department's website at <http://www.environment.gov.au/erin/nvis/index.html>.

Native vegetation assessment

The department continued to work with stakeholders to develop nationally agreed indicators for monitoring and evaluating native vegetation. Work completed includes baseline and change information on vegetation cover for the National Vegetation Information System, interim national indicators for native vegetation condition, and pilot studies to test the indicators in the Northern Territory and New South Wales. Work is continuing through the Executive Steering Committee for Australian Vegetation Information to finalise these indicators for reporting purposes.

Rangelands conservation

The Australian Collaborative Rangelands Information System (ACRIS) is a national reporting system that brings together information about natural resources and biodiversity in rangelands and how rangelands are changing over time. The department chairs the ACRIS Management Committee, through which governments and researchers are working together to improve the reporting system.

The committee continued to work with the National Land and Water Resources Audit on a report about changes in rangelands. The report will cover a number of themes with indicators for biodiversity, landscape and ecosystem change; climate variability; and sustainable management. The information will help property and natural resource managers and regional decision-makers to make management decisions based on the best understanding of changes in environmental condition. The report is expected to be published in late 2007.

In 2006–07 the department released a new series of best practice reports for land managers and industry about how to manage biodiversity in rangelands. Issues covered include total grazing pressure, fire management, financial and environmental impacts of pastoral management decisions, and industry specific guidelines for sustainability, biodiversity monitoring, and water and weed management.

Copies of the reports can be obtained from the department. All reports can be downloaded from the departmental website at <http://www.environment.gov.au/about/publications/index.html>.

Tasmanian Community Forest Agreement

The Australian and Tasmanian governments are investing \$250 million over six years (2004–2010) through the Tasmanian Community Forest Agreement to





enhance the protection of Tasmania's forest environment and to promote growth in the Tasmanian forest industry. In 2007 Tasmania released its revised permanent forest estate policy under which native forest clearing and conversion to other land uses will cease on public land by 2010 and on private land by 2015. These phase-outs may be achieved earlier through voluntary action, as announced in June 2007 by Forestry Tasmania and by Gunns Limited. Under the agreement, Tasmania has also developed new statutory measures to prevent the clearing of rare and threatened non-forest vegetation communities.

In 2006–07 the department began implementing the environmental aspects of the Tasmanian Community Forest Agreement including the Forest Conservation Fund, Mole Creek Karst Forest Programme, Tasmanian Forest Tourism Initiative, Tasmanian Devil Facial Tumour Programme, and River Catchment Water Quality Initiative.

Forest Conservation Fund

The Forest Conservation Fund aims to protect up to 45,600 hectares of forested private land in reserves. The fund will target up to 25,000 hectares of old growth forest and forest communities that are under-represented in reserves.

The first round seeking voluntary agreements with landowners to protect forest on private land closed on 7 May 2007. The department received 236 requests from landowners for site assessments. Applications are currently being assessed.

The Forest Conservation Fund includes \$3.6 million to reserve up to 2,400 hectares of forest in the Mole Creek area—an area of spectacular 'karst' or limestone cave country. The department received registrations of interest from 30 landholders who want to conserve karst landscapes on their property. Negotiations with interested landowners are currently taking place.

Tasmanian Forest Tourism Initiative

The Australian Government is providing funds to support the development of environmentally sensitive tourism and recreation in Tasmania's forests, including \$1 million for the Tarkine Bushwalk Programme and \$2 million for the Tasmanian Forest Tourism Development Programme to improve visitor facilities in the new reserves created under the Tasmanian Community Forest Agreement. The two programmes are administered as the Tasmanian Forest Tourism Initiative.

In 2006–07 the department conducted a funding round seeking suitable proposals for environmentally sensitive tourism infrastructure in Tasmania. Twenty-three proposals were received. Successful proposals will be announced in 2007–08.

Tasmanian Devil Facial Tumour Programme

The Australian Government is providing \$2 million over two years (2005–2007) to accelerate research into a cure for the Tasmanian devil facial tumour disease.

The impact of the facial tumour disease prompted the Tasmanian devil's listing in July 2006 as a vulnerable species under the *Environment Protection and Biodiversity Conservation Act 1999*. First detected in Tasmania in the mid-1990s, the disease is a fatal cancer that has killed some 50 per cent of Tasmania's wild population of devils. The disease has been confirmed at 60 different locations across 59 per cent of the Tasmanian mainland.

Tasmanian devil facial tumour disease

The Tasmanian Devil Facial Tumour Disease Programme has made significant progress in determining the disease's cause and mode of transmission as well as establishing insurance populations on mainland Australia, with 47 devils placed in four breeding facilities. Disease suppression trials are under way on the Forestier Peninsula in Tasmania and genetic investigations, immune response and transmission trials are seeking further insights into what makes the devils susceptible to this cancer. Toxicological investigations are also under way to assess the level of chemicals within the devils' tissue. Mapping and monitoring of disease within populations are improving understanding of the disease's progress across Tasmania.

The Devil Disease Project Team recently captured 31 wild Tasmanian devils from the west coast in preparation for establishing a population on an offshore island, subject to *Environment Protection and Biodiversity Conservation Act 1999* consideration. The Australian Government committed a further \$1 million to continue efforts in 2007–08 to protect the species in the wild and to work towards finding a cure.

River Catchment Water Quality Initiative

The River Catchment Water Quality Initiative is a joint funding agreement between the Australian and Tasmanian governments. The initiative will provide \$1 million over two years (2006–2008) to audit and monitor the impact of forestry and agricultural chemicals on water quality in Tasmania's river catchments. The water quality information will enable land managers to make informed decisions about how, when and where particular chemicals can be safely used in Tasmania.

The initiative includes four projects: modification of the Commonwealth Scientific and Industrial Research Organisation's Pesticide Impact Rating Index risk assessment tool, a pesticide usage survey, analysis of historic water quality monitoring data, and pesticide behaviour research trials. The first version of the Pesticide Impact Rating Index modified for Tasmanian conditions has been completed. Refinement of the index is continuing.





Water strategies

The department is leading the Australian Government's national policies and programmes to achieve the more sustainable management of Australia's water resources. This follows the government's administrative order of 30 January 2007 creating the Department of the Environment and Water Resources. The new department consolidated the water resource management functions across the government from the Department of the Prime Minister and Cabinet, the Department of Agriculture, Fisheries and Forestry and the Department of the Environment and Heritage.

National Plan for Water Security

In January 2007 the Prime Minister announced a National Plan for Water Security to ensure rural water use is placed on a sustainable footing over the next decade. The plan is a \$10 billion package designed to improve water management across the nation with a special focus on the Murray–Darling Basin, where the bulk of Australian agricultural water use and production takes place.

The department supported the government in key meetings with the states and territories that set the framework for negotiations to implement the plan. This included summit meetings involving the Prime Minister, the premiers of New South Wales, Queensland, Victoria and South Australia and the Chief Minister of the Australian Capital Territory on 8 February 2007 and 23 February 2007, and a series of subsequent meetings at minister and officials level, and with stakeholder bodies.

Drawing on outcomes from these meetings, the department developed draft legislation to give effect to key features of the plan.

Contingency planning for the southern Murray–Darling Basin

In response to the continuing widespread drought affecting most of southern Australia, the Prime Minister convened a summit of relevant state premiers on 7 November 2006 to consider immediate actions to address water supplies in the southern Murray–Darling Basin. The summit initiated contingency planning to secure urban and town water supplies.

Since that time an intergovernmental senior officials group, chaired by the department, provided progress reports to ministers in April and June 2007. A number of recommendations were made to ensure critical water supplies in the southern part of the basin. These included temporary changes to state water sharing arrangements under the Murray–Darling Basin Agreement and water saving measures, such as the temporary disconnection of artificially inundated wetlands and changing river operations. These measures, implemented through the Murray–Darling Basin Commission, secured critical water supplies for 2007–08.

National Water Initiative

In June 2004 the Council of Australian Governments agreed the National Water Initiative, Australia's blueprint to reform water management across the country. The initiative sets out actions to be implemented over the next 10 years and includes commitments to:

- return over-allocated water to river and groundwater systems identified as having important conservation value to ensure the systems are protected and water levels are maintained
- ensure water allocated to meet environmental and other public benefit outcomes will be given at least the same degree of security as water allocated to other users
- ensure safe and reliable urban water supplies by increasing efficiency and encouraging recycling and innovation in water supply sourcing, treatment, storage and discharge.

The department chairs and provides the secretariat for the intergovernmental officials committees, which oversee the implementation of the National Water Initiative. These committees report to the Natural Resource Management Ministerial Council. Activities progressed during 2006–07 include water trading, water metering and accounting, and water information.

Under the National Plan for Water Security, these reforms will be accelerated by new funding to be administered by the department. In addition, legislation developed by the department will provide the basis for a range of new institutional and regulatory controls to further support water reforms.

National Water Quality Management Strategy

This year the department led work on the National Water Initiative's key urban water reforms, including the National Water Quality Management Strategy. This strategy sets out national guidelines on various aspects of urban water use.

In November 2006 the Environment Protection and Heritage Council and the Natural Resource Management Ministerial Council jointly released the National Guidelines for Water Recycling: Managing Health and Environmental Risks. The guidelines are an authoritative reference for the supply, use and regulation of recycled water and grey water schemes for non-drinking uses. The guidelines will help project planners to better match water quality to intended uses in the safest and most cost effective manner, and are expected to encourage increased water recycling over the longer term.

In July 2007 the Environment Protection and Heritage Council released a draft of the second phase of the National Guidelines for Water Recycling: Managing Health and Environmental Risks—'Recycled Water for Drinking'. These guidelines are subject to endorsement by the National Health and Medical Research Council. Additional guidelines on stormwater recycling and aquifer recharge are due to be released at the end of 2007.





The department worked through the Natural Resource Management Ministerial Council to release the National Guidelines for Residential Customers' Water Accounts, which are voluntary guidelines for water providers on how to inform customers, as part of their water bills, on their water use relative to equivalent households.

Groundwater

The department worked closely with the National Water Commission and other Australian Government agencies to implement the National Water Initiative groundwater actions, including work on groundwater measurement and surface and groundwater connectivity. In 2006–07 the minister wrote to his state and territory counterparts proposing the development of national standards on groundwater mapping and assessment to better ensure a comprehensive picture of Australia's groundwater resources. So far, there have been positive, in-principle responses to the minister's proposal from Western Australia, South Australia, Queensland and Tasmania. A paper has been prepared in the interim outlining proposed work plans to progress the proposal.

Murray–Darling Basin Commission

The Murray–Darling Basin covers one-seventh of the Australian continent and generates about 40 per cent of the national income derived from agriculture and grazing. The department worked through the Murray–Darling Basin Ministerial Council and the Murray–Darling Basin Commission to promote the sustainable management of the basin's natural resources, healthy river systems, viable rural communities and profitable, competitive and sustainable industries.

The department contributed \$10.9 million to the operation and works of the Murray–Darling Basin Commission to boost capital works in the basin. This was in addition to \$500 million provided by the Australian Government in June 2006 that has allowed the commission to:

- accelerate and fully fund its basin-wide capital works programme under its 2005–2010 business plan, including items previously deferred because of budget shortfalls
- deliver extra projects under The Living Murray Environmental Works and Measures Programme to optimise environmental outcomes from recovered water
- invest in its own right in water recovery projects.

The Living Murray Initiative

Water storage and regulation in the Murray–Darling Basin have affected the natural flow cycles of its rivers and groundwater. The Australian Government has committed \$200 million over five years (2004–2009) to The Living Murray

Initiative ‘first step’ agreement which aims to recover up to an annual average of 500 gigalitres of water by June 2009 for six icon sites in the Murray–Darling Basin: Barmah–Millewa Forest, Gunbower–Koondrook Pericoota Forests, Hattah Lakes, Chowilla Floodplain (including Lindsay–Wallpolla), the Murray Mouth Coorong and Lower Lakes, and the River Murray Channel. Five of these sites include Ramsar-listed wetlands. The department chairs the Murray–Darling Basin Committee responsible for advising on environmental watering priorities across these sites.

The department also made progress on The Living Murray water recovery measures including:

- contributing \$12.678 million to the Goulburn–Murray Water Recovery Package as part of the Australian Government’s \$37.2 million investment in the package. The package will recover 145 gigalitres of water
- committing \$5.57 million for the purchase of water under the South Australian project Securing Government Held Water for Environmental Use. The project will recover 13 gigalitres of water
- committing \$10.286 million for the purchase of water under the Murray–Darling Basin Commission’s pilot market purchase project. The project will aim to purchase up to 20 gigalitres of water through brokers from willing sellers at market prices
- finalising tenders to recover water through efficiencies in agricultural production for The Living Murray icon sites, and assessing a package of preferred tenders that will potentially recover 450 megalitres of water for an investment of up to \$765,000.

Joint Government Enterprise—Water for Rivers

The Joint Government Enterprise (trading as Water for Rivers) is a public company established by the Australian, Victorian and New South Wales governments to recover water through efficiency savings for environmental releases in the River Murray and the Snowy River. The company was incorporated in 2003 in accordance with the 2002 Snowy Waters Inquiry Outcomes Implementation Deed, and comprises a board of independent directors. The Australian Government’s interests in the enterprise are administered by the department.

In 2006–07, 14.2 gigalitres of water were recovered for environmental flows in the River Murray and 37.2 gigalitres were recovered for environmental flows in the Snowy River. Since the enterprise was established in 2003, the volume of water transferred to the environmental entitlement is 64.7 gigalitres. The water recovered for the River Murray will be used consistent with the objectives of The Living Murray Initiative.





Great Artesian Basin

The Great Artesian Basin is one of the largest artesian groundwater basins in the world. It underlies approximately one-fifth of Australia and extends beneath arid and semi-arid regions of Queensland, New South Wales, South Australia and the Northern Territory. Traditionally, artesian water from the basin that came to the surface under natural pressure was allowed to flow uncontrolled into open drains and creeks for distribution to stock. These uncontrolled flows are wasteful—up to 95 per cent of water can be lost through evaporation and seepage—and they threaten the health of important groundwater-dependent ecosystems. The wasted water is causing land and water salinisation, spread of pest plants and animals, and reduced pressure in some naturally occurring artesian springs.

The Great Artesian Basin Sustainability Initiative aims to repair uncontrolled artesian bores and replace open earthen bore drains in the Great Artesian Basin with piped water reticulation systems. The initiative is being delivered through state agencies. The department makes its contributions, on behalf of the Australian Government, jointly with other key stakeholders, state governments and pastoral bore owners.

The Australian Government provided \$10.2 million to relevant states under phase 2 of the initiative to cap and pipe uncontrolled bores to aid pressure recovery. Some of these rehabilitation works fell behind schedule in 2006–07 because of problems in obtaining drillers and materials due to the mining boom and international demand, and a reduction in landholders' financial capacity due to the drought.

The department participates in the Great Artesian Basin Coordinating Committee, an advisory committee providing advice on the sustainable management of the basin as a whole. In 2006–07 the committee focused on developing a companion document to the Great Artesian Basin Strategic Management Plan to set out areas for particular focus for the next five years.

A mid-term review of phase 2 of the Great Artesian Basin Sustainability Initiative commenced in June 2007. The review's terms of reference include analysing the extent to which stakeholder awareness and support for the sustainable use of the basin, promoted under phase 2, have translated to improved management practices. To inform the review the department commissioned the Bureau of Rural Sciences to undertake a pilot project to assess whether landscape condition had improved as a result of capping and piping.

Under the National Plan for Water Security, phase 3 of the initiative was announced, requiring the establishment of proper entitlements, pricing regimes, water use metering and reporting for all Great Artesian Basin bores. Phase 3 will be administered by the department.

Lake Eyre Basin Intergovernmental Agreement

In 2006–07 the department supported a review of the agreement, which is assessing the results of the agreement's first five years. The recommendations from the review will be considered by the Lake Eyre Basin Ministerial Forum later in 2007.

The department also supported the Lake Eyre Basin Rivers Assessment Project which will be completed by the end of 2007. The project is examining the condition of the Lake Eyre catchment and potential impacts of future water development activities.

Water Resources Assessment and Research Grants

The Water Resources Assessment and Research Grants programme provides grants for research into the sustainable use and management of water resources, particularly for sustainable irrigation. The department measures the performance of this programme by the number of publications produced, and by the usefulness of the research in policy advice and development.

The department sponsored the Australian Water Association Ozwater 2007 conference which attracted over 400 abstracts and over 1,200 participants. The department presented papers at the conference on the processes and benefits of recycling water. The department also funded an Australian Bureau of Agriculture and Resource Economics report entitled *Water Scarcity in Australia—An Economic Assessment of Commercialisation Options*. This report will be used to inform water reform policy decision-making.

With support from this grants programme, the Bureau of Rural Sciences developed promotional material for the Connected Water website and toolbox, which aim to progress a coordinated approach to managing surface and groundwater resources in Australia. The toolbox was promoted at the Rivercare Facilitators workshop, Getting to Know Groundwater training course, and the Groundwater for Decision Makers workshop, reaching approximately 120 facilitators, catchment managers and representatives of water authorities.

The department is providing support to the Northern Australia Irrigation Futures Project to investigate the potential for expanding irrigation in northern Australia. The project will gather information about northern Australia's river catchments and existing irrigation. The information will be made available to decision-makers to ensure that any new irrigation development is sustainable and managed in the context of the entire catchment. The role and expected outputs of the project were discussed at the 2006 Australian National Committee on Irrigation and Drainage conference, attended by more than 300 participants. The project was also presented to the Riversymposium attended by approximately 1,000 water and environmental experts.





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 (WELS) Scheme. The scheme came into operation on 1 July 2005 on a voluntary basis and became compulsory on 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 six products (WELS products) to be rated and labelled for their water efficiency. These are showers, tap equipment, dishwashers, washing machines, lavatory equipment and urinal equipment. Registration of flow controllers is optional. All new WELS products manufactured in Australia or imported must now be registered and labelled before they can be sold. 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, monitoring and compliance. In 2006–07, 4161 products were registered, bringing the total number registered to 7,759 since the scheme began in July 2005.

In March 2005, Environment Protection and Heritage Council ministers signed an agreement with state and territory governments outlining their roles and responsibilities for the implementation of WELS. Since then, each state and territory government has submitted legislation to its parliament to form part of the scheme, in order to ensure that the scheme applies consistently within Australia. This process was completed in April 2007 when legislation was passed by Western Australia and the Northern Territory.

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

Wetlands of national and international importance

The department promotes the conservation, repair and wise use of wetlands across Australia and internationally. The department is responsible for implementation of the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) and for coordinating Australia's whole-of-government responses in collaboration with state governments, Ramsar site managers and other relevant stakeholders. The Ramsar Convention's broad aims are to halt the worldwide loss of wetlands and to conserve, through wise use and management, those that remain. The department also administers the *Environment Protection and Biodiversity Conservation Act 1999* provisions for Ramsar-listed wetlands.

Australia has 64 wetlands of international importance listed under the Ramsar Convention covering more than 7.3 million hectares. All Ramsar sites in

Commonwealth areas are required to have management plans. To date, 55 of the 64 listed Australian Ramsar wetlands have management plans or draft plans.

The department continued to provide advice and assistance to implement the Ramsar Convention, and initiated two major projects to help Australia meet its responsibilities under the convention and the *Environment Protection and Biodiversity Conservation Act 1999*. One project was a snapshot review of the current status and management of Ramsar-listed wetlands, to help identify longer term management priorities. The other project was the development of the Australian National Guidelines for Ramsar Wetlands—Implementing the Ramsar Convention in Australia. These guidelines will provide a framework for Ramsar implementation in Australia, including the processes for Ramsar site listings, describing their ecological character and management planning.

The first module of these national guidelines, Mapping Specifications for Australian Ramsar Wetlands, was completed in October 2006. The module provides guidance on how to adequately map and describe the boundaries of Ramsar wetlands. This will help implement responsibilities under the *Environment Protection and Biodiversity Conservation Act 1999*.

The second module, the National Framework and Guidance for Describing the Ecological Character of Australia's Ramsar Wetlands, is due for completion at the end of 2007. The module will provide a national standard method for describing the ecological character of Ramsar wetlands, and the baseline condition of wetlands at the time of listing, to enable assessment of change and determine monitoring needs.

International activities

The department supported and participated in multilateral and bilateral forums related to water including:

- OECD review of Australia's environmental performance
- World Water Forum in Turkey and Asia-Pacific Water Summit
- Australia-Indonesia Joint Working Group on the Environment
- bilateral ministerial meetings with China and Israel
- meetings with diplomatic officials and visiting delegations from Japan and the United States.

The department worked with the Chinese Ministry of Water Resources on a water entitlement and trading project under the China-Australia memorandum of understanding on water management. In 2006-07 the project established a framework for managing water entitlements in China.

The department also engaged with the Ramsar Convention and its secretariat. Australia was represented at the convention's standing committee meeting in Geneva in February 2007, and participated in processes for selecting the convention's new secretary-general.





Land and water investments

The department invests in conserving Australia's land and inland water resources through the Natural Heritage Trust and the Community Water Grants Programme.

The Department of the Environment and Water Resources receives the annual appropriation for the Natural Heritage Trust. The department has a cross-portfolio arrangement with the Department of Agriculture, Fisheries and Forestry for the administration of the Natural Heritage Trust and the National Action Plan for Salinity and Water Quality. The arrangement enables both departments to deliver the Natural Heritage Trust through a joint Australian Government Natural Resource Management Team. A board made up of the Minister for the Environment and Water Resources and the Minister for Agriculture, Fisheries and Forestry administers the Natural Heritage Trust. The two departments also jointly administer the Community Water Grants Programme.

Administration of the Natural Heritage Trust

The \$3 billion Natural Heritage Trust was established by the Australian Government in 1997 to invest in activities that help to restore and conserve Australia's environment and natural resources. Activities are undertaken at regional, national, and local scales.

Actions at the regional scale are the largest component of Natural Heritage Trust investment. Communities in 56 regions across Australia develop regional plans and investment strategies that identify priorities for funding under both the Natural Heritage Trust and the National Action Plan for Salinity and Water Quality. Federal, state and territory governments are working together to fund these plans. As at 30 June 2007 Australian Government ministers had accredited 55 integrated natural resource management regional plans, approved a regional strategic directions plan, and had agreed to investment strategies for the 56 regions covering the entire continent as the basis for government investment.

Actions at the national scale are the second largest component of Natural Heritage Trust investment. This component supports projects that will have a national outcome, as opposed to a regional or local outcome, including projects carried out by industry and non-government organisations, and state and territory governments.

Actions at the local scale are the third component of Natural Heritage Trust investment. Community groups can address local environmental problems through grants of up to \$50,000 under the Australian Government Envirofund. Since Envirofund was launched in 2002 it has funded nearly 7,000 local projects at a cost of more than \$110 million.

In 2006–07 the Department of the Environment and Water Resources provided \$7.3 million to the Department of Agriculture, Fisheries and Forestry under

a purchaser-provider arrangement to fund administration costs incurred in implementing the Natural Heritage Trust.

Detailed results of Natural Heritage Trust investment are provided in the annual reports of the Natural Heritage Trust and the annual regional programme reports available at www.nrm.gov.au/publications/#annreps.

Bushcare, Landcare, Rivercare and Coastcare

Natural Heritage Trust investments are also categorised according to environmental outcome with four main themes:

- The Landcare programme invests in activities that contribute to reversing land degradation and promoting sustainable agriculture.
- The Bushcare programme invests in activities that contribute to conserving and restoring habitat for native flora and fauna.
- The Rivercare programme invests in activities that contribute to improved water quality and environmental flows in river systems and wetlands.
- The Coastcare programme invests in activities that contribute to protecting coastal catchments, ecosystems and the marine environment.

Funding for these programmes in 2006–07 was: Bushcare (\$123 million; 39 per cent), Landcare (\$82 million; 26 per cent), Rivercare (\$48 million; 16 per cent) and Coastcare (\$53 million; 19 per cent).

More information on Coastcare is in the chapter on coasts and oceans.

Reviews of the Natural Heritage Trust

Two evaluations of the Natural Heritage Trust were completed in 2006–07. They addressed the effectiveness of regional investment in protecting coastal and marine environments and the impact of the national facilitator network on regional outcomes. This brings the number of independent evaluations of the Natural Heritage Trust to 10. The evaluations all supported the continuation of the national, regional and local level delivery of the Natural Heritage Trust. In particular, the regional component jointly delivered with the National Action Plan for Salinity and Water Quality was found to have promoted a strategic and integrated approach to natural resource management across Australia.

The recommendations from these evaluations are informing the Australian Government's development of the next phase of the Natural Heritage Trust, which commences on 1 July 2008. Current arrangements under the National Action Plan for Salinity and Water Quality and the Natural Heritage Trust will lapse in June 2008.

In the next phase, the Natural Heritage Trust will be combined with the National Action Plan for Salinity and Water Quality under one programme.





New framework for natural resource management programmes

In late 2006 the Natural Resource Management Ministerial Council endorsed for public release a Framework for Future Natural Resource Management Programmes as the basis for the further development of programme arrangements by the Australian Government and the states and territories. The Australian Government and state and territory governments are negotiating bilateral agreements to govern the new Natural Heritage Trust programme.

In 2007 the Australian Government announced a total of almost \$2 billion funding over five years from 2008–09 to replace the current funding arrangements for the National Action Plan for Salinity and Water Quality and the Natural Heritage Trust.

The objectives of the Natural Heritage Trust—biodiversity conservation, sustainable use of natural resources, community capacity building and institutional change—were retained in the new framework.

Support for the National Action Plan for Salinity and Water Quality

The Australian Government has committed \$700 million over eight years (2000–2008) to implement the National Action Plan for Salinity and Water Quality, building on related work under the Natural Heritage Trust.

The Department of Agriculture, Fisheries and Forestry is responsible for administering the National Action Plan for Salinity and Water Quality. The Department of the Environment and Water Resources provides administrative support to the Department of Agriculture, Fisheries and Forestry under a purchaser-provider arrangement associated with a joint Australian Government Natural Resource Management Team, which also manages the Natural Heritage Trust.

In 2006–07 the Department of Agriculture, Fisheries and Forestry provided \$0.87 million to the Department of the Environment and Water Resources.

Through the joint team the two departments are helping people in 56 regions across Australia to develop integrated natural resource management plans for both the National Action Plan for Salinity and Water Quality and the Natural Heritage Trust. The plans include priorities for controlling salinity and protecting water quality. Under the National Action Plan 36 natural resource management regions have been identified for investment.

Detailed results of National Action Plan investment are in the annual report of the Department of Agriculture, Fisheries and Forestry at www.nrm.gov.au/publications/#books.

Projects that have been funded by the Natural Heritage Trust and the National Action Plan are listed at <http://www.nrm.gov.au/>.

Community Water Grants

Community Water Grants are part of the Australian Government's \$2 billion Australian Government Water Fund. Community Water Grants fund practical, on-ground projects to save water. Along with Envirofund, they form part of the department's work to help the community address local environmental issues.

Community groups, schools, local governments, catchment management authorities, environmental groups and non-government organisations as well as individuals and businesses are eligible for grants of up to \$50,000 each. Larger grants between \$100,000 and \$250,000 are available subject to strict eligibility criteria including a contribution of matching cash funding. To be successful, applicants must be able to demonstrate very high public benefit.

In 2006–07, a total of \$73.3 million was paid for 1,759 projects. This comprised 272 round one projects totalling \$9.6 million and 1,487 round two projects totalling \$63.7 million.

As a result of round two projects, communities across Australia will save a total of 10,369 megalitres of water each year and improve the health of water from a combined catchment area of 1.5 million hectares. Volunteers will contribute 565,000 hours to ensure the success of their projects. Communities have raised \$57.7 million in cash and in-kind contributions for their projects.

The department is at the forefront of automated programme management with Community Water Grants. Applications are assessed and ranked in a database against the programme's merit criteria, which include level of community engagement, value for money and amount of water saved. Any projects with a potential risk to human health or the environment are independently reviewed by experts. Advances in electronic processing have allowed round two to be assessed in three months compared to five months taken to assess round one.

For more information on Community Water Grants see www.australia.gov.au/communitywatergrants.

Miscellaneous programmes

Scouts 100 Year Anniversary Rainwater Tank Grant

On 4 May 2007 the Prime Minister announced that the government was to provide \$17.7 million to Scouts Australia to install rainwater tanks at scout facilities.

The grant commemorates 100 years of scouting world wide. Australia, one of the first countries to adopt scouting, will mark its centenary in 2008.

The funding will assist the Scouts across Australia to generate significant water savings. There is sufficient funding to cover all suitable scout halls in the nation. Any remaining funds will be used at scout camps.

Scout state branches will handle subcontracting and arrange for installation, which is expected to start in October 2007.





A Scouts Australia webpage explains how the water tank grant is to be implemented (see <http://www.scouts.com.au/main.asp?iStoryID=12103690>).

Strengthening Tasmania—Tamar River pylons

During 2006–07 the department managed a \$750,000 programme to install pylons at the edge of the North Esk River, a tributary of the Tamar River near Launceston, Tasmania. The project will replace 100-year-old rotting timber pylons with new ones and rebuild and stabilise an unsafe levee. The work will help improve river health, boost flood protection and increase recreational opportunities on the North Esk River. The work is expected to be completed by 30 June 2008.

Blackburn Lake Sanctuary

The Australian Government provided \$1.8 million for the purchase of land adjacent to the Blackburn Lake Sanctuary, Melbourne, to protect and extend the Blackburn Lake Sanctuary area. Blackburn Lake Sanctuary consists of a lake and surrounding remnant bushland in the suburb of Blackburn, located approximately 17 kilometres east of the centre of Melbourne. The sanctuary has significant local environmental and recreational values. The funding is conditional on matching funding from both the Victorian Government and the City of Whitehorse, and the Victorian Government publicly releasing the valuation of the site. At 30 June 2007 a tripartite agreement was with the Victorian Premier's Department awaiting approval.

Terrestrial parks and reserves

The Director of National Parks is a corporation established under the *Environment Protection and Biodiversity Conservation Act 1999*. The Director is responsible, amongst other things, for the administration, management and control of Commonwealth reserves and for the protection, conservation and management of biodiversity and heritage in those reserves. The Director is supported by staff of the Department of the Environment and Water Resources.

Protected area management

Commonwealth reserves for which the Director of National Parks is responsible include remote national parks, marine parks and botanical gardens. Kakadu, Uluru–Kata Tjuta and Booderee national parks are jointly managed with their Indigenous traditional owners.

In 2006–07 the Australian Government also provided \$7.3 million over four years to rehabilitate old uranium mines and related sites and to securely contain mine wastes in what is now the Gunlom Aboriginal Land Trust area in the south of Kakadu National Park. These sites include Guratba or Coronation Hill, one of northern Australia’s most sacred Aboriginal sites. Mine shafts, pits, old tracks and some hazardous material were left in this area as the result of uranium mining between 1956 and 1964. Limited rehabilitation of these areas has been undertaken in the past.

Detailed information about management outcomes for 2006–07 appears in the annual report of the Director of National Parks (see www.environment.gov.au/parks/publications).

National Reserve System Programme

In partnership with major philanthropic organisations, government, the private sector and community groups, the Natural Heritage Trust’s National Reserve System Programme supports the purchasing and covenanting of properties to add to the National Reserve System.

In 2006–07 the programme contributed nearly \$5.4 million to help buy or covenant 10 properties covering 588,141 hectares. It also supported two private land covenanting projects in Tasmania and Queensland with a contribution of \$524,545. To date the National Reserve System Programme has assisted the acquisition of 277 properties comprising over 7,533,288 hectares. Projects supported this year include:

- 191,000 hectare Wongalara Sanctuary located in the Arnhem Land region (see case study)





- 1,300 hectares at Scottsdale, New South Wales. This protected area includes important parts of the Murrumbidgee River and helps build the corridor of protected areas linking habitats from Mount Kosciuszko to the coast. Habitats on the property include remnant temperate grasslands, grassy woodlands, box gum woodlands and environments containing swamps, bogs and springs. Until now only one of these four critical ecological communities was sufficiently protected in the region. The Australian Government through the Natural Heritage Trust contributed \$407,000 to the project. Bush Heritage Australia made a commitment for \$1.17 million
- 157 hectares under seven conservation agreements with landowners in Tasmania. Tasmania's highly successful voluntary Protected Areas on Private Land project commenced in 2000 and to date has added approximately 4,390 hectares to the National Reserve System.

A key finding of a recent independent evaluation of the programme was that the National Reserve System Programme makes an important and cost effective contribution to the conservation of biodiversity in Australia (The National Reserve System Programme—2006 Evaluation by Brian Gilligan).

The World Wildlife Fund–Australia's report *Building Nature's Safety Net—A Review of Australia's Terrestrial Protected Area System, 1991–2004* released in 2006 noted the substantial expansion of the National Reserve System occurring over the review period and commended the programme's ability to build effective partnerships between government, the private sector and individual donors.

The Australian Government invested \$644,727 implementing Directions for the National Reserve System—A Partnership Approach. The approach, agreed by the Natural Resource Management Ministerial Council in 2005, is a commitment from all Australian governments to develop and manage the National Reserve System. Three projects drawing on national and international expertise were begun to:

- identify the potential impacts of climate change on the National Reserve System and to lay the groundwork for modifying its development and management to better conserve biodiversity. This project is jointly funded by the department and the Commonwealth Scientific and Industrial Research Organisation
- develop a framework for management effectiveness and national principles for protected area management. This is an Australian Research Council linkage project between the New South Wales, Victorian and Australian governments, the University of Queensland and the Director of National Parks
- undertake a preliminary assessment of the range and magnitude of socio-economic benefits protected areas provide in remote and rural communities.

Australia's National Reserve System now protects over 88 million hectares in nearly 9,000 protected areas. This is over 11 per cent of Australia's land area.

For more information refer to the annual reports of the Director of National Parks at www.environment.gov.au/parks/publications.



Wongalara Sanctuary

In November 2006 the Australian Wildlife Conservancy purchased the Wongalara property with the assistance of the National Reserve System Programme. The Wongalara Sanctuary is the 270th property purchased with the support of the programme.



Gouldian finch. Photo: Steve Murphy, Australian Wildlife Conservancy

Wongalara lies within the Gulf Fall and Uplands bioregion, about 120 kilometres south-east of Kakadu National Park. It covers over 191,000 hectares and features threatened and poorly protected wetlands, sandstone communities and patches of monsoon rainforest. Rugged escarpments rising above tall rainforest patches and tropical woodlands are dissected by a network of tropical streams. The Wilton River gives rise to rich riverside vegetation and provides habitat for a variety of fish, turtles and the freshwater crocodile.



Northern quoll. Photo: Bruce Thomson, Australian Wildlife Conservancy

Wongalara also provides habitat for nationally threatened species such as the red goshawk, Gouldian finch, the crested shrike-tit and the northern quoll, as well as species endemic to the Arnhem region such as the hooded parrot and the Kakadu dunnart.

Prior to its protection within the National Reserve System, Wongalara's natural values were threatened by cattle grazing, by building new roads and fences, and by clearing woodlands and adding new watering points.

The National Reserve System Programme provided a grant of \$2.1 million towards the purchase and establishment of the new protected area. The Australian Wildlife Conservancy contributed \$1.93 million to the acquisition of Wongalara and is making a significant commitment to managing the land in perpetuity.





Indigenous Protected Areas Programme

Indigenous protected areas are non-statutory protected areas that form part of the National Reserve System. The Indigenous Protected Areas Programme helps Indigenous landowners establish and manage Indigenous Protected Areas on their lands through contractual arrangements with the Australian Government. The programme also promotes the integration of Indigenous ecological and cultural knowledge into the management of these areas.

In 2006–07 the Natural Heritage Trust provided \$3.119 million for the programme. Three Indigenous Protected Areas were declared covering 4,501,870 hectares. These were:

- Laynhapuy Indigenous Protected Area (450,000 hectares) located in north-east Arnhem Land, Northern Territory
- Ninghan Indigenous Protected Area (46,870 hectares) located in the Yalgoo region 350 kilometres north of Perth, Western Australia
- Northern Tanami Indigenous Protected Area (4,005,000 hectares) located in the northern Tanami Desert at Lajamanu community, 900 kilometres south of Darwin, Northern Territory.

These declarations bring the total number of Indigenous Protected Areas to 23, covering 18.5 million hectares.

An independent evaluation of the Indigenous Protected Areas Programme released in November 2006 hailed the success of the programme in bringing Indigenous-owned lands of significant high conservation value into the National Reserve System. The evaluation identified the programme's cost effectiveness and broader social benefits and made recommendations for growing and strengthening the programme.

Northern Tanami Indigenous Protected Area

The Northern Tanami Indigenous Protected Area was declared in April 2007. The area covers 40,000 square kilometres of the Tanami Desert. It is managed by the Lajamanu community, and is located 900 kilometres south of Darwin.



Wilson's Creek. Photo: Central Land Council



Male crimson finch. Photo: Central Land Council



Wulaign people. Photo: Central Land Council

The area encompasses a dramatic array of landscapes including alluvial sandplains, broad paleodrainage channels, sandstone outcrops, laterite plateaus, escarpments and black soil plains. The land supports many threatened plant species, and vulnerable fauna including the greater bilby, the great desert skink and the endangered Gouldian finch. During the monsoonal rains the arid zone wetlands teem with life, supporting wallabies and emus and providing breeding habitats for migratory waterbirds and waders.

Managing the area provides employment and training opportunities for local communities. For instance, the Wulaign Rangers, set up by the Central Land Council and the Wulaign Outstation Resource Centre, use traditional and contemporary methods to manage the land.

The rangers monitor and control weeds and feral animals, use controlled burning to reduce the impact of wildfire on ecologically

and culturally important areas, and erect fencing to protect habitats and areas of cultural significance and prevent property damage.





Indigenous protected areas (IPA) promote Indigenous welfare

The IPA is helping create good jobs, like rangers to take care of country. It is giving young people opportunities day by day. Young people really enjoy working on the IPA, and old people enjoy going out with them. Women really enjoy taking children out for stories.

Billy Bunter, Gurindji man

The independent review of the Indigenous Protected Areas Programme by the former Director-General of the New South Wales National Parks and Wildlife Service, Mr Brian Gilligan, found that:

- 95 per cent of Indigenous Protected Area communities report economic participation and development benefits from involvement with the programme
- 85 per cent report that Indigenous Protected Area activities improve early school engagement
- 74 per cent report that their Indigenous Protected Area management activities make a positive contribution to the reduction of substance abuse
- 74 per cent report that their participation in Indigenous Protected Area work contributes to more functional families by restoring relationships and reinforcing family and community structures
- 60 per cent report positive outcomes for early childhood development from their Indigenous Protected Area activities.

Genetic resources management

In October 2002 the Natural Resource Management Ministerial Council endorsed an intergovernmental agreement—the Nationally Consistent Approach for Access to and the Utilisation of Australia’s Native Genetic and Biochemical Resources—to establish a common approach to genetic resource management in Australia.

The department, under an agreement with Biotechnology Australia, is administering \$2 million over the period 2004–2008 to assist states and territories to develop nationally consistent legal frameworks for accessing and using genetic resources.

The Northern Territory introduced consistent legislation which came into force in February 2007. The Australian, Queensland and Northern Territory governments now have legislation in place to implement the intergovernmental agreement.

Australian Biological Resources Study

The Australian Biological Resources Study funds research and training in the fields of taxonomy and biogeography. The programme aims to describe and document Australia’s plants, animals and other organisms, and where they occur, so as to build the knowledge needed for the conservation and sustainable use of Australia’s biodiversity.

Administrative funds expenditure under the programme in 2006–07 was \$1.875 million. Funding supported taxonomic research and publications. This work contributes to the Flora of Australia Online, Species Bank and the Australian Faunal Directory (www.environment.gov.au/biodiversity/abrs) which hold data on 75,000 species, and a range of other specialist publications.

Taxonomic research investigated and described organisms that might poison cattle, parasites that infect coral reef fish and a mayfly family which is an important indicator of water quality. Other projects relate to identification of native thrips to assist the recognition of newly introduced, potential pest species for quarantine purposes, and research on spider mites that will also strengthen Australia’s ability to detect new exotic species by better identifying native species.

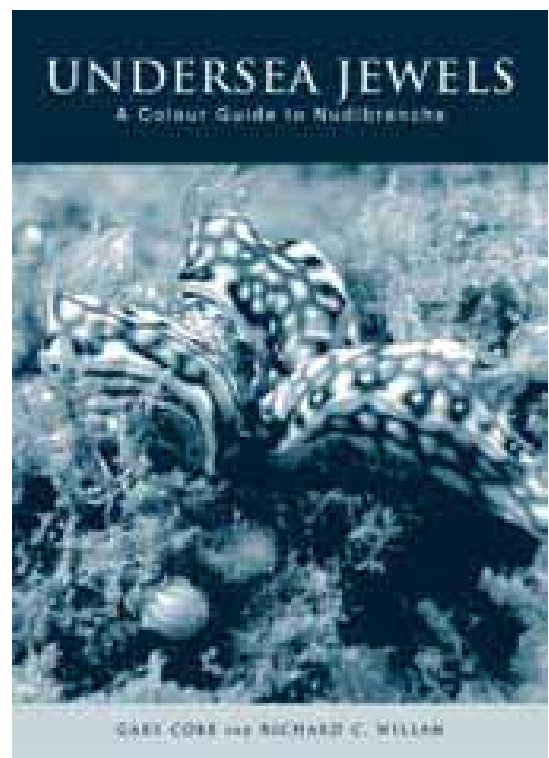
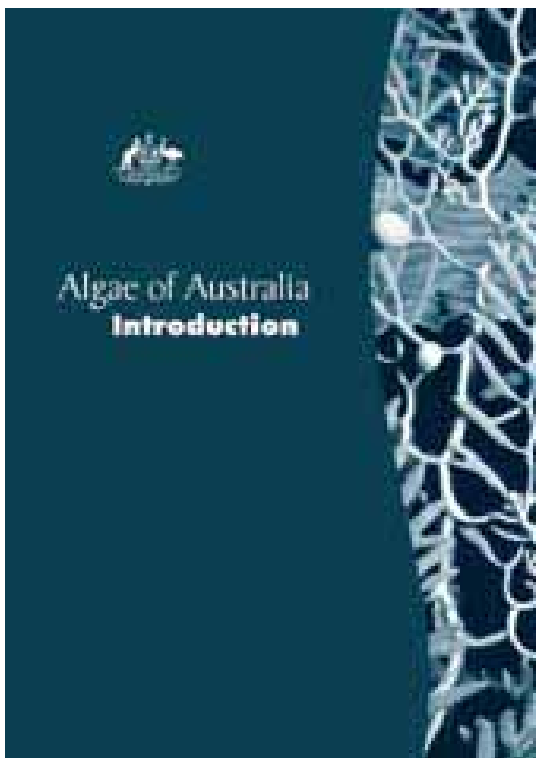
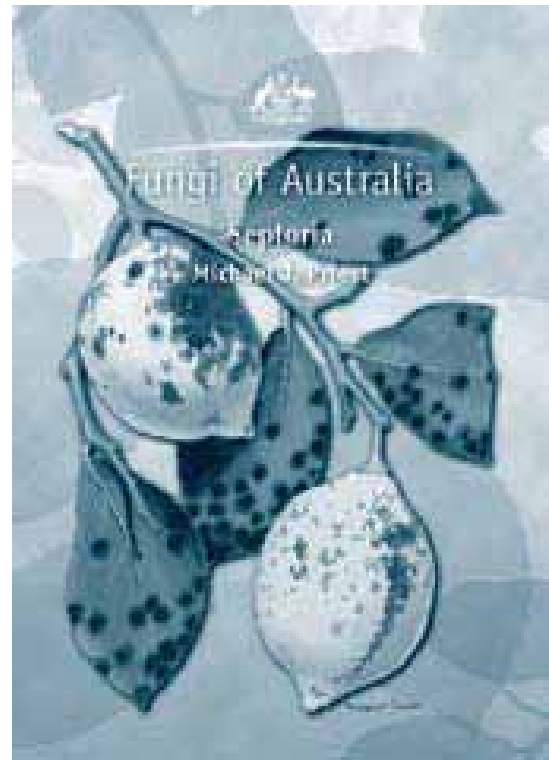
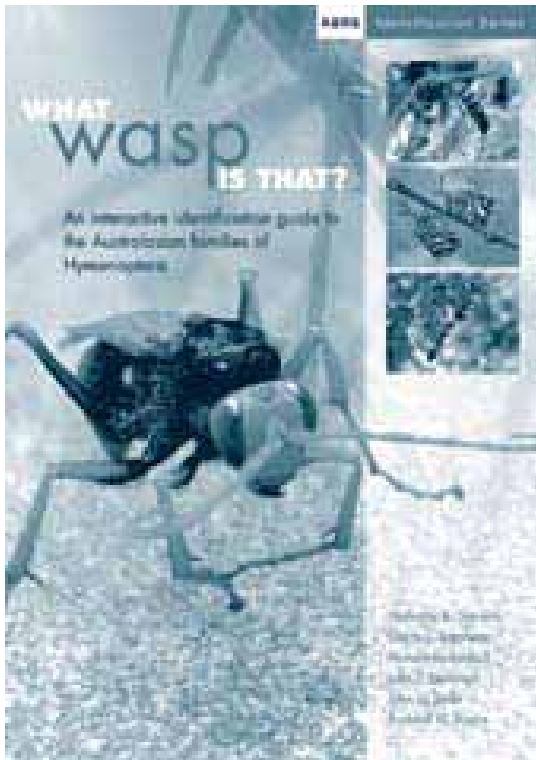
Work continued on the development of the Australian Biodiversity Information Facility data portal with funding from the Natural Heritage Trust. The portal will provide access to biodiversity data held and maintained by individuals and institutions throughout Australia. The Australian Biodiversity Information Facility website has been updated and is at www.abif.org.





Outcome 1—Environment

Land and inland waters



Australian Biological Resources Study publications.

Tropical wetlands research

The department's Environmental Research Institute of the Supervising Scientist carries out research on the management of tropical rivers and their extensive associated wetlands in northern Australia, with a focus on sustainability. It is a partner in the National Centre for Tropical Wetland Research, and a member of the newly established Tropical Rivers and Coastal Knowledge research consortium.

Ecological inventory and risk assessment of tropical rivers

Australia's northern river systems are poorly understood but are often cited as offering development potential, chiefly for agriculture, horticulture and mining. The department is investing in Australia's Tropical Rivers Programme to increase knowledge about the environmental characteristics of these tropical river systems.

In 2006–07 the department invested \$30,000 from the Natural Heritage Trust to fund the completion of the Tropical Rivers Inventory and Assessment Project, which was administered by Land and Water Australia's Tropical Rivers Programme.

The three-year \$1.05 million project examined 51 catchments across northern Australia, from Broome in the west of the continent to the top of the western tip of Cape York, covering some 1,192,000 square kilometres. The study assessed three catchments in more detail—the Fitzroy River in Western Australia, the Daly River in the Northern Territory, and the Flinders River in Queensland—representing each state or territory within the study region.

The aims of the project were to compile an information base for assessing the ecological status of the tropical rivers, and to develop and apply an assessment framework to predict the ecological risks of major pressures on the rivers. Two projects (inventory and mapping, and risk assessment of pressures) were completed in 2006–07. The projects will inform and support holistic approaches for management of tropical rivers and wetlands in the region. All reports and relevant project information are available at www.environment.gov.au/ssd/tropical-rivers/.

The outputs and outcomes of the Tropical Rivers Inventory and Assessment Project will be formally integrated into the research programme of the recently established Tropical Rivers and Coastal Knowledge research hub, which is partly funded under the Australian Government's Commonwealth Environment Research Facilities programme.



Results for performance indicators

Performance indicator	2006–07 results
Key threats to terrestrial biodiversity	
Number of threat abatement plans (i) being prepared or revised and (ii) in operation	(i) 5 plans being revised and 1 being developed (ii) 9 plans in operation
Of those listed key threatening processes on the land that require a threat abatement plan, the percentage that have threat abatement plans in operation	90%
Native vegetation (including forests)	
Percentage change in native vegetation cover, using the National Carbon Accounting System	Estimated to be less than 1%. The National Carbon Accounting System shows there has been a general reduction in annual deforestation since the 1980s and early 1990s. The most recent snap-shot is for 2004. Deforestation for that year is estimated to be around 400,000 hectares across Australia
Protecting Australia's Biodiversity Hotspots (administered item)	
Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%)	100%
Number of interventions to protect identified hotspots	(See below)
Number of projects funded	(See below). The Australian Government has also approved investment of \$5.2 million for private land acquisitions and up to \$7.5 million to deliver 9 stewardship investments in 2007–08
Protecting Australia's Biodiversity Hotspots (Daintree Conservation Initiative) ¹	
Extent to which recovery of the cassowary and protection of Daintree lowlands is improved	As at June 2007, 143 hectares (on 14 properties) had been acquired under the Daintree Conservation Initiative; 4 areas were secured for cassowary recovery and management and 59 hectares of cassowary habitat were acquired and proposed for a nature refuge
Number of cassowary conservation activities funded	1 property supporting cassowary habitat was acquired for \$280,000; \$215,000 was spent for community stewardship programmes including \$75,000 for a feral pig trapping programme and \$140,000 for a cassowary recovery facility
Number of rainforest conservation activities funded	\$3,822,000 was spent to acquire 14 high conservation value properties. \$410,000 was spent on community stewardship programmes; \$150,000 for project officers and community liaison; \$85,000 for the Daintree feral pig trapping programme; \$125,000 for weed action and \$120,000 for a national media campaign

¹ This is an administered item under output 1.4 in the 2006–07 Portfolio Budget Statements.



Performance indicator	2006–07 results
A sustainable future for Tasmania (administered item)	
Proportion of Forest Conservation Fund reservation target met	The programme is yet to formally reserve any areas of private forest. Round 1 of the programme commenced to secure formal reservation of targeted private forests
Improved access to forest areas for tourists	Not applicable
Level of landholder involvement in voluntary forest reservation programme	236 requests for Forest Conservation Fund site assessments were received from landholders for round 1 30 expressions of interest were received from landholders for the Mole Creek Karst Forest Programme. 66 hectares of forested land in the Mole Creek area has been approved for purchase
Area of private land reserved under the Forest Conservation Fund	The programme is yet to formally reserve any areas of private forest
Protected wetlands	
Area of Ramsar-listed wetlands	Australia has 64 wetlands of international importance listed under the Ramsar Convention covering more than 7.3 million hectares
Percentage of Ramsar-listed wetlands with management plans in operation	86% or 55 of the 64 listed Australian Ramsar wetlands have management plans or draft plans in place
Great Artesian Basin Sustainability Initiative (administered item) ¹	
Extent of stakeholder engagement in the Great Artesian Basin Sustainability Initiative that results in improved management of groundwater resources in the basin	A mid-term-review of the initiative has commenced to assess the extent to which stakeholder awareness and support for the sustainable use of the basin has translated into improved management practices. The review is due later in 2007 The department commissioned the Bureau of Rural Sciences to assess whether landscape condition has improved as a result of capping and piping works based on remote sensing and vegetation condition tools. The results are due later in 2007
Progress towards target pressure recovery in priority areas in the Great Artesian Basin and the Carnarvon Artesian Basin	The department provided \$10.2 million to the participating states for capping and piping uncontrolled bores which will aid pressure recovery. Some rehabilitation work was delayed due to a lack of available drillers and materials, and to the continuing effect of the drought on landholders' financial capacity
The Living Murray Initiative (administered item) ¹	
The extent to which the Australian Government's policy outcomes and priorities in addressing the over-allocation of water in the Murray–Darling Basin are reflected in the implementation of The Living Murray Initiative	34.8 gigalitres of water entitlements were recovered under The Living Murray Environmental Watering Plan; 23 gigalitres were made available for watering icon sites, resulting in significant environmental benefits

¹ Performance indicators are from the Department of Agriculture, Fisheries and Forestry 2006–07 Portfolio Budget Statements. The programmes became the responsibility of the Department of the Environment and Water Resources in January 2007.



Performance indicator	2006–07 results
Joint Government Enterprise—Murray Environmental Flows (administered item) ¹	
Contribution of Joint Government Enterprise (trading as Water for Rivers) activities and investments to the Australian Government’s environmental flow priorities for the River Murray	The Joint Government Enterprise recovered 14.2 gigalitres of water for River Murray environmental flows and 37.2 gigalitres for the Snowy River. The cumulative volume of water transferred to the environmental entitlement was 64.7 gigalitres
Murray–Darling Basin Commission (administered item) ¹	
Contribution of commission activities and investments to the sustainable and equitable use of natural resources in the Murray–Darling Basin, including the shared water resources of the River Murray	The department participated in the Murray–Darling Basin Commission and supported the minister’s involvement in the Murray–Darling Basin Ministerial Council on the sustainable management of the basin’s natural resources for healthy river systems, viable rural communities and profitable, competitive and sustainable industries
Provision of efficient and effective services to the Murray–Darling Basin Ministerial Council and delivery of council decisions within agreed timeframes	The department contributed to the efficient and effective delivery of Murray–Darling Basin Commission business through supporting participation of the portfolio and the minister in commission and council meetings
Murray–Darling Basin Commission—Boosting Capital Works (administered item) ¹	
The extent to which additional funding contributions from the Australian Government accelerate and achieve agreed objectives and activities consistent with Scenario 2 of the Murray–Darling Basin Commission Strategic Plan 2005–2010	The department contributed \$10.9 million to the Murray–Darling Basin Commission to boost capital works in the basin. This was in addition to \$500 million provided by the Australian Government in May 2006 that has allowed the Murray–Darling Basin Commission to: <ul style="list-style-type: none"> • accelerate and fully fund its basin-wide capital works programme for the 2005–2010 business plan, including items previously deferred because of budget shortfalls • deliver extra projects to recover water to optimise the environmental outcomes • invest in its own right in Living Murray Initiative water recovery projects
Murray–Darling Basin Commission—Contribution to salinity mitigation (administered item) ¹	
The contribution of Murray–Darling Basin Commission activities and investments to removing salt and meeting river salinity targets, including agreed targets at Morgan, South Australia	The department contributed \$3.6 million for basin salinity management, in addition to the Australian Government’s extra \$500 million injection into the Murray–Darling Basin Commission in 2005–06. This is expected to reduce salinity at Morgan by 70 electrical conductivity units by 2010

¹ Performance indicators are from the Department of Agriculture, Fisheries and Forestry 2006–07 Portfolio Budget Statements. The programmes became the responsibility of the Department of the Environment and Water Resources in January 2007.



Performance indicator	2006–07 results
Water Resources Assessment and Research—grants (administered item) ¹	
Extent to which water resources assessment and research grants promote the sustainable use and management of water resources; in particular the uptake of recycled water and sustainable irrigation practices	<p>The programme supported:</p> <ul style="list-style-type: none"> • the Australian Water Association Ozwater 07 Conference, which attracted over 400 abstracts and over 1,200 attendees • the Australian Bureau of Agriculture and Resource Economics report entitled <i>Water Scarcity in Australia—An Economic Assessment of Commercialisation Options</i> • Bureau of Rural Sciences' Connected Water online toolbox. Promotion of the toolbox at workshops reached approximately 120 facilitators, catchment managers and representatives of water authorities • the Northern Australia Irrigation Futures Project, which will improve decision-making for existing irrigation in northern Australia, and ensure any new irrigation is sustainable. Over 1,300 stakeholders have been informed of the project at conferences
Tasmanian Water Infrastructure (administered item) ¹	
Australian Government funding towards the construction of dams on the Meander and Macquarie rivers is provided upon demonstrable achievement of performance milestones by the Tasmanian Government	\$2.1 million was provided to the Tasmanian Government, under the \$3.2 million Australian and Tasmanian governments' agreement for the construction of a dam on the Meander River
Australian Government's Community Water Grants Programme (administered item)	
Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%)	100%
Number of projects funded	1,759

¹ Performance indicators are from the Department of Agriculture, Fisheries and Forestry 2006–07 Portfolio Budget Statements. The programmes became the responsibility of the Department of the Environment and Water Resources in January 2007.



Performance indicator	2006–07 results
Administration of the Natural Heritage Trust ¹ (purchased output)	
All investments approved by ministers in 2006–07 are delivered through appropriate financial agreements and provided with funding in accordance with Natural Heritage Trust accountability and acquittal procedures, to meet the trust’s objectives	Investments approved in 2006–07 were delivered through appropriate financial agreements in accordance with Natural Heritage Trust accountability and acquittal procedures
Monitoring and evaluation arrangements are in place for each level of the Natural Heritage Trust and reports show progress against targets	Monitoring and evaluation arrangements are in place for all Natural Heritage Trust levels and reporting requirements show progress against targets
The number of investment strategies that are prepared, evaluated and for which funding is agreed and specified in financial agreements	56
The number of individuals/community groups supported through Australian Government Envirofund grants	1,108
Investment strategies address nationally agreed natural resource management priorities and issues	All investment strategies meet these requirements
Bushcare, Landcare, Rivercare, Coastcare ¹ (administered item—Natural Heritage Trust)	
Percentage of natural resource management regions that have an accredited natural resource management plan	98%
Percentage of natural resource management regions that have an approved investment strategy	100%
Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%)	100%
Number of projects funded.	2,645
Blackburn Lake Sanctuary, Melbourne (administered item)	
Funding is provided on budget once arrangements are finalised between governments, supported by a sound management plan to protect the identified conservation value	The \$1.8 million for purchase of land adjacent to the Blackburn Lake Sanctuary was a special budget appropriation in 2006–07 and is not part of the Natural Heritage Trust. It has now been reappropriated to 2007–08 due to delays with finalising the tripartite agreement between the Australian Government, Victorian Government and the Whitehorse City Council
Strengthening Tasmania—Tamar River pylons (administered item)	
Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%).	100%

¹ Detailed performance results are in annual reports on the operation of the *Natural Heritage Trust of Australia Act 1997*.



Performance indicator	2006–07 results
Administration of the National Action Plan for Salinity and Water Quality (service provided by the Department of Agriculture, Fisheries and Forestry) ¹	
The number of investment strategies that are prepared, evaluated and for which funding is agreed and specified in financial agreements.	36
Investment strategies address nationally agreed natural resource management priorities and issues	All investment strategies address nationally agreed natural resource management priorities and identified issues
All investments approved by ministers in 2006–07 are delivered through appropriate financial agreements and provided with funding, in accordance with National Action Plan accountability and acquittal procedures, to meet the National Action Plan objectives.	Investments approved in 2006–07 were delivered through appropriate financial agreements in accordance with National Action Plan accountability and acquittal procedures
Monitoring and evaluation arrangements are in place for each level of the National Action Plan and reports show progress against targets.	Monitoring and evaluation arrangements are in place for all National Action Plan levels and reporting requirements show progress against targets
Australian national parks and other terrestrial protected areas ²	
Area of land protected and managed through the National Reserve System Programme, including area of declared Indigenous Protected Areas	588,141 hectares were added to the National Reserve System, bringing the total to 7.5 million hectares 4,501,870 hectares were added to Indigenous Protected Areas, bringing the total to 18.5 million hectares
Percentage of protected areas (other than Indigenous Protected Areas) that have been gazetted	84%. This percentage is for properties acquired up to the end of 2004–05. The figure does not include information for the last 2 financial years, because under the National Reserve System Programme funding agreement, a proponent may take up to 2 years to finalise gazettal of a protected area
Australian Biological Resources Study Participatory Grants Programme (administered item)	
Number of taxa revised or newly described under the programme.	1,625
Number of peer reviewed taxonomic information products produced or funded by the programme.	79
Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%).	100%
Number of projects funded	58 taxonomic research projects

¹ Detailed performance results are in annual reports on the operation of the *Natural Heritage Trust of Australia Act 1997*.

² Detailed performance results for Commonwealth reserves are in the annual report of the Director of National Parks.



Performance indicator	2006–07 results
Output 1.2—Conservation of the land and inland waters	
Policy advisor role: The minister is satisfied with the timeliness and accuracy of briefs and draft ministerial correspondence provided by the department	Minister was satisfied with timeliness and quality of briefs. The department has experienced challenges in responding to the unprecedented volume of correspondence now being received, but procedural adjustments and new systems have improved timeliness
Provider role ¹: Percentage of payments that are consistent with the terms and conditions of funding (Target: 100%)	100%
Regulator role ²: Percentage of statutory timeframes triggered that are met (Target: >90%)	A report on the compliance with statutory timeframes triggered under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> is provided in the second volume of this set of annual reports
Price	See resources table below

- 1 Applies only to the administration of grants programmes funded entirely from Departmental funding for this output. Any grants programmes within this output that are wholly or partially funded through Administered appropriations are separately reported.
- 2 Includes explicit reporting timeframes triggered under the *Environment Protection and Biodiversity Conservation Act 1999*.

Resources

Elements of pricing	Budget prices \$'000	Actual expenses \$'000
Departmental outputs		
Sub-output: 1.2.1 Land and water strategies	16,149	14,869
Sub-output: 1.2.2 Land and water investments	19,465	19,196
Sub-output: 1.2.3 Terrestrial parks and reserves	52,553	53,164
Sub-output: 1.2.4 Tropical wetlands research	453	469
Water resources	2,628	2,592
Total Output 1.2	91,248	90,290
Administered items		
Australian Biological Resources Study	1,875	1,873
Protecting Australia's Biodiversity Hotspots	0	33
Natural Heritage Trust (Landcare, Bushcare and Rivercare Programmes)	259,944	259,944
Australian Government's Community Water Grants	68,510	68,509
Scout Hall Water Saving Infrastructure Programme	5,885	5,885
Strengthening Tasmania – Tamar River Pylons	750	750
Murray–Darling Basin Commission (MDBC)	600	600
MDBC Contribution to Salinity Mitigation	2,017	2,017
Great Artesian Basin Sustainability Initiative, Department of Agriculture Fisheries and Forestry section 32 transfer	16	3
Living Murray Initiative	5,466	5,466
Great Artesian Basin Sustainability Initiative	79	35
Water Resources Assessment and Research Grants		
Total (Administered)	361,195	355,593



Outcome 1—Environment

Land and inland waters