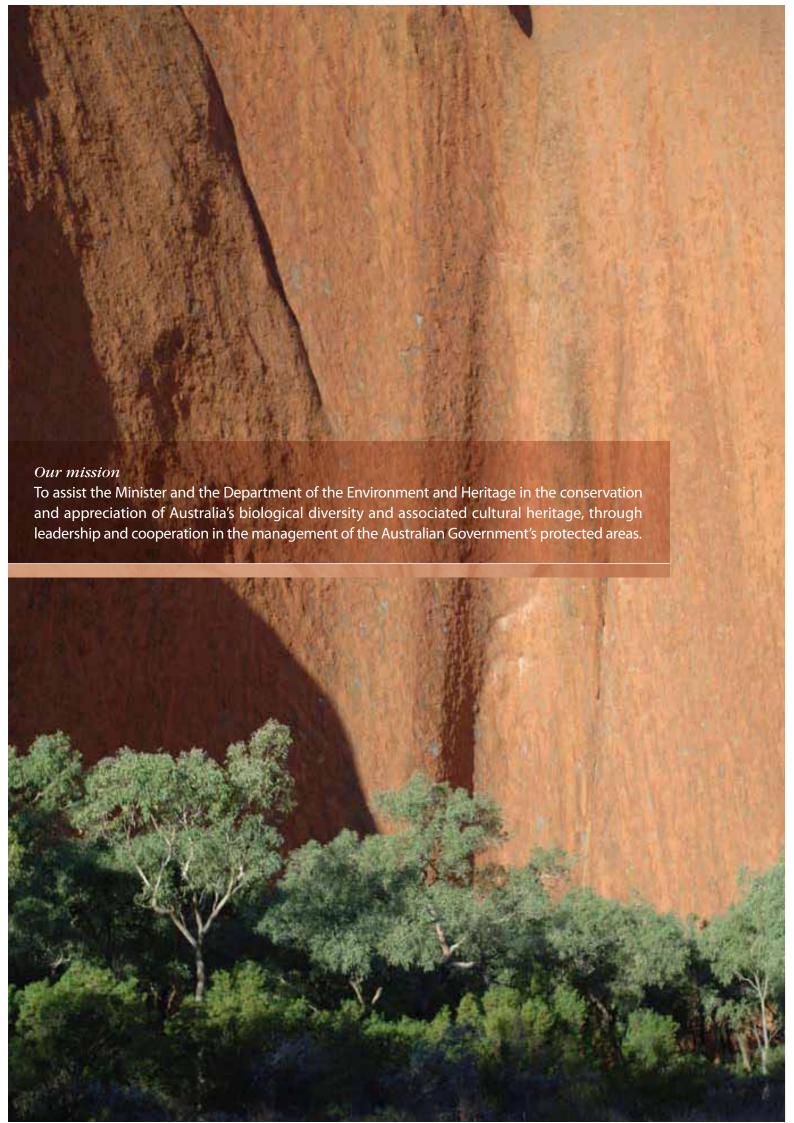




Director of National Parks | Annual Report 2005–06

Managing the Australian Government's protected areas



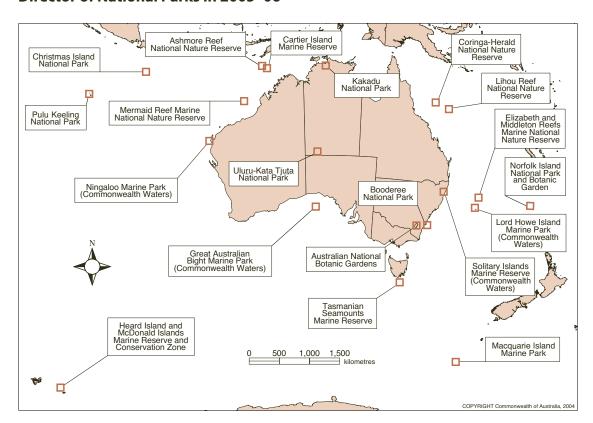
### An organisational snapshot

The Director of National Parks is the statutory agency responsible for the Australian Government's protected area estate, both terrestrial and marine. The Director is assisted by Parks Australia, a division of the Australian Government Department of the Environment and Heritage, in carrying out the Director's responsibilities for management of terrestrial reserves. Management of marine reserves is undertaken by the Department's Marine Division and Australian Antarctic Division.

In 2005–06, the Director of National Parks:

- managed seven terrestrial reserves comprising six national parks and the Australian National Botanic Gardens
- through the Marine and Australian Antarctic Divisions of the Department of the Environment and Heritage, managed 13 marine reserves
- managed Calperum and Taylorville Stations via a contract with Austland Services
   Pty Ltd
- · employed 274.5 full-time equivalent staff around Australia
- · recorded a total price of outputs of \$56.980 million.

Figure 1: Locations of Commonwealth parks and reserves managed by the Director of National Parks in 2005–06



i

# Managing the Australian Government's protected areas

#### Highlights for 2005-06

- · Implementation of the Shared Tourism Vision for Kakadu. New Indigenous tourism ventures started up
- · Four-year project to rehabilitate old uranium mining sites in Kakadu National Park funded
- · Strong partnerships continued with neighbours, tourism industry, state and territory parks agencies, research institutions and volunteers
- Collaboration with Northern Territory Government, particularly on tourism and natural and cultural resource management
- · Anniversaries of handback of Uluru–Kata Tjuta and Booderee National Parks
- · Outstanding staff performance
- · Effective response to the impact of Cyclone Monica on Kakadu National Park
- Sound financial outcome
- Thirteen new marine protected areas announced, covering 22 million hectares in the south-east marine region
- · Uluru sunrise project commenced to create a major new visitor node

#### About this report

This annual report was prepared in accordance with the *Commonwealth Authorities* and *Companies Act 1997*, Finance Minister's Orders under that Act and the *Environment Protection and Biodiversity Conservation Act 1999*.

The Director's review and the rest of this annual report, except the financial statements for the Australian National Parks Fund and the Auditor-General's report on those financial statements, constitutes the Director of National Parks' report of operations.

The holder of the office of the Director of National Parks is responsible under section 9 of the *Commonwealth Authorities and Companies Act 1997* for the preparation and content of the report of operations in accordance with Finance Minister's Orders.

Peter Cochrane

**Director of National Parks** 

13 September 2006

# Contents

A	n organisational snapshot	İ
Н	ighlights for 2005–06	ii
Α	bout this report	ii
1	Director's review	3
	The Director's overview of achievements for the year and future directions	
2	Financial and Commonwealth reserves system summary	13
	Income, expenditure and system information at a glance	
3	Organisational structure	19
	Key management staff and membership of statutory boards	
4	Corporate overview	27
	The Director's legal basis, responsibilities and values	
5	Planning, reporting and performance	33
	Planning, operating and reporting frameworks and strategies	
6	State of the Parks report	43
	How each place for which the Director is responsible performed in 2005–06	
7	Management and accountability	197
	Key corporate governance arrangements including enforcement,	
_	staffing and safety statistics	
8	Financial statements	211
	Audited 2005–06 financial statements	
A	ppendices	247
A	Freedom of information statement	248
В	Acronyms and shortened forms	250
C	Glossary of technical terms	251
D	Compliance index	252
In	ndex	253



# 1 Director's review

#### The year in review

Natural heritage management

Cultural heritage management

Joint management

Visitor management

Partnerships and stakeholders

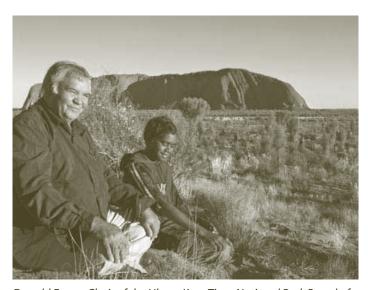
Business and people management

The coming year

### The year in review

This year has been another busy and challenging one for the agency and our staff. We are making considerable progress on many fronts, with important successes in systematically reducing risks and threats to park values. Our capacity to meet our challenges relies on skilled, able and dedicated staff. Continuing to invest in building and extending our staff is one of our highest priorities. While resources often limit our capacity to deliver all the results we aim for, we are proud to be protecting and presenting an important set of Australia's most remarkable and special places.

During 2005–06 the Australian Government gave strong support and additional resources to a number of protected area initiatives. The Minister for the Environment and Heritage, Senator the Hon Ian Campbell, announced 13 new marine protected areas. The Senate initiated an inquiry into Australia's national parks, conservation reserves and marine protected areas, due to report in November 2006.



Donald Fraser, Chair of the Uluru–Kata Tjuta National Park Board of Management, with his grandson George at the proposed site for the new viewing area and visitor infrastructure

The Hon Greg Hunt MP, Parliamentary Secretary to the Minister for the Environment and Heritage, in May 2006, announced additional funding for Kakadu and Uluru. The funding includes a capital injection of \$5.45 million to begin the development of a major new visitor node at Uluru-Kata Tjuta National Park—the largest development in the park since the cultural centre in 1995. The 'sunrise project' will create a new viewing area to the south-east of Uluru, at

a site chosen by the park's traditional owners. This world class facility will provide an all-day experience for visitors, with panoramic views of both Uluru and Kata Tjuta, and new Indigenous business opportunities to enhance the park's World Heritage values. The development will accommodate a potential doubling in visitor numbers and eventually replace the current congested sunrise viewing area.

Kakadu National Park received an additional \$1.77 million to implement priority recommendations of the Morse Report, which accompanied the development of the

Shared Tourism Vision for Kakadu. This funding is facilitating the re-branding and promotion of Kakadu, in cooperation with Tourism NT. A number of new Indigenous tourism businesses commenced in the park during the year. Some of the new funds will assist these businesses with start-up costs.

A further \$7.3 million, over four years, will fund the rehabilitation of uranium mining sites dating back to the 1950s and 60s in the south of Kakadu National Park. Resolution of an outstanding legal case with the Coronation Hill Joint Venturers is enabling the incorporation of 29 old mining leases, including Guratba (Coronation Hill) into Kakadu.

The announcement of a regional network of marine protected areas in the Southeast Marine Region will add an estimated 22 million hectares to Australia's marine protected area estate. The formal proclamation of these new reserves is expected in late 2006.

Parks Australia is placing a greater focus on the implications of climate change for protected areas, responding to growing concerns about forecast changes in temperature, rainfall, fire risk, and sea levels. With the support of the Australian Greenhouse Office, we have commissioned a consultancy to assess potential climate change impacts on Commonwealth reserves. The consultancy will help us develop appropriate planning and adaptation measures to add to those already specified in park management plans.

Pressure from fishing vessels, including traditional fishing allowed by the Memorandum of Understanding with Indonesia, continues to pose a significant management challenge at the Ashmore Reef National Nature Reserve. The Government is considering how best to address this issue.

The Government's assessment of statutory authorities against the templates developed by the Uhrig review included consideration of the status of the Director of National Parks as a statutory corporation. At the time of writing, this was yet to be finalised. There is therefore some uncertainty about the future of the corporation, which is expected to be resolved in late 2006.

#### Natural heritage management

The year saw some significant initiatives and successes. Many of our successes were achieved in partnership with neighbours, state and territory parks agencies, research institutions and volunteers. However, our overall success in containing high priority weed and feral animal species is not yet adequate to feel confident about the long-term outlook for the conservation of park values.

A small population of the endangered rufous hare-wallaby (mala) was released into a predator free enclosure in Uluru–Kata Tjura National Park in late 2005. This species has great cultural significance to local Indigenous people—mala stories are closely associated with Uluru. A ceremony to celebrate the re-establishment of mala in the park was an emotional event for the participating senior traditional owners. The Northern Territory Parks and Wildlife Service donated the mala from their captive population at Wattarka, and their staff provided valuable technical assistance and support for the Uluru project. Six months after release, females have pouch young and new juveniles have been sighted.

At Booderee National Park, excellent predator control, primarily of foxes, may have contributed to the first record in more than 25 years of the rare white-footed dunnart, a small marsupial. Professor David Lindenmayer of the Australian National University, supported by the Australian Research Council and Booderee staff, is leading a comprehensive five-year study of the park's plants and animals and the effects of fire. Early results show long-nosed bandicoots and eastern bristlebirds—two important species at Booderee—appear to have recovered unexpectedly well after a major bushfire in 2003. A separate study of the park's marine biodiversity recorded the highest fish species richness for temperate Australia at two sites off Bowen Island.

Other major biological monitoring programmes—at Christmas Island, Pulu Keeling, Kakadu, Uluru and the marine protected areas—are greatly increasing our knowledge of the plants and animals that we protect. In some cases the news is good. For example more individuals and populations of several rare plant species have been located in Kakadu, the conservation status of the Abbott's booby on Christmas Island has improved, tjakura numbers at Uluru continue to increase, and sea-bird populations and coral reefs are generally in good shape. Other studies and surveys highlight significant areas of concern. Yellow crazy ants continue to harm many species on Christmas Island and cane toads are affecting populations of northern quolls and a range of reptile species in Kakadu. Kakadu is confronting increasing incursions by a range of pasture grasses and a major outbreak of salvinia in Yellow Water, and Norfolk Island has discovered new introduced species, such as the Asian house gecko and Argentine ant.

A new marine protected area is proposed over the Cod Grounds off the east coast of New South Wales, to protect significant habitat for the critically endangered eastern grey nurse shark. It is expected that this marine protected area will be declared after finalisation of structural assistance arrangements associated with the local cessation of commercial fishing.

#### Cultural heritage management

Guratba (Coronation Hill), located in the south of Kakadu, is one of the most important sacred sites in Northern Australia. Its rehabilitation, as part of the project to rehabilitate old uranium mine leases, will mark the end of a long and controversial chapter in the history of mining in Australia. A ceremony was held in early 2006 at the Mary River Ranger Station to posthumously commemorate the three senior traditional owners who fought hard to protect this country. These Indigenous leaders were instrumental in the decision to stop further mining at Coronation Hill, and in securing Aboriginal freehold title to their ancestral lands, which are incorporated into Kakadu National Park.

The new Cultural Sites Management System at Uluru–Kata Tjuta National Park has been developed by *Anangu* (western desert Aboriginal) rangers and was launched in October 2005. It includes digital imagery of all cultural sites and associated rock art around Uluru. These are regularly monitored and maintained by *Anangu* staff.

The collection of oral histories from traditional owners continues at Uluru and Kakadu. A partnership agreement with the National Archives of Australia is being developed to ensure the proper long-term storage and protection of irreplaceable audio and video materials.

To ensure that commercial interests understand *Anangu* sensitivities about portrayal of images of Uluru and Kata Tjuta, and to streamline the regulatory procedures for obtaining permits, the guidelines for film, photography and artwork in the park were reviewed, simplified and reissued in July 2005. To accompany the guidelines, the traditional owners helped produce a DVD which assists media representatives to understand the natural and cultural context of the park, and appropriate behaviour when working with *Anangu*. The DVD, produced with the support of Tourism NT and Tourism Australia, is available in five languages.

#### Joint management

Booderee National Park, Wreck Bay Aboriginal Community Council and Wreck Bay Enterprises Ltd (WBEL) have together developed an integrated training strategy. The Booderee training manager coordinates the training effort, with delivery to park staff, community members and WBEL staff to strengthen confidence, skills and knowledge across all three organisations. WBEL delivers park management services under service level agreements for entry station management, road and fire trail maintenance, and campground cleaning. These services were delivered to agreed standards in 2005–06. Costs were benchmarked by an external auditor and verified that the park is obtaining value for money. WBEL also successfully undertook a series of capital works in the park.

In February 2006, the Kakadu board and the Director released the park's draft fifth management plan for public comment, following more than 100 consultations with traditional owners at a clan and family group level. Thirty-seven public submissions were received. At the time of writing the board had considered these submissions and amended and approved the final plan. It will be submitted to the Minister for approval in late 2006.

The strong relationship between park staff and members of the Mutitjulu community in Uluru–Kata Tjuta National Park was tested and maintained during several intense periods in mid-2006. During this time there were media allegations of improper and illegal conduct by a former staff member, and then the appointment by the Registrar of Aboriginal Corporations of an administrator to the Mutitjulu Community Aboriginal Corporation, subsequently contested by members of the community.

Modest celebrations were held at Mutitjulu in October 2005, and Wreck Bay in December 2005, to mark the 20th and 10th anniversaries of the handing back of title for Uluru–Kata Tjuta and Booderee National Parks respectively.

A senior Uluru traditional owner, Barbara Tjikatu, received one of Australia's highest honours, the Order of Australia, in June 2006. Barbara Tjikatu's many colleagues, friends and supporters welcomed this national acknowledgement of her vast and invaluable contribution to the establishment and management of the park.

#### Visitor management

An estimated 1.4 million visitors appreciated the natural and cultural diversity of Commonwealth reserves in 2005–06, primarily in Booderee, Uluru, Kakadu and the Australian National Botanic Gardens.

We have relied for years on data collected and analysed by Tourism NT for the Northern Territory parks (Kakadu and Uluru). These data have consistently shown high visitor satisfaction at both parks, but the data ceased to be collected in 2005–06. New survey arrangements are being developed and implemented for all our high visitation parks to measure visitor satisfaction.

Remote vehicle monitoring systems are installed in Kakadu, Ulu<u>r</u>u and Booderee to monitor vehicle movements. Regular surveys help calibrate these data and estimate visitor numbers and use patterns.

Well-attended Stepping Stones for Tourism workshops were sponsored and held on Cocos (Keeling) and Norfolk Islands to educate and encourage local residents and potential enterprises interested in tourism. These workshops are modelled on the successful pilot developed in Kakadu several years ago. A range of new Indigenous tourism businesses started up in Kakadu this year, including the Hawk Dreaming Safari camp, Kakadu Culture Camp, and Murdujul Pty Ltd.

A significant partnership was established with Tourism Australia to collaborate on the development of a concept with the working title of 'National Landscapes'. This exciting initiative is exploring the potential for identifying and branding, under Tourism Australia's Brand Australia, the top 20 to 30 iconic natural tourism experiences in Australia. The concept is well advanced with strong support from national representatives of the tourism industry and a wide range of regional interests.

We continue to foster a variety of partnerships with research institutions. This year they included work with the Tropical Savannas Cooperative Research Centre (as partner); a five-year fire and biodiversity study at Booderee with the Australian National University (through an Australian Research Council linkage grant); a World Heritage Master Class course at Kakadu for 30 students from the European Union, in partnership with Charles Darwin University and the University of Western Sydney; and a range of cooperative work with scientists in the Northern Territory Parks and Wildlife Service.

Parks staff participated in a wide range of regional committees, in recognition of the important role parks play in the regional economy. Relevant forums included the South Coast Region Tourism Organisation and the Shoalhaven District Bushfire Management Committee (Booderee), and the National Capital Attractions Association and the National Capital Education Tourism Project (Australian National Botanic Gardens). In Kakadu the close working arrangements with the Northern Territory Bushfires Council continued, and a new partnership between the park, Charles Darwin University and the Jabiru Area School is developing a local education to work programme.

This year volunteers again made invaluable contributions. The Friends of the Australian National Botanic Gardens provided guided walks, organised fund raising events and sponsored training and new infrastructure. Volunteer effort at Uluru was strong and again focused on removal of buffel grass around sacred sites, with great support and leadership from Conservation Volunteers Australia. The initiative and sustained leadership of Chief Ranger Operations Thomas Konieczny in weed control and organising park volunteers was recognised through a Department of the Environment and Heritage Australia Day award.

Close cooperation and collaboration with the New Zealand Department of Conservation (DOC) continued with DOC staff participating in our six-monthly senior management forum. Staff from the Northern Territory and NSW Parks and Wildlife Services contributed respectively to forums in Alice Springs in October and in Thredbo in April.

A steering committee meeting was held in August 2005 in Vanimo PNG for the Tri-National Wetlands Agreement. Under this agreement Kakadu National Park is partnered with Indonesia's Wasur National Park in Irian Jaya, and Tonda Wildlife Management Area in PNG, to share knowledge and on-ground wetlands activities. This year two Kakadu rangers also ran a four-week training course in weed identification and management for local communities in Tonda.

#### Business and people management

Many staff were recognised through various awards during the year. A Minister's Award was presented to Garry Linder for his outstanding work in developing and leading Kakadu's crocodile management programme. Australia Day Awards were presented to Wendy Murray (for sustained contribution as Pulu Keeling Conservator since 1995), Thomas Konieczny (for support for joint management and Anangu employment at Uluru), Trish Flores (for extraordinary commitment and ability to respond to difficult circumstances) and Peter Wellings (for sustained contribution to park management and relationship building with traditional owners).

Kevin McLeod received a Secretary's Award as a role model and mentor.

Peter Fannin, a botanist, prominent conservationist and long-serving volunteer at Uluru was honoured as the NT Australian of the Year for 2006.

A number of senior staff moved to positions in other organisations during the year. Peter Wellings departed after 25 years experience in Parks Australia and its predecessors, including leading Parks Australia North for seven years. Peter joined the Northern Territory Chief Minister's Department to work on the Territory's Indigenous policy. Anne-Marie Delahunt, a branch head with broad experience in the Department of the Environment and Heritage, was recruited to head Parks Australia North, starting in May 2006. Robin Nielsen, the Director of the Australian National Botanic Gardens for nearly six years, was recruited by the Department of Agriculture, Fisheries and Forestry to work on forestry policy. Philip Stewart was recruited from Charles Darwin University as the new conservator of Christmas Island. Robin and Philip both take up their positions in the new financial year. Philip's predecessor, Alistair Graham, initiated an ambitious and progressive agenda for conservation on the island, and securing resources to implement this is a future challenge.

Many staff occupied temporary positions in other workplaces to help with peak workloads, or to fill critical vacancies. I would like to particularly acknowledge the contributions of John Henderson (from Norfolk) and Marjorie Gant (Booderee) who made terrific contributions at Uluru and Darwin respectively, over many months.



Con Boekel and Peter Coyne from Parks Australia accept the Comcover award for risk management from Stacie Hall, National Manager, Comcover

The financial outcome for the year was pleasing with a modest surplus carried through into cash reserves. This will be used to continue works not completed in 2005–06, largely due to delays in operating expenditure as a result of Cyclone Monica and an associated extended wet season in Kakadu.

As an agency the Director of National Parks continued to benchmark

its performance on reporting and on risk management, winning a second silver award at the Australasian Reporting Awards, and a Comcover Highly Commended Award for risk management by a medium sized agency.

The results of the third year of risk management benchmarking by Comcover were encouraging. Comcover assessed our performance as comprehensive, demonstrating a high level of competency in implementing our enterprise-wide framework. We scored above average on each of five key result areas, compared with all agencies, and with comparable medium sized agencies. Our score resulted in a 7 per cent discount on our insurance premium. As with earlier results, the benchmarking points to areas where improvement is necessary, and training will be a particular focus in 2006–07.

Finally I would like to thank all members of the senior management team in Parks Australia for their commitment and support through the year. Their talent, hard work, and dedication make an enormous difference to the leadership of the agency, our relations with key stakeholders and the overall effectiveness of our efforts.

#### The coming year

Next year's challenges are not new. We must try to make more headway on reducing weed and feral threats across the terrestrial park estate. We need to continue to improve training and employment opportunities for Indigenous staff, and to maintain and improve visitor facilities and visitor satisfaction. Occupational health and safety of staff and the safety of visitors continue to be major priorities. The development of management plans for new marine protected areas will be a major

task in 2006–07. The outcomes of the Kakadu organisational review will result in greater efficiencies in the park, but will need to be carefully implemented to minimise disruption to the park's operations. The continuing pressures on Christmas Island biodiversity, particularly from weeds and yellow crazy ants, will require specific and continuing attention well into the future. These challenges will require sustained effort, dedication, additional resources, and a clear focus on our goals. I am confident that we are well positioned to meet our challenges and deliver our responsibilities effectively and efficiently.

Peter Cochrane

**Director of National Parks** 

# 2 Financial and Commonwealth reserves system summary



#### **Financial summary**

Figure 2: Revenues

Figure 3: Expenses

Table 1: Analysis of variance against

budget

Table 2: Overview of financial results

#### **Reserves system summary**

Table 3: Terrestrial Commonwealth

reserves

Table 4: Marine Commonwealth

reserves

Table 5: Protected area management

categories (terrestrial and marine)

Table 6: Overview of individual

reserves

## Financial summary

A surplus result was achieved for 2005–06 due largely to delays in operating expenditure as a result of an extended wet season in Kakadu and as well as the impact of Cyclone Monica on Kakadu. This surplus carries forward into cash reserves. The cash available from the surplus will be used to meet future budget pressures including continuation of works not completed in 2005–06.

Overall, revenue for 2005–06 was slightly up by 0.5 per cent against budget and expenditure was down by 3 per cent against budget. The items shown in Table 1 below were the principal contributors.

**Table 1: Analysis of variance against budget** 

<b>Business area</b>	Revenues	Expenses
Jointly managed parks	Up \$0.1 million primarily due to insurance recoveries relating to the 2003 Booderee fires and the damage caused by Cyclone Monica in Kakadu National Park	Down \$0.9 million due to delays in operating expenditure resulting from the impact of Cyclone Monica in Kakadu National Park as well as an extended wet season in Kakadu National Park.
Other parks and reserves	No significant variance	Down \$0.4 million resulting from delays in weed control and rehabilitation work on Christmas Island as well as reduced depreciation expenses across other parks and reserves as a result of the 2004–05 asset revaluation
Governance, corporate services and Executive	Up \$0.1 million due to greater than expected interest revenue	Down \$0.7 million due largely to delays in some recruitment as well as delays in undertaking some project work recoverable under Memoranda of Understanding



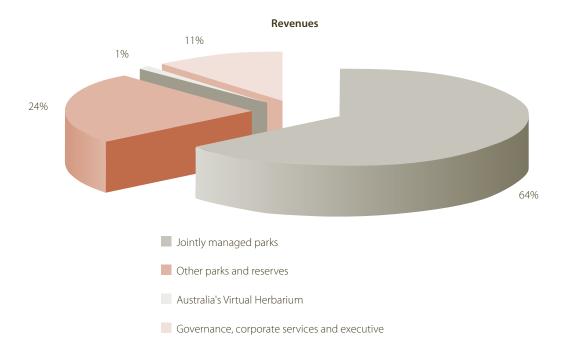
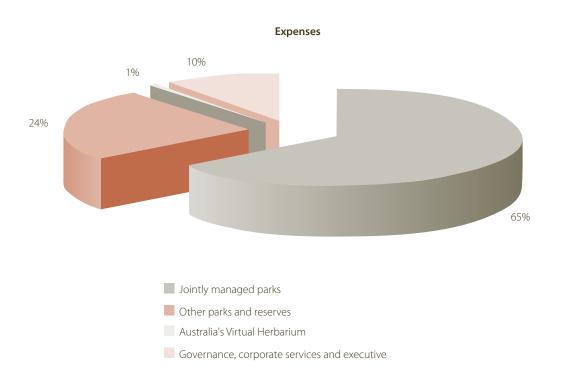


Figure 3: Expenses



#### **Table 2: Overview of financial results**

		2005 Actuals \$000s	2006 Actuals \$000s	2006 Budget \$000s	2006 Variance \$000s
	Revenue	36,863	37,893	37,780	113
Jointly managed parks <sup>(a)</sup>	Expenses	(36,956)	(36,891)	(37,780)	889
parits	Surplus/(Deficit)	(93)	1,002	0	1,002
	Revenue	13,589	14,273	14,263	10
Other terrestrial parks and reserves(b)	Expenses	(14,719)	(13,884)	(14,263)	379
parits aria reserves	Surplus/(Deficit)	(1,130)	389	0	389
	Revenue	50,452	52,166	52,043	123
Total terrestrial parks and reserves	Expenses	(51,675)	(50,775)	(52,043)	1,268
parks and reserves	Surplus/(Deficit)(a)	(1,223)	1,391	0	1,391
Contribution to	Revenue	763	400	400	0
Australia's Virtual	Expenses	(884)	(425)	(400)	(25)
Herbarium	Surplus/(Deficit)	(121)	(25)	0	(25)
Governance,	Revenue	7,310	6,588	6,443	145
corporate services	Expenses	(6,132)	(5,780)	(6,443)	663
and Executive <sup>(c)</sup>	Surplus/(Deficit)	1,178	808	0	808
T . ID:	Revenue	58,525	59,154	58,886	268
Total Director of National Parks	Expenses	(58,691)	(56,980)	(58,886)	1,906
	Surplus/(Deficit)	(166)	2,174	0	2,174

<sup>(</sup>a) Kakadu, Uluru-Kata Tjuta and Booderee National Parks

<sup>(</sup>b) Includes Calperum and Taylorville Stations which are not formal reserves

<sup>(</sup>c) Governance, corporate services and Executive includes administration for Parks Australia North and Parks Australia South, finance, legal, insurance, planning, interest income and bank charges

#### Reserves system summary

**Table 3: Terrestrial Commonwealth reserves** 

Year ending 30 June	2002	2003	2004	2005	2006
Expenses (\$000s)	52,774	54,650	57,545	58,691	56,980
Revenue (\$000s) <sup>(a)</sup>	64,383	62,947	53,022	58,525	59,154
Number of staff	278.9	280.5	287.8	263.8	274.5 <sup>(b)</sup>
Number of reserves	7	7	7	7	7
Area protected (ha)	2,131,300	2,131,300	2,131,300	2,131,300	2,132,282 <sup>(c)</sup>

- (a) Includes revenue from all sources including appropriations and externally raised revenue
- (b) Does not include staff involved in managing marine areas and therefore not directly comparable with previous years
- (c) Area protected in 2006 has been amended to reflect latest data available from the Collaborative Australian Protected Areas Database

**Table 4: Marine Commonwealth reserves** 

Year ending 30 June	2002	2003	2004	2005	2006
Expenses (\$000s)	2,235	2,126	1,981	2,531	3,582
Revenue (\$000s) <sup>(a)</sup>	2,235	2,126	1,981	2,531	3,382
Number of staff	17.5	13	12	12.6	15.25
Number of reserves	12	13	13	13	13
Area protected (ha)	20,758,100	27,218,100	27,244,080	27,244,080	27,245,378 <sup>(b)</sup>

- (a) Includes revenue from all sources including appropriations and externally raised revenue
- (b) Area protected in 2006 has been amended to reflect latest data available from the Collaborative Australian Protected Area Database

Table 5: Protected area management categories (terrestrial and marine)

IUCN protected area management category <sup>(a)</sup>	la Strict nature reserve	II National park	IV Habitat/species management area	VI Managed resource protected area
	_	_	_	_
Number of reserves	8	7	3	2

- (a) No reserves proclaimed under the EPBC Act have been classified lb (wilderness area), III (natural monument) or V (protected landscape/seascape)
- (b) Parts of some reserves have a different IUCN category from the reserve as a whole. The figures represent the overall classification and do not take account of internal zones of different classification



Table 6: Overview of individual reserves

Area name	Area (ha)	Year declared	2005–06 operating cost (\$000s)	2005–06 capital expenditure (\$000s)	2005–06 externally raised revenue (\$000s)	2005–06 payment to traditional owners (\$000s)
Terrestrial reserves						
Australian National Botanic Gardens (p 47)	85	1991	8,629	945	499	Not applicable
Booderee National Park (p 55)	7,254	1992	6,513	1,410	1,039	206
Christmas Island National Park (p 68)	8,719	1980	2,908	135	1,449	Not applicable
Kakadu National Park (p 77)	1,980,400	1979	17,244	2,997	1,162	1,111
Norfolk Island National Park and Botanic Garden (p 93)	959	1986	948	108	21	Not applicable
Pulu Keeling National Park (p 101)	2,602	1995	813	78	72	Not applicable
Ulu <u>r</u> u–Kata Tju <u>t</u> a National Park (p 106)	132,566	1977	9,921	5,285	8,045	1,896
Marine Reserves <sup>(a)</sup>						
Ashmore Reef National Nature Reserve (p 120)	58,337	1983	553	0	0	Not applicable
Cartier Island Marine Reserve (p 125)	17,237	2000	13	0	0	Not applicable
Coringa–Herald National Nature Reserve (p 129)	885,250	1982	66	0	0	Not applicable
Elizabeth and Middleton Reefs Marine National Nature Reserve (p 134)	187,726	1987	62	0	0	Notapplicable
Great Australian Bight Marine Park (Commonwealth Waters) (p 138)	1,937,162	1998	86	0	0	Not applicable
Heard Island and McDonald Islands Marine Reserve and Conservation Zone (p 145)	6,457,815	2002	200	0	0	Not applicable
Lihou Reef National Nature Reserve (p 152)	843,670	1982	13	0	0	Not applicable
Lord Howe Island Marine Park (Commonwealth Waters) (p 156)	300,063	2000	28	0	0	Not applicable
Macquarie Island Marine Park (p 160)	16,205,928	1999	89	0	0	Not applicable
Mermaid Reef Marine National Nature Reserve (p 165)	53,987	1991	79	0	0	Not applicable
Ningaloo Marine Park (Commonwealth Waters) (p 170)	243,559	1987	178	0	0	Not applicable
Solitary Islands Marine Reserve (Commonwealth Waters) (p 178)	15,747	1993	06	0	0	Not applicable
Tasmanian Seamounts Marine Reserve (p 182)	38,897	1999	14	0	0	Not applicable

(a) In addition, \$725,407 was spent across the 12 marine reserves managed by the Marine Division on training wardens, travel (on management-related expenses for the whole estate), workshops and conference attendance. Another \$1,452,890 was spent on activities for the identification of new marine protected areas.

# 3 Organisational structure



Figure 4: Parks Australia organisation chart as at 30 June 2006

The executive team

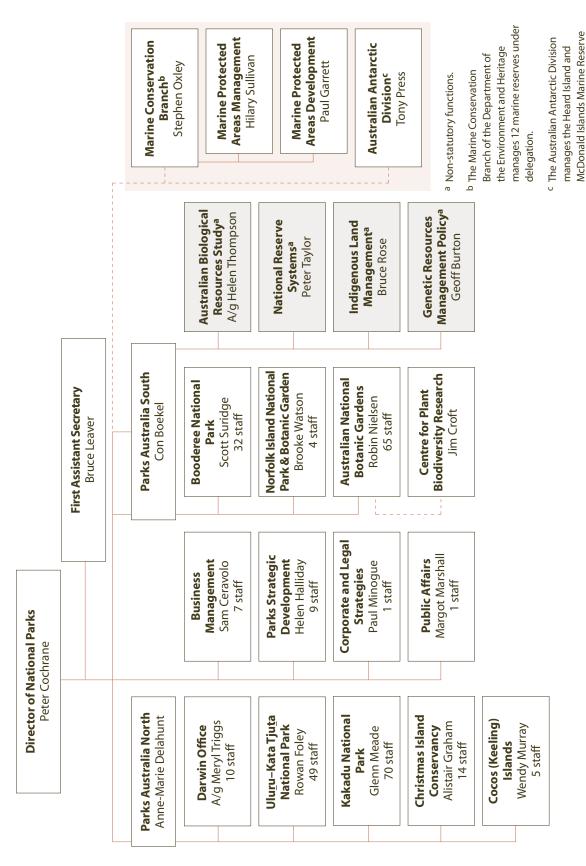
Boards of management membership

Table 7: Booderee National Park Board of Management

Table 8: Kakadu National Park Board of Management

Table 9: Uluru-Kata Tjuta National Park Board of Management

Figure 4: Parks Australia organisation chart as at 30 June 2006



under delegation.

#### The executive team



**Peter Cochrane**Director of National Parks

Peter was appointed Director of National Parks in October 1999 and reappointed in October 2002 and again in November 2005. Two of his priorities have been building relationships with traditional owners of jointly managed parks, and improving agency corporate governance, accountability and transparency.

Peter has worked for the oil and gas industry on national environment and competition policy issues and as an adviser to two federal Ministers on environment and natural resources issues. He has a background in field ecology and eco-physiology of native plants.

Peter has a Masters degree in Public Policy and a Bachelor of Science.



**Bruce Leaver**First Assistant Secretary

Bruce has worked in conservation management agencies in New South Wales, Tasmania and South Australia. He is a former Executive Director of the Australian Heritage Commission and has professional qualifications in forestry.

Bruce serves on the Great Barrier Reef Marine Park Conservation and Heritage Advisory Committee and the Australian Capital

Territory Bushfire Council. He is the convener of the Australian Alps Liaison Committee which oversees the cooperative management programme for the alpine national parks in Victoria, New South Wales and the Australian Capital Territory.



**Anne-Marie Delahunt**Assistant Secretary, Parks Australia North

Anne-Marie has over 16 years experience in the Department and the Australian Heritage Commission, working primarily on forest conservation and wildlife issues.

Anne-Marie has previously worked for a range of nongovernment organisations. Over the past few years, Anne-Marie has employed her communication and negotiating skills on a

range of issues: working with Indigenous communities on turtles and dugong, with non-government organisations and the research community on whale protection, and with the Threatened Species Scientific Committee on a wide range of issues.



**Con Boekel**Assistant Secretary, Parks Australia South

Con has worked in both the public and private sectors, mainly in conservation, education, training, and information technology. Career highlights include training Indigenous teachers and rangers in the Northern Territory, biodiversity information management, threatened species conservation and protected area management.

Con has also contributed to the implementation of the Australian Government's Natural Heritage Trust and to organisational change with respect to information management and information technology. He has worked in national parks in Victoria and the Northern Territory.

Con has a Master of Environmental Science, Bachelor of Arts, Graduate Diploma of Education, and Graduate Diploma of Intercultural Studies.



**Stephen Oxley**Assistant Secretary, Marine Conservation Branch

Stephen joined the Department of the Environment and Heritage in April 2004 after three years as an Australian Public Service adviser on Indigenous affairs.

Prior to joining the public service Stephen worked for nine years in a government policy advisory role. During this period his major policy focus was on primary industry, sustainable natural

resource management, rural industry structural adjustment, quarantine, regional development and transport.

He is also a trained print journalist with extensive experience in country newspapers and spent a year in the National Press Gallery.

Stephen holds tertiary qualifications in agriculture.

#### Senior management team

Meetings between members of the executive team and key senior staff are scheduled each week to discuss strategic directions and current issues. A video conference link is used to enable the participation of the Assistant Secretary, Parks Australia North, and her staff.

Stephen Oxley and Hilary Sullivan from the Marine Conservation Branch also participate in various high level meetings, providing advice to the Director on marine issues.



Pictured here are: Peter Cochrane; Paul Minogue; Bruce Leaver; Sam Ceravolo; Anne-Marie Delahunt (on screen); Dorothy Fitzpatrick (executive assistant to the Director); Helen Halliday; Margot Marshall and Con Boekel

# Boards of management membership

Boards of management have been established under the *Environment Protection and Biodiversity Conservation Act 1999* for Uluru–Kata Tjuta, Kakadu and Booderee National Parks. Tables 7, 8 and 9 show members of each board for 2005–06.

In conjunction with the Director, each board prepares management plans, makes decisions relating to the management of the reserve in accordance with the management plan, monitors the management of the reserve and advises the Minister on future development of the reserve.



#### **Craig Ardler**

Chair, Booderee National Park Board of Management

Craig was raised in the Wreck Bay Aboriginal Community where he has lived most of his life. The Ardler family has a long history in the area extending from La Perouse in Sydney down the south coast of New South Wales. The family is well known for campaigning for Aboriginal self determination and was instrumental in helping set up a number of community organisations for the benefit of the Aboriginal community in

and around the Shoalhaven region, including the Jervis Bay Territory.

Craig has been chair of the Booderee National Park Board of Management since 2005. During his term as chair the capital works for the Windermere fire recovery were completed and a Junior Ranger programme for local schools was commenced.

Service agreements with Wreck Bay Enterprises Ltd, the business arm of the Wreck Bay Aboriginal Community Council, for the entry station fee collection service and for cleaning and grounds maintenance have been developed. Reviews of business opportunities for the proposed cultural centre and entry and camping fees have also been undertaken.

Craig believes in the empowerment of Aboriginal people through the provision of appropriate and culturally sensitive information, services and resources that can assist them in achieving a good quality of life and collectively maintaining control of their own futures. Craig has previously occupied executive positions on the board of the Wreck Bay Aboriginal Community Council and Dharawal Aboriginal Corporation Community Association. He is the current chief executive officer of South Coast Medical Service Aboriginal Corporation.

#### **Table 7: Booderee National Park Board of Management**

Craig Ardler (Chair)	Traditional owner nominee
Ivern Ardler	Traditional owner nominee (until 16 November 2005)
Ted Brown	Traditional owner nominee (from 26 March 2006)
Lorraine Ardler	Traditional owner nominee
Julie Freeman	Traditional owner nominee
Phillip McLeod	Traditional owner nominee
Leon Brown	Traditional owner nominee
Gavin McLeod	Traditional owner nominee
Peter Cochrane	Director of National Parks
Assoc Prof Robyn Bushell	Tourism expertise
Prof John Morrison	Science expertise
Capt Tony Aldred	Department of Defence (until 5 January 2006)
Capt Mark Sander	Department of Defence (from 26 March 2006)
Wayne Jeffs	Department of Transport and Regional Services



#### **Jacob Nayinggul**

Chair, Kakadu National Park Board of Management

Jacob Nayinggul became the chair of the Kakadu Board of Management in 2005. Jacob is a senior traditional owner of the Manilikarr Clan, located in the north-east of Kakadu National Park. Jacob has been on the board since its inception and is actively involved in the Gunbalanya community and town council.

Jacob is highly respected and especially well regarded throughout the region for his customary knowledge. He has a long history with both the establishment and management of Kakadu National Park.

Since his appointment as chair Jacob has provided leadership during consultations on developing the fifth plan of management for Kakadu, has advised on the development of Twins Falls and formulation of a Shared Vision for Tourism and has provided guidance to park management.

**Table 8: Kakadu National Park Board of Management** 

Jacob Nayinggul (Chair)  Jessie Alderson  Traditional owner nominee  Jane Christophersen  Victor Cooper  Traditional owner nominee  Yvonne Margarula  Mick Markham  Traditional owner nominee  Michael Banggalang  Traditional owner nominee  Denise Williams  Traditional owner nominee  Roy Anderson  Traditional owner nominee  Director of National Parks
Jane Christophersen Traditional owner nominee  Victor Cooper Traditional owner nominee  Yvonne Margarula Traditional owner nominee  Mick Markham Traditional owner nominee  Michael Banggalang Traditional owner nominee  Jeffrey Lee Traditional owner nominee  Denise Williams Traditional owner nominee  Roy Anderson Traditional owner nominee  Peter Cochrane Director of National Parks
Victor Cooper Traditional owner nominee  Yvonne Margarula Traditional owner nominee  Mick Markham Traditional owner nominee  Michael Banggalang Traditional owner nominee  Jeffrey Lee Traditional owner nominee  Denise Williams Traditional owner nominee  Roy Anderson Traditional owner nominee  Peter Cochrane Director of National Parks
Yvonne Margarula  Traditional owner nominee  Mick Markham  Traditional owner nominee  Michael Banggalang  Traditional owner nominee  Jeffrey Lee  Traditional owner nominee  Denise Williams  Traditional owner nominee  Roy Anderson  Traditional owner nominee  Peter Cochrane  Director of National Parks
Mick Markham Traditional owner nominee  Michael Banggalang Traditional owner nominee  Jeffrey Lee Traditional owner nominee  Denise Williams Traditional owner nominee  Roy Anderson Traditional owner nominee  Peter Cochrane Director of National Parks
Michael Banggalang Traditional owner nominee  Jeffrey Lee Traditional owner nominee  Denise Williams Traditional owner nominee  Roy Anderson Traditional owner nominee  Peter Cochrane Director of National Parks
Jeffrey Lee Traditional owner nominee  Denise Williams Traditional owner nominee  Roy Anderson Traditional owner nominee  Peter Cochrane Director of National Parks
Denise Williams Traditional owner nominee  Roy Anderson Traditional owner nominee  Peter Cochrane Director of National Parks
Roy Anderson Traditional owner nominee  Peter Cochrane Director of National Parks
Peter Cochrane Director of National Parks
Anne-Marie Delahunt Parks Australia
Rick Murray Tourism industry expertise
Peter Whitehead Nature conservation expertise
Marilynne Paspaley Northern Territory Government nominee



#### **Donald Fraser**

Chair, Uluru–Kata Tjuta National Park Board of Management

Donald Fraser has been a member of the Uluru–Kata Tjuta National Park Board of Management since 1 January 2002 and its chair since 2003. Donald is a senior law man dedicated to maintaining and teaching *Tjukurpa* (traditional Aboriginal law in the western desert region) and to leading *Anangu* (western desert Aboriginal people) and other staff and visitors.

In this position, he provides leadership and direction on *Anangu* issues and ensures that *Tjukurpa* values are preserved and continued.

Donald is the first chair to work under the successful new structure of the board, with equal representation of  $A\underline{n}$  and women, and equal representation of  $A\underline{n}$  and living inside and outside the park.

Table 9: Uluru-Kata Tjuta National Park Board of Management

Donald Fraser (Chair)	Traditional owner nominee
Alison Carroll	Traditional owner nominee
Margaret Smith	Traditional owner nominee
Rene Kulitja	Traditional owner nominee
Barbara Tjikatu	Traditional owner nominee
Windlass	Traditional owner nominee
Johnny Tjingo	Traditional owner nominee
Graeme Calma	Traditional owner nominee
Peter Cochrane	Director of National Parks
Vicki Gillick	Northern Territory Government nominee
Vacant	Minister for Tourism nominee
Vacant	Minister for Environment and Heritage nominee

# 4 Corporate overview



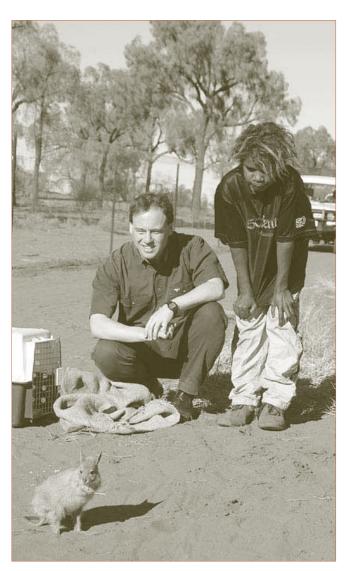
**The Director of National Parks** 

**Functions** 

Other responsibilities

Parks Australia's values and approaches

# The Minister and Parliamentary Secretary



The Hon Greg Hunt MP, Parliamentary Secretary to the Minister for the Environment and Heritage with Abraham Kitson as they release a mala (rufous hare wallaby) at Uluru

The Hon Greg Hunt MP was appointed Parliamentary Secretary to the Minister for the Environment and Heritage, Senator the Hon Ian Campbell, on 26 October 2004. Mr Hunt has ministerial responsibility on behalf of Senator Campbell for terrestrial Commonwealth reserves established under the **Environment Protection and** Biodiversity Conservation Act 1999, and for the Director of National Parks. Senator Campbell retains responsibility for Commonwealth marine reserves.

In this report reference to the Minister includes the Parliamentary Secretary.

Ministerial responsibilities in relation to the Director include the approval of proposals for establishment of Commonwealth reserves and conservation zones under the EPBC Act, approval of management plans for Commonwealth reserves, establishment of boards of management and appointment of members for Commonwealth

reserves jointly managed with Aboriginal owners, resolution of disputes between the Director and boards of management and the approval of Commonwealth reserve use fees and other charges.

#### The Director of National Parks

The Director of National Parks is a corporation sole under the EPBC Act, and a Commonwealth authority for the purposes of the *Commonwealth Authorities and Companies Act 1997* (CAC Act). The corporation has a single director—the person appointed to the office named the Director of National Parks. The current office holder is Peter Cochrane.

The EPBC Act requires the Director to perform functions and exercise powers in accordance with any directions given by the Minister, unless the Act provides otherwise. The Minister may also notify the Director under the CAC Act of general policies of the Government that are to apply to the Director.

The EPBC Act provides for the proclamation and management of Commonwealth reserves and conservation zones. The term 'Commonwealth reserve' includes all the areas proclaimed under the EPBC Act with names such as national parks, marine parks, national nature reserves, marine national nature reserves, marine reserves and botanic gardens. This report generally uses the term 'reserves' to encompass all parks and reserves under the EPBC Act.

The Director of National Parks is responsible under the EPBC Act for the administration, management and control of Commonwealth reserves and conservation zones. The locations of the Commonwealth reserves and conservation zones are shown at Figure 1.

The Director is assisted by staff of Parks Australia, a division of the Department of the Environment and Heritage. In 2005–06, under delegation from the Director, staff of the Australian Antarctic Division of the Department undertook management of the Heard Island and McDonald Islands Marine Reserve while staff of the Marine Division undertook management of the remaining Commonwealth reserves established in Commonwealth marine areas.

In this report, reference to Parks Australia refers to the Director of National Parks and Parks Australia staff.

#### **Functions**

The Director is responsible for the administration of Divisions 4 and 5 of Part 15 of the EPBC Act (Commonwealth reserves and conservation zones) and Regulations made for the purposes of those divisions. The functions of the Director as set out in subsection 514B(1) of the EPBC Act are:

 to administer, manage and control Commonwealth reserves and conservation zones 4

- to protect, conserve and manage biodiversity and heritage in Commonwealth reserves and conservation zones
- to cooperate with any country in matters relating to the establishment and management of national parks and nature reserves in that country
- to provide, and assist in the provision of, training in the knowledge and skills relevant to the establishment and management of national parks and nature reserves
- to carry out alone or in cooperation with other institutions and persons, and to arrange for any other institution or person to carry out, research and investigations relevant to the establishment and management of Commonwealth reserves
- to make recommendations to the Minister in relation to the establishment and management of Commonwealth reserves
- · to administer the Australian National Parks Fund
- · any other functions conferred on the Director under any other Act
- to do anything incidental or conducive to the performance of any of the functions mentioned above.

#### Other responsibilities

The holder of the office of Director of National Parks, Peter Cochrane, has been delegated functions and powers by the Minister for the Environment and Heritage and the Secretary of the Department of the Environment and Heritage for programmes that complement the statutory functions of the Director. Parks Australia staff administer these programmes.

Under these delegations, the Director administers the National Reserve System Programme—a programme of the Natural Heritage Trust that includes the Indigenous Protected Areas Programme. Outputs of the National Reserve System Programme are reported in the annual reports of the Natural Heritage Trust and the Department of the Environment and Heritage. Under section 45 of the Natural Heritage Trust of Australia Act 1997, the Director has been delegated the power to approve proposals to spend moneys within the meaning of the Financial Management and Accountability Act 1997, in relation to the Natural Heritage Trust Reserve, to the limit of programme funds approved by the Minister.

The Director also manages the Australian Biological Resources Study and the development of Australian Government policy on management of Australia's genetic resources. Outputs of both programmes are reported in the Department's annual report.



## Parks Australia's values and approaches

As part of the Environment and Heritage portfolio, Parks Australia commits to professionalism as a major public service institution serving the Government and Minister in accordance with the values of the Australian Public Service and specific departmental values:

- · caring for the environment
- respecting and responding to the values of Indigenous landowners and other partners
- engaging with and responding to stakeholders
- · providing leadership and being active team contributors
- · being personally committed to learning and development
- · committing to excellence
- · accepting responsibility and being accountable
- · acting with integrity and achieving results.

#### Objectives are achieved by:

- · valuing and investing in people to develop capabilities
- · basing work on the best available information
- · developing high quality policies and programmes based on high quality analysis
- · working in partnerships to improve environmental, cultural and heritage outcomes
- monitoring and managing performance to ensure cost-effective outcomes are delivered
- effectively managing risks
- · managing change in a strategic and flexible manner
- · communicating and influencing effectively.



4



## 5 Planning, reporting and performance

## Director of National Parks strategic planning and performance assessment framework

Portfolio Budget Statements

Department of the Environment and Heritage strategic plan and corporate plan

Parks Australia Divisional Plan

Management plans

Management plan implementation schedules

Management plan prescriptions not to be implemented

Performance indicators

Table 10: Portfolio Budget Statements sub-outcome: Conservation and appreciation of Commonwealth reserves

Table 11: Performance indicators for reporting against outcomes in the Parks Australia Divisional Plan

# Director of National Parks strategic planning and performance assessment framework

This annual report is one of a number of documents in the Director of National Parks strategic planning and performance assessment framework. Other major elements of the framework are described in this section of the report.

### Portfolio Budget Statements

These documents detail Budget initiatives and appropriations against specific outcomes and outputs. The annual report completes the Budget cycle by reporting on achievements of these outputs and outputs for the year under review. The Director of National Parks is included in the Portfolio Budget Statements for the Environment and Heritage portfolio and contributes to the achievement of Outcome 1 (Environment):

The environment, especially those aspects that are matters of national environmental significance, is protected and conserved

The Director contributes to meeting this outcome through the sub-outcome:

Conservation and appreciation of Commonwealth reserves

There is one output identified under the sub-outcome:

### **Output 1.1: Parks and reserves**

Table 10 reports against performance measures for the sub-outcome identified in the Portfolio Budget Statements.

Detailed performance information for individual Commonwealth reserves is included in the State of the Parks section of this report and on the websites for each of those reserves. The website for Commonwealth parks and reserves is: www.deh.gov.au/parks.

## Department of the Environment and Heritage strategic plan and corporate plan

The strategic plan outlines the key strategic issues for the Department. It identifies agency priorities to achieve the objectives outlined in the Department's corporate plan. Both documents provide the direction, context and purpose for the activities and programmes supported by the Department.

### כ

### Parks Australia Divisional Plan

This plan sets down the long-term outcomes and shorter-term outputs for the Director against seven key result areas (KRAs) as follows:

KRA1: Natural heritage management

KRA2: Cultural heritage management

KRA3: Joint management

KRA4: Visitor management and park use

KRA5: Stakeholders and partnerships

KRA6: Business management

KRA7: Biodiversity knowledge management

Not all key result areas are relevant to all reserves. For example, KRA3: Joint management is applicable only to the three jointly managed reserves—Uluru–Kata Tjuta, Kakadu and Booderee National Parks. The State of the Parks section of this report provides performance information only on those key result areas applicable to individual reserves.

Strategies to achieve the outcomes set down in the strategic and corporate plans are elaborated in more detail in Parks Australia branch, section, work team and individual work plans and in management plan implementation schedules.

### Management plans

Section 366 of the EPBC Act requires the Director, or in the case of a jointly managed park, the Director and the relevant board of management, to prepare management plans for Commonwealth reserves.

Management plans provide for the protection and conservation of the reserve. They must state how the reserve is to be managed and how the features of the reserve are to be protected and conserved.

At 30 June 2006, the Director was responsible for the management of 20 Commonwealth reserves, 19 of which had management plans in place. The first plan for the Heard Island and McDonald Islands Marine Reserve came into effect on 25 August 2005. Work commenced on preparation of draft new plans for Uluru–Kata Tjuta and Norfolk Island National Parks. The draft fifth plan for Kakadu National Park was released for public comment in February 2006 and is expected to come into effect late in 2006.

### Management plan implementation schedules

Parks Australia routinely prepares management plan implementation schedules to identify how and when each of the prescriptions in a management plan will be implemented. As such, implementation schedules contribute to determining the annual work plans for individual reserves.

At 30 June 2006, 18 implementation schedules were in effect.

The template for implementation schedules was further developed and refined during the year.

### Management plan prescriptions not to be implemented

During the life of a management plan it may become clear that some of its prescriptions cannot be implemented because, for example, they have become redundant or impractical. No such prescriptions were identified in 2005–06.

### Performance indicators

During 2004–2005, performance indicators were developed to facilitate reporting, from 2005–06 onwards, against the key result areas and outcomes set down in the Parks Australia Divisional Plan. Details of the indicators are shown in Table 11.

Use of performance indicators by the Director of National Parks is at an early stage and reporting methodology requires further development and improvement. Nevertheless, this year, the indicators have been used to provide more detailed performance reporting against identified outcomes. As in previous years, brief reports on performance against key result areas and outcomes listed in the Parks Australia Divisional Plan are shown in the State of the Parks section of this report. More detailed performance information is available on the websites for individual reserves.



Table 10: Portfolio Budget Statements sub-outcome: Conservation and appreciation of Commonwealth reserves

Performance measures	Results for 2005–06
Natural values for which Commonwealth reserves were declared and/or recognised have been maintained	Management of all Commonwealth reserves was carried out in accordance with the requirements of the relevant Australian IUCN reserve management principles set out in the EPBC Regulations
Populations of species listed in the Environment Protection and Biodiversity Conservation Act 1999 and their habitats have been conserved	Inventories of species recorded in the terrestrial reserves, including those listed under the EPBC Act, continued to be refined. Similar inventories were prepared for the marine reserves. The updated information collated as a result of this work is reflected in the species information listed in the State of the Parks section of this report. The inventories will assist in establishing more rigorous management and research priorities for Commonwealth reserves
<ul> <li>Management of Commonwealth reserves is based on best practice principles, measured through:</li> <li>number of park profiles completed and updated annually</li> <li>all fire management plans in place and implemented for relevant reserves</li> <li>all weed management plans in place and implemented</li> <li>feral species management plans in place and implemented</li> <li>weed and feral species management plans reviewed</li> </ul>	The Director and Parks Australia continued to strive to meet best practice standards in the management of Commonwealth reserves.  Park profiles were updated twice during the year and 19 of the 20 reserves had current management plans during the year. Fire, weed and feral control plans were in place and implemented in all reserves needing such plans. Major revisions are being finalised for fire management at Uluru and feral control at Kakadu
<ul> <li>Cultural heritage is protected, measured through:</li> <li>completion and implementation of cultural heritage management plans</li> <li>completion of inventories of cultural places</li> <li>establishment of keeping places</li> <li>recording of oral histories</li> <li>inclusion of appropriate questions relating to cultural heritage in visitor satisfaction surveys</li> </ul>	Cultural heritage was effectively protected through implementation of measures in management plans A draft heritage strategy for Commonwealth heritage (including cultural heritage) for which the Director is responsible was prepared in line with EPBC Act requirements and submitted to the Australian Heritage Council for consideration. Following amendments requested by the council, the strategy is expected to be resubmitted for approval in October 2006  Recording of oral histories continued at Uluru and Kakadu

#### Performance measures

Indigenous land ownership, and Indigenous knowledge and conservation are successfully integrated into Commonwealth reserves management, measured through:

- increasing Indigenous park enterprises and Indigenous employment in Commonwealth reserves on Indigenous lands
- consultation mechanisms, eg direct consultation and industry consultative committees, are effective in involving stakeholders in developing and implementing Commonwealth reserve plans of management
- visitors to Commonwealth reserves enjoy a satisfying and safe experience

#### Results for 2005-06

The Director, boards of management and Parks Australia staff continued to work closely with traditional owners to increase traditional owner participation in the control and administration of jointly managed national parks

Arrangements with Indigenous park enterprises were enhanced and consultations with traditional owners regarding development and implementation of management plans proceeded effectively

Plans were advanced for collection, in 2006–2007, of qualitative data from visitors to the larger reserves

Recorded injuries to visitors (145 incidents) were marginally up (2%) on the previous year (see table 13)

An estimated 1.43 million people visited Commonwealth reserves

New Indigenous tourism enterprises were established in Kakadu

A wide range of employment opportunities were filled in jointly managed parks, through contracts to Indigenous business enterprises, and full-time, part-time and casual positions in the parks

Table 11: Performance indicators for reporting against outcomes in the Parks Australia Divisional Plan

Key result area / outcome	Performance indicator	
KRA1: Natural heritage management		
<b>1.1</b> Natural values for which Commonwealth reserves were declared and/or recognised have	<ul> <li>Regular targeted monitoring of key values and threats is undertaken</li> </ul>	
been maintained  1.2 The impacts of threats to natural values have been minimised	<ul> <li>Number of taxa in cultivation in botanic gardens as proportion of total number of species in taxonomic; ecological and geographic; and horticultural themes in the collection policy</li> </ul>	
KRA2: Cultural heritage management		
<b>2.1</b> Cultural heritage values, both Indigenous and non-Indigenous, for which parks were declared	<ul> <li>Adequacy and recency of inventories of cultural sites</li> </ul>	
or are recognised have been protected and conserved	<ul> <li>Level and nature of support provided by park management to maintain and promote</li> </ul>	
<b>2.2</b> Living cultural traditions are being maintained	traditional cultural values	
<b>2.3</b> The impacts of threats to cultural values have been minimised	<ul> <li>Histories, prehistories and knowledge record (oral, written and pictorial) where culturally</li> </ul>	
<b>2.4</b> Wide awareness and appreciation that parks are managed and presented as living cultural landscapes and seascapes has been achieved	appropriate	
KRA3: Joint management		
<b>3.1</b> Joint management is being practised through:	<ul> <li>Number of traditional owners and relevant Aboriginal people employed directly and</li> </ul>	
<ul> <li>implementation of lease provisions and prescriptions contained in management plans</li> </ul>	indirectly	
<ul> <li>implementation of relevant decisions made by boards of management</li> </ul>	Training provided for and undertaken by traditional owners and relevant Aboriginal  paople (staff contractors and community)	
· growing capacity and increasing participation of traditional owners in park management	people (staff, contractors and community people)	
· positive, harmonious relationships	<ul> <li>Contribution of Aboriginal enterprises operating in parks</li> </ul>	
	<ul> <li>Proportion of board of management actions addressed within agreed timelines</li> </ul>	

### KRA4: Visitor management and park use

- **4.1** Visitors to Commonwealth reserves enjoy inspirational, satisfying and safe experiences
- **4.2** Visitor impacts (on reserve management, values, the environment and other visitors) are within acceptable levels
- **4.3** Public awareness and appreciation of the values of Commonwealth reserves have been enhanced
- **4.4** Commercial operators provide a high quality service to park visitors

- Annual numbers, types and demographics of park visitors
- Annual numbers and demographics of people participating in educational, interpretive and other programmes
- · Levels of satisfaction of park users

### **KRA5: Stakeholders and partnerships**

- **5.1** Volunteers contribute to area management based on clearly defined roles
- **5.2** Stakeholders, eg neighbours, state agencies and park user groups, are involved in and contribute effectively to park management activities
- **5.3** Commercial partnership opportunities are encouraged and evaluated
- Annual contribution to active partnership effort
- Consultation with stakeholders and partners
- Level of satisfaction of the Minister and the Parliamentary Secretary

### **KRA6: Business management**

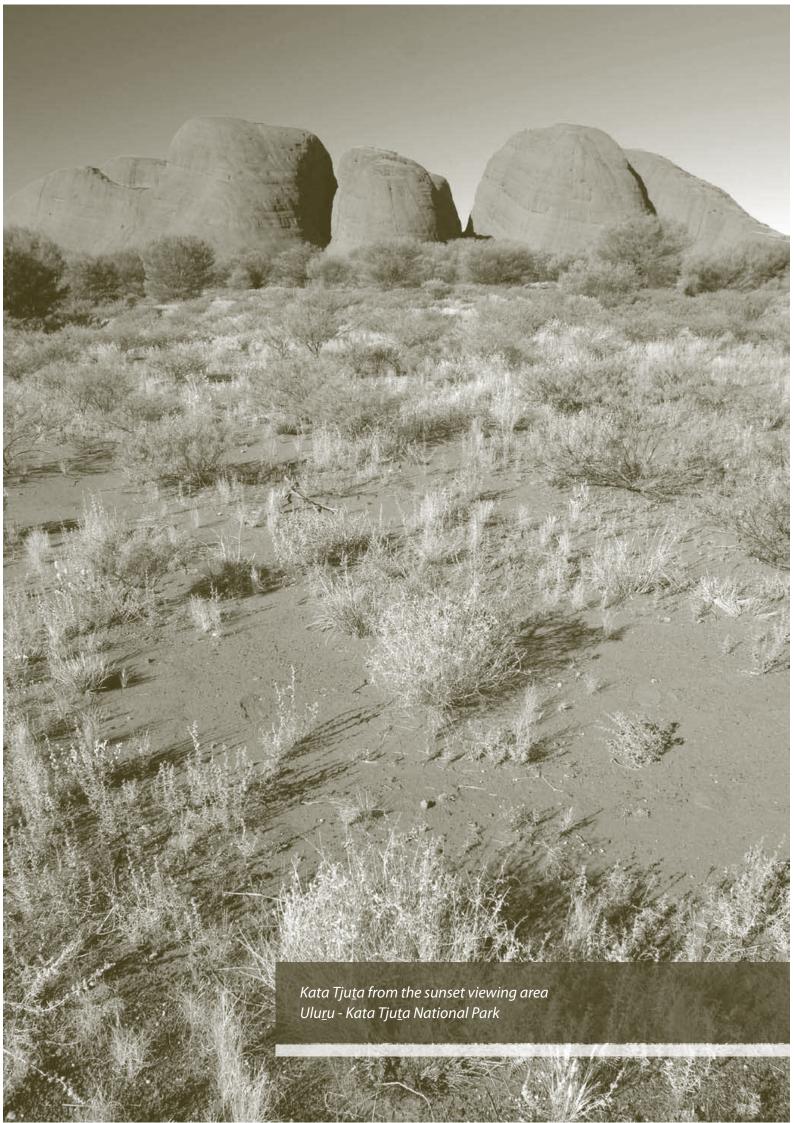
- **6.1** Planning and decision-making are based on best available information, legislative obligations, Parks Australia policy, and social justice principles
- **6.2** Financial and business management are based on better practice and Government requirements
- **6.3** High levels of staff expertise and performance are recognised and valued
- **6.4** Obligations under the EPBC Act and Regulations relating to management of Commonwealth reserves are complied with

- Extent to which management plans are implemented
- Annual number of reportable incidents involving staff and park users
- No 'A' or 'B' findings from the annual ANAO audit of Director of National Parks financial statements
- · Expenditure does not exceed budget
- · Successful operation of business continuity plan

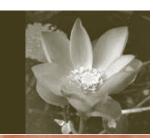
#### Table 11: continued

Key result area / outcome	Performance indicator
KRA7: Biodiversity knowledge management	
<ul> <li>7.1 High quality, comprehensive and current information is available to the Australian community to facilitate and foster understanding, appreciation, sound conservation and appropriate use of Australian biodiversity</li> <li>7.3 Taxonomic, biogeographic and conservation biology research and biological collections management capacity in relevant sections of the Australian community are enhanced</li> </ul>	<ul> <li>Number and value of biodiversity research grants and contracts funded per annum against strategic priorities</li> <li>Number of biodiversity information publications and online taxonomic tools and resources</li> </ul>
	<ul> <li>Number of studentships supported for biodiversity knowledge management</li> <li>Number of taxa documented, revised or newly described</li> </ul>

Note: The above outcomes are derived from a wider set of outcomes contained in the Parks Australia Divisional Plan and the numbers allocated to them are those in the plan. Some of the outcomes in the plan relate to functions delegated to the Director that are additional to the Director's statutory functions and therefore have been excluded from this table.



## 6 State of the Parks report



Guide to the State of the Parks report Section index

### Guide to the State of the Parks report

The State of the Parks report presents systematic and consistent background information on each Commonwealth reserve proclaimed under the EPBC Act and for Calperum and Taylorville Stations.

The following information is common to the reports on each place:

- Area and locational information derived from the Collaborative Australian Protected Areas Database is provided.
- The World Conservation Union (IUCN) protected area management category is identified for each reserve, and where parts of the reserve come under different categories this is indicated. The IUCN categories are formally assigned under the EPBC Act, and schedule 8 of the EPBC Regulations defines the Australian IUCN reserve management principles applying to each category.
- Where possible, each reserve's biogeographic context is described by reference to the national biogeographic regionalisations: terrestrial (Interim Biogeographic Regionalisation for Australia) or marine (Interim Marine and Coastal Regionalisation for Australia).
- The report summarises the relevance of **international agreements** to each reserve, recognising both the international significance of the reserves and the Director's legal responsibility to take account of Australia's obligations under each agreement.
- The report summarises the occurrence in each reserve of **species listed under the EPBC Act** as threatened, migratory or marine, and the status of relevant recovery plans.
- Information on the total number of different types of plant and animal species
  recorded for each place is included, to the extent of available knowledge. For the six
  terrestrial national parks, Parks Australia has worked to refine understanding of the
  species recorded from each park and the species for which each park is significant.
  The species information for these six parks includes the numbers of species which are
  a priority for management (defined as being all threatened species plus those nonthreatened species for which the park contains more than 1 per cent of its population).
- **Monitoring** is a key aspect of successful park management, and major monitoring efforts for the year are reported.
- Future planning is ongoing, and **future challenges** are reported for each area.
- **Management arrangements** (such as boards of management, committees, management agreements with state agencies) are described.
- The report provides information by **key result area** on major issues, actions and performance results for 2005–06.

Also included in this section are **case studies** that provide more detailed reporting on management of specific issues.



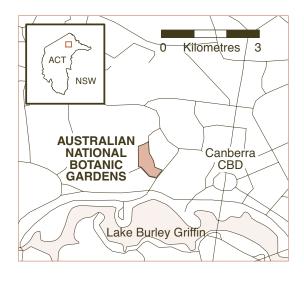
### Section index

Australian National Botanic Gardens	47
Case study - Water conservation at the Australian National Botanic Gardens	
Booderee National Park	55
Case study - Booderee National Park joint training strategy	
Case study - A research and training partnership at Booderee	
Case study - Booderee National Park and climate change	
Christmas Island National Park	68
Case study - Controlling yellow crazy ants on Christmas Island	
Kakadu National Park	77
Case study - Weeds in Kakadu National Park	
Case study - Cyclone Monica	
Case study - Rehabilitation of old uranium mining sites in Kakadu	
Norfolk Island National Park and Botanic Garden	93
Case study - Norfolk Island forest rehabilitation strategy	
Pulu Keeling National Park	101
Uluru-Kata Tjuta National Park	106
Case study - Valley of the Winds walking track upgrade project	
Case study - Uluru risk management and incident analysis	
Figure 5 - Preventable safety incidents for visitors to Kata Tjuta 2002–2006	
Ashmore Reef National Nature Reserve	120
Cartier Island Marine Reserve	125
Coringa-Herald National Nature Reserve	129
Elizabeth and Middleton Reefs Marine National Nature Reserve	134
Great Australian Bight Marine Park (Commonwealth Waters)	138
Case study - Satellite tracking Australian sea-lions in the Great Australian Bight	
Heard Island and McDonald Islands Marine Reserve	145
Lihou Reef National Nature Reserve	152



### Australian National Botanic Gardens

http://www.anbg.gov.au



### Special features

The Australian National Botanic Gardens (ANBG) is a major scientific, educational and recreational resource. It was one of the first botanic gardens in the world to adopt the study and display of indigenous species as a principal goal. Approximately one-third of the known flowering plant species that occur in Australia, and about half the known eucalypt species, are represented in its living collection. The ANBG is a national showcase in the horticultural use of Australia's indigenous plants.

The ANBG contributes to meeting Australia's obligations under various international environment conventions to which Australia is a signatory. In particular, the Convention on Biological Diversity recognises the importance of botanic gardens in ex situ and in situ conservation, research, training, plant identification and monitoring, raising public awareness, providing access to genetic resources, and global cooperation in relation to sustainable use of plant biodiversity.

Location	Latitude 35°16′ South, Longitude 149°06′ East
Area	85 hectares
Proclamation date	17 September 1991
IUCN category	Category IV
Biogeographic context	Displays plants from a vast range of biogeographic regions—alpine to tropical, coastal to central desert
Management plan	Second plan expires 9 January 2009
Other significant management documents	Management plan implementation schedule; risk assessment and management schedule; ANBG Masterplan (National Capital Authority); Capital Works and Maintenance Plan 2002–2005; Emergency Response Procedures Manual June 2005; ANBG Fire Procedures 2006; kangaroo and wallaby management plans; ANBG Education Service Policy; ANBG Photograph Collection Policy; Agreement for the Establishment and Operation of the Centre for Plant Biodiversity Research between the Director of National Parks and the CSIRO



Financial	Operating	\$8.629 million
	Capital	\$0.945 million
	Revenue	\$0.499 million
Visitors	464,827 recorded	
Permits	4 commercial activity permits; 46 wedding or wedding photography licences; 145 licences to publish 648 photographs from the collection	

International conventions and agreements		
World Heritage Convention	Supports Australia's World Heritage sites through botanical research, scientific plant collections, plant identification, botanical information management and horticultural and educational programmes	
Wetlands (Ramsar) Convention	Supports Australia's obligations under the Ramsar Convention through access to plant identification services and data on aquatic plants in the Australian National Herbarium, and through delivery of information on Australia's aquatic plants through its website	
Other agreements	<ul> <li>Collaborates with international organisations including:         <ul> <li>International Association of Botanic Gardens</li> <li>International Association of Plant Taxonomists</li> <li>International Plant Propagators Society</li> <li>International Union of Biological Sciences Taxonomic Databases Working Group</li> <li>International Plant Name Index (Kew Botanic Gardens and Harvard University)</li> <li>Global Biodiversity Information Facility</li> <li>International Organisation for Plant Information World Vascular Plant Checklist Project</li> </ul> </li> </ul>	

Environment Protection and Biodiversity Conservation Act 1999	
Heritage	On Commonwealth Heritage List

### Centre for Plant Biodiversity Research

The Centre for Plant Biodiversity Research is a joint venture by the ANBG and CSIRO Plant Industry. It was formed in 1993 and renewed for a further 10 years in 2000.

The Australian National Herbarium is the foundation of this facility, housing voucher specimens for research and environmental studies and for plants in the ANBG with databases supporting the living, herbarium, and photograph collections. The herbarium is a major contributor to the network of Australasian herbaria, to Australia's Virtual Herbarium—a national project involving all states and territories—and to the

Australian Plant Census project to produce a national endorsed list of scientific names for Australian plants.

### **Monitoring**

The ANBG's scientific planting is documented through voucher specimens in the Australian National Herbarium. A team of botanists, including national and international collaborators, ensure that the correct botanical names are always applied. New collection accessions help document the occurrence and distribution of plants in Australia.

A specialised and sophisticated database system maintains essential links between specimens in the herbarium, contemporary scientific literature, and the plants in the gardens.

A team of ANBG staff continually assesses the ANBG's living plant specimens.

### Future challenges

Water resource management continues to be a major challenge for the ANBG. This is due to both the continuing drought and sharp increases in unit water costs in Canberra. A new computerised irrigation management system was purchased in 2005–06 which will be used to manage irrigation more efficiently and generate water use savings.

The impact of climate change will be a major focus for the ANBG, as it seeks to understand and adapt to the changes in local and Australian climate and to communicate sound climate change and horticultural messages to its visitors and clients.

Maintaining the ANBG's growing role as a tourist attraction will remain a key focus. Visitor attractions like the Friends of the ANBG's summer concerts and guided tours will continue to be important.

The Friends provided \$38,000 to build a new visitor shelter expected to be ready for use by December 2006.

Work continued on the Australian Plant Census project to produce a list of flowering plant names for the whole of Australia that is endorsed by the Australian Government and the state and territory herbaria. The project coordinator is located at the ANBG and the project is due for completion in 2007.

Funding for the first phase of Australia's Virtual Herbarium ended in 2006 and the ANBG is working with state and territory herbaria and museums to build on this project through a number of new national infrastructure proposals.

### Report on performance by key result areas

### **KRA1: Natural heritage management**

### Major issues

· Water management infrastructure

#### Actions

· Increase water use efficiency

### Performance results 2005–06

- · Met Australian Capital Territory water use reduction targets for the year
- · Purchased a \$180,000 irrigation management system (see case study on page 54)

### **KRA2: Cultural heritage management**

### Major issues

- · Interpretation
- · Education

#### **Actions**

· Provide interpretation and education programmes for all sectors of the community

- · Hosted three major exhibitions in the visitor centre—'Art and the Bryophyte', 'Phoenix: Fire and Australian Plants' and 'Flora Tasmanica'
- Completed the ANBG's first artist in residence project with funding from the Australian Network for Art and Technology. The project is the Synapse Art and Science Residency Programme. The artist worked with the ANBG's cryptogam scientist on the exhibition 'Art and the Bryophyte'
- · Continued evening spotlighting tours, the 'Twilight Forest Adventures', for school and community groups
- · Hosted a popular live reptile exhibition—'Snakes Alive'
- · Commenced upgrading the Rainforest Gully interpretation signage (to be completed in September 2006)



### KRA4: Visitor management and reserve use

### Major issues

- · Visitor management in emergencies
- · Visitor centre

#### **Actions**

- · Implement visitor safety plan
- · Upgrade facilities for the visitor centre, exhibition space and bookshop
- · Initiate marketing plan

#### Performance results 2005-06

- · Completed a major re-fit of the visitor centre in August 2005
- Engaged a marketing consultant, began stakeholder consultation and prepared a draft marketing strategy to be refined and implemented in 2006–07
- · Recorded 464,827 visitors to the ANBG and 111,799 to the visitor centre
- 17,955 children attended the ANBG education programmes

### **KRA5: Stakeholders and partnerships**

### Major issues

- · Friends of the ANBG
- · Greening Australia
- · Birrigai Outdoor School
- · Centre for Plant Biodiversity Research

### **Actions**

- · Strengthen the partnership between the ANBG and the Friends of the ANBG
- · Host the Greening Australia Community Seedbank on the ANBG site
- · Continue the partnership with the Australian Capital Territory Government's Birrigai Outdoor School
- Continue to participate in the Centre for Plant Biodiversity Research, a joint venture between the ANBG and CSIRO Plant Industry

### Performance results 2005-06

 The Friends of the ANBG ran the annual students' photographic competition and the autumn and spring plant sales; published quarterly newsletters; provided volunteer guided walks each day; committed \$20,000 to a new water feature near 6

- the visitor centre, the 'Friends Cascade'; supported the ANBG's annual summer concerts in January–February 2006
- Continued the close collaboration between the ANBG seedstore and Greening Australia including joint field collecting, seed storage and management. The ANBG also provides Greening Australia with space for seedling production
- ANBG staff continued their management, research and technical support roles in the Centre for Plant Biodiversity Research and the Australian National Herbarium

### **KRA6: Business management**

### Major issues

- · Budget management
- · Staff management
- · Risk management

#### **Actions**

- · Ensure business continuity and delivery of services
- · Continue ongoing risk assessment

- Increased non-government revenue by \$40,000 due to increased fees for parking, venue hire and weddings. The Natural Heritage Trust continued to support Australia's Virtual Herbarium project
- Maintained staff flexibility and training through internal and external acting arrangements and casual employment
- · Maintained and regularly updated the risk watch list



### KRA7: Biodiversity knowledge management

### Major issues

- · Australian National Herbarium
- · Australian plant names
- · Taxonomic botanical research
- · Botanical database and information management
- The ANBG website, incorporating the Centre for Plant Biodiversity Research and the Friends of the ANBG

#### Actions

- Maintain and curate the Australian National Herbarium collections and make botanical data, information and expertise available to the national and international botanical community
- Develop and maintain the Australian Plant Name Index and the Australian Plant Census to list all the flowering plants in Australia
- Undertake taxonomic and systematic research, and publish and disseminate research findings
- · Develop and maintain scientific databases of Australian plant information
- · Promote and provide information about Australian native plants via the internet

- · Curated and databased specimens under the Australia's Virtual Herbarium project
- Continued management of the Australian Plant Name Index and the collaborative Australian Plant Census project to produce an agreed list of scientific names for Australia's flowering plants. The project is funded through the Natural Heritage Trust and endorsed by Australian Government, state and territory herbaria
- · Researchers completed scientific papers or publications resulting from research undertaken at the Australian National Herbarium. Areas of study include Australian Orchidaceae, Asteraceae, Myrtaceae, Malvaceae, Santalaceae and the bryophytes
- The ANBG and Centre for Plant Biodiversity Research website continued to develop as the premier online resource for information about Australian plants. The website recorded about 35,000 hits each day, an increase of 8,000 per day

### Water conservation at the Australian National Botanic Gardens



Weather monitoring station

The ANBG in Canberra contains the most diverse collection of cultivated native Australian plants in the country, despite major climatic limitations including low rainfall and regular winter frosts. An important feature of maintaining the health of this collection is the use of irrigation water, especially in the dry summer months.

In the past three summers the ACT Government and ACT water utility (ACTEW) have used water restrictions as part of a strategy to deal with low rainfall and reduced water availability. A long-term strategy designed to reduce water use is now in place. The strategy recognises the need to adapt to the impact of climate

change and Canberra's location within the Murray–Darling Basin. The ACT and Australian governments are committed to promoting and managing sustainable water use in the Murray–Darling Basin.

As a major water user, the ANBG is implementing strategies to reduce the use of water, both for sustainability and economic reasons. In 2005–06 the ANBG invested \$180,000 to design and install a computerised irrigation system. The new system will help the ANBG make a permanent reduction in its irrigation water use, and reduce water costs. The cost of water in the ACT has increased significantly for 2006–07, with the ANBG water bill forecast to increase by \$90,000.

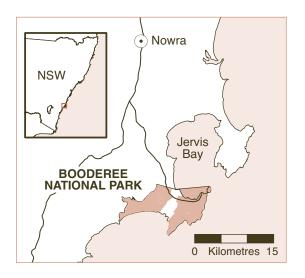
The irrigation system will enable horticulturists to accurately measure and analyse the impact of micro-climatic conditions. This information, with knowledge of the various species' water requirements, will be used to determine the most effective and efficient irrigation programmes, watering when, and as, needed. For 2006–07 the ANBG's target is to reduce water use by 20 per cent. The 2005–06 target of meeting the permanent water restrictions was met.





### **Booderee National Park**

http://www.deh.gov.au/parks/booderee



### Special features

Booderee National Park protects most of the southern peninsula of Jervis Bay, the Bherwerre Peninsula, Bowen Island, and the waters and seabed in the southern part of the bay. The park includes the Booderee Botanic Gardens, formerly an annex of the ANBG.

The park is of great significance to its traditional owners, the Wreck Bay Aboriginal community, who are increasingly involved through a unique

and evolving joint management model in running the park. More than 100 prehistoric Aboriginal sites have been recorded on the Bherwerre Peninsula.

Jervis Bay is one of the major biogeographic nodes in Australia and contains a variety of relatively undisturbed marine and terrestrial habitats. The marine environment is one of the most diverse recorded in temperate Australia, with tropical and temperate species represented. The park is renowned for its exceptional water clarity, due to small intact catchments, and exceptionally white sands. The park has one of the largest seagrass meadows on the New South Wales coast. Vegetation communities include relic rainforest, littoral rainforest, forest, woodland, wet and dry heath, salt marsh and coastal wetlands, and coastal scrub and grassland communities.

The park is rich in flora and fauna, with more than 625 native plant species recorded.

Location	Latitude 35° 09′ South, Longitude 150°39′ East
Area	7,254 hectares (including a marine area of 875 hectares)
Proclamation date	4 March 1992
IUCN category	Category II overall (botanic gardens Category IV)
Biogeographic context	Interim Biogeographic Regionalisation for Australia region: Sydney Basin
Management plan	First plan expires 3 April 2009



Other significant management documents	Management plan implementation schedule; risk assessment and management schedule; fire and pest management strategies; Memorandum of Understanding with NSW Rural Fire Service; draft Memorandum of Understanding with the Department of Defence; Botanic Gardens Collections Policy; joint training strategy with the community council and Wreck Bay Enterprises Ltd	
Financial	Operating	\$6.513 million
	Capital	\$1.410 million
	Revenue	\$1.039 million
	Paid to traditional owners	\$0.206 million
Visitors	400,000 (estimated)	
Permits	19 commercial tour operators, 9 research, 2 wedding celebrants	

International conventions and agreements	
Wetlands (Ramsar) Convention	Nomination in preparation
Migratory Species (Bonn) Convention	23 of 98 listed Australian species
China–Australia Migratory Birds Agreement	20 of 81 listed species
Japan–Australia Migratory Birds Agreement	22 of 76 listed species

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	1 critically endangered
		4 endangered
		11 vulnerable
		36 migratory
		72 marine
		East coast whale migration refuge area
	Recovery plans	5 implemented—humpback whale ( <i>Megaptera novaeangliae</i> ); southern right whale ( <i>Eubalaena australis</i> ); albatross ( <i>Diomeda</i> spp. and <i>Thalassarche</i> spp.) and giant petrels ( <i>Macronectes</i> spp.); marine turtles; grey nurse shark ( <i>Carcharius taurus</i> )
		5 in preparation—grey-headed flying-fox ( <i>Pteropus poliocephalus</i> ); Gould's petrel ( <i>Pterodroma leucoptera</i> ); eastern bristlebird ( <i>Dasyornis brachypterus</i> ); green and golden bell frog ( <i>Litoria aurea</i> ); giant burrowing frog ( <i>Heleioporus australiacus</i> )
Listed flora	Species	1 vulnerable
	Recovery plans	1 in preparation—magenta lilly-pilly (Syzygium paniculatum) <sup>a</sup>
Heritage	On Commonwealth Heritage List (part of several listings)	

<sup>(</sup>a) Recovery plan currently being drafted following collation of distribution data.

Numbers of native species recorded					
Mammals	Birds	Reptiles	Amphibians	Fish	Plants
26 (4)	200 (9)	17 (3)	14 (2) <sup>a</sup>	308 (1)	625 (1)

Figures in brackets are the number of species that are a management priority.

(a) Reduced from 15 species reported in 2004–05 due to suspected local extinction of the green and golden bell frog. Local extinction requires confirmation.

### Board of management

The Booderee National Park Board of Management has 12 members, including seven representatives nominated by the Wreck Bay Aboriginal Community Council. The board oversees preparation and implementation of the park's management plan.

### **Monitoring**

All species were systematically monitored in collaboration with the Australian National University Centre for Resource and Environmental Science. This five-year study seeks to document the role of fire in determining species distribution and abundance. The results are expected to be published over the next two to three years. There have been some unexpected early results.

Threatened and listed species monitoring continued with a focus on birds including the eastern bristlebird (*Dasyornis brachypterus*), sooty oystercatcher (*Haemotopus fuliginosus*) and little penguin (*Eudyptula minor*), and amphibians including the green and golden bell frog (*Litoria aurea*) and the giant burrowing frog (*Heleioporus australiacus*). Monitoring continues to indicate an exceptionally healthy environment, although the apparent disappearance of the green and golden bell frog is of concern, and may be a product of climate change (see case study on page 66).

An initial assessment of marine biodiversity was published. The report documents a rich marine biodiversity, with two sites off Bowen Island having the highest fish species richness so far recorded in temperate Australia.

Wildlife monitoring continued to focus on the effectiveness of regular fox baiting, particularly as it affects long-nosed bandicoots (*Perameles nasuta*) and eastern bristlebirds. Both species have increased substantially since fox baiting was started.

Monitoring and management of the highly invasive ecological weed bitou bush (*Chrysanthemoides monilifera*) indicate that, despite the commitment of considerable resources, the weed is spreading. It remains the major environmental risk to the park. New integrated management approaches involving ultra low volume aerial spraying followed by high intensity fire were hampered by the unusually dry summer and autumn, and many of the programmed burns could not safely be carried out. Current



strategies may require review with changing climate making large-scale high intensity burns impracticable.

The training database was further refined to record training received and costs incurred by Wreck Bay Enterprises Ltd members and the Wreck Bay Aboriginal community.

Management plan monitoring was updated to include monitoring management of projects identified in the Parks Australia Risk Watch List and Parksafe.

### Future challenges

Major challenges for 2006–07 are to continue to improve control measures for key threats, particularly kikuyu grass (*Pennisetum clandestinum*) on Bowen Island, bitou bush and foxes throughout the park; progress the cultural centre; identify ways of replacing critical ageing assets, notably the visitor information centre; complete the cultural heritage strategy with the Wreck Bay Aboriginal community and implement its recommendations; implement the training strategy; progress service level agreements and contracting opportunities with the community to an agreed timetable; and identify impacts and possible actions to address climate change.

### Report on performance by key result areas

### **KRA1: Natural heritage management**

### Major issues

- 13 known introduced terrestrial vertebrate pest species in the park, of which the fox is the greatest threat
- Bitou bush (Chrysanthemoides monilifera) is the most significant weed in Booderee.
   Need to explore more effective integrated control measures (fire, spraying, rehabilitation)
- · Protection of seabird nesting habitat (little penguin, three species of shearwater, sooty oystercatcher) from kikuyu grass and other weeds
- · Fire-prone vegetation communities require management in increasingly risky environment
- · Need to identify the role of climate change and its impacts on the park

#### **Actions**

- Manage feral animal control programme with emphasis on regional fox control, control of resilient individuals and introduction of alternative fox control methods
- Develop safer integrated management techniques (aerial spray and fire) for bitou control



- Control the spread of kikuyu, improve integration of community group involvement
- Implement an ecologically appropriate and safe fire management programme and upgrade training and monitoring to cope with larger, more intense fires

### Performance results 2005-06

- Rediscovered the white-footed dunnart (*Sminthopsis leucopus*) in the park after the species not having been recorded for 26 years. Other species have featured unusually high breeding densities (powerful owl, sea eagle), and breeding success
- Presence of key indicator species (long-nosed bandicoot and eastern bristlebird) suggests that fox baiting is succeeding. Initial research suggests that optimum recovery of indicator species may be achieved if fox control is carried out soon after bushfire. The link between fox control and fire is being explored further
- Replaced approximately three hectares of kikuyu with native species in penguin nesting habitat
- New GIS (geographic information system) officer assisted in collecting better baseline data, including distribution of flora and fauna
- Trained five new crew leaders and updated fire training standards with new fire officer

### **KRA2: Cultural heritage management**

### Major issues

- · Maintaining the cultural values of the park
- The community council and the park to develop a cultural heritage strategy to drive all aspects of cultural heritage management
- The community council and the park to develop and deliver a well-accepted cultural heritage education programme

### **Actions**

- Maintain register of cultural sites on GIS and database, determine protection measures, and examine merits of more sophisticated GIS
- · Offer summer interpretation programme with increased focus on cultural interpretation
- · Plan for new cultural centre by progressing a pre-design project involving environmental impact assessment and feasibility studies
- · Develop a cultural heritage strategy for the park
- · Establish Junior Ranger programme with cultural focus



#### Performance results 2005–06

- Conducted cultural interpretation holiday programme during December 2005– January 2006
- Advertised the cultural heritage strategy and received a number of written tenders.
   The community and park began the tender assessment process
- · Commenced the Junior Ranger programme at Jervis Bay Primary School

### **KRA3: Joint management**

### Major issues

- · Lease is successfully administered and conditions met
- Contracting arrangements between the park and Wreck Bay Aboriginal community are progressed to agreed timetable
- · Management plan is fully implemented

#### Actions

- Negotiate service level agreements for provision of agreed park services under the terms of the services contract between the Wreck Bay Aboriginal community and the Director
- Implement integrated training strategy
- Prepare annual management plan implementation schedule and report progress to the board of management

- Supported ongoing service level agreements for road and fire trail maintenance and entry station services
- · Progressed development of a service level agreement for cleaning
- Wreck Bay Enterprises Ltd contractors undertook a variety of capital works in the park
- Park and Wreck Bay boards of management endorsed the integrated training strategy agreed by the park, community and Wreck Bay Enterprises Ltd, consistent with park lease obligations
- · Upgraded and refined the management plan implementation database



### KRA4: Visitor management and reserve use

### Major issues

- Educating visitors to increase awareness of the conservation and cultural values of the park
- Provision of infrastructure to facilitate appropriate use of the park while protecting conservation values
- · Poor condition of ageing visitor centre

#### **Actions**

- · Include conservation themes in summer interpretation programme
- · Maintain campgrounds and facilities
- Educate visitors in relation to fish catch limits and zoning plan and enforce legislation where appropriate
- · Monitor visitor numbers and experiences
- · Renovate visitor centre

- Delivered interpretation programmes focusing on Aboriginal cultural values and conservation themes over the Christmas 2005–06 school holidays. Schools interpretation programmes were delivered in the park and at schools
- Continued repairs to visitor infrastructure damaged by the Windermere fire of Christmas 2003. All damaged areas have now been repaired and insurance payments have been received
- · Commenced a number of prosecution actions of repeat fisheries offenders
- · Enhanced visitor data analysis software and hardware. Postponed visitor experiences survey to 2006 pending the availability of staff to conduct and manage the survey
- · Completed some minor refurbishment of the visitor centre

### **KRA5: Stakeholders and partnerships**

### Major issues

- Cooperative arrangements between Booderee, the NSW National Parks and Wildlife Service, the Jervis Bay Marine Park and the Department of Defence are supported
- · Strong cooperative arrangements with universities are extended
- · Fire recovery monitoring

#### **Actions**

- · Continue integrated management programmes in key areas
- · Support research in conservation areas identified in the park management plan
- · Support cooperative undergraduate and postgraduate programmes
- · Refocus monitoring programmes to deal with wildfire
- Support community involvement (through Parkcare, Australian Conservation Volunteers, Community Development Employment Projects)

- Continued cooperative arrangements with adjacent agencies, including NSW National Parks and Wildlife Service, Jervis Bay Marine Park, NSW Fisheries and Department of Defence. Booderee continued to provide the lead role in regional fox management
- · Issued nine research permits in postgraduate conservation fields in accordance with the management plan. Cooperative undergraduate and postgraduate programmes operated with Wollongong and Canberra universities and the Australian National University
- · Continued difficult negotiations between the park and the Department of Defence in relation to a Memorandum of Understanding covering day-to-day operations and relationships between the parties
- Commenced Community Development Employment Projects at Booderee Botanic Gardens involving Wreck Bay youth
- · Conducted 18 Parkcare activities, including post fire rehabilitation, weed removal and rehabilitation of little penguin nesting habitat
- · Supported three externally funded Australian Conservation Volunteers activities on Bowen Island



### **KRA6: Business management**

### Major issues

- · In accordance with Investors in People policy, staff have all the necessary skills to do their jobs
- · Review of revenue

#### Actions

- · Increase emphasis on training identified in personal development plans
- · Conduct business review (permits and fees)

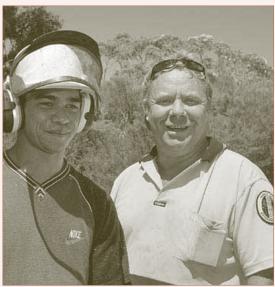
### Performance results 2005–06

- · Offered training in line with personal development plans, with emphasis on contract and project management, fire preparedness/fighting and supervisory and management skills
- Trained staff, prepared new interpretive material and enhanced park administrative systems pending new fee structure being introduced on 1 July 2006



6

### Booderee National Park joint training strategy



The park provides opportunities for employment and training for the local community

At Booderee National Park, training is an integral part of workplace and park management.

Recognising the joint management arrangements with the Wreck Bay Aboriginal Community Council, and the council's goal of eventual sole management of the park, training and development at Booderee is delivered in a coordinated and shared way to park staff, community members (whether or not currently working in the park) and Wreck Bay Enterprises Ltd staff. This is formalised under the recently developed joint training strategy.

The joint training strategy was prepared in the context of the operational and management interests of the three organisations that have a role in Booderee National Park: Parks Australia, the Wreck Bay Aboriginal Community Council and Wreck Bay Enterprises Ltd. It aims to build capacity across the three organisations by consolidating and strengthening the confidence, skills and knowledge of all participants and enabling community council members to work towards the long-term goal of sole management.

The three organisations have identified outcomes against which success will be measured, including effective implementation of the Booderee National Park Management Plan, increased Indigenous employment in all three organisations, and increased participation in training.

The strategy promotes lifelong learning, use of nationally accredited training modules for consistency and portability, competency based training, and flexible delivery.



### A research and training partnership at Booderee



Darren Brown getting familiar with a diamond python at Booderee

One of Booderee National Park's major partnerships is with the Australian National University (ANU) Centre for Resource and Environmental Studies.

Under this partnership, ANU employee and Wreck Bay Aboriginal Community member Darren Brown is enrolled in a Certificate III in Conservation and Land Management through the CB Alexander Agricultural College (part of NSW Department of Agriculture). Most of Darren's training is on the job, working in the field alongside an ANU research officer on a large-scale experimental fire study and research project which will benefit the park by improving ecological and cultural knowledge of fire.

Darren is gaining practical skills in trapping, animal handling, radio tracking, animal identification, vegetation survey, data input and analysis, and data manipulation as well as broader life skills. Darren also receives training in fire operations: he is currently at crew leader level and an important member of both Booderee and Wreck Bay brigades. Darren receives support through formal and informal mentoring in the workplace.

Parks Australia is providing funding and in-kind support for three years to assist with Darren's training. The Navy at HMAS *Cresswell* is also supporting this project. The lead investigator, Professor David Lindenmayer, has a strong personal commitment to this project and contributes to the Indigenous training component from his own funds.

Darren's training is a practical step towards the Wreck Bay Aboriginal Community Council's goal of eventual sole management of the park, and a good example of the much wider social benefits of research projects in places like Booderee National Park.



The white-footed dunnart (Sminthopsis leucopus) rediscovered in Booderee after 26 years

Higher temperatures, more intense heatwaves; sea level rises and increases in cyclonic wind intensity; reduced rainfall and prolonged drought; and more frequent El Niño Southern Oscillation events—these are the most critical elements of climate change identified for Australia's east coast.

For Booderee National Park, these changes are likely to mean more intense and frequent wildfires; narrow and declining opportunities for prescribed (ecological and hazard reduction) burning; decline or loss of permanent and ephemeral water bodies; rises in sea level; changes in species

distribution, abundance and localised extinction; increase in some pests; and a possible decline in marine productivity in Jervis Bay due to declining influence of the East Australia Current.

Booderee National Park communities or species potentially threatened are those not well adapted to fire (rainforests, swamp oak forest), species dependent on regular rainfall (rainforests, amphibians), those dependent on ephemeral water bodies (amphibians, turtles), species dependent on high or reliable marine productivity (penguins, pursuit diving seabirds, seals), communities subject to inundation (littoral rainforest, swamp oak forest and saltmarshes), and species close to the upper thermal limits of their range (penguins)

The longer-term impacts and cause and effect of climate change on Booderee are uncertain. Nevertheless, there have already been some relevant indicators:

- Coastal NSW experienced severe drought conditions and unusually high summer temperatures during 2004–05. On New Year's Day, temperatures rose to 47°C in Booderee, the hottest on record. Many plants were killed or severely damaged by this heatwave.
- There have been two large wildfires in the park which burnt 700 hectares in 2002–03 and 2,500 hectares in 2003–04. Weather conditions were highly conducive to another wildfire in 2005–06 but thanks to the vigilance and cooperation of staff and visitors this did not occur.
- The Byram-Keetch Drought Index remained very high after the 2005–2006 summer and reached over 130 in May 2006, the highest figure ever recorded



reflects the dryness of soils, deep forest litter, logs and vegetation. When the index for a particular area is over 100, the area is said to be in drought. Typical readings for Booderee in summer are around 120.)

for the month of May. (The index is a numerical scale of 0–200 points that

- The level of Lake Windermere, the water supply for the Jervis Bay Territory, declined to an all time low leading to speculation that the self sufficiency of the territory and park for water in the next year can no longer be guaranteed.
- The green and golden bell frog (*Litoria aurea*), previously relatively common in the park and highly adapted to ephemeral water bodies, was not found in 2004–05 despite numerous surveys.
- · Some marine (native) pests previously found only in tropical Australian waters began to spread through local waterways, e.g. *Caulerpa taxifolia*, an invasive alga.

Encouragingly studies in the park continue to show the amazing natural adaptive capacity of native species, especially to fire, and especially where pest predators can be controlled. Species which we are learning much more about include the endangered eastern bristlebird (*Dasyornis brachypterus*), diamond python (*Morelia spilota spilota*), long-nosed bandicoot (*Perameles nasuta*), and ring-tailed possum (*Pseudocheirus peregrinus*). The bristlebird has unexpectedly thrived after fire and continues to be found in habitats where it was not previously encountered. Large diamond pythons sought open spaces to survive the fires, then took to the trees until ground dwelling prey recovered. Some bandicoots survived, and with their incredible fecundity reacted quickly to fill the available habitats.

It seems that the interaction between fire and the most significant pest predator, the fox, has determined how these species have survived. Rare species, for example the eastern chestnut mouse (*Pseudomys gracilicaudatus*), have been found for the first time in the park, and the white-footed dunnart (*Sminthopsis leucopus*) has been rediscovered after 26 years, again possibly a result of fire and effective fox control.

Current detailed studies in the park will provide good data on distribution and abundance of species and form a sound basis for future monitoring and improved management of the park. However, the capacity of the park's species to adapt to climate change may depend on how rapidly climatic conditions change. A further pressure on the park is its increasing isolation from surrounding natural environments in New South Wales as a result of continued nearby residential and commercial developments.

### **Christmas Island National Park**

http://www.deh.gov.au/parks/christmas



### Special features

Christmas Island is home to a unique rainforest ecosystem that supports very high biodiversity with at least 225 species of endemic animals, 25 species of endemic plants and many that do not occur elsewhere in Australia. It includes the last remaining nesting habitat of the endangered Abbott's booby (*Papasula abbotti*), and an extraordinary diversity and abundance of land crabs.

The island is renowned for its annual

crab migration, when up to 100 million red crabs (*Gecarcoidea natalis*) march to the sea to spawn, and for the whale sharks (*Rhincodon typus*) that migrate to its in-shore waters to feed.

Location Latitude 10° 29′ South, Longitude 105°38′ East				
	<u> </u>			
Area	8,719 hectares			
Proclamation dates	21 February 1980, 31 January 1986 and 20 December 1989			
IUCN category	Category II			
Biogeographic context	Christmas Island is the coral-encrusted, emergent summit of a basaltic, submarine mountain in the Indian Ocean. Its plants and animals are most closely linked with those of South-East Asia			
Management plan	Third plan expires 13 March 2009			
Other significant management documents	Christmas Island Rainforest Rehabilitation Programme; Invasive Ants on Christmas Island Action Plan; biodiversity monitoring programme; management plan implementation schedule; and risk assessment and management schedule			
Financial	Operating	\$2.908 million		
	Capital	\$0.135 million		
	Revenue	\$1.449 million		
Visitors	600 (estimated)			
Permits	5 commercial tour operators; 5 photography, 8 research; 12 others (e.g. camping, works)			



International conventions and agreements		
Wetlands (Ramsar) Convention	The Dales and a small landlocked mangrove forest at Hosnie's Spring are listed under the convention	
Migratory Species (Bonn) Convention	28 of 98 listed Australian species	
China–Australia Migratory Birds Agreement	48 of 81 listed species	
Japan – Australia Migratory Birds Agreement	45 of 76 listed species	

Environment	Protection and B	liodiversity Conservation Act 1999
Listed fauna	Species	2 extinct  4 <sup>a</sup> endangered  8 vulnerable  63 <sup>b</sup> migratory  92 <sup>c</sup> marine
	Recovery plans	8 plans being partially implemented—Christmas Island shrew (Crocidura attenuata trichura); Christmas Island pipistrelle (Pipistrellus murrayi); Abbott's booby (Papasula abbotti); Christmas Island goshawk (Accipiter fasciatus natalis); Christmas Island frigatebird (Fregata andrewsi); Christmas Island hawk-owl (Ninox natalis); marine turtles; whale shark (Rhincodon typus)
		2 in preparation—Christmas Island gecko ( <i>Lepidodactylus listeri</i> ); pink blind snake ( <i>Ramphotyphlops exocoeti</i> ) <sup>d</sup>
		2 awaiting preparation—emerald dove ( <i>Chalcophaps indica natalis</i> ); Christmas Island thrush ( <i>Turdus poliocephalus erythropleurus</i> ). These species will be included in a multi-species recovery plan for the island, preparation to begin in 2006–07
Listed flora	Species <sup>e</sup>	2 critically endangered
	Recovery plans	2 being partially implemented (Asplenium listeri, Pneumatopteris truncata)
		3 species being assessed for nomination ( <i>Asystasis alba</i> , <i>Amaracarpus pubescens</i> , <i>Cycas rumphii</i> ). These species will be included in a multispecies recovery plan for the island, preparation to begin in 2006–07
Heritage	On Commonwealth Heritage List (as part of a wider listing of the island's natural areas)	

- (a) Reduced from 6 reported in 2004–05 due to an earlier reporting error
- (b) Increased from 57 reported in 2004–05 due to refinement of species database  $\,$
- (c) Reduced from 96 reported in 2004–05 due to refinement of species database
- (d) At the time of this report, the recovery plans were awaiting ministerial approval
- (e) One vulnerable species, Carmona retusa, reported in 2004–05 was delisted in 2005

Numbers of native species recorded					
Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
3 (3)	95 (16)	9 (9)	575 (35) marine, 3 freshwater	>2,000 (198)	213 (91)

Figures in brackets are the number of species that are a management priority.

## Advisory committee

The Christmas Island National Park Advisory Committee comprises the Director of National Parks and community representatives. The committee advises the government conservator on the implementation of the management plan. It also advises the Shire of Christmas Island and the Director of National Parks on matters relevant to the park.

## **Monitoring**

In December 2003 a three-year biodiversity monitoring programme, funded by the Department of Finance and Administration, commenced to monitor the impacts of the construction of the Christmas Island Immigration Reception and Processing Centre. The programme has vastly increased knowledge of the island's unique biodiversity and emphasises how important this branch of park management is. The next challenge will be to secure the resources necessary to continue monitoring the centre into its operational phase.

## Future challenges

Management programmes have dramatically reduced the density of yellow crazy ants (*Anoplolepis gracilipes*) that had been threatening the island's crab population. However, the ants remain widespread and will require an intensified control effort to contain them at a manageable level.

Many other potentially dangerous invasive ants, including fire ants (*Solenopsis geminata*) and big-headed ants (*Pheidole megacephala*), are present on the island and are being monitored for signs of spread.

The Christmas Island Rainforest Rehabilitation Programme resumed operation in 2004 but lacks the resources to provide all the rehabilitation required. The question of how best to rehabilitate extensively mined landscapes with limited resources remains under investigation.

The control effort for woody weeds was substantially increased over the past year, but will require even greater resources to bring weeds under long-term control.



## Report on performance by key result areas

## **KRA1: Natural heritage management**

## Major issues

- · Advising Assessments and Wildlife Division, Department of the Environment and Heritage on proposed new mine leases
- · Insufficient funding for management of yellow crazy ants
- · Continuing management of 37 weed species
- · Adoption and funding of all relevant recovery plans
- · Crab mortality from traffic

#### **Actions**

- · Advise the Assessments and Wildlife Division on environmental and biodiversity consequences of approving new leases
- · Apply hand baiting to yellow crazy ants
- · Submit a 10-year budget for crazy ant control
- · Prepare 22 hectares of minesite for rehabilitation
- · Hand spray 22 of the most invasive weed species
- Implement as possible approved recovery plans for 11 species and seek funding to implement a draft recovery plan for the Christmas Island gecko and blind snake
- · Design and test improved over-road crab crossings
- Continue to implement the biodiversity monitoring programme that started in December 2003
- · Implement supply of landscape plants to the immigration reception and processing centre

## Performance results 2005–06

- · Submitted detailed advice on all environmental and biodiversity aspects of new mine lease proposals to the Assessments and Wildlife Division
- · Treated 270 hectares of yellow crazy ant supercolonies (see case study on page 75)
- · 10-year crazy ant budget received in-principle ministerial approval
- Returned 40,000 tonnes of soil to a bare mine site. Of 40,000 trees to be planted on 22 hectares only 24,000 were planted on 13 hectares due to early cessation of rain.
   Balance to be planted next year, bringing total rehabilitated to 383 hectares
- · Treated 122 hectares of 22 species of invasive woody weeds



- Achieved average implementation level of 32 per cent of actions within existing recovery plans
- Successfully tested new design of crab crossings. Design will be adopted next season
- · Biodiversity monitoring programme met all targets
- · Immigration reception and processing centre plant supply contract met all targets

## **KRA4: Visitor management and reserve use**

## Major issues

- · Quality of visitors' experiences
- · Visitor safety
- · Insufficient funding to meet all requirements

#### **Actions**

- · Maintain and, where possible, improve roads, trails, viewpoints and interpretive material
- · Produce new interpretations material and signage
- Finalise touch-screen interpretation system in collaboration with Christmas Island Tourism Association
- Coordinate beach rubbish cleanups
- Support film crews and journalists

## Performance results 2005–06

- · Maintained approximately 60 kilometres of murram or unsurfaced roads and tracks. Improved and re-marked Winifred Beach track and West White Beach track
- · Produced one new brochure, reprinted two existing brochures. Overseas student interns are developing a touch-screen interpretation system at the visitor centre
- · Published Native Plants of Christmas Island
- · Successfully staged an art-in-the-jungle exhibition in remote corners of the park to draw visitors
- The school and community held several beach clean-ups in conjunction with park staff
- · Assisted several film crews, national and international, and journalists with a view to publicising the island's biodiversity and conservation values



## **KRA5: Stakeholders and partnerships**

## Major issues

- Efforts to establish Christmas Island as a globally important island biodiversity hotspot
- · Progress of the feral cat eradication programme with the Shire of Christmas Island

#### Actions

- · Establish an international research station on Christmas Island
- Support overseas student interns
- · Support Japanese eco-volunteers in collaboration with Nature Watch Inc., Japan
- Support visiting scientists
- · Initiate Turtle Watch project
- · Continue Smith Point project
- · Maintain and service the Christmas Island National Park Advisory Committee
- Implement Memorandum of Understanding on feral cats with mining company and Shire of Christmas Island signed in 2003–04

## Performance results 2005-06

- · Submitted business case, engaged consultant and prepared prospectus in readiness for approaches to potential investors in the international research station
- · Supported 11 foreign student interns doing research projects with park staff
- · Supported three volunteers doing research projects with park staff. One full-time coordinator also supported
- · Supported six visiting scientists doing collaborative research projects
- Successfully launched the Turtle Watch project, now run autonomously by island volunteers
- · Smith Point project continued successfully mainly by overseas volunteers in conjunction with Island Care community group
- · Held two meetings of the Christmas Island National Park Advisory Committee
- · Cat eradication programme on hold awaiting adoption of cat control legislation

## **KRA6: Business management**

## Major issues

· Delivering quality management services within a limited budget

## Actions

· Maintain park management services within budget

## *Performance results 2005–06*

· Financial control met all standards and directives



## Controlling yellow crazy ants on Christmas Island



Crazy ants depend on scale insects for food

Yellow crazy ants (Anoplolepis gracilipes) arrived on Christmas Island sometime between 1915 and 1934—probably an inevitable event as the ant has spread into most tropical countries from Africa (or possibly Asia, it is not certain where it evolved). It went unnoticed on Christmas Island until the late 1990s when suddenly it began forming huge supercolonies that devastated everything in their way including an estimated 30 million red crabs (Gecarcoidea natalis).

Drastic action had to be taken and the worst of the infestations were aerially baited using a specially developed bait that included fipronil, a powerful insecticide. This knocked out all the supercolonies, but left many small nests scattered widely across the island. These remaining infestations are being baited manually because it is too risky to bait them from the air.

Fipronil is toxic to other carnivorous ants and also to robber crabs (*Birgus latro*), which have a unique, insect-like physiology that renders them alone among crabs highly susceptible to insecticides. This toxicity means the bait has to be precisely applied in just the right quantity to guarantee that all of it will be found and eaten only by the target ants. This is a slow, laborious and expensive manual operation when treating small ant colonies. Aerial baiting worked for the supercolonies because their density ensured that all the baits were removed by yellow crazy ants before other species could reach them.

By late 2005 it was clear that the mop-up campaign by hand-baiting was not succeeding. The crazy ants were multiplying faster than park staff could bait them. Accordingly, a more comprehensive 10 year control strategy was designed. This includes a targeted return to aerial baiting, initially with fipronil, but, as soon as they can be developed, with other chemicals. The strategy includes supporting research and trials to develop a synthetic hormone that retards the growth of the queen ants' ovaries. Such a method is being used successfully on the fire ant (*Solenopsis invicta*) in Queensland. Other recently introduced insecticides will also be tested to see if they have lower non-target impacts than fipronil.



A third component of the strategy is to support research into finding an insect predator of the scale insects that crazy ants normally depend on for food. If a biocontrol agent that substantially reduces scale insect populations can be identified and introduced then there is a very strong chance that the crazy ant could be kept at harmless levels in a benign, permanent and cost-effective manner.

The remaining element of the control strategy is to continue targeted hand baiting of satellite colonies as resources permit.

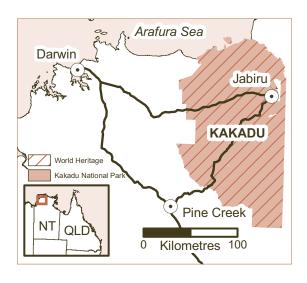
Just why the crazy ant population suddenly exploded is a mystery. Drastic population crashes of four reptile species, two mammal species and many insect species endemic to the island may be related to the yellow crazy ant infestations, while other species show no change.

At supercolony densities the ant visibly destroys other wildlife, but to what extent it is driving rather than participating in the island's ecological changes is unclear. Climate change is likely to be involved—the island's average annual rainfall has dropped by 21 per cent in the last 30 years. Past clearing of a quarter of the island's rainforest for phosphate mining, and numerous weed and other feral pests are likely to have reduced the capacity of the island's ecosystems to cope with change.



## Kakadu National Park

http://www.deh.gov.au/parks/kakadu



## Special features

Kakadu National Park is inscribed on the World Heritage List under natural and cultural criteria. It is one of the most ecologically and biologically diverse places in Australia.

Kakadu's traditional owners maintain strong links to their country, links that are demonstrated through their cultural practices, spiritual beliefs and traditional management and use of their country. An estimated 15,000 rock art sites and innumerable artefacts

and sites of cultural, archaeological and historic significance in the Kakadu region contribute to archaeological evidence indicating that people have lived continuously in the Kakadu region for at least 50,000 years.

The park contains an almost entire major tropical river catchment (the South Alligator River catchment) and large representative examples of the wet-dry tropical ecosystems of northern Australia. The major landforms in the park include the sandstone plateau and escarpment, extensive areas of savanna woodlands, monsoon forest, riverine and riparian environments, billabongs, floodplains, mangroves and mudflats.

Location	Latitude 13° 29' South, Longitude 132°26' East
Area	1,980,400 hectares
Proclamation dates	In several stages: 5 April 1979, 28 February 1984, 12 June 1987, 22 November 1989 and 24 June 1991
IUCN category	Category II
Biogeographic context	Located in the wet-dry tropics Interim Biogeographic Regionalisation for Australian regions: Darwin Coastal; Arnhem Plateau; Pine Creek
Management plan	Fourth plan expired 8 March 2004. Fifth plan expected to come into effect towards the end of 2006

		HE.		
\	A		7	
Ţ	JA	Ø	L	
9	8	اله	8	

Other significant management documents	Shared Vision for Tourism; district fire management plans; district weed control plans; crocodile management strategy		
Financial	Operating \$17.244 million		
	Capital	\$2.997 million	
	Revenue	\$1.162 million	
	Paid to traditional owners	\$1.111 million	
Visitors	193,000 (estimated) <sup>a</sup>		
Permits	120 film/photography; 103 commercial tour operators; 33 research; 611 camping/bush walking		

(a) Improved visitor count techniques devised during 2005–06 indicate a potential 23 per cent undercount in previously reported figures. Further data collection using the new techniques will assist in improving accuracy of future counts.

International conventions and agreements			
World Heritage Convention	Listed under cultural criteria (i) and (vi) and natural criteria (ii), (iii) and (iv), recognising the park's outstanding natural and cultural values		
Wetlands (Ramsar) Convention	683,000 hectares of wetlands are listed		
Migratory Species (Bonn) Convention	39 of 98 listed Australian species		
China–Australia Migratory Birds Agreement	52 of 81 listed species		
Japan–Australia Migratory Birds Agreement	49 of 76 listed species		
Other agreements	Tri-National Wetlands Memorandum of Understanding (links Kakadu, Wasur National Park in Indonesia, and Tonda Wildlife Management Area in Papua New Guinea)		

Environme	ent Protection and	d Biodiversity Conservation Act 1999
Listed	Species	2 critically endangered
fauna		6 endangered 10 vulnerable
		68 migratory 103 marine
	Recovery plans	3 being implemented—golden bandicoot (Isoodon auratus) and golden- backed tree rat (Mesembriomys macrurus); marine turtles; eastern partridge pigeon (Geophaps smithii smithii), crested shrike tit (Falcunculus (frontatus) whitei) and northern masked owl (Tyto novaehollandiae kimberli)
		8 in preparation—bare-rumped sheathtail bat (Saccolaimus saccolaimus nudicluniatus); red goshawk (Erythrotriorchis radiatus); yellow chat (Epthianura crocea macgregori); Gouldian finch (Erythrura gouldiae); freshwater sawfish (Pristis microdon); speartooth shark (Glyphis sp.A); northern rivers shark (Glyphis sp.C); water mouse(Xeromys myoides)
Listed	Species	6 vulnerable
flora	Recovery plans	1 in preparation (multi-species boronia)

Numbers of native species recorded					
Mammals	Birds	Reptiles	Fish	Amphibians	Plants
68 <sup>a</sup> (19)	292 <sup>b</sup> (35)	134 <sup>c</sup> (32)	286 <sup>d</sup> (60)	26 <sup>e</sup> (2)	2,022 <sup>f</sup> (14)

Figures in brackets are the number of species that are a management priority.

- (a) Reduced from 77 species reported in 2004–05 to exclude 9 feral species
- (b) Increase from 271 species reported in 2004–05 reflects refinement of species database
- (c) Increase from 132 species reported in 2004–05 reflects refinement of species database
- (d) Increase from 246 species reported in 2004-05 reflects inclusion of 40 freshwater species not reported previously
- (e) Reduced from 27 species reported in 2004–05 to exclude 1 feral species
- (f) Increase from 1,586 species reported in 2004–005 reflects refinement of species database

## Board of management

The Minister for the Environment and Heritage appoints members to the Kakadu National Park Board of Management. The board comprises 15 members. Ten members are appointed as representatives of the park's traditional owners, representing the geographic spread of Aboriginal people in the region and the major language groupings. The remaining members comprise the Director of National Parks, Assistant Secretary Parks Australia North, nominees with environmental and tourism expertise, and a nominee of the Northern Territory Government. The Kakadu board has currently served one year of its five-year term.

## **Monitoring**

Monitoring and control continued in 2005–06 for introduced plants including *Mimosa pigra*, mission grass (*Pennisetum polystachion*), olive hymenachne (*Hymenachne amplexicaulis*), salvinia (*Salvinia molesta*) at Yellow Water and gamba grass (*Andropogon gayanus*); introduced ants including big-headed ants (*Pheidole megacephala*) and ginger ants (*Solenopsis geminata*); and introduced terrestrial vertebrate fauna.

Studies continued to research the impact of cane toads (*Bufo marinus*) on goannas, native frogs and northern quolls (*Dasyurus hallucatus*); crocodile populations; marine turtles, in particular nesting flat back turtles (*Natator depressus*) in coastal areas of the park; and the marine environments off the park's coast. This work is part of a collaborative project with the Northern Territory Government, and the Northern Land Council. Final reports on marine turtles, the impact of cane toads on goannas and on the collaborative marine biodiversity project, along with progress reports on the impacts of cane toads on northern quolls and native frogs, are currently being considered by the park.

Research commenced to map the extent of the only known population of the threatened Acacia D 19063 Graveside Gorge; satellite track the movement of large crocodiles (*Crocodylus porosus*) into upstream habitats; and monitor the impact of seasonal food source availability on magpie goose (*Anseranas semipalmata*) populations. The mapping of the threatened Acacia D 19063 Graveside Gorge has extended the known distribution of this plant but further work is required to establish the extent of its range.

Development of oral history recording and a cultural heritage sites register continued with emphasis on involving traditional owners as project officers or assistants.

New techniques were developed to improve the accuracy of visitor numbers.

## Future challenges

Major challenges include developing systems and partnerships to make the best use of resources. A priority is to complete the actions set down in the management plan, including supporting Indigenous business ventures, employment and capacity building of Aboriginal people, and addressing caring for country challenges that support Kakadu's living cultural values and World Heritage values.

Other challenges include progressing the principles and ideas from *A Shared Vision for Tourism in Kakadu National Park*; developing appropriate training programmes; ensuring safety of tourists and staff; completing the fifth management plan; controlling the spread of introduced pasture grasses; addressing the threat of weeds/





non-native plants associated with developed areas; and controlling the impact of introduced non-native animal species such as cane toads.

## Report on performance by key result areas

## **KRA1: Natural heritage management**

## Major issues

- · Salvinia molesta infesting Yellow Water
- · An apparent decline of small mammal populations in the park
- · Cane toads and their impacts on native species
- · The spread of introduced pasture grasses
- · Introduced pest species and their impacts
- · Monitoring the status of significant species
- Monitoring the impact of tour operations on natural values
- · Understanding the impact of fire
- · Landscape change

#### Actions

- · Assess species populations as part of park fauna monitoring programmes
- · Continue assessing the impact of cane toads
- · Detect and treat infestations of invasive ant species
- Continue control of serious pest plant species, focusing on weeds of national significance including mimosa, salvinia and olive hymenachne, as well as mission grass, gamba grass and other introduced pasture grasses
- · Develop appropriate fire regimes for the variety of habitats within the park
- · Study landscape change processes
- · Develop programmes to monitor the impact of visitor use on Kakadu's natural values

## Performance results 2005–06

- Continued research on cane toad impact on selected goanna species.
   Recommendations to date include maximising observations during the build-up period prior to the wet season (build-up is known to be a peak period of goanna activity and therefore the best time to maximise any sightings). Training was scheduled by the researcher to assist staff in identifying different goanna species
- Supported ongoing research into frog calls. This is a benchmark study that will assist analysis of the cane toad impact on native frogs



6

6

- Supported research into magpie goose (Anseranas semipalmata) populations and habit in conjunction with the NT Government and Charles Darwin University
- Made an unsuccessful effort to eradicate salvinia from Yellow Water. Efforts continue to limit the extent and impact of salvinia through biological, mechanical and chemical means
- · Recorded 700–800 individuals of the threatened Acacia D 19063 Graveside Gorge *Acacia* spp. at Bilbilkimbi (Graveside Gorge). The results of this survey extended the known range of this species
- Applied findings from the 2004–05 landscape change study to strategic plans for fishing access and weed control
- · Conducted an aerial survey for significant areas of weed infestation. Results will help in developing strategies to limit weed impact
- · Finalised the feral animal strategy
- Continued monitoring and control programmes for big-headed ants and ginger ants. Detected and treated a big-headed ant outbreak at Cooinda
- · Continued support of Indigenous fire management programmes
- Began to implement recommendations from the 2004–05 threatened plants and animals survey
- · Completed analysis of data collected from marine turtle nesting surveys
- · Analysed data from the marine resource inventory of Kakadu's coastline
- Supported post-graduate ecological studies investigating macropods and their place in the landscape
- · Began monitoring the impact of night-time tours on nocturnal wildlife
- Concluded 10 years of fire plot monitoring. Established a partnership with the NT Bushfires Council to analyse data

## **KRA2: Cultural heritage management**

## Major issues

- · Supporting the continuity of traditional owners' living culture
- · Protecting cultural items and sites of significance

- · Review cultural heritage management programmes
- · Continue rock art protection work
- · Continue cataloguing and preserving cultural heritage materials
- · Continue to collect oral histories

- · Seek opportunities for the transfer of knowledge between generations
- Support traditional owner leadership in the park's natural and cultural resource management activities

- Held an organisational review focusing on bolstering cultural heritage management
- · Continued development of a register of oral history audio and video material
- Progressed a partnership agreement between National Archives of Australia and the Director of National Parks for long-term storage and protection of audio and video materials currently held in the park. The agreement is expected to be finalised before the end of 2006
- Continued rock art maintenance at public visitation sites with the involvement of relevant Aboriginal people and held two rock art protection training camps for traditional owners, one in the north and one in the south of the park
- · Completed work to maintain Old Goodparla historic homestead
- Held two cultural camps at Deaf Adder Gorge incorporating aspects of fauna survey, rock art maintenance and oral history collection
- Facilitated visits by senior traditional owners and senior Indigenous people to key sites, such as Jim Jim and Twin Falls and Deaf Adder Gorge, to enable cultural exchange with younger Indigenous park staff with responsibility for managing those areas
- Held an oral history camp at Mary River Station with senior Indigenous women with ties to that area of the park. This was coordinated by a female Indigenous staff member as an individual project

## **KRA3: Joint management**

## Major issues

- · Meeting the commitments outlined in the lease and management plan
- Ensuring shared decision-making occurs at all levels within the park
- · Finalisation of the fifth management plan

- · Consult with traditional owners and the board of management and enable public comment to finalise the fifth management plan
- Implement actions to encourage increased Aboriginal engagement through recruitment and under contract, including skills development programmes



- Support traditional land management projects
- · Support the board of management
- · Continue day-to-day consultations with traditional owners

- Released the draft management plan for public comment after approval by the board and the Director of National Parks. Public comments received were summarised and were due to be considered by the board in August 2006
- Relevant Aboriginal staff continued certificate level studies and numeracy and literacy training
- · Continued to employ four relevant Aboriginal people selected on merit
- Supported the New Apprenticeship Scheme and programmes seeking to reengage young Aboriginal people in education
- · Continued skill development and training for relevant Aboriginal staff
- · Consulted on wide-ranging park management issues with traditional owners and other relevant Aboriginal people through the Northern Land Council
- · Continued day-to-day joint decision-making by relevant Aboriginal people and park staff, including field trips to discuss minesite rehabilitation and sickness country protocols
- Re-signed the Memorandum of Understanding with the Northern Land Council funding and supporting a Northern Land Council Kakadu Officer position
- · Held quarterly meetings of Kakadu National Park Board of Management

## **KRA4: Visitor management and reserve use**

## Major issues

- · Quality and range of visitors' experiences
- Visitor safety
- · Communication with the tourism industry
- · Shared vision and strategic direction for increasing tourism

- · Develop a branding and tourism masterplan
- · Increase knowledge of visitation patterns and experiences
- · Continually review safety of visitor areas
- · Regularly inspect and maintain visitor facilities

- · Commenced consultancy to develop a Kakadu 'brand' to guide visitor experiences and promotion of the park as a visitor destination
- · Commenced consultancy to prepare a tourism masterplan for Kakadu
- · Commenced consultancy to enhance directional signs and develop standard interpretation for Kakadu
- Established a Tourism Services Officer position
- · Aboriginal board members attended tourism conferences
- Local Aboriginal people delivered seasonal interpretive ranger programmes incorporating natural and cultural content
- Improved monitoring methods and associated survey data to provide more accurate and detailed visitor information for use in tourism planning and resource allocation
- Supported Aboriginal enterprise development and involvement in tourism ventures such as the Kakadu Cultural Camp, Hawke Dreaming and Murdujul
- · Board of management approved three new Indigenous business proposals

## **KRA5: Stakeholders and partnerships**

## Major issues

- · Relationships with the tourism industry, Northern Territory Government and neighbours
- · Participation in local, regional, national and international initiatives associated with Kakadu's World Heritage values
- · Relationships with educational institutions to develop 'education to work' pathways for relevant Aboriginal people

- Build a cooperative relationship with tourism stakeholders and the Northern Territory Government
- · Develop an operational relationship with park neighbours
- · Take an active role in community programmes
- · Implement work programmes under the Tri-National Wetlands Agreement between Indonesia, Papua New Guinea and Australia
- Build a strategic alliance with Jabiru Area School and Charles Darwin University to progress education to work programmes

- Kakadu Tourism Consultative Committee continued to advise the board of management on tourism related matters
- · Continued ongoing high-level relationship between the Australian and Northern Territory governments with joint funding and planning to advance tourism in the park and a partnership in employment and education focusing on youth training
- · Finalised an operational plan to support the Tri-National Wetlands Agreement between Papua New Guinea, Indonesia and Australia
- Continued liaison with the NT Bushfires Council and other NT Government agencies, Jabiru Town Council and the Northern Land Council
- Developed and implemented a Junior Ranger programme which forms part of the Year 6 curriculum at Jabiru Area School
- Supported community events highlighting Indigenous culture and community spirit

## **KRA6: Business management**

## Major issues

- Park is currently without a management plan, the fourth plan having expired in 2004. Fifth plan has been released for public comment and comments received
- · Recognition of high levels of staff expertise and performance
- Need for resourcing to achieve the visions and aims of the fifth management plan and park lease obligations
- Compliance with obligations under the Environment Protection and Biodiversity Conservation Act 1999 and Regulations relating to the management of Commonwealth reserves

- · Undertake an organisational review of park operations
- Implement a performance development scheme in accordance with Department of the Environment and Heritage policy
- Participate in the Jabiru Region Sustainability Project, in which Parks Australia, the Northern Territory Government, Energy Resources of Australia and relevant Indigenous groups are considering options for the future of the Jabiru township
- · Fulfil the department's financial management and reporting obligations



- Introduced ParkSafe, continued occupational health and safety training and continued incident reporting and assessment
- · Finalised an independent organisational review aimed at prioritising resources to meet the aims of the park lease and fifth management plan
- · A staff member received an Australia Day Achievement Award recognising her emergency response to a seriously injured road accident victim
- · Continued implementation and improvement of a performance development scheme for all staff focusing on key result areas and staff development
- · Continued operational training for staff with emphasis on literacy and numeracy training and workplace training qualifications
- Revenues and expenses were again on budget



6

## Weeds in Kakadu National Park



Salvinia molesta spreads quickly and is difficult to contain

Salvinia molesta was first discovered in Yellow Water billabong in August 2005 towards the end of the dry season.

Salvinia is a floating fern that occurs naturally in a small area of sub-tropical south-east Brazil. Without its natural enemies it grows to form floating mats that blanket the surface of water bodies, disrupting normal ecological processes, affecting diversity and restricting use of waterways. It is a major pest plant around

the world. It was first recorded in Kakadu in 1983 and considerable resources have been used in attempts to control salvinia and contain its spread.

An aggressive eradication strategy was unable to remove the weed from Yellow Water before the 2005–2006 wet season commenced. The park is now combining mechanical, chemical and biological control methods. The systematic release of the weevil *Cyrtobagus salvinea*, a biological control agent, and education strategies with local tour operators and traditional owners are leading the control effort.

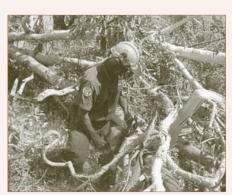
The salvinia infestation in Yellow Water is an example of the challenges faced in attempting to reduce the impact of invasive species. Although more than \$500,000 annually is committed to invasive weed control programmes in Kakadu, successful control in sections of the park is offset by the discovery of new sites of infestation in other areas.

Major invasive weeds in Kakadu include mimosa (*Mimosa pigra*), olive hymenachne (*Hymenachne amplexicaulis*), mission grass (*Pennisetum polystachion*), gamba grass (*Andropogon gayanus*) and other introduced pasture grasses. Infestations of these alter natural fire regimes, reduce access to traditional food sources and change native fauna and flora habitat. The park is working on broader strategic approaches alongside ongoing chemical and mechanical control by park staff. Partnerships with neighbours and park user groups, pamphlets to inform visitors entering Kakadu, and inspection of livestock transporters travelling through the park are assisting the fight against the further spread of weeds.



Invasive weeds threaten not only Kakadu's natural and cultural values but its tourism industry which is built on natural diversity and living cultural values. With seed viability exceeding 20 years for some invasive species, and some 80 weed species already in the park, we are unlikely to eradicate all these species from the park.

## Cyclone Monica



Ranger Dwayne Whitehurst clearing fallen trees from the Bardedjilidji walk

In late April 2006, Category 5 Cyclone Monica approached the Northern Territory from the Timor Sea. Although the intensity of the cyclone deteriorated rapidly as it moved over land, when it reached Kakadu National Park on 25 April it was still rated as a Category 2 cyclone—with wind strengths of 90–120 kilometres per hour and gusts between 125–170 kilometres per hour.

While Cyclone Monica had more dramatic impacts on communities in Arnhem Land, its path through northern sections of Kakadu National Park is marked by uprooted and snapped off canopy trees in rainforests and paperbark communities. Tree cover in woodland communities has been reduced by up to 20 per cent. Removal of the rainforest canopy layer exposed understorey species to greater sunlight and drying during the dry season. Vegetation communities will be monitored to measure how well they recover from this natural event.

In the immediate aftermath of the cyclone park staff removed fallen trees from roads and tracks, picnic sites, car parks and residential areas, and checked on the safety of residents in outstations in the park.

The preparations of the local counter disaster committee led by the Northern Territory Police Service were instrumental in ensuring there were no injuries in the park. Clean-up costs, and repairs to houses, buildings and other park infrastructure, recoverable under insurance, are expected to exceed \$800,000. Park staff's preparedness significantly reduced the extent of damage to infrastructure.

The dramatic increase in leaf and branch litter has increased fire risk and careful management will be required to ensure that rainforest and other fire-sensitive communities are protected. Park staff are revisiting fire management plans, strategies on access to country and visitor interpretation strategies in light of the cyclone.

Throughout the crisis staff generally met the timeframes for the reestablishment of services as set out in the Director's Business Continuity Plan. The heavy rains that accompanied Cyclone Monica effectively extended the wet season by nearly a month, as late flood waters moved down river systems in the park. This had an impact on road and track access across the north of the park, and there were delays in reopening access to some key visitor sites, car parks and camping areas. Comprehensive and regular reports to the tourism industry throughout this period greatly assisted them in their planning and coping with the consequences of this significant event.

## Rehabilitation of old uranium mining sites in Kakadu



El Sherana camp, one of the mining sites included in the rehabilitation programme

In the 1950s and 60s uranium mining was an active, dispersed and small scale industry in the upper South Alligator Valley, which is now part of Kakadu National Park. At its peak there were up to 13 uranium mining and milling operations.

In 1964 mining stopped. There was no substantial effort made at that time to rehabilitate the area properly. When the area was handed back to traditional owners and then leased to the Director of

National Parks to become part of Kakadu National Park in 1991, the rehabilitation of these old mine and milling sites was made a specific lease commitment.

Rehabilitation plans have been developed for many of these sites, in close cooperation with the traditional owners, rehabilitation experts, the Australian Radiation Protection and Nuclear Safety Agency, the Office of the Supervising Scientist, the Northern Land Council and the Northern Territory Government.

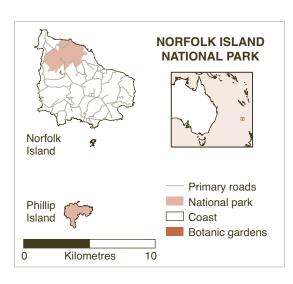
In the 2006–07 Budget the Australian Government allocated \$7.3 million over four years for a rehabilitation programme. This will rehabilitate the sites to a standard befitting a World Heritage listed national park. Plans for the first stage of the programme have been developed by experts and approved in principle by traditional owners and the Northern Land Council. Environmental assessment and detailed project planning are under way, with on-ground rehabilitation works expected to commence in the 2007 dry season. This first stage involves sites with no or only minor radiological contamination.

Planning for the long-term storage of uranium residues from other sites and the rehabilitation of areas that have significant radiological contamination has commenced. Options will be investigated in close liaison with the Australian Radiation Protection and Nuclear Safety Agency and will involve detailed environmental investigations and assessments before the second stage of the programme is finalised.



# Norfolk Island National Park and Botanic Garden

http://www.deh.gov.au/parks/norfolk



## Special features

Norfolk Island National Park protects most of the remaining natural vegetation of the island. The park and botanic garden are refuge for some 40 species found only on the island, including the entire populations of 13 of the 15 flora species considered to be critically endangered.

Of the 15 species and subspecies of birds once found only on Norfolk Island, only seven definitely remain (of the remaining species, two have not been

sighted for some time and may be extinct). The park provides important habitat for native bird fauna and assisted wild breeding programmes are in place for two species, the green parrot (*Cyanoramphus novaezelandiae cookii*) and the morepork or boobook owl (*Ninox novaeseelandiae undulata*).

Phillip Island, which is free of introduced predators, is an important seabird breeding area. The only terrestrial reptile species found in the Norfolk group—*Christinus guentheri* and *Pseudemoia lichenigera*—are considered extinct on Norfolk Island but still occur on Phillip Island.

Location	Latitude 29° 01′ South, Longitude 167°56′ East
Area	656 hectares (includes Mount Pitt section 460 hectares; Phillip Island 190 hectares; and Norfolk Island Botanic Garden 5.5 hectares)
Proclamation dates	National park 31 January 1986 (Mount Pitt section); 24 January 1996 (Phillip Island)
	Botanic garden 31 January 1986
IUCN category	National park Category II overall (Phillip Island Category IV)
	Botanic garden Category IV
Biogeographic context	Isolated small islands of volcanic origin (2 to 3 million years old) in the South Pacific Ocean. Prior to European settlement, Norfolk Island was almost entirely covered by sub-tropical rainforest



Management plan	First plan expires 28 June 2007		
Other significant management documents	Norfolk Island Public Reserves Act 1997 (NI); Norfolk Island Plan; Phillip Island rehabilitation strategy; native forest rehabilitation strategy; weed control strategy for the preservation and protection of the endangered plants of Norfolk Island; management plan implementation schedule; and risk assessment and management schedule		
Financial	Operating \$0.948 million		
	Capital \$0.108 million		
	Revenue \$0.021 million		
Visitors	20,000 (estimated)		
Permits	11 commercial tour operators (10 for Mount Pitt, 1 for Phillip Island)		

International conventions and agreements		
Migratory Species (Bonn) Convention	18 of 98 listed Australian species	
China–Australia Migratory Birds Agreement	25 of 81 listed species	
Japan–Australia Migratory Birds Agreement	32 of 76 listed species	

Environment Protection and Biodiversity Conservation Act 1999			
Listed fauna	Species	5 extinct 2 endangered 6 vulnerable 37 migratory 57 marine	
	Recovery plans	1 being implemented—green parrot (Cyanoramphus novaezelandiae cookii)	
		2 awaiting preparation—golden whistler ( <i>Pachycephala pectoralis xanthoprocta</i> ) and scarlet robin ( <i>Petroica multicolor multicolor</i> ). These species will be included in a multi-species recovery plan for the island, expected to be completed in late 2006	
		1 exempted—Norfolk Island boobook owl ( <i>Ninox novaeseelandiae</i> undulata)	
Listed flora	Species in listing process	15 critically endangered 16 endangered 15 vulnerable	
	Recovery plans	These species will be included in a multi-species recovery plan for the island expected to be completed in late 2006	
Heritage	Phillip Island is on the Commonwealth Heritage List		

Numbers of native species recorded			
Mammals	Birds	Reptiles	Plants
0	47 (26)	2 (2)	92 (74)

Figures in brackets are the number of species that are a management priority.

## Advisory committee

The Norfolk Island community provides guidance to the Director on national park and botanic garden management through the Norfolk Island National Park Advisory Committee, which meets formally twice a year, and informally each month.

## **Monitoring**

Monitoring of Norfolk and Phillip Islands for invasive fauna continues. Recent introductions with potential to impact on listed species include the Asian house gecko (*Hemidactylus frenatus*), Asian paperwasp (*Polistes chinensis*), Argentine ant (*Linepithema humile*) and purple swamphen (*Porphyrio porphyrio*).

Recovery programmes for the Norfolk Island green parrot and boobook owl include monitoring and recording nest sites and chicks. Identification bands on individual birds help researchers to develop an historical database.

The Weed Control Strategy for the Preservation and Protection of the Endangered Plants of Norfolk Island is constantly reviewed and monitored to ensure its effectiveness. A technical review by consultants was undertaken this year (see case study on page 99).

Rat populations are being monitored as part of a two-year trial of alternative control methods. The monitoring programme compares traditional control (poison baits) with an alternative method (spring traps) and an untreated control area.

Park staff assist in a volunteer seabird monitoring and banding programme, mostly on Phillip Island.

## Future challenges

Major challenges include:

- · increasing community awareness of the potential impacts of invasive species
- finding more efficient and practical ways to meet the requirements of endangered species programmes including through implementation of a multi-species recovery plan
- finding a sustainable balance between managing threatened species and increasing tourism demands
- meeting increasing demand for visitor infrastructure.

## Report on performance by key result areas

## **KRA1: Natural heritage management**

## Major issues

- · Fauna and flora pest species management
- · Endangered species management
- · Inadequate knowledge on which to base management decisions

## **Actions**

- · Implement Norfolk Island Weed Control Strategy
- · Implement identified recovery actions for endangered species
- · Continue vertebrate pest species programmes
- · Document and record existing knowledge

#### Performance results 2005–06

- · Completed 12 coups identified in rehabilitation strategy
- · Ten green parrot chicks banded and fledged
- · Cleared and maintained approximately 43 hectares of weed-infested areas
- Expanded feral cat control programme (36 trapped) with community education and cat desexing a priority
- Continued two-year trial of alternative rat control methodology
- Expanded spatial information systems' capacity and staff skills to enable more accurate and effective recording
- Progressed development of the multi-species recovery plan, which will produce valuable knowledge on these little-known species

#### **KRA4: Visitor management and reserve use**

## Major issues

- · Duncombe Bay road to Cook's monument is closed after heavy rain
- · Increasing infrastructure expectations from visitors
- · Some access tracks are not suitable for current visitor use
- · Lack of high quality interpretive signs and pamphlets

- · Fund and manage drainage and surface renewal of Duncombe Bay road
- · Strategically review current access tracks, focusing on high visitation areas





- · Resurfaced Duncombe Bay road and began road drainage plan
- · Completed the botanic garden boardwalk upgrade stage 5
- Installed handrails on sections of Bridle Track and resurfaced two erosion-prone corners on the track to provide safer footing for walkers
- · Completed design works for botanic garden interpretive display
- · Refreshed and replaced signs and installed three new park entrance signs

Establish requirements and allocate resources within existing priorities

## **KRA5: Stakeholders and partnerships**

## Major issues

· Need to work with tourism operators, environmentalists, concerned citizens and professional and amateur researchers

#### **Actions**

- · Hold regular meetings with tourism industry representatives
- Create avenues for information sharing and access to resources for citizens, stakeholders, and government and non-government organisations
- Educate community and stakeholders on the role of the Norfolk Island National Park Advisory Committee
- · Provide educational opportunities to tourism partners

#### Performance results 2005–06

- Through networking and regular contact, maintained professional and cordial relationships with the following stakeholders and partners: Department of the Environment and Heritage staff; other Australian Government Departments on Norfolk Island; Norfolk Island Government and administration; Norfolk Island tourism operators and industry groups; and environment and conservation groups
- Successfully managed permit system for a wide range of the public, stakeholders, and formal and informal partners
- · Provided an informative weekly newspaper article covering topical issues with an environmental focus
- Continued to promote use of information sources such as the website and the section 266A register established under the Environment Protection and Biodiversity Conservation Act 1999
- Provided an on-island departmental presence primarily as a referral point for wider environmental and heritage issues

 $\epsilon$ 

- Facilitated information and resource sharing, for example satellite imagery. The park assisted with provision of training courses to the community, including courses on use and handling of chemicals and on GPS/GIS.
- In conjunction with Volante, the Department of the Environment and Heritage information and communication technology provider, excess computers were donated to the school and Norfolk Island administration
- · Held a tour operators workshop with 30 participants

## **KRA6: Business management**

## Major issues

· Delivering quality management services within a limited budget

#### **Actions**

- · Maintain park management services within budget
- · Develop staff capacity to deliver financial services

#### Performance results 2005–06

- · Three staff completed development in finance-related tasks
- All activities completed within budget and according to Chief Executive Officer's instructions
- · Operational and capital budgets within allowed parameters



## Norfolk Island forest rehabilitation strategy



The sub-tropical forest of Norfolk Island is host to a range of native and endemic species

A long-term forest rehabilitation strategy in Norfolk Island National Park has been developed to maintain and increase forest health.

The 10-year strategy is a deliberate change of direction in the way that natural resource management in the park is approached. Two years into the strategy, benefits are already being realised with areas treated at the start of the strategy showing marked improvement in forest health.

The strategy separately addresses Norfolk Island (Mount Pitt), the botanic garden, and Phillip Island. The strategy will improve the overall health and integrity of forest areas and enhance the survival, protection and rehabilitation of native and endemic species.

The strategy follows the forest rehabilitation model set out in the 1997 report Consultancy to Establish a Weed Control Strategy for the Preservation and Protection of the Endangered Plants of Norfolk Island. It also draws on earlier flora studies, studies of fungi, mosses, lichens, insects, macropods, and reptiles, current field based analysis and the Norfolk Island Weeds Management Manual.

The Mount Pitt sector of the park has been divided into 19 'working coups' based around geographic features. Each coup is referenced to the established rat bait station network. The targets, objectives, and priorities for work in each coup are refreshed regularly and each coup's individual work plan discussed on site in detail with the chief ranger and weeding contractors.

## The strategy combines:

- · broad-scale weed control
- targeted weed control around specific trees or plant communities
- targeting individual weed species at certain times of the year



- chipping woody weeds to provide mulch and ground cover for disturbed areas
- planting to reflect natural forest regenerative processes and types and to reestablish endangered and vulnerable communities and species.

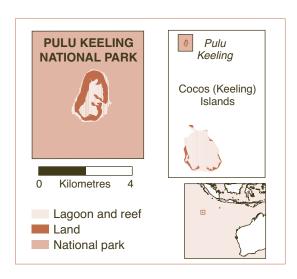
Attention is given to at least one coup every month. Each coup has its own priorities identified in the 1997 report and reviewed a month before work begins. At the end of two years, every coup in the park has received a minimum of 400 hours dedicated attention during at least one month in the preceding two-year cycle. Work is documented and regularly reviewed. The first two-year cycle of the 19 coups in the Mount Pitt sector has just been completed.

Over the 10 years of the strategy each coup will be allocated in excess of 2,000 hours work, with the higher priority communities and species receiving attention first.



# Pulu Keeling National Park

http://www.deh.gov.au/parks/cocos



## Special features

Pulu Keeling National Park's most outstanding feature is its intact coral atoll ecosystem. With the widespread global decline of similar coral island habitats and their reefs due to human interactions, the conservation and protection of the park and its wildlife is of international importance.

The park, which makes up the whole of North Keeling Island, is an internationally significant seabird rookery. The breeding colony of the

dominant bird species—the red-footed booby (*Sula sula*)—is one of the largest in the world. The island is also the main habitat of the endangered Cocos buff-banded rail (*Gallirallus philippensis andrewsi*), found only on the Cocos (Keeling) Islands.

The critically endangered Round Island petrel (*Pterodroma arminjoniana*) has been recorded on the island but has not been sighted in recent years, despite intensive searching. Green turtles (*Chelonia mydas*) nest on the island and hawksbill turtles (*Eretmochelys imbricata*) inhabit the waters of the park; both species are listed as vulnerable.

Location	Latitude 11°50′ South, Longitude 96°49′ East
Area	2,602 hectares including marine area extending 1.5 kilometres around North Keeling Island
Proclamation date	12 December 1995
IUCN category	Category II overall comprising:
	Terrestrial Zone Category Ia (122 hectares)
	Marine Zone Category II (2,480 hectares)
Biogeographic context	Isolated atoll in the Indian Ocean formed atop an old volcanic seamount
Management plan	Second plan expires 27 April 2011
Other significant management documents	Visitor access, boating, diving and fishing strategies; management implementation schedule; and risk assessment and management schedule



Financial	Operating	\$0.813 million	
	Capital	\$0.078 million	
	Revenue	\$0.072 million	
Visitors	120		
Permits	3 commercial tour operators (1 each for diving, surfing and terrestrial tours)		
	26 marine access permits		

International conventions and agreements		
Wetlands (Ramsar) Convention	Entire park listed	
Migratory Species (Bonn) Convention	8 of 98 listed Australian species	
China–Australia Migratory Birds Agreement	15 of 81 listed species	
Japan–Australia Migratory Birds Agreement	15 of 76 listed species	

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	1 critically endangered 4 endangered 5 vulnerable 24 migratory 36 marine
	Recovery plans	4 being implemented—blue whale (Balaenoptera musculus); sei whale (Balaenoptera borealis); Round Island petrel (Pterodroma arminjoniana) and marine turtles
Listed flora	Species	None
Heritage	On Commonwealth Heritage List	

Numbers of native species recorded			
Mammals	Birds	Reptiles	Plants
5 (2)	24 (8)	6 (5)	31

Figures in brackets are the numbers of species that are a management priority.

## Management committee

The Pulu Keeling National Park Community Management Committee comprises the Director of National Parks (or his nominee), three other persons nominated by the Director and six community representatives nominated by the Cocos (Keeling) Islands Shire Council.

## **Monitoring**

The red-footed booby population on North Keeling Island has been monitored since 1985. Analysis of the data in 2005 again put the number at around 30,000 breeding pairs.

Surveys of the Cocos buff-banded rail resumed in 2004 as the forest had recovered sufficiently from the effects of Cyclone Walter in April 2001 to enable the birds to be counted. The population is now estimated to be 1,000, which is an increase from the estimate of 850 birds in 1999.

The seventh year of the sea turtle monitoring programme was completed, with an additional 242 turtles caught and measured (122 green turtles and 120 hawksbill turtles). In 2006, additional Natural Heritage Trust funding enabled six nesting turtles caught in Pulu Keeling National Park to have satellite trackers attached and their movements monitored. All six turtles returned to the main foraging areas at the southern atoll, which means at least some of the turtles breeding on Cocos also spend the majority of their lives in Cocos waters. This will help to ensure the continuation of this population.

## Future challenges

Major challenges are to prevent the introduction of pests and diseases to the park, and to maintain compliance and enforcement efforts to stop seabird poaching. Island fauna is especially vulnerable to the introduction of exotic species. Outbreaks of scale insects and die-back (*Phytophthera* spp.) on nearby Christmas Island and in Western Australia may pose a threat to Pulu Keeling National Park.

## Report on performance by key result areas

## **KRA1: Natural heritage management**

## Major issues

- · Illegal entry to park
- · Illegal wildlife harvesting
- · Monitoring red-footed boobies

- · Maintain surveillance, boat patrols and education
- · Survey bird numbers regularly

- Progressed installation of remote surveillance equipment to provide more effective detection of illegal park entry and poaching
- Spent 230 staff days on patrols during the year. Patrols are believed to be effective at deterring poaching
- · Patrols detected a number of incidents. Seven people were charged with wildlife or firearms offences
- · Continued bird surveys. The surveys were halved from the previous year due to difficulty visiting the park because of inclement weather conditions, limited availability of the ocean going vessel and funding constraints

## **KRA2: Cultural heritage management**

## Major issues

- · The SMS Emden shipwreck is becoming a popular diving site
- · Visitors to Malay gravesites

#### **Actions**

· Ensure access to sites is managed appropriately

## Performance results 2005–06

- · Effectively managed cultural heritage sites
- · Cleaned grave sites
- · Prepared new beach sign for the Emden wreck

## **KRA4: Visitor management and reserve use**

## Major issues

· Potential for introduction of exotic species by park visitors

#### **Actions**

- · Implement quarantine procedures
- · Prevent introduction of alien species

#### Performance results 2005–06

· Inspected visitors' equipment and clothing and scrubbed footwear prior to visitors swimming ashore. No evidence was found that new species had been introduced



### **KRA5: Stakeholders and partnerships**

### Major issues

• Dissatisfaction with park management due to perceived lack of obvious benefits to the community

### **Actions**

· Promote benefits of the park (including employment, tourism, local expenditure)

### Performance results 2005–06

- Organised a Steps to Sustainable Tourism workshop to develop an action plan for the islands
- Held 10th anniversary celebrations. A documentary on the park's first 10 years was produced and shown locally

### **KRA6: Business management**

### Major issues

- · Isolation restricts training opportunities
- Budget constraints restrict operations

### Actions

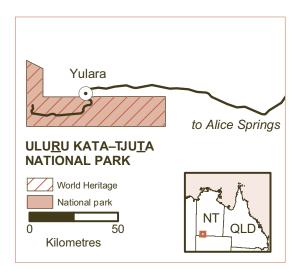
- · Train staff more effectively
- · Make best use of staff visits to the park within budget constraints

### Performance results 2005-06

• Staff benefited from locally provided training in emergency management, marine search and rescue, and radio operations. The senior ranger is enrolled in a lands, parks and wildlife correspondence course

# Uluru-Kata Tjuta National Park

http://www.deh.gov.au/parks/uluru



### Special features

Uluru–Kata Tjuta National Park is inscribed on the World Heritage List for both the cultural and natural values of its landscape. The park protects the cultural values of its *Anangu* (western desert Aboriginal) owners, the iconic rock outcrops of Uluru and Kata Tjuta, outstanding examples of arid zone flora and fauna, and outstanding scenic beauty.

Uluru-Kata Tjuta National Park is a place of great spiritual and cultural

importance to Anangu men and women. For countless generations this ancient landscape has developed as a result of the activities of Anangu and their ancestors. The land management techniques that are a feature of these activities are an intrinsic part of Tjukurpa (traditional law and culture) and a feature of the joint management of the park by Anangu and Parks Australia.

Location	Latitude 25°15′ South, Longitude 130°43′ East
Area	132,566 hectares
Proclamation dates	24 May 1977, 28 October 1985
IUCN category	Category II
Biogeographic context	Interim Biogeographic Regionalisation for Australia region: Great Sandy Desert
Management plan	Fourth plan expires 28 June 2007
Other significant management documents	Lease between the Uluru–Kata Tjuta Aboriginal Land Trust and the Director of National Parks; visitor infrastructure master plan; staff development plan; species reintroduction plan; invasive flora control plan; invasive fauna control plan; fire management procedures; cultural heritage action plan; the lease; interpretation plan; management plan implementation schedule; and risk assessment and management schedule





Financial	Operating	\$9.921 million
	Capital	\$5.285 million
	Revenue	\$8.045 million
	Paid to traditional owners	\$1.896 million
Visitors	351,968 adult paying visitors	
Permits	216 film/photography; 110 tour operators; 9 research	
Visitor satisfaction	The levels of visitor satisfaction in previous years were provided by Tourism NT. No surveys were undertaken in 2005–06. A new destination visitor survey will be implemented in 2006–07	

International conventions and agreements		
World Heritage Convention	Listed under cultural criteria (v) and (vi) and natural criteria (ii) and (iii), recognising the park's outstanding natural and cultural values and its significance as a cultural landscape	
Migratory Species (Bonn) Convention	11 of 98 listed Australian species	
China–Australia Migratory Birds Agreement	14 of 81 listed species	
Japan–Australia Migratory Birds Agreement	15 of 76 listed species	
Other agreements	Listed as a biosphere reserve under the UNESCO Man and the Biosphere Programme	

Environment	Protection an	d Biodiversity Conservation Act 1999
Listed fauna	Species	6 extinct 5 endangered 9 vulnerable 17 migratory 36 marine (birds)
	Recovery plans	4 being implemented—mala or rufous hare wallaby ( <i>Lagorchestes hirsutus</i> ); golden bandicoot ( <i>Isoodon auratus</i> ); Alice Springs mouse ( <i>Pseudomys fieldi</i> ); tjaku <u>r</u> a or great desert skink ( <i>Egernia kintorei</i> )
		9 in preparation—mulgara ( <i>Dasycercus cristicauda</i> ); bilby ( <i>Macrotis lagotis</i> ); southern marsupial mole ( <i>Notoryctes typhlops</i> ); red-tailed phascogale ( <i>Phascogale calura</i> ); sandhill dunnart ( <i>Sminthopsis psammophila</i> ); numbat ( <i>Myrmecobius fasciatus</i> ); black-flanked rockwallaby ( <i>Petrogale lateralis</i> ); chuditch ( <i>Dasyurus geoffroii</i> ); central rockrat ( <i>Zyzomys pedunculatus</i> )
Listed flora	None	
Heritage	On Common	wealth Heritage List

Numbers of nat	ive species recor	ded			
Mammals	Birds	Reptiles	Fish	Amphibians	Plants
21 (14)	170 (2)	73 (3)	None	1 (1)	>400
Figures in bracket	s are the numbers	of species that ar	e a management r	oriority.	

### Board of management

The structure of the Uluru–Kata Tjuta Board of Management ensures an Anangu majority of 8:3. The current board was appointed by the Minister for the Environment and Heritage in October 2003 for a period of five years. The board oversees the management of the park and the preparation of management plans. Through joint management of the park, Anangu and Piranpa (non-Aboriginal people) work together to manage the park's cultural and natural heritage.

### **Monitoring**

Surveys for threatened species such as tjakura (Egernia kintorei) and mulgara (Dasycercus cristicauda) took place.

The annual monitoring of the park's tjakura population took place in March. As with the previous year, a significant increase in the size of the population was detected; the total number of active burrows rose from 67 in 2005 to 91 this year. Thirty-one of the 67 active burrows recorded last year contained juveniles. This year 52 of the 91 active burrows contained juveniles. This is the highest proportion of breeding burrows to active burrows that has been recorded since monitoring began in 1998. This improved breeding success reflected the general widespread movement of tjakura into the habitat burned in 2002 combined with an apparently diminished predator load.

The seventh round of annual mulgara monitoring was undertaken during early November 2005. When mulgara monitoring began in 1999 all of the sites were on the bore field area west of the park entry station. Last year trapping was undertaken at eight sites on the bore field and two sites nearer the entry station. Due to the currently small areas of mature spinifex in the bore field area and the detection of mulgara signs in other areas in March 2005 several sites this year were chosen away from the bore field.

For the first time in four years mulgara were captured during the monitoring period. The mulgara population in the park had crashed during 2002. This is typical of the boom and bust cycles of arid Australia where occasional wet years punctuate the normally dry conditions. The mulgara population may remain at a low level until additional habitable vegetation structure develops or significant rainfall events produce greater resources, or both. The very small areas of suitable mulgara habitat





(mature spinifex) on the bore field and near the entry station need to be protected from fire for at least the next several years.

The first census of mala or rufous hare-wallaby (*Lagorchestes hirsutus*) in the park's endangered species enclosure took place in March 2006. Sixteen of the original 24 animals were captured. Females had pouch young and a number of new juveniles were spotted through binoculars. Twelve permanent survey quadrats were established inside the enclosure to monitor the impact of mala on the vegetation. Discussions are taking place regarding the possible reintroduction of burrowing bettong (*Bettongia lesueur*) into the enclosure.

Regular monitoring programmes included ongoing assessment of the condition of rock art, monitoring rock movement above the Mutitjulu art site, monitoring threatened species, and monitoring weed infestations.

### Future challenges

A major challenge for 2006–07 is development of the new sunrise viewing area to cater for existing tourists and the predicted increase in tourist numbers. The current sunrise area may have over 400 visitors in the busy winter months with over 70 vehicles including buses. It is a small area and traffic control is a major concern. The new site has been identified by traditional owners and there is an ongoing consultation process with the tourism industry. Surveys were conducted and traditional owners were involved in development of the concept plans.

Another challenge is the second stage of the Kata Tjuta Valley of the Winds walking track upgrade and re-alignment of the Uluru base walk northern section to take it further away from culturally sensitive sites. These walking track projects will give a safer visitor experience and satisfy concerns expressed by the traditional owners.

# Report on performance by key result areas

### **KRA1: Natural heritage management**

### Major issues

- · Weed management, particularly buffel grass (*Cenchrus ciliaris*)
- · Vertebrate pest management (foxes, cats, camels, rabbits, feral dogs)
- · Fire management
- · Threatened species management
- Species reintroductions
- · Erosion control

#### Actions

- · Continue the buffel grass control programme
- · Introduce a fox control programme in threatened species habitat
- · Continue to develop and implement annual burn plans
- · Develop a fire strategy
- · Undertake erosion control
- · Monitor threatened species
- · Establish endangered species programme
- · Establish a nursery
- · Improve data management

### Performance results 2005–06

- · Progressed the development of a fire management plan
- · Developed and implemented annual burn plans
- · Conducted annual monitoring of threatened species mulgara and great desert skink (*Egernia kintorei*)
- Built a 150 hectare vertebrate pest proof enclosure for mala and translocated 24 animals from the Kings Canyon enclosure
- Undertook the first population census of mala in the Uluru enclosure and conducted a survey to monitor impacts/changes to vegetation in the enclosure
- Removed approximately 10 hectares of buffel grass, treated 10 hectares and conducted follow up work on five hectares
- Treated new weed infestations of Mexican poppy (*Argemone mexicana*) before they became established throughout the park
- · Refined the park vertebrate pest monitoring methodology
- Consulted with Voyages Pty Ltd, traditional owners and NT Parks and Wildlife Service on the development of a fox baiting programme in core threatened species habitat
- Completed environmental impact assessments for all proposed infrastructure projects
- · Completed erosion control work/restoration in the Mutitjulu Waterhole area
- · Staff attended regional land management workshops
- · Built a plant nursery





### **KRA2: Cultural heritage management**

### Major issues

- · Supporting the continuation of culture and knowledge
- · Protecting cultural information, sites and objects

### **Actions**

- · Review the Cultural Heritage Management Action Plan
- Ensure that the Cultural Sites Management System is operational
- · Conduct regular cultural site and rock art inspections
- · Continue the oral history programme

#### Performance results 2005–06

- · Reviewed the Cultural Heritage Management Action Plan (2002)
- · Produced the Women's Cultural Heritage Action Plan (2005)
- · Launched the Cultural Sites Management System and made improvements
- · Produced a Cultural Sites Management Manual
- Provided training for staff and traditional owners in cultural site management and rock art conservation techniques
- · Undertook regular rock art inspections and maintenance
- · Continued the oral history programme, including maintenance of and access to the Ara Irititja programme, a multimedia database and an associated project that enables Anangu to access archival material (film, photographs, sound recordings, documents, artefacts)
- Supported staff and traditional owners' attendance at women's law and culture meetings
- Ensured that archeological survey was a component of environmental impact assessments for infrastructure developments
- · Supported research into topics relevant to cultural heritage management

#### **KRA3: Joint management**

#### Major issues

- · Outcomes of the Office of Joint Management review
- Ensuring traditional owners are appropriately involved in project design and implementation, and in the delivery of core functions
- · Supporting the training and development of Indigenous staff
- · Developing key indicators for joint management

#### Actions

- Implement recommendations of Office of Joint Management review regarding the Joint Management Partnership Team
- Work with Joint Management Partnership members in developing productive working relationships and better communication between agencies
- · Put in place effective board of management secretariat
- · Hold training programmes to facilitate community involvement
- · Provide advice and input into the new management plan 2007–2014

### Performance results 2005-06

- The Office of Joint Management was reviewed and as a result the new Joint
  Management Partnership Team was established in early 2006. Team members are
  the joint management officer (Central Land Council), community liaison officer
  (Mutitjulu Aboriginal), board secretary and park manager. The team met each
  fortnight to discuss park, community and traditional owner issues
- The Joint Management Partnership Team provided advice to the board of management on park, community and traditional owner issues quarterly
- The Joint Management Partnership Team worked to resolve and provide advice on numerous contentious issues regarding film and photography, the Uluru climb, new sunrise viewing area project, public events and community issues

### **KRA4: Visitor management and reserve use**

### Major issues

- · Planning for future increase in visitor numbers
- · Pressures on ageing infrastructure to effectively manage increasing visitor numbers
- · Some infrastructure in need of repairs and/or replacement
- · Lack of a safe sunrise viewing area for visitors

#### Actions

- · Continue to refine traffic asset management system and pedestrian counters
- · Continue upgrade of the Valley of the Winds walking track
- · Continue developing interpretive signs and track markers for Uluru base walk
- · Progress new sunrise viewing area
- · Continue effective and strategic infrastructure planning and maintenance
- Train tour operators





### Performance results 2005-06

- · Progressed the new sunrise area. The site was identified and environmental impact assessment completed
- · Completed toilets for the Uluru base walk
- Completed track reconstruction to the first lookout at the Valley of the Winds with field crew of Anangu and Piranpa (see case study on page 117)
- · Upgraded cultural centre projection system in Tjukurpa Tunnel
- Undertook sign replacement and upgrade along Mala Walk and at Mutitjulu Waterhole
- · Progressed online tour guide training programme
- · Installed an additional emergency call device along Kuniya Walk
- · Reformatted and produced new visitor guide
- · Produced media briefing DVD for visiting media
- Undertook ongoing maintenance of park infrastructure under a scheduled works programme
- · Held two tour operator workshops
- · Completed work on extending parking space at the sunset viewing area

### **KRA5: Stakeholders and partnerships**

### Major issues

- Developing and maintaining effective relationships with key stakeholders and partners
- Ongoing consultation with the tourism industry regarding the new sunrise viewing area
- Maintaining an effective working relationship with Mutitjulu Community Aboriginal Corporation

#### Actions

- Hold regular meetings of committees, including the Uluru–Kata Tjuta Tourism Consultative Committee, the Cultural Heritage and Scientific Consultative Committee and the Film and Photography Consultative Committee
- · Communicate clearly with all parties
- · Meet regularly with Mutitjulu Council and Ayers Rock Resort
- · Continue supporting volunteer and community groups in the protection of park values
- Engage Anangu on park projects through the Memorandum of Understanding with the Mutitjulu Council



### Performance results 2005–06

- · Established the Cultural Heritage and Scientific Consultative Committee
- Revised the commercial film and photography guidelines and streamlined the application process
- · Held quarterly meetings of the Tourism Consultative Committee and the Film and Photography Consultative Committee
- · Continued ongoing contact between the park management team, the Joint Management Partnership Team and traditional owners during the design and implementation of core programmes, such as fire and pest species management
- · Responded within one month to requests for information
- Held regular consultation with tourism representatives on new sunrise viewing area
- · Hosted nine Conservation Volunteers Australia groups representing 4,400 hours of effort towards weed work
- · Organised Friends of the Park Group. Group provided 300 hours of assistance over six crews
- · Green Corps project undertook 700 hours of work in many different areas such as weed eradication, track work and general natural resource management
- · Attended Mutitjulu Council meetings each month
- Engaged more than 40 Anangu on park projects through the Memorandum of Understanding with the Mutitjulu Council

### **KRA6: Business management**

### Major issues

- · Providing essential services to the Mutitjulu community is consuming an everincreasing proportion of the park budget
- · Shortage of staff housing
- · Charging for power at the Mutitjulu community and for both private residences and business enterprises at the cultural centre
- · Need to improve corporate governance procedures
- Failure to meet revenue targets
- · No period contracts in place since 2003 for essential services
- · Need to prioritise recruitment actions to take account of staff housing constraints
- Preparation of new management plan



#### Actions

- · Introduce new arrangements to improve budget management
- · Ensure that park housing committee is functional and meets on monthly basis
- · Implement power charges
- Board of management to approve an entry ticket system review for 2006–07
- · Develop training plan
- Engage consultant to develop new period contracts
- · Establish planning team to prepare new management plan

#### Performance results 2005–06

- · Implemented 'user pays' electricity system for park staff August 2005 and the Mutitjulu community 1 January 2006
- · Implemented relevant recruitment training. Engaged training manager
- Board of management gave approval to engage consultant to review park entry ticketing system
- · Engaged engineering consultant to develop new period contracts
- Received four submissions in response to an invitation for input into the new management plan

### **KRA7: Biodiversity knowledge management**

### Major issues

- · Data, information and knowledge management
- · Increasing research on park management issues

### **Actions**

- · Maintain herbarium specimens
- · Coordinate research under park's 'permit to undertake scientific research' system

### Performance results 2005-06

- · Collated flora and fauna survey reports from 1987–2005
- · Replaced herbarium plant specimens in poor condition
- Supported research in the park—fire and the bird assemblage in the mulga community; analysis of Uluru fauna monitoring data; home range, habitat use and thermal ecology of mulgara

6

- · Purchased GPS/GIS (global positioning system/geographic information system) equipment and software designed to streamline data collection and management
- Prepared great desert skink monitoring data from 1998–2006 for entry into the park's GIS
- · Provided GIS training to staff and developed a GPS in-house training package



6

# Valley of the Winds walking track upgrade project



Construction of the hardened surface along the Valley of the Winds track

Trips and falls made up the second highest percentage of all safety incidents at Kata Tjuta from 2002 to 2006. Reconstruction of the Valley of the Winds walking track, begun in 2005, aims to reduce this figure. The last major track upgrade was carried out in 1995 and in recent years the condition of the track has deteriorated with major erosion issues.

Reconstruction from the car park to the first lookout (Karu Lookout) took place from April to December 2005, bringing this section of the track up to the desired Australian Standards Class 2 requirements.

The work included completing 144 metres of hardened surface (natural rock in concrete), removing boulders (trip hazards) from 850 metres of track, widening 500

metres of track to two metres and building a six metre long bridge.

As well as providing safe visitor access at a standard appropriate to a World Heritage property, the upgraded track protects *Tjukurpa* (traditional law and culture) and flora and fauna and improves access for emergency personnel. The upgrade addresses provisions made in the Uluru–Kata Tjura National Park Management Plan, Valley of the Winds Walking Track Report (1996) and the Visitor Infrastructure Master Plan (2000).

Nguraritja (traditional owners) and board of management members were consulted before work began and throughout the project. The Central Land Council and other stakeholders, including the tourism industry through the Tourism Consultative Committee, were kept advised.

The project ran over 34 weeks and cost \$174,000. The project created temporary jobs for 21 *Anangu* men from the local Mutitjulu community. Conservation Volunteers Australia crews and Gecko's rehabilitation team from Sydney also made significant contributions to the project.

Stage 2 from Karu Lookout to Karinana Lookout is planned for 2006–07.



### Uluru risk management and incident analysis

Analysis of the safety incidents recorded in Uluru–Kata Tjuta National Park from 2002 to 2006 shows where incidents occurred and why.

There are two major hotspots for safety incidents: the Uluru climb (25 per cent of incidents) and Kata Tjuta (a further 25 per cent).

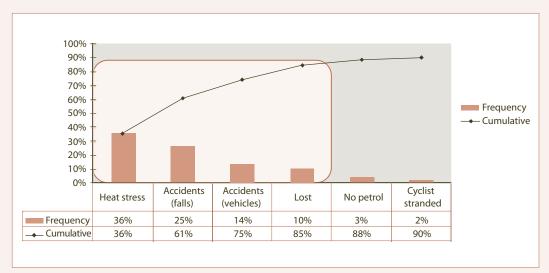
### **Uluru climb**

- · Uluru is as high as a 95 storey building (340 metres) and 97 per cent of safety incidents on the climb involved visitors (61 of 63 incidents). This is a cause of great concern to the traditional owners and park management.
- The majority of incidents on the Ulu<u>r</u>u climb were identified as preventable, involving people undertaking the strenuous climb with a pre-existing medical condition or becoming lost.
- Two per cent of incidents were fatal and 10 per cent required helicopter evacuation. While 41 per cent required hospitalisation or treatment at the Yulara Medical Centre, 75 per cent of victims were treated by park staff as the first, second or final treatment.
- The climb is closed under the Environment Protection and Biodiversity Conservation Regulations 2000 when specified climate thresholds are reached such as high winds, rain, and temperatures above 36°C, and when light is fading. The majority of breaches of the Regulations (88 per cent) on the Uluru climb involved entry onto the climb when it was closed or the climbers did not have a park entry ticket. Most illegal climbers were caught before a safety incident occurred, although each case (30) represents another potential safety incident.



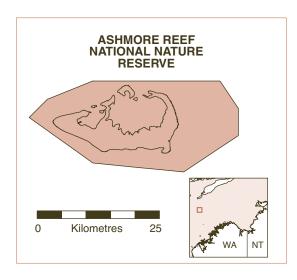
- · There was an average of 17 safety incidents per year at Kata Tjuta with 95 per cent involving visitors.
- Only 8 per cent of the safety incidents at Kata Tjuta are recorded as being unpreventable, involving medical conditions not associated with the site.
- · Four types of safety incidents—heat stress, falls, accidents with vehicles and visitors getting lost—make up 85 per cent of all visitor safety incidents at Kata Tjuta. These are preventable, and could potentially be eliminated (see figure 5).
- The collection and analysis of these data is helping direct park resources into the highest priority and most effective areas for improvements in visitor safety. Each safety incident is distressing to those affected, and results in a cost to the park. Better visitor education and awareness about the risks associated with the park will help reduce incidents and improve visitor experiences.

Figure 5: Preventable safety incidents for visitors to Kata Tjuta 2002-2006



# Ashmore Reef National Nature Reserve

http://www.deh.gov.au/coasts/mpa/ashmore



### Special features

Ashmore Reef National Nature Reserve is renowned for its high biological diversity. The reserve contains a variety of marine habitats, including extensive seagrass meadows, sandflats, reef flats and lagoons.

Ashmore Reef is home to many different species of fish, corals, molluscs and other invertebrates, and has the highest known diversity and density of sea snakes in the world, with 17 species recorded. It is also an important

breeding and feeding habitat for threatened species, including dugong (*Dugong dugon*), green turtles (*Chelonia mydas*), loggerhead turtles (*Caretta caretta*) and hawksbill turtles (*Eretmochelys imbricata*).

The reserve contains three small sand islands with a combined area of 112 hectares. The islands support some of the most important seabird rookeries on the Northwest Shelf and the reserve is an important staging point for migratory wetland birds, especially waders. At Ashmore Reef more than 78 species have been recorded, 43 of which are listed in international agreements for the conservation of birds and their habitats. Colonies of sooty terns (*Sterna fuscata*) and common noddies (*Anous stolidus*) number up to 50,000 breeding pairs.

Location	Latitude 12°15′ South, Longitude 123°05′ East
Area	58,337 hectares
Proclamation date	16 August 1983
IUCN category	Category Ia overall comprising: Category Ia (54,991 hectares) Category II (3,346 hectares)
Biogeographic context	Interim Marine and Coastal Regionalisation for Australia region: Oceanic Shoals
Management plan	Second plan expires 25 June 2009





Other significant management documents	Memorandum of Understanding with Indonesia; management plan implementation and performance report, incorporating risk assessment; service level agreement with the Australian Customs Service	
Financial	Operating	\$552,645*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	Not known	
Permits	1 commercial tour permit	

<sup>\*</sup> In addition, \$725,407 was spent across the 12 marine reserves managed by the Marine Division on behalf of the Director of National Parks on professional services, development of permits and performance assessment systems, training wardens, communications, workshops and conference attendance.

International conventions and agreements		
Wetlands (Ramsar) Convention	The entire reserve is listed	
Migratory Species (Bonn) Convention	26 of the 98 Australian listed species	
China–Australia Migratory Birds Agreement	38 of 81 listed species	
Japan–Australia Migratory Birds Agreement	38 of 76 listed species	
Other agreements	Memorandum of Understanding with Indonesia	

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species 1 endangered 2 vulnerable 46 migratory 60 marine	
	Recovery plans	1 being implemented (marine turtles)
Listed flora	None	
Heritage	On Commonwealth Heritage List	

Numbers of native species recorded					
Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
1	78	17	720	1,265	40

# Management arrangements

The Australian Customs Service carried out on-site management of the reserve and Coastwatch provided regular flights over Ashmore. Departmental staff visited the reserve in July 2005 and April 2006 to implement and assess reserve management.

### **Monitoring**

A major marine survey was carried out in September 2005. This is part of a twice-yearly monitoring programme (for Ashmore and Cartier) to assess the distribution and abundance of marine invertebrates targeted by Indonesian fishers and the overall health of fish and coral communities. The survey found that target species—trepang and trochus shell—were still in recovery from previous exploitation. The survey also found significant levels of coral bleaching.

Sea snake monitoring by Charles Darwin University indicates a decline in sea snake populations at Ashmore Reef. A research programme to investigate this more closely began with a survey in November 2005. The survey found very low numbers of sea snake species present, including in comparison with other nearby reefs (Cartier and Hibernia). A follow-up survey is planned for late 2006.

In May 2005 the Northern Territory Herbarium conducted a survey of terrestrial plant pests to guide the weed eradication programme. As a follow-up to this work, departmental staff monitored weed infestations on West Island in April 2006. *Cenchrus* and *Pennisetum* species including buffel grass (*Cenchrus ciliaris*) were found at levels consistent with the 2005 report and were then eradicated using manual control methods. Monitoring and control will continue.

### Future challenges

A major challenge is to improve operational arrangements and capacity for compliance and enforcement.

# Report on performance by key result areas

### **KRA1: Natural heritage management**

### Major issues

- Illegal fishing
- · Introduction of pest species
- · Decrease in compliance and enforcement coverage

#### **Actions**

- Enforce access and fishing restrictions
- Investigate options for improving compliance and enforcement capacity and addressing gaps in coverage
- · Cooperate with Indonesian officials to improve management of MoU Box fishery



- Encourage and facilitate reef research and monitoring
- Deal with the threats identified in the Marine and Terrestrial Introduced Species Prevention and Management Strategy (2004)
- · Remove weeds from reserve
- · Implement new quarantine, bilge and ballast water protocols

### Performance results 2005–06

- · The Australian Customs Service provided on-site management at Ashmore Reef
- Customs officers enforced access and fishing restrictions. Fishing vessels in the area were boarded and advised of restrictions. Suspected illegal activities were investigated and warnings issued
- Undertook research on sea snakes, trepang, trochus shell, coral and fish communities. Results showed that fished species—trepang and trochus shell were still in recovery from previous exploitation and that sea snakes and coral communities had been badly impacted by incidents of sea temperature rise. Fish communities remain healthy
- · Progressed work to eradicate five potentially vigorous colonising weeds
- Customs officers implemented new quarantine protocols for vessels with significant hull fouling and/or discharging bilge and ballast water arriving in the reserve. New brochures include information for visitors about the new protocols
- · Continued to collect and analyse marine debris

### KRA4: Visitor management and park use

### Major issues

Anchor damage

### Actions

- Maintain moorings
- Monitor visitation

### Performance results 2005–06

- · Inspected and maintained moorings (June 2006)
- · Australian Customs Service monitored visitors' use of moorings
- · Included information about use of the moorings in Ashmore brochure

### **KRA5: Stakeholders and partnerships**

### Major issues

· Illegal Indonesian fishing

### **Actions**

 Revise and implement an integrated management approach for Indonesian fishing in the MoU Box

#### Performance results 2005–06

- Began the second phase of an alternative livelihood project in Indonesia using AusAID funds. The first phase provided alternative sources of income for traditional fishers who currently target Australian waters. The second phase covers five new villages and is investigating further alternative income sources
- Consulted with Indonesian officials and the Department of Agriculture, Fisheries and Forestry to address overfishing issues in the MoU Box on a regional and cooperative basis

### **KRA6: Business management**

### Major issues

· Effective management of contract with management service provider

### **Actions**

· Manage the service level agreement with the Australian Customs Service

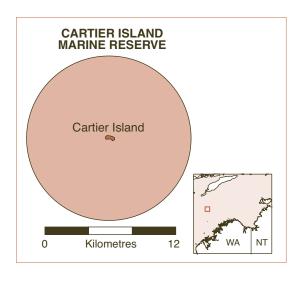
### Performance results 2005–06

- · Held regular meetings and consultation with the Australian Customs Service
- · Provided warden training for Customs officers



# Cartier Island Marine Reserve

http://www.deh.gov.au/coasts/mpa/cartier



### Special features

Cartier Island Marine Reserve is notable for its high biodiversity values, with many fish species, corals, sponges, echinoderms, molluscs and other invertebrates. The reserve provides significant habitat for an unusually high diversity and density of sea snakes, some of which are endemic to the region. It also supports populations of feeding, breeding and nesting sea turtles, and may support dugong.

Location	Latitude 12°32′ South, Longitude 123°33′ East	
Area	17,237 hectares	
Proclamation date	21 June 2000	
IUCN category	Category la	
Biogeographic context	Interim Marine and Coastal Regionalisation for Australia region: Oceanic Shoals	
Management plan	Current plan expires 25 June 2009	
Other significant management documents	Memorandum of Understanding with Indonesia; and management plan implementation and performance report, incorporating risk assessment	
Financial	Operating	\$13,241*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	Not known	
Permits	1 commercial tour (bird watching)	

<sup>\*</sup> In addition, \$725,407 was spent across the 12 marine reserves managed by the Marine Division on behalf of the Director of National Parks on professional services, development of permits and performance assessment systems, training wardens, communications, workshops and conference attendance.

International conventions and agreements		
Migratory Species (Bonn) Convention	4 of 98 listed Australian species	
Other international agreements	Under a Memorandum of Understanding with Indonesia, traditional Indonesian fishers are allowed access to an area that includes the reserve	

Environment Protection and Biodiversity Conservation Act 1999				
Listed fauna	Species	<ul><li>1 endangered</li><li>1 vulnerable</li><li>4 migratory</li><li>17 marine</li></ul>		
	Recovery plans	1 implemented (marine turtles)		
Listed flora	None			

Numbers of native species recorded							
Mammals Birds Reptiles Fish Invertebrates Plants							
1 78 17 720 1,265 40							

# Management arrangements

The Australian Customs Service carried out on-site management of the reserve and Coastwatch provided regular flights over Cartier Island. Departmental staff visited the reserve in July 2005 and April 2006 to implement and assess reserve management.

# **Monitoring**

A major marine survey was carried out in September 2005. This was part of a twice-yearly monitoring programme (for Ashmore and Cartier) to assess the distribution and abundance of marine invertebrates targeted by Indonesian fishers and the overall health of fish and coral communities. The survey found that target species—trepang and trochus shell—were still in recovery from previous exploitation.

# Future challenges

A major challenge is to improve operational arrangements and capacity for compliance and enforcement.





### Report on performance by key result areas

### **KRA1: Natural heritage management**

### Major issues

- · Illegal access
- Overfishing
- · Decrease in compliance and enforcement coverage

#### **Actions**

- · Enforce fishing restrictions
- Investigate options for improving compliance and enforcement capacity and addressing gaps in coverage
- · Cooperate with Indonesian officials to improve management of the MoU Box fishery
- · Encourage and facilitate reef research and monitoring

### Performance results 2005-06

- The Australian Customs Service provided on-site management at Cartier
- Customs officers enforced access and fishing restrictions. Officers boarded fishing vessels in the area and advised crews of restrictions. Suspected illegal activities were investigated and warnings issued
- Undertook research on sea snakes, trepang, trochus shell, coral and fish communities. Results showed that fished species—trepang and trochus shell were still in recovery from previous exploitation and that sea snakes and coral communities had been badly impacted by incidents of sea temperature rise. Fish communities remain healthy
- · Continued to collect and analyse marine debris

### KRA4: Visitor management and park use

### Major issues

· Safety is an issue because of the area's history as a Department of Defence practice area

#### **Actions**

· Enforce the closure of the reserve

### Performance results 2005-06

· Coastwatch and the Australian Customs Service undertook regular patrols. Vessels in the area were boarded and advised of closure restrictions

### **KRA5: Stakeholders and partnerships**

### Major issues

· Illegal Indonesian fishing

### Actions

 Revise and implement an integrated management approach for Indonesian fishing in the MoU Box

#### Performance results 2005–06

- Began the second phase of an alternative livelihood project in Indonesia using AusAID funds. The first phase provided alternative sources of income for traditional fishers who currently target Australian waters. The second phase covers five new villages and is investigating further alternative income sources
- Consulted with Indonesian officials and the Department of Agriculture, Fisheries and Forestry to address overfishing issues in the MoU Box on a regional and cooperative basis

### **KRA6: Business management**

### Major issues

· Effective management of contract with management service provider

#### **Actions**

· Manage the service level agreement with the Australian Customs Service

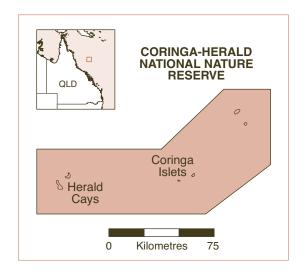
### Performance results 2005–06

- · Held regular meetings and consultation with the Australian Customs Service
- Provided warden training for Customs officers



# Coringa-Herald National Nature Reserve

http://www.deh.gov.au/coasts/mpa/coringa



### Special features

Of the six islets and cays of Coringa—Herald National Nature Reserve all are vegetated except one. The vegetation is mainly tropical shoreline plants of the Indo-Pacific region. However the reserve also includes the only forested cays in the Coral Sea Islands Territory. The *Pisonia grandis* forest ecosystem, which occurs on two islets in the reserve, has intrinsic conservation value. The forested islets are important habitat for species of resident birds and also

migratory seabirds that gather there from an extensive oceanic area to breed. The terrestrial beach habitat throughout the reserve is important breeding habitat for the green turtle (*Chelonia mydas*).

The reef habitats support benthic (bottom-dwelling) flora and fauna that are distinct from those of the Great Barrier Reef. Dolphins and whales occur in the area.

An historic shipwreck—the *Coringa Packet*—is located off Chilcott Islet. The Coringa Islets were named after the *Coringa Packet*, which sank in 1845.

Location	Latitude 16°59' South, Longitude 149°45' East			
Area	885,250 hectares			
Proclamation date	16 August 1982	16 August 1982		
IUCN category	Category la			
Biogeographic context	Tropical waters of the Coral Sea Islands Territory			
Management plan	Second plan expires 4 September 2008			
Other significant management documents	Management plan implementation and performance report, incorporating risk assessment			
Financial	Operating \$98,692*			
	Capital	Not applicable		
	Revenue Not applicable			

Visitors	No visitor days recorded from commercial tours; 1 visitor day recorded by a private vessel; 17 visitor days recorded by departmental staff, volunteers and contracted researchers on 2 visits
Permits	3 commercial tour permits, 1 research permit

<sup>\*</sup> In addition, \$725,407 was spent across the 12 marine reserves managed by the Marine Division on behalf of the Director of National Parks on professional services, development of permits and performance assessment systems, training wardens, communications, workshops and conference attendance.

International conventions and agreements				
Wetlands (Ramsar) Convention	Entire reserve is listed			
Migratory Species (Bonn) Convention	8 of 98 listed Australian species			
China–Australia Migratory Birds Agreement	14 of 81 listed species			
Japan–Australia Migratory Birds Agreement	15 of 76 listed species			

Environment Protection and Biodiversity Conservation Act 1999				
Listed fauna	Species	2 endangered 8 vulnerable 16 migratory 51 marine		
	Recovery plans	2 being implemented—marine turtles; great white shark (Carcharodon carcharias)		
Listed flora	None			

Numbers of native species recorded						
Mammals Birds Reptiles Fish Invertebrates Plants						
30	27	5	>342	>1,000	16	

### Management arrangements

Coastwatch provided aerial surveillance including photographs of *Pisonia* forests to gauge defoliation by insect pest species.

The Bureau of Meteorology provides weather forecasting services and storage facilities for an emergency helicopter fuel cache to cover possible emergency evacuation from the reserve.

# Monitoring

Seabird monitoring continued with the assistance of staff and an active volunteer programme that has run continuously since 1991. The long-term, and now regionally significant, dataset provides valuable information about these species. The

14

monitoring programme should be enhanced upon implementation of outcomes from a review of seabird monitoring programmes across the northern marine protected area estate completed in June 2006.

Monitoring of insect pests, such as scale insects, continued leading to targeted release of beneficial insects. To date this has proved successful in minimising damage to the *Pisonia* forest from insect defoliation. Monitoring has continued since the detection of scale insect pests in 2002. Hawkmoth larvae were also identified as a serious threat to the forest and work is continuing on the best means to control this species.

Sea turtle monitoring was not undertaken during 2005–06. It is awaiting the implementation of outcomes from the review of sea turtle monitoring programmes described above that was completed in June 2006.

### Future challenges

Major conservation challenges are to maintain the health of the *Pisonia* forest ecosystem including controlling pest insects; and ensure outcomes from the current reviews into seabird and sea turtle monitoring programmes are implemented. Ensuring the occupational health and safety of personnel continues to be effectively addressed through rigorous safety analysis, including the implementation of comprehensive contingency and communication plans and risk control measures.

# Report on performance by key result areas

### **KRA1: Natural heritage management**

### Major issues

- · Impact of pest insects on the *Pisonia* forest ecosystem (loss of critical habitat through deforestation)
- · Impact of coral bleaching on the marine ecosystem

#### **Actions**

- · Implement an insect pest monitoring and management programme
- Implement coral bleaching guidelines

### Performance results 2005–06

- No sign was detected of further deforestation of *Pisonia* by insect pests.
   Departmental staff visited the reserve twice to monitor defoliation. Beneficial insects were released and additional pest insect species identified
- The Australian Institute of Marine Science did a brief assessment of coral reef health, with continued low percentage of live coral cover reported. On the

institute's recommendation, two more sea temperature data loggers were installed within the reserve at South-West Herald Cay and two outside the reserve at nearby Willis Islet. They provide enhanced capacity to monitor variations in sea temperature

### KRA4: Visitor management and park use

### Major issues

· Introduction of pest species by visitors to the reserve

### Actions

· Revise information brochure

### Performance results 2005-06

 Distributed the revised information brochure to key stakeholders and posted it on the Department of the Environment and Heritage website. The brochure includes details of effective quarantine measures to be undertaken by visitors to the reserve and why these practices are so important

### **KRA5: Stakeholders and partnerships**

### Major issues

- · Lack of awareness among stakeholders of reserve management prescriptions
- Ensuring relationships with key partners remain on an effective operational basis

### **Actions**

- · Consult key stakeholders and partners and provide regular information on important issues
- · Prepare and distribute reserve information brochure

#### Performance results 2005–06

- Liaised with Coastwatch, Bureau of Meteorology, Department of Defence,
   Department of Transport and Regional Services, relevant researchers and tour operators
- Organised meetings with partners to discuss key issues and conducted presentations on marine protected area operations and management prescriptions
- · Distributed revised reserve information brochure to key stakeholders and posted it on Department of the Environment and Heritage website



### **KRA6: Business management**

### Major issues

 Occupational health and safety risk to personnel associated with undertaking activities in an isolated reserve

### **Actions**

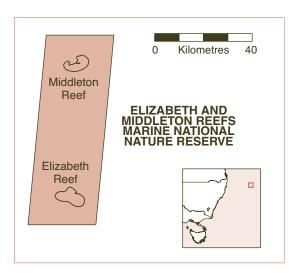
 Continue to refine and implement activity control measures as identified through the Activity Safety Analysis

### Performance results 2005–06

 Conducted a detailed Activity Safety Analysis before each trip to the reserve. Risk control measures identified and contingency and communication plans developed during this process were successfully implemented

# Elizabeth and Middleton Reefs Marine National Nature Reserve

http://www.deh.gov.au/coasts/mpa/elizabeth



# Special features

Elizabeth and Middleton Reefs Marine National Nature Reserve is located in a transition area between tropical and temperate climates. The reefs are therefore home to a unique range of marine organisms, many of which are near the northern or southern limit of their distribution. A number of species are also considered endemic to the reefs or to the south-western Pacific region.

The available information on marine plants indicates a rich and diverse algal

flora. The coral communities contain unique tropical species at, or near, the southern limits of their distribution, and subtropical species that are rare or absent from tropical reefs.

The diversity of fish species is relatively low, but at least seven previously undescribed species may be endemic to the reserve. The reserve also supports two of the few known populations of the black cod (*Epinephelus daemelii*) which was once common along the New South Wales coast, but is now considered rare.

The reserve is a feeding ground for green turtles (*Chelonia mydas*) and marine mammals such as bottlenose dolphins (*Turisops truncates*) and short-finned pilot whales (*Globecephala macrochynchus*).

Location	Latitude 29°42′ South, Longitude 159°05′ East
Area	187,726 hectares
Proclamation date	23 December 1987
IUCN category	Category la
Biogeographic context	Offshore warm temperate waters in the south of the Coral Sea Islands Territory
Management plan	Second plan came into effect 23 March 2006, expires 22 March 2013





Other significant management documents	Management plan implementation and performance report, incorporating risk assessment		
Financial	Operating	\$61,842*	
	Capital Not applicable		
	Revenue Not applicable		
Visitors	Not recorded, numbers low		
Permits	0		

<sup>\*</sup> In addition, \$725,407 was spent across the 12 marine reserves managed by the Marine Division on behalf of the Director of National Parks on professional services, development of permits and performance assessment systems, training wardens, communications, workshops and conference attendance.

International conventions and agreements			
Wetlands (Ramsar) Convention	Entire reserve is listed		
Migratory Species (Bonn) Convention	8 of 98 listed Australian species		
China–Australia Migratory Birds Agreement	3 of 81 listed species		
Japan–Australia Migratory Birds Agreement	6 of 76 listed species		

Environment Protection and Biodiversity Conservation Act 1999				
Listed fauna	Species	13 vulnerable 16 migratory 15 marine		
	Recovery plans	2 being implemented—great white shark ( <i>Carcharodon carcharias</i> ); marine turtles		
Listed flora	None			

Numbers of native species recorded						
Mammals Birds Reptiles Fish Invertebrates Plants						
6	31	2	407	558	1	

# Management arrangements

Coastwatch surveillance flights were undertaken and a departmental officer accompanied the James Cook University team on their survey of the reefs.

The second management plan for the reserve came into effect. A brochure was published highlighting what is allowed in the reserve and the conditions attached to permits to enter Elizabeth Reef.

### **Monitoring**

The Australian Institute of Marine Science monitored reserve health at Elizabeth Reef in December 2003. The reserve was found to be generally in good health with no bleaching and very little evidence of crown of thorns starfish activity.

The number of black cod has remained stable since the last survey in 1987. High numbers of Galapagos sharks (*Carcharhinus galapagensis*) were observed during the most recent survey in 2006, which suggests that the area is an important nursery for this species.

Researchers from James Cook University surveyed Elizabeth and Middleton Reefs in February 2006. Their report is pending. Data loggers were installed to record water temperature to monitor the effects of temperature on the reefs. Black cod biopsies were collected for a genetic population assessment of the species.

### Future challenges

Major challenges are implementing biological monitoring and monitoring for possible illegal activities in the area.

### Report on performance by key result areas

### **KRA1: Natural heritage management**

### Major issues

- · Possible illegal fishing
- · Monitoring reef health

#### **Actions**

- Enforce fishing restrictions
- Implement management plan prescriptions
- · Produce brochure including fishing restrictions
- · Plan a reef biological monitoring programme

### Performance results 2005-06

- · Finalised the second management plan for the reserve
- · Produced a brochure to accompany the plan
- · Coastwatch flights detected no illegal fishing
- Researchers from James Cook University conducted a survey of Middleton and Elizabeth Reefs



- Collected black cod biopsies for genetic analysis (for comparison with mainland samples)
- · Installed temperature data loggers (to record water temperature)
- · Patrolled Middleton and Elizabeth Reefs in February 2006

### **KRA2: Cultural heritage management**

### Major issues

· Possible interference with shipwrecks

#### **Actions**

- · Enforce protection of shipwrecks
- · Implement management plan prescriptions

### Performance results 2005–06

- · Released management plan and brochure
- · Coastwatch flights and occasional patrols detected no interference with shipwrecks
- · Patrolled Middleton and Elizabeth Reefs in February 2006

### **KRA5: Stakeholders and partnerships**

### Major issues

· Need to continue good relationships with Coastwatch and researchers

### **Actions**

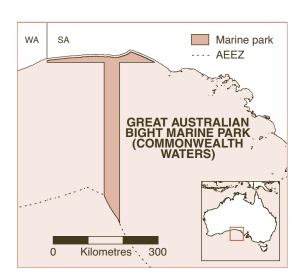
· Ensure relationships with partners are productive

### Performance results 2005-06

- · Liaised with Coastwatch, relevant scientists and tour operators
- Held public consultation on the draft management plan. Comments received informed the final management plan

# Great Australian Bight Marine Park (Commonwealth Waters)

http://www.deh.gov.au/coasts/mpa/gab



### Special features

The Great Australian Bight Marine Park (Commonwealth Waters) extends South Australia's protection of habitat for marine mammals to Commonwealth waters adjacent to the state park. Notable species protected under the Environment Protection and Biodiversity Conservation Act 1999 are the southern right whale (Eubalaena australis) listed as endangered, and the Australian sea-lion (Neophoca cinerea) listed as vulnerable.

The marine park is next to the Head of Bight, the most important breeding place for southern right whales in Australia and one of the most important, discrete breeding locations for the species in the world. The area also offers a unique opportunity to observe the species in a pristine environment.

The marine park protects a transect of the wide continental shelf of the Great Australian Bight, which is remarkable for its high levels of invertebrate endemism and diversity. The park is also the largest representative sample of the southern continental margin of Australia in a reserve.

The marine park provides for the sustainable use of its natural resources including commercial fishing and mineral exploration while ensuring these activities do not impact on the park's special features.

Location	Latitude 31°43′ South, Longitude 130°23′ East		
Area	1,937,162 hectares		
Proclamation date	22 April 1998		
IUCN category	Category VI comprising:  Marine Mammal Protection Zone Category VI (387,500 hectares)  Benthic Protection Zone Category VI (1,608,500 hectares)  (Area of overlap of these two zones = 56,000 hectares)		

Biogeographic context	Interim Marine and Coastal Regionalisation for Australia regions: Eucla Bioregion (IMCRA 3.3 mesoscale regionalisation) Great Australian Bight biotone and associated continental slope (IMCRA 3.3 demersal provinces and biotones) Southern Pelagic Province (IMCRA 3.3 pelagic provinces and biotones)		
Management plan	Second plan expires 16 May 2012		
Other significant management documents	Service level agreement and subsidiary annual business agreements between Australian and SA governments; and management plan implementation and performance report, incorporating risk assessment		
Financial	Operating	\$97,985*	
	Capital	Not applicable	
	Revenue	Not applicable	
Visitors	None recorded		
Permits	30 commercial fishing		

<sup>\*</sup> In addition, \$725,407 was spent across the 12 marine reserves managed by the Marine Division on behalf of the Director of National Parks on professional services, development of permits and performance assessment systems, training wardens, communications, workshops and conference attendance.

International conventions and agreements				
Migratory Species (Bonn) Convention)	13 of 98 listed Australian species			
Agreement on the Conservation of Albatrosses and Petrels	11 of 18 listed species			
China–Australia Migratory Birds Agreement	1 of 81 listed species			
Japan–Australia Migratory Birds Agreement	4 of 76 listed species			

Environment Protection and Biodiversity Conservation Act 1999					
Listed fauna	Species	6 endangered 17 vulnerable 31 migratory 57 marine			
	Recovery plans	4 implemented—southern right whale ( <i>Eubalaena australis</i> ); great white shark ( <i>Carcharodon carcharias</i> ); marine turtles; albatross ( <i>Diomeda</i> spp. and <i>Thalassarche</i> spp.) and giant petrels ( <i>Macronectes</i> spp.)			
		1 in preparation—Australian sea-lion (Neophoca cinerea)			
Listed flora	None				

Numbers of native species recorded						
Mammals	Birds	Reptiles	Fish	Invertebrates		
38	37	1	>218	>800		

### Management arrangements

The Australian Government and the South Australian Government manage the Great Australian Bight Marine Park through a joint steering committee. A consultative committee with community representatives advises the steering committee on management issues.

A park manager is employed by the South Australian Department for Environment and Heritage.

The second management plan for the park came into effect on 17 May 2005 and covers a period of seven years.

### **Monitoring**

A survey of the Benthic Protection Zone is planned for late 2006. This will enable comparisons of the numbers and range of benthic (seabed) species with data from the 2002 survey. It will contribute to a 20-year performance assessment programme for the zone.

Information from the 2002 seabed survey is being used to produce interpretive material that will describe the habitats, zones and species of the Benthic Protection Zone and explain how the park protects these values. This will help to increase awareness of the importance of the benthic communities and foster an understanding of the importance of the park in protecting these values.

Southern right whale numbers are monitored annually. Current figures put the population using southern Australian waters at about 1,600 increasing at an average of 8 per cent per annum. Data collected over 15 years have provided a catalogue of identified whales numbering more than 550 individuals. Ongoing studies of the ecology and behaviour of southern right whales are being conducted at the Head of Bight.

Bight coastline surveys of the Australian sea-lion have revealed 10 breeding sites and 14 haul-out sites. Due to the inaccessibility of the coastline the total population is not known. Australian sea-lion studies funded in 2005–06 were:

- · using satellite trackers to study foraging range and behaviour to understand where and when these animals feed (see case study on page 144)
- · researching interactions with fishing vessels to assess the impact of vessel activity on behaviour and population.



# Future challenges

Major challenges are developing a research programme to assess the marine park's performance; increasing the effectiveness of compliance strategies, including improving the fishing industry's compliance reporting; and implementing the new management plan.

# Report on performance by key result areas

#### **KRA1: Natural heritage management**

#### Major issues

- · Lack of baseline information
- · Lack of information on distribution and abundance of southern right whales (*Eubalaena australis*) and Australian sea-lions (*Neophoca cinerea*)
- Lack of information on effects of human interactions with Australian sea-lion populations

#### Actions

- · Establish initial baselines
- Develop a research plan to monitor the impact of known pressures on park values and their vulnerability to use e.g. the impact of marine debris and other identified risks

#### Performance results 2005–06 (in cooperation with South Australian Government)

- · Initiated second round of baseline studies of benthos (seabed communities)
- · Continued population studies on regional southern right whales and Australian sea-lions
- · Continued research into Australian sea-lion foraging behaviour and interactions with fishing vessels
- Strategic research and monitoring plan for temperate marine protected areas is in final stages of preparation

### KRA4: Visitor management and park use

#### Major issues

- · Illegal fishing
- · Community participation in park management activities

#### **Actions**

- · Review surveillance plans
- Continue aerial surveillance by Coastwatch, on-ground surveillance by Yalata Land Management and sea patrols by the Department of Primary Industries and Resources, South Australia
- · Investigate suspected illegal activity
- · Continue the Yalata community's participation in park management activities

#### Performance results 2005–06 (in cooperation with South Australian Government)

- · Advertised annual closures
- · Undertook land, sea and aerial surveillance patrols. No illegal activity recorded
- · Contributed to review of compliance and enforcement procedures
- · Issued permits for commercial fishers
- · Yalata community provided surveillance and undertook beach clean-ups

#### **KRA5: Stakeholders and partnerships**

### Major issues

· Maintain productive relationships with partners

#### **Actions**

- · Negotiate and implement annual business agreement with South Australia
- Develop compliance monitoring arrangements with Australian Fisheries
   Management Authority
- · Keep stakeholders informed of and involved in management activities

#### *Performance results 2005–06 (in cooperation with South Australian Government)*

- · Renewed annual business agreement covering research, visitor management, education, and compliance and enforcement
- Continued to make approaches to Australian Fisheries Management Authority and industry sectors about monitoring compliance
- Liaised with stakeholders from all sectors through steering committee and consultative committee



**KRA6: Business management** 

# Major issues

· Community understanding and appreciation of park's values

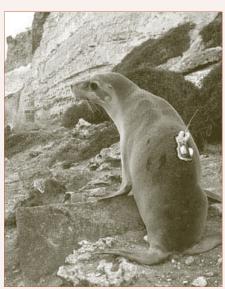
#### **Actions**

- · Write and implement communications plan
- Disseminate management plan and interpretive material

# Performance results 2005–06 (in cooperation with South Australian Government)

- · Developed draft communications plan
- · Informed the media about park activities
- · Began work on Benthic Protection Zone interpretation brochure
- · Made management plan and information on park values and uses available to general public

# Satellite tracking Australian sea-lions in the Great Australian Bight



An Australian sea-lion equipped with a satellite tracker below Bunda Cliffs

The Australian sea-lion (*Neophoca cinerea*) is Australia's only endemic sea lion and exhibits unique reproductive behaviour. It breeds every 17.5 months, rather than the usual 12 months for most seal and sea lion species, and females may nurse pups for up to 18 months. The species also has an asynchronous breeding cycle, meaning that different colonies breed at different times of the year.

The Great Australian Bight Marine Park's breeding and haul-out sites, mostly along the base of cliffs on the edge of the park, comprise the majority of sea lion breeding sites on the Australian mainland. The park plays a critical role in protecting breeding

and haul-out sites of Australian sea-lions in state waters, and foraging grounds in both state and Commonwealth waters of the park.

The Department of the Environment and Heritage is working cooperatively with the South Australian Department for Environment and Heritage and South Australian Research and Development Institute to study the foraging range and behaviour of the Australian sea-lion. This will help determine an acceptable level of interaction with industries such as commercial fishing that may pose a risk to sea lions. This project complements a larger scale project being undertaken by the institute to determine sea lion foraging behaviour in other areas of South Australia.

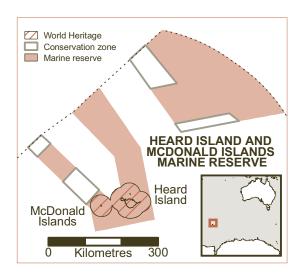
With the assistance of the State Emergency Services Vertical Rescue Unit, researchers rappelled over the 65 metre Bunda Cliffs in early 2006 to deploy satellite trackers on Australian sea-lions. The team successfully deployed five tracking devices on females in the two days available. The trackers record the positions of the animals as they forage for food on the sea floor. Data are transmitted to the satellite system each time the animals break the surface of the water. The trackers, which will fall off with the next moult, cause no harm to the sea lions. The operation was undertaken with animal ethics approval.

Preliminary results have shown the five females foraging in different areas in a south to south-west direction from the colony. The furthest distance travelled by a female has been 180 kilometres into Western Australian waters. One female has remained close to the colony.



# Heard Island and McDonald Islands Marine Reserve

http://www.heardisland.aq



# Special features

The Heard Island and McDonald Islands Marine Reserve includes the World Heritage listed islands and 12 nautical mile territorial sea, plus an additional marine area which extends in parts to the 200 nautical mile Exclusive Economic Zone boundary.

Heard Island and McDonald Islands is the only major subantarctic island group believed to contain no species directly introduced by humans. Its terrestrial and marine ecology and oceanographic

conditions are quite distinct from other Southern Ocean islands, including Australia's other subantarctic island, Macquarie Island.

The islands and surrounding waters provide crucial breeding habitat for a range of birds and marine mammals, including several species listed as threatened and/ or migratory under international conservation agreements and the *Environment Protection and Biodiversity Conservation Act 1999*. Two bird species, the Heard Island sheathbill (*Chionis minor nasicornis*) and the Heard Island cormorant (*Phalacrocorax atriceps*), are endemic to the reserve.

The terrestrial environment contains permanent glaciers, Australia's only active volcanoes, and Australia's highest mountain (Mawson Peak 2,750 metres) outside the Australian Antarctic Territory. Heard Island contains significant cultural relics and heritage sites from 19th and early 20th century sealing activities and from the first Australian Antarctic research expeditions.

The marine environment surrounding the islands features diverse and distinctive benthic habitats that support a range of slow growing and vulnerable species including corals, sponges, barnacles and echinoderms. The waters of the reserve also include prime foraging areas for a number of land-based marine predators, and provide nursery areas for fish, including commercially harvested species. Areas of highly productive, nutrient rich waters in the reserve, created by the confluence of

6

key oceanographic fronts such as the Antarctic Polar Front, are believed to provide feeding grounds for a range of cetaceans.

A conservation zone declared under the *Environment Protection and Biodiversity Conservation Act 1999* in October 2002 is being assessed for possible inclusion in the reserve. The assessment is considering the conservation values of the areas in question, as well as the fisheries potential of those areas and the threats to conservation values associated with fishing activities.

Location	Latitude 53°05′ South, Longitude 73°30′ East		
Area	6,457,815 hectares		
Proclamation date	16 October 2002		
IUCN category	Category la		
Biogeographic context	Subantarctic area		
	Interim Marine and Coastal Regionalisation for Australia region: Kerguelen Province		
Management plan	First plan expires 10 August 2012		
Other significant management documents	Australia's Antarctic Science Programme: Science Strategy 2004–05 to 2008–09		
Financial	Operating	\$200,000ª	
	Capital Not applicable		
	Revenue Not applicable		
Visitors	None <sup>b</sup>		
Permits	None		

- (a) No science or management expedition was conducted in 2005–06, which was an 'off year' for triennial visits to the reserve. This figure does not include costs associated with analysis of data collected during the 2003–04 expedition, much of which is expected to contribute directly or indirectly to the future management of the reserve and region.
- (b) No government research expeditions or tourist visits to Heard Island were undertaken during 2005–06. Fishing vessels and surveillance vessels may have passed through the marine areas of the reserve.

International conventions ar	International conventions and agreements			
World Heritage Convention	Listed under natural criteria (i) and (ii), recognising its outstanding natural values			
Wetlands (Ramsar) Convention	Ramsar information sheet prepared for proposed Heard Island and McDonald Islands wetland (comprising the Heard Island and McDonald Islands Territory). Draft information sheet circulated for public comment as part of draft management plan			
Migratory Species (Bonn) Convention	12 of 98 listed Australian species			

ø.	П	3	ij
16			

China–Australia Migratory Birds Agreement	1 of 81 listed species
Japan–Australia Migratory Birds Agreement	4 of 76 listed species
Other agreements	Convention on the Conservation of Antarctic Marine Living Resources; Agreement on the Conservation of Albatrosses and Petrels; Treaty between the Government of Australia and the Government of the French Republic on Cooperation in the Maritime Areas Adjacent to the French Southern and Antarctic Territories, Heard Island and the McDonald Islands

Environment	Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species <sup>a</sup>	1 endangered 10 vulnerable 14 migratory 51 marine	
	Recovery plans	1 being implemented—albatross ( <i>Diomeda</i> spp. and <i>Thalassarche</i> spp.) and giant petrels ( <i>Macronectes</i> spp.)	
Listed flora	None		

(a) Figures include both breeding and non-breeding species, but do not include cetaceans. Only sparse records of cetaceans are currently available for the Heard Island and McDonald Islands region.

Numbers of native species recorded					
Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
7ª	47 <sup>b</sup>	0	34 <sup>c</sup>	169 <sup>d</sup>	262°

- (a)3 breeding, 4 non-breeding seals
- (b) 19 breeding, 28 non-breeding birds
- (c) Refers to fish recorded from nearshore waters (<12nm)
- (d) Refers only to terrestrial and freshwater invertebrates. Figure increased from 168 in 2004–05 with the description during the year of 1 new tardigrade
- (e) 12 vascular plants, 62 bryophytes, 71 lichens, 100 terrestrial alga, 17 marine macro-algae

# Management arrangements

The reserve is managed by the Australian Antarctic Division of the Department of the Environment and Heritage, under delegation from the Director of National Parks.

The first management plan for the reserve came into effect during the year.

# **Monitoring**

The Australian Antarctic Division mounts Australian Antarctic Programme expeditions to the region only every few years; this is due to the significant costs involved and also the time required for research results to be analysed and considered in planning for subsequent visits. During 2005–06 there was no expedition, but analysis of data collected during the 2003–04 expedition continued.

The division completed a comprehensive vegetation map of Heard Island, using field data obtained during expeditions from 1986–87 to 2003–04. This sound baseline will facilitate analysis of future change in vegetation as a result of climate change or other pressures. Satellite images of portions of the island were added, and scientists developed techniques to use such remotely sensed data to detect environmental change.

One new species of tardigrade (*Hypsibius herdensis*) was identified from existing collections. The vascular plant species first recorded during the 2003–04 expedition (*Leptinella plumosa*) was described. This species, together with another 'recent colonist' with restricted distribution (*Ranunculus crassipes*), will provide useful insight into colonisation processes on Heard Island.

The division completed analysis of benthic samples previously collected from areas within the Heard Island and McDonald Islands conservation zone. This will help further define the biodiversity and natural values of these areas and the significance of these areas to the overall Heard Island and McDonald Islands ecosystem, as required to finalise the conservation zone assessment.

Analysis of data collected in 2003–04 provided for comparison of the foraging strategies and behaviours of king penguin (*Aptenodytes patagonicus*) populations at Heard Island and Macquarie Island. This work can enhance understanding of how the natural surroundings of animals influence their behaviours and may contribute to future assessment of the adequacy of the reserve design.

A draft Research and Monitoring Strategy for Australia's Subantarctic Marine Protected Areas was prepared. Once completed, the strategy will be implemented to provide information on ecosystem health and management of the reserve.

# Future challenges

The management situation for the reserve has not varied substantially since 2004–05. Key future challenges include:

- · implementing the management plan for the reserve
- · maintaining thorough quarantine processes for all visits



- capitalising on Australian Antarctic Programme visits and partnerships with other operators in the region to undertake management actions and conduct research and monitoring
- · completing the Heard Island and McDonald Islands conservation zone assessment
- implementing a research and monitoring strategy to facilitate performance assessment for the reserve.

# Report on performance by key result areas

### **KRA1: Natural heritage management**

#### Major issues

- · Preventing human introduction of alien species
- · Performance assessment and reporting

#### **Actions**

- Evaluate possible alien species
- · Perform quarantine risk assessment and inspection of vessels
- Undertake research and monitoring that facilitate performance assessment and reporting

#### Performance results 2005–06

- · Completed a comprehensive baseline vegetation map of Heard Island, providing an excellent reference for identification of environmental change
- · Continued analysis of other data collected during the 2003–04 expedition
- · Brought the subantarctic research and monitoring strategy close to completion
- Developed a Ramsar information sheet and other required supporting documentation in preparation for a future nomination of the Heard Island and McDonald Islands Territory as a Wetland of International Importance under the Ramsar Convention (an article on the wetland was on the front cover of the 2006 Wetlands Australia magazine)

#### **KRA2: Cultural heritage management**

## Major issues

- · Loss/degradation of cultural heritage on Heard Island
- · Recording and monitoring condition of heritage sites and items at the sites

#### **Actions**

· Manage decay of heritage sites and items

#### Performance results 2005–06

· Nothing to report (no expedition to Heard Island during 2005–06)

#### **KRA4: Visitor management and reserve use**

#### Major issues

- · Safe and environmentally appropriate visitor access
- · Off-site presentation of the remote and isolated reserve

#### **Actions**

- · Provide briefings and relevant materials to all visit organisers/visitors
- · Issue permits that include conditions to provide for appropriate access and use
- · Develop off-site measures for communicating the values of the reserve

#### Performance results 2005–06

- There were no research, commercial or private visits to the Heard Island and McDonald Islands Territory during 2005–06
- · The Heard Island website was well used, with more than 200,000 hits
- Prepared display banners describing the reserve, for use in presenting the reserve at public and expert forums
- The Minister for the Environment and Heritage opened a public exhibition at Parliament House in Canberra that ran from August–October 2005, consisting of Heard Island photographs and interpretive panels, artworks, historical artefacts and audiovisual presentations on the Heard Island scientific expedition
- Contributed to a book that provides a comprehensive account of the natural environment and history of Heard Island—Heard Island: Southern Ocean Sentinel

## **KRA5: Stakeholders and partnerships**

#### Major issues

- Effective management of the isolated and infrequently visited reserve requires excellent working relationships with other operators in the region
- · Transparency of reserve management



#### Actions

- Establish and maintain effective partnerships with relevant government agencies and other operators
- · Inform the public of reserve management activities

#### Performance results 2005–06

- · Continued Australian Antarctic Division involvement in government initiatives to address illegal, unreported and unregulated fishing
- Updated Heard Island information in the Southern Ocean Cruising Handbook, on nautical maps and charts and on the Australian Fisheries Management Authority website
- · Strengthened relationships with management authorities for other subantarctic islands through joint preparation of a paper entitled *Conservation Management at Southern Ocean Islands: Towards the Development of Best-practice Guidelines* for consideration at the first international forum on the subantarctic, Hobart July 2006

### **KRA6: Business management**

#### Major issues

- · Ensuring compliance and enforcement of reserve management requirements
- · Management planning

#### **Actions**

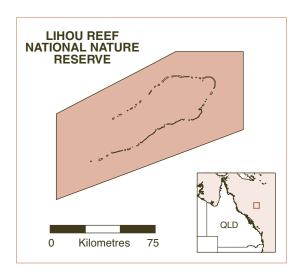
- Educate all visitors about reserve management requirements
- · Implement management plan

#### Performance results 2005–06

· Published first management plan for the reserve in hard copy and on the internet

# Lihou Reef National Nature Reserve

http://www.deh.gov.au/coasts/mpa/lihou



# Special features

Lihou Reef National Nature Reserve and its associated sandy coral cays and islets comprise the largest reef structure in the Coral Sea. The reef habitats support benthic (bottom-dwelling) flora and fauna that are distinct from those of the Great Barrier Reef. A diverse range of marine organisms has been recorded in the reserve. The green turtle (*Chelonia mydas*) breeds in the reserve and a number of cetacean species (whales and dolphins) inhabit the area.

Five islets in the reserve are vegetated, mainly by widespread tropical shoreline plants of the Indo-Pacific region. The reserve also contains extensive and regionally significant seabird colonies. The buff-banded rail (*Gallirallus philippensis*) is the only landbird species that breeds in the reserve.

Several well-documented shipwrecks, and a number of wrecks whose origins are not yet known, are located on Lihou Reef.

Location	Latitude 17°21′ South, Longitude 151°44′ East		
Area	843,670 hectares		
Proclamation date	16 August 1982		
IUCN category	Category la		
Biogeographic context	Coral Sea Islands Territory		
Management plan	Second plan expires 4 September 2008		
Other significant management documents	Management plan implementation and performance report, incorporating risk assessment		
Financial	Operating	\$13,241*	
	Capital Not applicable		
	Revenue Not applicable		
Visitors	No visitor days from commercial operators recorded; 1 visitor day by Bureau of Meteorology for weather station maintenance		
Commercial permits	3 commercial tour permits		

<sup>\*</sup> In addition, \$725,407 was spent across the 12 marine reserves managed by the Marine Division on behalf of the Director of National Parks on professional services, development of permits and performance assessment systems, training wardens, communications, workshops and conference attendance.





International conventions and agreements		
Wetlands (Ramsar) Convention	Entire reserve is listed	
Migratory Species (Bonn) Convention)	6 of 98 Australian listed species	
China–Australia Migratory Birds Agreement	12 of 81 listed species	
Japan–Australia Migratory Birds Agreement	15 of 76 listed species	

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	2 endangered 8 vulnerable 17 migratory 51 marine
	Recovery plans	2 being implemented—marine turtles; great white shark ( <i>Carcharodon carcharias</i> )
Listed flora	None	

Numbers of native species recorded					
Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
30	24	5	>342	>1,000	7

# Management arrangements

Coastwatch provides regular aerial surveillance of the reserve.

The Bureau of Meteorology collects and replaces data loggers during their annual visits. The bureau also provides storage for an emergency helicopter fuel cache to cover emergency evacuation from the reserve.

# Monitoring

The most recent marine survey was undertaken in October 2004 by the Australian Institute of Marine Science.

A visit to undertake maintenance and research was cancelled due to logistical difficulties.

The Bureau of Meteorology visited the reserve as part of their annual weather station maintenance schedule. Bureau staff collected and replaced water temperature data loggers for the Department of the Environment and Heritage and Australian Institute of Marine Science. Institute personnel installed two more data loggers on their visit in June 2006.

# Future challenges

Challenges are logistics, costs and occupational health and safety associated with managing such an isolated reserve; and monitoring the impact of and recovery from coral bleaching.

# Report on performance by key result areas

#### **KRA1: Natural heritage management**

### Major issues

- · Detection of possible illegal fishing
- · Measuring reef health
- · Reserve's isolation means ongoing monitoring remains logistically difficult

#### **Actions**

- · Enforce fishing restrictions
- · Continue strategic reef monitoring programme
- Continue to promote and maintain partnerships with other agencies to provide services for monitoring activities

#### *Performance results 2005–06*

- · Coastwatch flights detected no illegal fishing
- The Bureau of Meteorology collected and replaced water temperature data loggers

#### **KRA4: Visitor management and park use**

#### Major issues

· Introduction of pest species by visitors to the reserve

#### **Actions**

· Revise reserve information brochure

#### Performance results 2005–06

 Distributed revised reserve information brochure to key stakeholders and posted the brochure on the Department of the Environment and Heritage website. The brochure details effective quarantine measures to be undertaken by visitors to the reserve and why these practices are so important





# KRA5: Stakeholders and partnerships

### Major issues

- · Lack of awareness among stakeholders of reserve management prescriptions
- · Ensuring relationships with key partners remain on an effective operational basis

#### **Actions**

- Consult key stakeholders and partners and provide regular information on important issues
- · Prepare and distribute reserve information brochure

#### Performance results 2005–06

- Liaised with Coastwatch, Bureau of Meteorology, Department of Defence,
   Department of Territories and Regional Services, relevant researchers and tour operators
- Met with partners to discuss key issues and conducted presentations on marine protected area operations and management prescriptions
- Distributed revised reserve information brochure to key stakeholders and posted the brochure on the Department of the Environment and Heritage website

# **KRA6: Business management**

#### Major issues

 Occupational health and safety risk to personnel from working in an isolated reserve

#### Actions

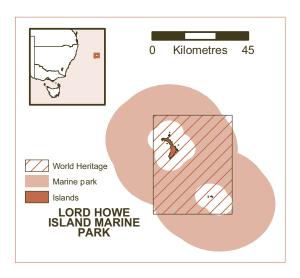
 Continue to refine and implement activity control measures as identified through the Activity Safety Analysis process

#### Performance results 2005–06

· Implemented all activity control measures identified through the activity safety analysis process for future activities within the reserve

# Lord Howe Island Marine Park (Commonwealth Waters)

http://www.deh.gov.au/coasts/mpa/lordhowe



# Special features

Lord Howe Island Marine Park protects and conserves the complex, vulnerable and regionally unique set of deep-sea structures, benthic habitats and flora and fauna associated with the Lord Howe Island seamount system.

The marine park also ensures that the natural resources important for food, income and recreation for the Lord Howe Island community are protected and used in an ecologically sustainable manner.

Location	Latitude 31°47′ South, Longitu	ude 159°09' East	
Area	300,063 hectares		
Proclamation date	21 June 2000		
IUCN category	Category la: 96,344 hectares		
	Category IV: 214,782 hectares		
Biogeographic context	Waters surrounding oceanic islands on seamounts; biota combine tropical and temperate taxa; east of Central Eastern Province Pelagic Biotone		
Management plan	Current plan expires 24 Septe	mber 2009	
Other significant management documents	Management plan implementation schedule; risk assessment and management schedule; and service level agreement with NSW Marine Parks Authority for on-ground management		
Financial	Operating	\$27,862*	
	Capital	Not applicable	
	Revenue Not applicable		
Visitors	Not known		
Permits	9 commercial permits		

<sup>\*</sup> In addition, \$725,407 was spent across the 12 marine reserves managed by the Marine Division on behalf of the Director of National Parks on professional services, development of permits and performance assessment systems, training wardens, communications, workshops and conference attendance.





International conventions and agreements	
World Heritage Convention	Listed for its outstanding natural universal values; criteria (iii) and (iv)
Migratory Species (Bonn) Convention	10 of 98 listed Australian species
Japan–Australia Migratory Birds Agreement	2 of 76 listed species

Environment Protection and Biodiversity Conservation Act 1999			
Listed fauna	Species	3 endangered 10 vulnerable 15 migratory 20 marine	
	Recovery plans	2 implemented—albatross ( <i>Diomeda</i> spp. and <i>Thalassarche</i> spp.) and giant petrels ( <i>Macronectes</i> spp.); marine turtles	
Listed flora	None		

Numbers of native species recorded			
Mammals	Birds	Fish	Invertebrates
4	11	447	536

# Management arrangements

The New South Wales Marine Parks Authority manages the Commonwealth marine park on behalf of the Department of the Environment and Heritage under a service level agreement.

The Lord Howe Island Steering Committee provides a forum for cooperative planning and management of the adjacent state and Commonwealth parks. The Lord Howe Island Marine Park Advisory Committee provides an opportunity for stakeholder groups to provide advice on the management of both parks.

The Australian Customs Service continues to conduct Coastwatch flights over the Lord Howe Island area and to report on vessel activity. New South Wales Water Police has also conducted surface patrols from the mainland.

# **Monitoring**

Data on the fish catch taken by charter fishing vessels operating under permit in the reserve was analysed. An estimated 22.6 tonnes of fish were caught and retained (approximately half were caught in the Commonwealth reserve). This figure does not include the substantial number of fish released after capture. The most common species caught were yellowtail kingfish (*Seriola lalandi*) and trevally (*Pseudocaranx*) species followed by wahoo (*Acanthocybium solandri*), yellowfin tuna (*Thunnus albacares*), various cod (*Ephinephelus*) species, rosy jobfish (*Pristipomoides filamentosus*) and amberjack (*Seriola dumerilli*).

# Future challenges

Future challenges are the implementation of a strategic monitoring programme following baseline data collection, fish catch data collection and monitoring the area for possible illegal activities.

# Report on performance by key result areas

#### **KRA1: Natural heritage management**

#### Major issues

Ensure management arrangements are adhered to

#### **Actions**

- · Enforce fishing restrictions
- · Train and authorise enforcement staff

#### Performance results 2005–06

- · Coastwatch aerial surveillance was conducted regularly
- New South Wales Marine Park Authority conducted surface patrols
- Lord Howe Island New South Wales Marine Park manager functioned as warden under the Environment Protection and Biodiversity Conservation Act 1999



### **KRA5: Stakeholders and partnerships**

### Major issues

- Maintain cooperation with community and New South Wales Marine Parks Authority
- · Community support for management plan

#### **Actions**

· Take an active role on advisory committee and steering committee

#### Performance results 2005-06

 Held meetings of Lord Howe Island Advisory Committee and consulted with Lord Howe Island Steering Committee

#### **KRA6: Business management**

### Major issues

· Maintain assistance from New South Wales Marine Parks Authority

#### Actions

 Negotiate and implement annual business agreement with New South Wales Marine Parks Authority

#### Performance results 2005–06

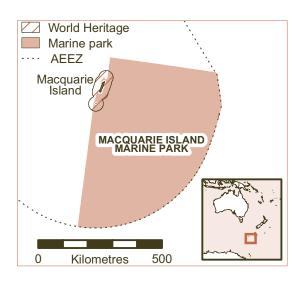
· Successfully negotiated and implemented annual business agreement for 2005–06



6

# Macquarie Island Marine Park

http://www.deh.gov.au/coasts/mpa/macquarie



# Special features

Macquarie Island Marine Park protects the unique and vulnerable marine ecosystems of the south-eastern portion of the Commonwealth waters around Macquarie Island. The marine park includes significant feeding and migratory areas for a number of threatened marine mammals and seabirds. It contains a variety of large-scale benthic (seabed) habitats, each exposed to different depths, currents, nutrient levels, wave activity and temperatures.

The Macquarie Island region has unique geological characteristics. It is the only known location where oceanic crust from a normal mid-ocean ridge has been lifted above sea level in a major oceanic basin.

In 1997, Macquarie Island and waters within a 12 nautical mile radius were inscribed on the World Heritage List.

Several species found in the region are under threat, including albatross, penguin and seal species. Macquarie Island is also listed as a critical habitat under the *Environment Protection and Biodiversity Conservation Act 1999* for the grey headed albatross (*Diomedea chrysostoma*) and wandering albatross (*D. exulans*).

Location	Latitude 55°54′ South, Longitude 161°38′ East
Area	16,205,928 hectares
Proclamation date	27 October 1999
IUCN category	Category IV: 10,492,287 hectares
	Category 1a: 5,713,641 hectares
Biogeographic context	Interim Marine and Coastal Regionalisation for Australia region: Macquarie Province
Management plan	Current plan expires 25 September 2008
Other significant management documents	Management plan implementation and performance report incorporating risk assessment



Financial	Operating	\$89,000*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	14 tourist ships (5 operators) with a total of 1,200 passengers transited the reserve	
Permits	None	

<sup>\*</sup> In addition, \$725,407 was spent across the 12 marine reserves managed by the Marine Division on behalf of the Director of National Parks on professional services, development of permits and performance assessment systems, training wardens, communications, workshops and conference attendance.

International conventions and agreements		
World Heritage Convention	Macquarie Island and waters within a 12 nautical mile radius were listed as a World Heritage area in 1997	
Migratory Species (Bonn) Convention	8 of 98 listed Australian species	
China–Australia Migratory Birds Agreement	1 of 81 listed species	
Japan–Australia Migratory Birds Agreement	3 of 76 listed species	
Other agreements	International Agreement on the Conservation of Albatrosses and Petrels International Convention for the Regulation of Whaling	

<b>Environment P</b>	Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	2 endangered 9 vulnerable 4 migratory 46 marine	
	Recovery plans	4 implemented—albatross ( <i>Diomeda</i> spp. and <i>Thalassarche</i> spp.) and giant petrels ( <i>Macronectes</i> spp.); southern right whale ( <i>Eubalaena australis</i> ); subantarctic fur seal ( <i>Arctocephalus tropicalis</i> ) and southern elephant seal ( <i>Mirounga leonina</i> ); and 10 seabird species	
Listed flora	None		

Numbers of native species recorded					
Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
18	40	0	At least 158	At least 102 epibenthic species	103 marine algae

# Management arrangements

The Tasmanian Government manages Macquarie Island and its surrounding waters out to three nautical miles. The Director of National Parks is responsible for the management of the Commonwealth marine park.

The Australian Antarctic Division manages the Australian National Antarctic Research Expedition base at Macquarie Island and its operational, logistical and scientific activities. The Department of the Environment and Heritage and the Tasmanian Government have a service level agreement in relation to the cooperative management of marine protected areas including Macquarie Island.

# **Monitoring**

An agreement is in place with the Australian Antarctic Division to develop a research and monitoring strategy for Commonwealth subantarctic marine protected areas. The strategy is close to completion.

Monitoring on Macquarie Island has revealed significant increases in rodent and rabbit populations. These feral pest species have a major impact on marine wildlife species that forage in the Macquarie Island Marine Park. A feral pest eradication programme is currently being developed by the Tasmanian Government with funding assistance from the Department of the Environment and Heritage.

There is a paucity of population data on numerous key seabird species in the marine park. The Department of the Environment and Heritage funded the Tasmanian Government to undertake population monitoring during 2005 and the summer of 2006. Numerous burrowing petrel species were monitored, some of which are listed under the *Environment Protection and Biodiversity Conservation Act 1999*. This project is now at the final report stage and has shown the negative impact of rodents and rabbits on burrowing petrels. The second stage of the project will be funded in 2006–07.

The wildlife of Macquarie Island and the marine park are under threat from marine debris. The Department of the Environment and Heritage and the Tasmanian Parks and Wildlife Service have initiated an ongoing marine debris survey and collection project. Over 2005 and the summer of 2006 researchers collected, with the assistance of the Australian Antarctic Division, a large quantity of marine debris from the shoreline, recorded and monitored the rate of accumulation, and assessed the effectiveness of mitigation measures. Two incidents also occurred where fishing gear was entangled with, and successfully removed from, two living seals. The project will continue to be funded for 2006–07.





The Department of the Environment and Heritage funded the Tasmanian Government to undertake a project to determine the foraging patterns of the southern and northern giant-petrels and their ecological interactions with surrounding fisheries. The Department also funded the Bureau of Rural Sciences to undertake a risk assessment of invasion by marine pests at Macquarie Island.

# Future challenges

A major challenge is to implement the subantarctic research and monitoring strategy for marine protected areas, including Macquarie Island Marine Park. Further challenges are to continue to secure Coastwatch support and investigate other possibilities (fishing and tourism industry and government agencies) for monitoring possible illegal activities; to address the risks identified in the Bureau of Rural Sciences report on assessing risks of invasion by marine pests at Macquarie Island; and to address the risks to native species (such as seabirds) posed by feral species on the island (a Tasmanian Government responsibility).

# Report on performance by key result areas

#### **KRA1: Natural heritage management**

#### Major issues

- Detection of possible illegal fishing
- Degradation of island feeding and breeding areas within state jurisdiction

#### **Actions**

- · Develop plan for the feral pests eradication programme at Macquarie Island
- · Further understanding and protection of species and habitats
- · Develop a strategic monitoring approach for the subantarctic reserves
- · Submit taskings to Coastwatch

#### Performance results 2005-06

- · No surveillance was conducted due to higher Coastwatch priorities elsewhere
- The Tasmanian Department of Primary Industries, Water and Environment met its contractual arrangements for the development of the rabbit and rodent eradication programme on Macquarie Island
- The Natural Heritage Trust financial agreement in place for 2005–06 with the Tasmanian Department of Tourism, Parks, Heritage and the Arts covers the management of the marine park. It includes a marine debris survey and collection, determining the foraging patterns of southern and northern giant-petrels and their

- ecological interactions with fisheries, and monitoring and collection of seabird population baseline data. Marine debris and seabird population baseline data projects will continue in 2006–07 under the agreement
- Funded the Bureau of Rural Sciences to undertake a risk assessment of invasion by marine pests at Macquarie Island
- The research and monitoring strategy for subantarctic reserves is close to completion

### **KRA5: Stakeholders and partnerships**

#### Major issues

· Need for effective working relationships with partners

#### Actions

· Continue work under the service level agreement with the Tasmanian Government, focusing on Macquarie Island marine protected area

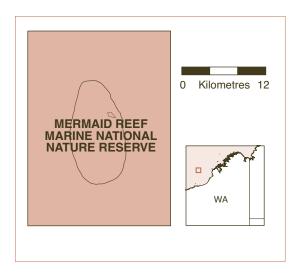
#### Performance results 2005–06

 Continued the service level agreement with the Tasmanian Government in relation to the cooperative management of marine protected areas including Macquarie Island Marine Park



# Mermaid Reef Marine National Nature Reserve

http://www.deh.gov.au/coasts/mpa/mermaid



# Special features

Mermaid Reef is the most northerly of the three reefs in the Rowley Shoals. The reef is totally submerged at high tide and therefore falls under Australian Government jurisdiction.

Clerke Reef and Imperieuse Reef, the two southerly reefs, have permanent sand cays above the high water mark. Together they were incorporated into the Rowley Shoals Marine Park, declared under Western Australian legislation on 25 May 1990.

The three reefs of the Rowley Shoals are the most morphologically perfect examples of shelf-edge reefs occurring in Australian waters. Each reef includes spectacular and unusual underwater topography and life forms that have attracted international recreational divers.

Approximately 233 species of coral and 688 species of fish inhabit the shoals, including many species not found on near-shore coral reefs. The coral and fish communities of the Rowley Shoals are unique in their relative abundance of species.

Location	Latitude 17°06′ South, Longitude 119°38′ East
Area	53,987 hectares
Proclamation date	10 April 1991
IUCN category	Category la
Biogeographic context	Interim Marine and Coastal Regionalisation for Australia region: Oceanic Shoals
Management plan	Current plan expires 16 May 2007
Other significant management documents	1999 Memorandum of Understanding with Western Australian Department of Fisheries and Western Australian Department of Conservation and Land Management; management plan implementation and performance report, incorporating risk assessment

Financial	Operating	\$79,383 *
	Capital	Not applicable
	Revenue	Not applicable
Visitors	Approximately 127	
Permits	8 commercial tour operator permits	

<sup>\*</sup> In addition, \$725,407 was spent across the 12 marine reserves managed by the Marine Division on behalf of the Director of National Parks on professional services, development of permits and performance assessment systems, training wardens, communications, workshops and conference attendance.

International conventions and agreements		
Migratory Species (Bonn) Convention	12 of 98 Australian listed species	
China–Australia Migratory Birds Agreement	13 of 81 listed species	
Japan–Australia Migratory Birds Agreement	8 of 76 listed species	

Environment Protection and Biodiversity Conservation Act 1999			
Listed fauna	Species	2 endangered 7 vulnerable 13 migratory 48 marine	
	Recovery plans	3 being implemented—great white shark ( <i>Carcharodon carcharias</i> ), marine turtles and humpback whale ( <i>Megaptera novaeangliae</i> )	
Listed flora	None		
Heritage	On Commonwealth Heritage List (part of reserve only)		

Numbers of native species recorded					
Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
13	19	18	688	>558	No land plants

# Management arrangements

The Mermaid Reef Marine National Nature Reserve is managed under a service level agreement between the Director of National Parks, the Western Australian Department of Conservation and Land Management and the Western Australian Department of Fisheries. These agencies cooperate in issuing permits for commercial tours of the Rowley Shoals. Coastwatch provided regular aerial surveillance of the reserve.

The current management plan expires on 16 May 2007. A review of the plan is under way and a new draft plan for public comment is being prepared.

### **Monitoring**

The Australian Institute of Marine Science has undertaken regular monitoring at Mermaid Reef for the past 10 years. The Department of the Environment and Heritage funded the institute to review this work. The review is scheduled for completion in July 2006. The review will inform the development of a strategic long-term monitoring programme, and management planning and evaluation.

Monitoring to date has shown that the major threats to Mermaid Reef are from climatic disturbances such as cyclones and coral bleaching. The coral and fish communities have shown excellent resilience to physical disturbance from cyclones to date. During the last visit by the Australian Institute of Marine Science to Mermaid Reef in May 2005 a moderate bleaching event was under way, and recovery will be monitored.

Baseline monitoring of undisturbed trochus shell populations at Mermaid Reef was undertaken by the Western Australian Department of Fisheries in March 2006 to enable future comparisons with populations illegally fished elsewhere. An Australian Institute of Marine Science 2005 report on surveys conducted in 2003 found that shark populations at Mermaid Reef were very healthy, with up to 17 times the number of individuals at Scott Reef, located 450 kilometres to the north-east and targeted by illegal commercial shark fin fishers. Nevertheless, there is concern among reserve users that illegal shark fishers may target Mermaid Reef.

# Future challenges

Major management challenges are to install moorings at Mermaid Reef; investigate anecdotal reports of illegal foreign commercial fishing targeting shark fin and determine the appropriate managerial response; incorporate the results of the current management plan review into the second management plan due in 2007; and ensure the reserve's conservation values and management arrangements are understood by visitors.

# Report on performance by key result areas

#### **KRA 1: Natural heritage management**

#### Major issues

- · Preventing anchor damage
- Monitoring reserve health
- · Monitoring and compliance issues related to illegal foreign fishing

#### **Actions**

- Produce a draft mooring and anchoring strategy for the Rowley Shoals in cooperation with Western Australian Department of Conservation and Land Management
- · Review past 10 years of monitoring effort to inform more strategic reef monitoring

#### *Performance results 2005–06*

- · Continued to investigate mooring design and location
- Commenced review of monitoring work by the Australian Institute of Marine Science
- · Coastwatch reported no illegal foreign fishing incursions

#### **KRA4: Visitor management and park use**

#### Major issues

- · Need for visitors to understand reserve values and uses
- · Determining appropriate scale and types of visitation

#### **Actions**

· Complete first survey of visitors to Mermaid Reef

#### Performance results 2005–06

- · Visitor survey showed a good level of awareness of reserve rules and high levels of visitor satisfaction, based on a small sample size
- Began work with Western Australian Department of Conservation and Land Management on a joint Rowley Shoals communication strategy
- Began research and consultation on appropriate vessel size, passenger limitations and issues related to seaplane access to the reserve



## **KRA5: Stakeholders and partnerships**

### Major issues

- · Management planning for new management plan to take effect in 2007
- Effective management of the reserve by the management service provider (Western Australian Department of Conservation and Land Management)
- · Industry stewardship of reserve to support management

#### Actions

- · Hold Rowley Shoals Steering Committee meeting
- · Hold management issues workshop
- · Produce and distribute 'Have Your Say' brochure to encourage community input to management planning

#### Performance results 2005–06

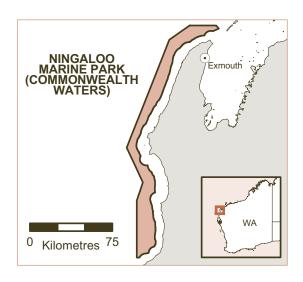
- Negotiated the terms of the first annual business agreement setting out joint funding arrangements with Western Australian Department of Conservation and Land Management for implementation in 2006–07
- · Licensed tour operators are working to develop an industry stewardship strategy for the Rowley Shoals to support reserve management efforts by governments
- Received 19 submissions from stakeholders in response to initial invitation to comment on the proposal to develop a new management plan for Mermaid Reef
- · Began drafting new management plan



6

# Ningaloo Marine Park (Commonwealth Waters)

http://www.deh.gov.au/coasts/mpa/ningaloo



# Special features

The Ningaloo Reef is unique because, unlike the Great Barrier Reef and other reefs off the northern coast of Australia, it is not separated from the coast by a wide expanse of water. In places it is as close as 20 metres to the coastline. The park is also unique because it is a tropical reef system projecting out from an arid part of the continental land mass.

Ningaloo Marine Park is made up of state waters, extending from the

Western Australian coastline out to three nautical miles, and Commonwealth waters from the limit of the state jurisdiction out to the seaward boundary of Ningaloo Marine Park. The park protects the whole of the deep-water environment fringing the reef, including the open waters and the seabeds of the continental slope and shelf. The reef is extremely variable, with the range of coral cover and species changing within short distances. A pilot study (CSIRO 2004) of three locations in Ningaloo Marine Park found commercially and recreationally important fish species occurring in the deeper Commonwealth waters and that fish diversity was associated with habitats of greater structural complexity. It seems highly likely that other notable benthic (seabed) communities exist in Commonwealth waters.

The reef is also an important area for marine mammals, particularly whales. Green turtles (*Chelonia mydas*) are very common all along the coast, with several breeding rookeries. Of particular interest is the presence of the whale shark (*Rhincodon typus*) the world's biggest fish species.





Location	Latitude 21°51′ South, Longitude 113°52′ East		
Area	243,559 hectares		
Proclamation dates	20 May 1987, 5 August 1992, 6 April 2004		
IUCN category	Category II		
Biogeographic context	Interim Marine and Coastal Regionalisation for Australia region: Ningalo		
Management plan	Current plan expires 2 July 2009		
Other significant management documents	Service level agreement and Memorandum of Understanding between the Department of the Environment and Heritage, Western Australian Department of Fisheries and Western Australian Department of Conservation and Land Management; annual business agreements for management plan implementation and performance reporting, incorporating risk assessment		
Financial	Operating	\$178,234*	
	Capital	Not applicable	
	Revenue	Not applicable	
Visitors	Not available		
Permits	11 commercial tour permits, 2 scientific research permits		

<sup>\*</sup> In addition, \$725,407 was spent across the 12 marine reserves managed by the Marine Division on behalf of the Director of National Parks on professional services, development of permits and performance assessment systems, training wardens, communications, workshops and conference attendance.

International conventions and agreements		
Migratory Species (Bonn) Convention 12 of 98 listed Australian spe		
China–Australia Migratory Birds Agreement	9 of 81 listed species	
Japan–Australia Migratory Birds Agreement	9 of 76 listed species	

Environment Protection and Biodiversity Conservation Act 1999			
Listed fauna	Species	4 endangered	
		12 vulnerable	
		17 migratory	
		59 marine	
	Recovery plans	1 implemented—great white shark (Carcharodon carcharias)	
Listed flora	None		
Heritage	On Commonwealth Heritage List		

Numbers of native species recorded			
Mammals	Birds	Reptiles	Plants
20	34+	18+	0

# Management arrangements

The Western Australian Department of Conservation and Land Management and Western Australian Department of Fisheries conduct on-ground management of the reserve under a three-way service level agreement between the Western Australian agencies and the Director of National Parks.

# **Monitoring**

The Australian Institute of Marine Science, in a consortium with Australian and United States research organisations, continued a project begun in 2004–05 using satellite tracking tags to collate data on the range and behaviour of whale shark individuals from the Commonwealth and state waters of Ningaloo Marine Park (see case study on page 176).

CSIRO conducted further baseline biodiversity surveys in the north of the park. The results are due late in 2006.

A desktop survey of commercial shipping impacts on the key values of the park was completed. The study provided useful data and made recommendations on risk management.

# Future challenges

Major environmental challenges are to ensure compliance with park management prescriptions; achieve adequate habitat mapping; continue monitoring the reserve's health; investigate the feasibility of establishing sanctuary zones in Commonwealth waters; and maintain consistency between the Australian and state government planning processes. An administrative challenge for 2006–07 is to begin developing the fourth management plan to replace the current plan that will expire in 2009.



# Report on performance by key result areas

#### **KRA1: Natural heritage management**

#### Major issues

- Limited baseline information about Commonwealth waters of the park, in particular information to inform the decision on the possible establishment of sanctuary zones in Commonwealth waters
- Lack of information on distribution, migration, behaviour and abundance of key species including whale sharks
- Lack of information on effects of human and commercial interactions on key attributes of the park

#### **Actions**

- · Conduct baseline biodiversity surveys of the Commonwealth waters of the park; and of the whale shark in Ningaloo Marine Park
- · Assess the vulnerability of key park values to commercial shipping traffic

#### Performance results 2005–06

- Department of the Environment and Heritage and CSIRO conducted a second survey in the north of the park to follow pilot baseline studies (CSIRO 2004) of the park's benthos
- · In cooperation with Australian and United States research organisations the Department of the Environment and Heritage contracted the Australian Institute of Marine Science to conduct a whale shark tagging project to study the behaviour and migration habits of whale sharks travelling to Ningaloo Marine Park
- · Conducted a desktop survey of risks from commercial shipping to key biodiversity attributes of the park

### KRA4: Visitor management and park use

#### Major issues

- Longlines from commercial fishing operations that are allowed in state waters but not in Commonwealth waters are reported by the commercial fishing industry to drift occasionally into the park requiring entry from commercial fishers to retrieve gear
- · Reports of commercial fishers entering Commonwealth waters and fishing
- Effective management of commercial tours

#### Actions

- · Monitor reports of gear loss and retrieval by commercial fishers
- · Monitor illegal entry to Commonwealth waters via Coastwatch surveillance
- · Ensure commercial tour operators comply with permits and conditions

#### Performance results 2005-06

- Liaised with industry and Western Australian Department of Fisheries about reported gear loss and commercial fishing boat entry
- · Contributed to review of compliance and enforcement procedures
- · Issued permits for commercial tour operators
- Updated and distributed a brochure informing commercial fishers and commercial tour operators of management arrangements
- Officers of Western Australian Department of Fisheries and Western Australian
   Department of Conservation and Land Management patrolled the reserve regularly as part of their normal surveillance operations
- · Coastwatch conducted aerial surveillance
- Department of the Environment and Heritage and Western Australian Department of Fisheries held a joint compliance and enforcement exercise

# **KRA5: Stakeholders and partnerships**

#### Major issues

- · Need to maintain productive relationships with partners
- Need to negotiate complementary management regimes between the Department of the Environment and Heritage, the Western Australian Department of Fisheries and the Western Australian Department of Conservation and Land Management to best manage the adjoining Commonwealth and state reserves

#### Actions

- Ensure that the Department of the Environment and Heritage, Western Australian Department of Fisheries and the Western Australian Department of Conservation and Land Management develop and implement a work plan under the annual business agreement to manage both reserves
- · Keep stakeholders informed of and involved in management activities

#### *Performance results 2005–06*

· The three agencies negotiated and implemented a work plan



#### **KRA6: Business management**

### Major issues

· Need to effectively manage contracts with service providers

#### **Actions**

- Negotiate and implement annual business agreements with Western Australian Department of Conservation and Land Management and Western Australian Department of Fisheries
- Continue management of the Australian Institute of Marine Science whale shark tagging project
- · Contract consultants to conduct risks from commercial shipping desktop survey

#### Performance results 2005–06

- The three agencies negotiated and implemented an annual business agreement covering research, visitor management, education, and compliance and enforcement
- Continued a research project begun in 2004 into the migration and behaviour of whale sharks in the Commonwealth waters of the park
- Desktop survey of risks from commercial shipping to the key values of the Ningaloo Marine Park (Commonwealth Waters) conducted and report accepted



# Whale shark tagging research project



AIMS researchers about to tag a large whale shark

The whale shark (*Rhincodon typus*), the world's largest fish, is a migratory species whose global population status is listed as 'vulnerable' by the World Conservation Union. It is protected under the *Environment Protection and Biodiversity Conservation Act 1999*.

An Australian–United States research project is studying whale sharks as they travel through Ningaloo Marine Park to gather at Ningaloo Reef.

Individual whale sharks are tagged in Commonwealth and state waters and followed using new satellite tracking technology. Researchers aim to find out more about whale shark movements; whether they drift on ocean currents or move strategically between feeding areas, how their populations are linked across the world's tropical and warm temperate seas, and how regularly they visit Australian waters. Overall the project will identify the migratory range and behavioural habits of the species, the significance of deep water habitats, and the importance of Ningaloo Marine Park for whale sharks.

Information is logged on an individual's location, swimming depth and water temperature at one-minute intervals. The tags transmit summary data at six-hourly intervals via polar orbiting satellites fitted with receivers. Tags are expected to have an 18-month lifespan. The tagging operation is carried out under an animal ethics permit, and causes little or no reaction from the sharks.

Scientists tagged 30 animals in 2006. The tagged whale sharks range in size from four to eight metres.

Most of the 30 animals headed on a northward track towards Indonesia, while one remained near Ningaloo and another just south of Java. One tag ceased transmitting on a beach in Indonesia where it was presumed the shark was caught by local people. The data show that the fish are quite active, diving up to one kilometre to cold depths, probably to feed in channels that may attract plankton or small schooling fish and squid.



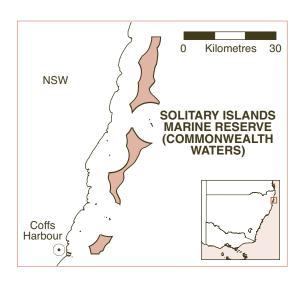


Improved knowledge of the whale sharks' movement patterns will form the basis of better management and help the development of conservation plans for this species in Australia. The data will also help scientists assess the likely impacts on whale sharks of overseas fisheries.

This is a cooperative project between Australian organisations—the Australian Institute of Marine Science, CSIRO, the Western Australian Department of Conservation and Land Management, the Department of the Environment and Heritage and Woodside Australia—and, in the United States, the National Oceanic and Atmospheric Administration and Hubbs-SeaWorld Research Institute. The Department of the Environment and Heritage is contributing \$55,000 over two years to the project.

# Solitary Islands Marine Reserve (Commonwealth Waters)

http://www.deh.gov.au/coasts/mpa/solitary



# Special features

The Solitary Islands Marine Reserve is located in a mixing zone between tropical and temperate environments. Many species in the reserve are at, or close to, their southern and northern geographical extents.

The reserve is home to a number of species that are listed as endangered or vulnerable under Commonwealth legislation or international agreements. These include numerous types of dolphins, humpback whales (*Megaptera* 

novaengliae), grey nurse sharks (*Charcharius taurus*), black cod (*Ephinephilus daemelii*), Bleekers devil fish (*Paraplesiops bleekeri*), and numerous types of seabirds. An area known as Pimpernel Rock forms part of the critical habitat for the grey nurse shark which aggregates there.

The reserve and the adjacent state park were listed on the Register of the National Estate in 1995. Values noted on the register include outstanding marine biodiversity; mixture of communities; diversity of coral, algal and fish species; abundance of various species of anemone and clownfish (*Amphiprion latezonatus*); little penguin (*Eudyptula minor*) and muttonbird (*Puffinus*) species; and overall diversity and beauty.

Location	Latitude 29°48′ South, Longitude 153°22′ East
Area	15,746 hectares
Proclamation date	3 March 1993
IUCN category	Category VI overall:
	Category Ia 80 hectares
	Category IV 3,700 hectares
	Category VI 11,900 hectares
Biogeographic context	Interim Marine and Coastal Regionalisation for Australia region: Manning Shelf





Management plan	Current plan expires 3 April 2008	
Other significant management documents	Service level agreement with NSW; annual business agreements; management plan implementation and performance report, incorporating risk assessment	
Financial	Operating \$89,610*  Capital Not applicable  Revenue Not applicable	
Visitors	Not known	
Permits	12 commercial fishing permits; 11 commercial tour operator permits; 6 recreational diving permits	

<sup>\*</sup> In addition, \$725,407 was spent across the 12 marine reserves managed by the Marine Division on behalf of the Director of National Parks on professional services, development of permits and performance assessment systems, training wardens, communications, workshops and conference attendance.

International conventions and agreements		
Migratory Species (Bonn) Convention	14 of 98 listed Australian species	
China–Australia Migratory Birds Agreement	9 of 81 listed species	
Japan–Australia Migratory Birds Agreement	11 of 76 listed species	

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	4 endangered 4 vulnerable 24 migratory 33 marine
	Recovery plans	2 being implemented—marine turtles and grey nurse sharks (Carcharias taurus)
Listed flora	None	

Numbers of native species recorded			
Mammals	Birds	Reptiles	Plants
25	42	7	0

# Management arrangements

The New South Wales Marine Parks Authority conducts on-water management of the reserve under a service level agreement.

The Solitary Islands Marine Park Steering Committee comprises government agency representatives and oversees management and planning arrangements. The Solitary Islands Marine Park Advisory Committee provides a forum for stakeholders to

contribute to planning for the adjacent state park and the reserve. The Department of the Environment and Heritage is represented on both committees.

## **Monitoring**

The New South Wales Marine Parks Authority and CSIRO continue to monitor movements of grey nurse sharks between aggregation sites, including Pimpernel Rock in the reserve. The New South Wales Marine Parks Authority continues to remove and monitor debris at Pimpernel Rock.

A draft final report on a biophysical survey of the reserve, including the habitat surrounding Pimpernel Rock, was received. It identified 16 different benthic environments—10 sand, one gravel and the rest reef. The reef areas were predominant in the northern section of the reserve with sand prevalent in the southern and central regions.

# Future challenges

Future challenges are to implement a structured biological monitoring programme and to monitor for possible illegal activities in the area.

# Report on performance by key result areas

#### **KRA1: Natural heritage management**

#### Major issues

Detection of any illegal activity

#### **Actions**

· Enforce fishing restrictions

#### Performance results 2005–06

- · Coastwatch conducted regular aerial surveillance
- New South Wales Marine Parks Authority provided surface support to Coastwatch surveillance and conducted surface patrols as required



#### KRA4: Visitor management and park use

#### Major issues

· Managing impacts of diving in sanctuary zone

#### **Actions**

· Manage dive operations via permit conditions

#### Performance results 2005-06

· Issued six recreational diving permits. No infringements of conditions detected

#### **KRA5: Stakeholders and partnerships**

#### Major issues

· Ongoing engagement with community and government representatives

#### Actions

 Participate in Solitary Islands Marine Park Advisory Committee and Solitary Islands Marine Park Steering Committee meetings

#### Performance results 2005–06

· Participated in advisory and steering committee meetings

#### **KRA6: Business management**

#### Major issues

· Continued assistance from New South Wales Marine Parks Authority

#### **Actions**

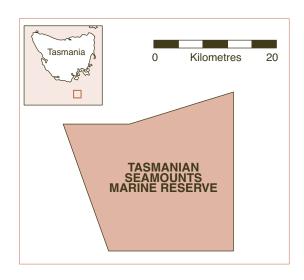
• Endorse and manage annual business agreement with New South Wales Marine Parks Authority

#### Performance results 2005–06

· Successfully implemented annual business agreement

# Tasmanian Seamounts Marine Reserve

http://www.deh.gov.au/coasts/mpa/seamounts



# Special features

The Tasmanian Seamounts Marine
Reserve covers 15 of the approximately
70 seamounts that arise from water
depths of between 1,000 and 2,000
metres on the continental slope off
southern Tasmania. Remnants of
extinct volcanoes, these seamounts are
typically cone-shaped, between 200 and
500 metres high, and several kilometres
across at their base.

This field of seamounts is a distinctive geological feature not known elsewhere

in Australia. It supports a distinct benthic (seabed) community of animals, many of which are native to the Tasmanian seamounts and do not occur anywhere else on earth. The primary purpose of the reserve is to protect a sample of this unique benthic community.

Research has found that 24 to 43 per cent of species in the reserve are new to science. At least eight new genera have been discovered.

Location	Latitude 44°24′ South, Longitude 147°18′ East
Area	38,897 hectares
Proclamation date	19 May 1999
IUCN category	Category la overall
	Below a depth of 500 metres is a highly protected zone (Category Ia)
	Upper 500 metres is a managed resource zone (Category VI)
Biogeographic context	Cold temperate waters offshore from the Tasmanian (Demersal) Province and the Southern Pelagic Province
Management plan	Current plan expires 25 June 2009
Other significant management documents	Management plan implementation and performance report, incorporating risk assessment





Financial	Operating	\$13,500*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	None	
Permits	None	

<sup>\*</sup> In addition \$725,407 was spent across the 12 marine reserves managed by the Marine Division on behalf of the Director of National Parks on professional services, development of permits and performance assessment systems, training wardens, communications, workshops and conference attendance.

International conventions and agreements	
Migratory Species (Bonn) Convention	12 of the 98 listed Australian species
Japan–Australia Migratory Birds Agreement	1 of the 76 listed species
Other agreements	Agreement on the Conservation of Albatrosses and Petrels
	International Convention for the Regulation of Whaling

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	7 endangered 15 vulnerable 24 migratory 21 marine
	Recovery plans	4 being implemented—albatross ( <i>Diomeda</i> spp. and <i>Thalassarche</i> spp.) and giant petrels ( <i>Macronectes</i> spp.); marine turtles; 10 seabird species; and southern right whale ( <i>Eubalaena australis</i> )
Listed flora	None	

Numbers of native species recorded					
Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
At least 25	At least 21	At least 1	37	242	Not fully known

## Management arrangements

The Department of the Environment and Heritage and the Tasmanian Government have developed a service level agreement in relation to the cooperative management of marine protected areas including the Tasmanian Seamounts Marine Reserve.

# **Monitoring**

Coastwatch provided five aerial surveillance flights of the reserve.

# Future challenges

Major challenges are to finalise and implement the strategic research and monitoring plan for the Australian Government's existing and proposed temperate marine protected areas, including the Tasmanian Seamounts Marine Reserve; and to further develop and implement a compliance and enforcement plan for the reserve, including monitoring possible illegal activities particularly fishing.

# Report on performance by key result areas

#### **KRA1: Natural heritage management**

#### Major issues

- Possible illegal fishing by commercial fishers
- · Need to improve understanding of reserve's ecological processes

#### **Actions**

- · Enforce fishing restrictions
- · Develop and implement the research and monitoring plan

#### Performance results 2005–06

- Requested regular Coastwatch aerial surveillance. Surveillance provided occasionally, due to Coastwatch resource constraints
- · No illegal fishing incidents detected
- · Progressed work on the strategic research and monitoring plan for temperate marine protected areas, including the Tasmanian Seamounts Marine Reserve



# KRA4: Visitor management and park use

## Major issues

· Monitoring possible illegal activities, particularly fishing

#### **Actions**

· Minimise risk of accidental or deliberate encroachment on the reserve by trawling vessels

### Performance results 2005–06

· Conducted periodic surveillance

# Marine protected area network reinforces Australia's global reputation

The announcement in early 2006 of a comprehensive network of marine protected areas off Australia's south-east has reinforced our national reputation as a world leader in marine environmental protection and biodiversity conservation.

The network comprises 13 marine protected areas over a total of 226,000 square kilometres—an area almost as big as the state of Victoria.

Declaration of the network will ensure protection of a stunning undersea world of deep canyons, seamounts and other geological features that support ecosystems in which up to 80 per cent of species are found nowhere else on earth.

A number of refinements to boundaries and zonings agreed during the consultation period resulted in an increase in the size of the network while reducing the impact of the network on commercial fishing.

It is expected the marine protected area network will be formally declared under the *Environment Protection and Biodiversity Conservation Act 1999* during 2006–07.

Design of the network began with the development of the South-east Regional Marine Plan. The plan was released in May 2004 and contained two candidate marine protected areas—the Murray and Zeehan. These two areas remain part of the network announced earlier this year.

The establishment of the network helps fulfil the Australian Government's commitment at the 2002 World Summit on Sustainable Development to establish a representative system of marine protected areas within its jurisdiction by 2012. The national system is designed to include samples of all Australia's marine ecosystems in protected areas and to manage those areas for the primary purpose of conserving biodiversity.

In 2005, the Australian Government announced a new approach to marine planning, bringing the programme under the *Environment Protection and Biodiversity Conservation Act 1999*. This change will see Marine Bioregional Plans developed in all Australian marine regions.

The Department of the Environment and Heritage is now developing Marine Bioregional Plans in the remaining four Australian marine regions—the Southwest, North-west, North and East. Networks of marine protected areas will be developed in each of these regions as part of these Marine Bioregional Plans.

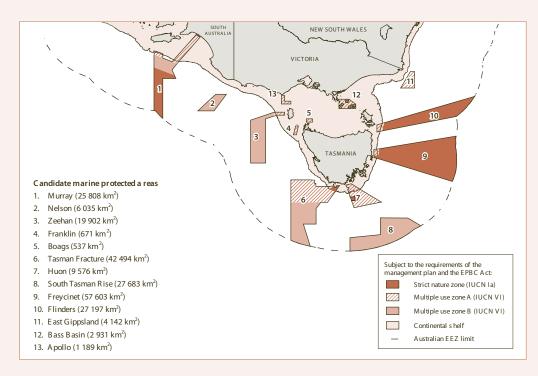


The starting point in the marine protected area development process in Australia's south-east was the scientific identification of 11 broad areas of interest based on seafloor mapping and a bioregionalisation provided by the CSIRO and Geoscience Australia.

This work revealed the location of previously unknown undersea structures such as canyons, trenches, seamounts, plateaus and terraces. Scientists mapped the upper continental shelf and the steep continental slope that plunges to the deep seas abyssal plain, which in some places is at depths of 6,000 metres below the surface.

Scientists developed guidelines to help identify the features and bioregions that needed to be included in marine protected areas in or around the broad areas of interest. Marine stakeholders contributed to the guidelines. The key objective was to establish marine protected areas with simple boundaries and consistent zoning arrangements that protect a representative sample of the key conservation features and bioregions. Where possible, overlap with prime fishing grounds and prospective areas for oil and gas development was avoided.

Figure 6: Candidate marine protected areas in the South-east Marine Region



A scientific reference panel advised on the information to be used in designing the marine protected areas; and a scientific peer review panel advised the Government on the extent to which the network achieves biodiversity conservation objectives. The peer review panel identified the strengths and weaknesses in the network and concluded that it was a 'significant and important step towards a comprehensive, adequate and representative system of marine protected areas and represents a major advance in biodiversity conservation in the South-east Region.'

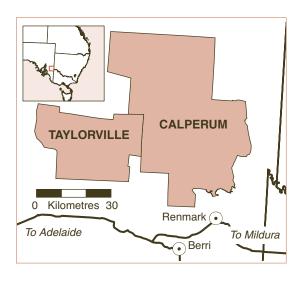
#### South-east Marine Region protected area network facts and figures

- · Covers 226,000 square kilometres
- · Comprises 13 marine protected areas
- · Includes almost 20 per cent of the South-east Marine Region
- Brings Australia's share of the world's marine protected area estate to
   30 per cent
- · Protects 7.2 per cent of the continental shelf
- · Protects 27 per cent of the continental slope
- · Protects 17 per cent of the deep ocean plain
- · Is managed primarily for biodiversity conservation
- 43 per cent is strict nature reserve—no commercial activity or extraction is allowed
- · A further 36 per cent is closed to commercial fishing
- 21 per cent is multiple use—low-impact fishing methods and other activities are permitted



# Calperum and Taylorville Stations

http://www.deh.gov.au/parks/biosphere/riverland



# Special features

Calperum and Taylorville Stations are adjacent pastoral leases in the Riverland area of South Australia. Both properties are key components of the Riverland (formerly Bookmark) Biosphere Reserve, which has a total area of 900,000 hectares. The Riverland Biosphere Reserve forms part of the UNESCO Man and the Biosphere Programme, which comprises areas chosen as representative of the world's biodiversity.

Calperum and Taylorville are important locally, nationally and internationally because of their wetlands and related species, their mallee vegetation, and the presence of several threatened bird species. The properties form key habitat for the endangered black-eared miner (*Manorina melanotis*) and are also important for the vulnerable malleefowl (*Leipoa ocellata*).

While biodiversity conservation guides the management of both properties, each has different management objectives. The development of Calperum as a model for environmentally sustainable development, including tourism, is an explicit environmental objective. In contrast, Taylorville is managed primarily for conservation of long-unburnt mallee and its dependent species.

Location	Latitude 33°49′ South, Longitude 140°34′ East (Calperum)
	Latitude 33°56′ South, Longitude 140°11′ East (Taylorville)
Area	331,238 hectares combined area:
	Calperum 238,638 hectares, Taylorville 92,600 hectares
Status	Pastoral leases in South Australia, owned by the Australian Government through the Director of National Parks (Calperum acquired in 1993, Taylorville acquired in 2000)
IUCN category	Calperum not applicable Taylorville Category IV
Biogeographic context	Interim Biogeographic Regionalisation for Australia region: Murray–Darling Depression

Management plan	Non-statutory management plan covering both properties finalised in February 2005 (tied to length of management contract)	
Other significant management documents	Management contract with Austland Services Pty Ltd expires 30 June 2008 Biosphere Reserves Seville Strategy and statutory framework	
Financial	Operating*	\$4.800 million
	Capital	\$0.106 million
	Revenue	\$0.089 million
Visitors	294 day visitors, 673 bed-nights in camping grounds, dormitories and other accommodation	

<sup>\*</sup> This is funding provided by the Director of National Parks. Austland Services provides at least matching resources.

International conventions and agreements		
Wetlands (Ramsar) Convention	Part of Calperum included in Riverland Ramsar site	
Migratory Species (Bonn) Convention	8 of 98 listed Australian species	
China–Australia Migratory Birds Agreement	10 of 81 listed species	
Japan–Australia Migratory Birds Agreement	10 of 76 listed species	
Other international agreements	Major component of the Riverland Biosphere Reserve under the UNESCO Man and the Biosphere Programme	

Environment Protection and Biodiversity Conservation Act 1999				
Listed fauna	Species	1 endangered 6 vulnerable 12 migratory 47 marine (birds)		
	Recovery plans	2 being implemented—malleefowl ( <i>Leipoa ocellata</i> ); black-eared miner ( <i>Manorina melanotis</i> )		
Listed flora	Species	None		
Heritage	On Commonwealth Heritage List			
Other	Taylorville and majo	ority of Calperum listed as critical habitat for the black-eared miner		

Numbers of native species recorded					
Mammals	Birds	Reptiles	Amphibians	Fish	Plants
25	188	68	10	12	>300

# Management arrangements

Calperum and Taylorville Stations are managed by Austland Services Pty Ltd (a company established by the Australian Landscape Trust) under contract to the Director of National Parks. The current management contract runs from 1 May 2003 to 30 June 2008. The contract is funded through the Natural Heritage Trust. Austland Services provides an equivalent level of support for management.

## **Monitoring**

Significant monitoring programmes track the physical and biological attributes of both stations. Annual biological surveys in 2005–06 covered vertebrate pitfalls, vegetation photopoints, malleefowl mound activity, black-eared miners, stone curlews (*Burhinus grallarius*), waterbirds, fish, possums, frogs and nestboxes. Feral animal monitoring focused on foxes.

Monthly rainfall data are collected from 25 rain gauges across the two stations, and a network of groundwater test wells is being developed to monitor groundwater quality beneath the floodplain and wetlands of Calperum Station.

# Future challenges

Identifying and implementing environmentally sustainable industries on Calperum Station remains an ongoing objective. Developing an appropriate management approach for Calperum Station's wetlands that can respond to changing conditions is a major challenge. A priority is to protect areas of mature mallee on Taylorville and Calperum from fire and other potentially threatening impacts such as bird poaching. These areas provide critical habitat for threatened species.

# Report on performance by key result areas

#### **KRA1: Natural heritage management**

#### Major issues

- Rehabilitation and conservation of native vegetation communities and endemic biodiversity
- · Feral animal and weed control
- · Fauna conservation and management
- · Floodplain management
- · Fire management

#### **Actions**

- · Rationalise watering points
- Develop recovery plan for maintenance in captivity of Murray River snail (*Notopala sublineata hanleyi*)
- · Investigate and monitor saline groundwater
- · Review fire management strategies and infrastructure
- · Restore and revegetate wetlands
- · Implement feral animal control programmes concentrating on pigs, goats, foxes and rabbits
- Monitor native animal populations
- · Contribute to recovery programmes for threatened birds

#### Performance results 2005-06

- Reviewed water storage and supply infrastructure on Calperum Station and decommissioned several non-essential water tanks
- Maintained colonies of the Murray River snail—regarded as extinct in its natural habitat—in secure artificial habitats. One population being maintained in an artificial habitat located within a natural watercourse was observed to increase dramatically during elevated river flow levels in spring 2005 and this may have led to dispersal into the river system
- Commenced installation of test wells to monitor groundwater in wetlands and floodplains
- · Completed wetting and drying cycle of Lake Woolpoolool and Lake Merreti
- Undertook environmental watering of drought stressed riparian vegetation at Double Thookle Lagoon
- Conducted photopoint monitoring and floral surveys of partially drip-irrigated revegetation exclosures
- · Partnered a Green Corps project, providing training in nursery practices and procedures for producing plants for revegetation
- · Reviewed fire management strategies and upgraded selected water storage infrastructure
- Reviewed the fire-track network on Calperum Station, and conducted track maintenance and upgrading as required
- · Continued and enhanced feral animal control programmes for pigs, goats, foxes and rabbits
- Initiated discussions on developing a regionally coordinated fox baiting programme



- · Continued volunteer involvement in mapping and controlling significant weeds
- Continued and expanded native animal population monitoring, including expanding mallee fowl monitoring grids
- Supported the black-eared miner recovery programme, including moving birds to alternative habitat
- Participated in developing recovery plans for other mallee birds and animals of conservation concern

#### **KRA2: Cultural heritage management**

#### Major issues

· Protection and conservation of Indigenous and non-Indigenous heritage

#### **Actions**

· Protect, conserve and encourage recognition of heritage

#### Performance results 2005–06

- · Continued to monitor, protect and revegetate identified Indigenous heritage sites
- Conducted workshop for staff and community volunteers on identifying and protecting Indigenous heritage sites
- · Initiated discussions on hosting a trial Indigenous eco-tourism training programme for local Indigenous secondary school students
- · Continued to protect and maintain iconic structures recalling the previous pastoral industry

#### **KRA4: Visitor management and reserve use**

#### Major issues

- Provision of quality visitor services that are compatible with conservation objectives, visitor safety and management requirements
- · Need to communicate the values of Calperum and Taylorville Stations
- · Conducting relevant research to support management objectives
- Conducting commercial activities that achieve ecologically sustainable use of natural resources and provide financial benefits for use in the protection and/or rehabilitation of natural and cultural assets of the properties, and as models for the region

#### **Actions**

· Manage, provide information for, monitor and review day-to-day recreational use

- Develop, maintain and promote education programmes for a range of audiences, using the resources at Calperum and Taylorville Stations and the McCormick Centre for the Environment
- · Continue current research programmes, develop further research programmes as needed and manage research data
- · Review use of the irrigated horticultural site and plant nursery
- Pursue the assessment and development of suitable ecologically sustainable industries and activities
- · Review how efficiently available water resources are used

#### Performance results 2005–06

- · Managed visitors satisfactorily, including developing closer working relationships with local eco-tourism ventures, notably members of the Bookmark Guides group
- Educational programmes for primary and secondary school children, including a school holiday programme, were developed and delivered at the McCormick Centre for the Environment in Renmark which is partly funded through the Natural Heritage Trust
- · Four Australian university research students (two PhD and two honours candidates) conducted biological research on Calperum Station
- · A Masters degree student from Yale University (USA) conducted a study into the dynamics of volunteerism at Calperum Station
- · A community-based study of the life histories of two poorly known bush cockroach species began under the auspices of the University of Sydney
- Explored potential economic uses of the horticulture site. No robust business opportunity for its further development was identified. Some potential to use the infrastructure to supply material for regional revegetation projects on a noncommercial basis was noted
- · Re-allocated 30 megalitres of water from Calperum Station's irrigation licence to environmental watering

#### **KRA5: Stakeholders and partnerships**

#### Major issues

- · Promotion of the Man and the Biosphere Programme
- · Involvement of the community in land management
- · Support and recognition of volunteers
- · Fostering long-term capacity for sustainable development in the community



#### Actions

- Promote and disseminate information that assists in achieving the goals of the Man and the Biosphere Programme
- · Promote, support and oversee extensive volunteer involvement
- Develop a system for consistent recording of volunteer hours
- · Participate in the Riverland Biosphere Community Committee

#### Performance results 2005-06

- The McCormick Centre for the Environment developed as a focal point for meetings and information dissemination on issues relevant to the Man and the Biosphere Programme. Events held at the centre ranged from a meeting of the Youth Environment Council of South Australia to a regional ABARE (Australian Bureau of Agriculture and Resource Economics) conference
- 123 registered individual volunteers, and numerous volunteer groups and organisations donated approximately10,000 hours of labour including weed and feral animal control, infrastructure maintenance and development, and wildlife monitoring. In doing so, they drove approximately 39,000 kilometres in their own vehicles
- Developed a new database to record and analyse volunteer contributions to management of the properties
- Hosted a dinner for 105 volunteers and supporters to recognise volunteer contributions
- Two volunteers passed the 1,000 hour mark for total time contributed over several years, and three volunteers passed 1,500 hours
- · Parks Australia representatives participated in six biosphere committee meetings

#### **KRA6: Business management**

#### Major issues

- · Property maintenance
- · Business management
- · Environmentally sustainable management

#### Actions

- Maintain infrastructure
- · Manage professionally and accountably

#### Performance results 2005–06

- · Continued producing quantities of seed for revegetation and for commercial sale
- Maintained the productive capacity of floriculture plantings but international market conditions remained unfavourable
- Maintained existing buildings, fencing, tracks and other infrastructure, including a significant overhaul of Calperum Station's water treatment plant and grading 330 kilometres of tracks
- Completed infrastructure enhancements including improvements to visitor accommodation and the fire track system
- · Produced policy statements on operations and workplace practices, and updated employee induction processes



# 7 Management and accountability



#### **Corporate governance**

Ministerial directions

Funding

Planning documents

Executive management

Boards of management and advisory committees

Other consultative mechanisms

Control arrangements

External review

Figure 7: Risk management benchmarking scores for the Director of National Parks in 2005–06 compared to the average for 124 Commonwealth agencies

#### **Human resource management**

Staffing profile

Occupational health and safety

Table 12: Staffing profile for 2005–06

Table 13: Safety incident records for

terrestrial reserves

# Compliance and enforcement under the EPBC Act

Table 14: Compliance and enforcement activities in terrestrial reserves during 2005–06

**Consultancy services** 

Advertising and market research

Purchasing and assets management

Ecologically sustainable development and environmental performance

**Commonwealth Disability Strategy** 

**Freedom of information** 

# Corporate governance

The Director is responsible, under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), for the management of Commonwealth reserves established over Commonwealth-owned land, Commonwealth marine areas and certain areas of Aboriginal land leased to the Director. The Director of National Parks is a Commonwealth authority and is subject to the *Commonwealth Authorities and Companies Act 1997* (CAC Act).

The Director is responsible to the Minister for the Environment and Heritage. Ministerial responsibilities in relation to the Director have been allocated to the Hon Greg Hunt MP, Parliamentary Secretary to the Minister.

#### Ministerial directions

The EPBC Act requires the Director to perform functions and exercise powers in accordance with any directions given by the Minister, unless the EPBC Act provides otherwise.

The Minister may also notify the Director under the CAC Act of general policies of the Government that are to apply to the Director.

During 2005–06, no Ministerial directions were issued and there were no directions continuing from previous years.

On 20 March 2006, the Minister gave notification that he had approved, under subsection 28(4) of the CAC Act, exemption of the Director of National Parks from the Australian Government Property Ownership Framework policy for property transactions undertaken in the exercise of powers and performance of functions under the EPBC Act.

# **Funding**

The EPBC Act makes provision for funding the Director of National Parks. The Department of the Environment and Heritage receives the appropriation for the Director of National Parks. In effect, the Department purchases park management services from the Director to contribute to the Department's Outcome 1. The Director is the sole provider of statutory functions and powers for establishing and managing Commonwealth reserves.

The Department also has a cross-agency arrangement with the Director whereby the Department provides corporate services to the Director. The Department's Parks Australia Division supports the Director's work.

1

During 2005–06, the Department provided \$42.0 million to the Director of National Parks under the purchaser-provider arrangement (refer to the audited financial statements in this annual report). This arrangement was effective, providing the resources that enabled the Director to meet the targets set in the *Portfolio Budget Statements 2005–06 Environment and Heritage Portfolio*. The Director of National Parks also received an equity injection of \$6.1 million for tourism infrastructure in Kakadu and Uluru–Kata Tjuta National Parks.

# Planning documents

For information about the strategic planning and performance assessment framework, see the Planning, Reporting and Performance section in this report.

# **Executive management**

The holder of the office of the Director of National Parks and three senior executives provide leadership in Parks Australia (see Organisational Structure section on page 19). Weekly meetings of the Executive provide the primary management forum for developing and reviewing park policy, and strategic and corporate goals.

In addition to the Parks Australia Executive, one senior executive in the Marine Division of the Department of the Environment and Heritage is responsible, under delegation from the Director of National Parks, for management of Commonwealth marine reserves.

Parks administration faces a number of specific challenges, including widely distributed workplaces in remote areas, many in a cross-cultural environment.



Participants in the April 2006 Parks Australia Forum, held in Thredbo NSW, including representatives from New Zealand Department of Conservation; NSW Department of Environment and Conservation; NSW Department of Planning; and Kosciuszko Thredbo Resort. The theme of the meeting was 'Towns and Infrastructure in National Parks'

Coordination between area managers, Canberra-based managers and the Parks Australia Executive group is vital. Key communication activities include regular phone link-ups and the twice-yearly Parks Forum, involving all senior managers.

Staff participation through consultative committees, both regional and Canberra-based, supports the internal management of Parks Australia.

# Boards of management and advisory committees

Kakadu, Uluru–Kata Tjuta and Booderee National Parks are managed jointly by the Director and the traditional owners in accordance with the EPBC Act. Each park has a board of management established under the Act, with a majority of members being Indigenous people nominated by the Indigenous traditional owners of land in the park. Membership of the boards also includes the Director and members representing special interest groups or with particular skills relevant to managing the park (sees Tables 7, 8 and 9 in the Organisational Structure section of this report for a list of board members for each park).

The functions of a board of management are to make decisions relating to the management of the reserve that are consistent with the management plan for the reserve. A board, in conjunction with the Director, is also responsible for preparation of management plans, monitoring the management of the reserve and advising the Minister on future development of the reserve.

Norfolk Island, Christmas Island and Pulu Keeling National Parks have non-statutory advisory or consultative bodies, which include community representatives and representatives of the Director.

#### Other consultative mechanisms

Public participation in the management of Commonwealth reserves under the EPBC Act is facilitated through consultative mechanisms to involve the community and user groups in the development of planning and management instruments.

The EPBC Act requires public consultation prior to the declaration of a Commonwealth reserve and in the preparation of management plans for reserves that have been established under the EPBC Act.

For Commonwealth reserves that include Aboriginal-owned land, the EPBC Act provides for both consultation with, and involvement of, representatives of the Aboriginal landowners in management of the reserve. The Director must consult and have regard to the views of the chairperson of the relevant land council in relation to the performance of the Director's functions and the exercise of the Director's powers in relation to the reserve. The chairperson must be specifically invited to comment on the preparation of management plans.

Additional consultation with traditional Aboriginal owners of Kakadu, Uluru–Kata Tjuta and Booderee National Parks takes place through cultural advisers, Aboriginal staff, community liaison officers, Aboriginal organisations, and special consultative committees.

The EPBC Act also requires the Northern Territory Government to be consulted regarding the performance of the Director's functions and the exercise of the Director's powers in relation to Kakadu and Uluru–Kata Tjuta National Parks and to be invited to comment on the preparation of management plans for those parks.

Tourism industry interests are consulted through tourism consultative committees of the Kakadu and Uluru–Kata Tjura Boards of Management and other ad hoc working groups.

# Control arrangements

#### **Director of National Parks Chief Executive Instructions**

The Chief Executive Instructions provide concise and comprehensive guidance to Parks Australia staff in carrying out their responsibilities and roles in assisting the Director to meet his statutory functions. A set of policies and procedures that sit under the Chief Executive Instructions are regularly reviewed.

#### Audit

An Audit Committee is established for the Director of National Parks in accordance with the CAC Act. During the year the Audit Committee met three times and focused on corporate governance issues, including risk management and financial management.

In November 2005, the Director of National Parks, together with the Department of the Environment and Heritage, engaged Protiviti Pty Ltd as the internal audit service provider replacing Walter and Turnbull. An internal audit of the administrative operations at Kakadu National Park was undertaken during the year. An internal audit of the Director of National Parks' compliance with the EPBC Act commenced in 2005–06, to be completed in 2006–07.

The committee endorsed the process for preparation of the 2005–06 financial statements and a 2006–07 to 2007–08 strategic audit plan.

Members of the committee during 2005–06 were:

- · Mr Gary Potts, independent member and Chair
- · Ms Glenys Roper, independent member
- · Mr Brian Gilligan, independent member
- · Mr Con Boekel, Assistant Secretary, Parks Australia South
- · Mr Peter Wellings, Assistant Secretary, Parks Australia North (until December 2005)
- · Ms Anne-Marie Delahunt, Assistant Secretary, Parks Australia North (from April 2006).

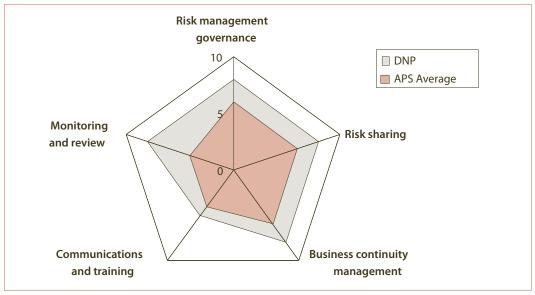
The Director of National Parks and the Director of the Parks Business Management Section were invited to attend committee meetings. Staff from the Australian National Audit Office, the Department of the Environment and Heritage Finance Branch and the internal audit service provider attended meetings as observers.

#### **Risk management**

Risk watch lists for each park or business unit are regularly reviewed in accordance with the Director's Risk Management Policy. Incidents in all workplaces, categorised under the key result areas, are reported monthly to the Executive.

The Agency was rated seven out of 10 for its risk management processes in the annual Comcover benchmarking assessment of Commonwealth agencies. This rating compared to an average score of five for 124 Commonwealth departments and agencies (see Figure 7 for comparative scores).

Figure 7 - Risk management benchmarking scores for the Director of National Parks in 2005–06 compared to the average for 124 Commonwealth agencies



Source: Comcover 2006

One element of risk management is a business continuity plan for all Parks Australia sites. Several successful live tests of the plan were undertaken, including Cyclone Monica's crossing of Kakadu National Park on 25 April 2006 (see case study on page 90).

#### Indemnities and insurance

In 2005–06, the Director maintained a professional indemnity and directors' and officers' insurance policy provided through the Comcover scheme. The policy covered the legal liability of the Director and officers for losses caused by the execution or breach of a duty arising from the Director's operations or business, and for a wrongful act by the Director or an officer. The impact of Cyclone Monica on Kakadu National Park and the Director's assets in the township of Jabiru has resulted in the largest insurance claim by the Director in recent years (estimated at \$1million).

The Director also manages risk by requiring all researchers and commercial operators in the parks to indemnify the Commonwealth and maintain appropriate levels of insurance for their activities.

### Fraud control

The Director has a fraud control plan and conducts risk assessments to prevent and manage fraud within the agency, in accordance with the Commonwealth Fraud Control Guidelines. In November 2005 the Audit Committee endorsed the fraud control plan for 2005–2007, which was subsequently approved by the Director and made available to all employees.

#### External review

#### Judicial decisions and decisions of administrative tribunals

Newcrest Mining (Western Australia) Limited and BHP Minerals Limited v Commonwealth of Australia and the Director of National Parks

In August 1997, the High Court of Australia found that the declarations of Stage 3 Kakadu National Park in 1987, 1989 and 1991 were technically invalid with respect to 23 small areas in the south-east of the park covered by existing mineral leases held by one of the Newcrest group of companies. The reason for this decision was that the declaration over these areas had, with the absolute prohibition on mining activities in Kakadu National Park under the *National Parks and Wildlife Conservation Act 1975*, effected an acquisition of property without payment of just terms compensation, as required by the Australian constitution.

The Minister for the Environment and Heritage indicated that the lease areas should be incorporated within the park and that the Australian Government would address the issue of appropriate compensation. During the year a settlement agreed between the parties was implemented and the Government announced it would be proceeding to incorporate the affected areas into Kakadu.

#### **Reports by the Auditor-General**

The Auditor-General issued an unqualified audit report for the 2005–06 financial statements of the Director of National Parks.

# Human resource management

Human resources and related corporate services were provided to the Director through a purchaser-provider arrangement with the Department of the Environment and Heritage. Detailed information on the management of human resources, employment conditions and remuneration is contained in the Department of the Environment and Heritage annual report for 2005–06.

# Staffing profile

The Director of National Parks employed an average of 274.5 staff during 2005–06. The majority of staff work in Booderee, Kakadu and Uluru–Kata Tjuta National Parks, and the Australian National Botanic Gardens. There are also small offices in remote locations, including Norfolk Island in the South Pacific Ocean and Christmas Island and the Cocos (Keeling) Islands in the Indian Ocean.

**Table 12: Staffing profile for 2005-06** 

Title	Parks North	Parks South	Head Office	Total
Executive	1	1	2	4
Park managers/section heads	5	3	3	11
Operational, policy and planning management	42	23	18	83
Technical and other field staff	41	71	0	112
Rangers	61	4	0	65
Total staff	150	102	23	275

The Director of National Parks encourages skills development and training. Six graduate employees were engaged for three-month placements during the year as part of the Department of the Environment and Heritage graduate recruitment programme.

A total of six Indigenous trainees and cadets were employed across the parks. The trainee programmes aim to improve the skills of local people, particularly in the area of conservation and land management. Trainees are required to complete nationally accredited certificates and are provided with on-the-job experience such as assisting with ranger duties and natural resource management.



Sue-ann Brown, Morgan Brown and Lorraine Ardler from Booderee National Park successfully completed the formal component of their traineeship and were awarded the Certificate III in Tourism (Operations)

# Occupational health and safety

This section is presented in accordance with the requirements of section 74 of the *Occupational Health and Safety (Commonwealth Employment) Act 1991*.

The Director of National Parks continued to maintain a strong commitment to the health, safety and welfare of Parks Australia staff. Parks Australia was an active participant on the Department of the Environment and Heritage's Occupational Health and Safety Committee. Occupational health and safety committees in the three mainland national parks and at the ANBG addressed local issues. The Department's annual report contains detailed occupational health and safety information.

Parks Australia, by the nature of its work, faces a more diverse range of hazards than other divisions of the Department. The main hazards include fieldwork in remote and arduous locations, plant and machinery, chemicals and hazardous substances, handling unpredictable wildlife, manual handling, driving vehicles and static posture injuries from using personal computers.

To improve the occupational health and safety culture and behaviour in Parks Australia, 'ParkSafe' was introduced in 2004. ParkSafe is Parks Australia's integrated occupational health and safety management system and is designed to provide a safe and healthy workplace for all employees and contractors working for Parks Australia. A key feature is an integrated health and safety framework containing a comprehensive range of policies and procedures accessible by all staff electronically.

Comprehensive training is also undertaken as part of the programme. In addition to ParkSafe training, most staff members have completed an online 'SafeTrac' occupational health and safety course, developed for the Department.

During 2005–06, Parks Australia reported 145 accidents or incidents under section 68 of the *Occupational Health and Safety (Commonwealth Employment) Act 1991*.

Comcare conducted no investigations into incidents and there were no matters to report under sections 45, 46 or 47 of the Act.

Table 13: Safety incident records for terrestrial reserves

	2003-04	2004-05	2005-06	
Staff, volunteers and contractors				
Minor injury or near miss <sup>a</sup>	60	76	68	
Moderate injury <sup>b</sup>	15	18	22	
Major injury <sup>c</sup>	6	2	2	
Total	81	96	92	
Visitors, permit holders and residents				
Minor injury or near miss <sup>a</sup>	79	87	88	
Moderate injury <sup>b</sup>	32	40	46	
Major injury <sup>c</sup>	17	14	10	
Deaths	1	1	1	
Total	129	142	145	

- (a) Minor injury includes near misses, no injury or first aid treatment only
- (b) Moderate injury includes treatment by paramedics or at a medical centre
- (c) Major injury includes hospitalisation

# Compliance and enforcement under the EPBC Act

Rangers and wardens are appointed under the EPBC Act to exercise statutory powers in relation to compliance and enforcement activities. All appointed officers are required by the Commonwealth Fraud Control Guidelines to hold statements of attainment in relevant modules of the Diploma in Government (Fraud Control-Investigations).

Whole of government approaches have been adopted for compliance and enforcement within Commonwealth marine reserves. Officers of the Australian Federal Police are ex-officio wardens. Arrangements have also been made for officers from other agencies, including the Australian Customs Service, the Australian

Fisheries Management Authority, various state and territory police, and fisheries and conservation agencies to be appointed, after the required training, as wardens under the EPBC Act. These arrangements greatly improve the Director's ability to enforce the provisions of the EPBC legislation in remote and infrequently visited Commonwealth reserves and conservation zones.

The following enforcement matters were heard in the courts during 2005–06:

- Five defendants pleaded guilty on 7 December 2005 to the possession of 216 dead booby birds and 14 dead frigate birds (both listed migratory species), possession of flails and illegal entry to Pulu Keeling National Park on 25 December 2003 (section 211C). They were convicted and released on two-year (\$5,000) good behaviour bonds and ordered to pay legal costs of \$2,173.92 each.
- One defendant was convicted on 17 October 2005 for driving a vehicle on a restricted access road in Kakadu on 31 May 2005 (Regulation 12.41[1]) and was fined \$400.
- One defendant was convicted on 8 August 2005 for possessing a firearm in a Commonwealth reserve (Regulation 12.18 [1][a]) and unauthorised access (Regulation 12.41[2]) in Kakadu on 24 October 2004 and was fined a total of \$1,000.
- One defendant was convicted on 8 August 2005 for unauthorised access in Kakadu (Regulation 12.41[2]) on 24 October 2004 and was fined \$600.
- One defendant was convicted on 8 August 2005 for possessing a firearm in a Commonwealth reserve (Kakadu National Park) (Regulation 12.18 [1][a]) and was fined \$300.
- One defendant being prosecuted for possessing and using firearms in Kakadu on 31 May 2005 failed to appear at court on 24 October 2005. A warrant to apprehend the defendant has been issued.
- One defendant is being prosecuted for handling and taking saltwater crocodiles (listed migratory species) from the East Alligator River in Kakadu and for using a cast net on 11–12 April 2004. The summons was not properly served therefore the matter was adjourned on 28 February 2005 (date to be fixed when summons is served).

Table 14: Compliance and enforcement activities in terrestrial reserves during 2005–06.

	Members of the public	Tourism operators	Other commercial operators
EPBC Act incidents detected	216	16	11
Offenders unknown	18	0	0
Verbal cautions issued	162	13	3
Warning letters issued	11	2	4
Infringement notices issued	9	0	0
Continuing investigations	2	0	4
Permit suspensions	0	0	0
Court cases pending	2	0	0
Cases taken to court	7	0	0
Convictions	5	0	0

# Consultancy services

The total number of consultants engaged by the Director was 47. The total expenditure on consultancy services during the year was \$772,000.

The most common reasons to engage consultants were for specialised, technical and professional skills or knowledge, and the need for work to be conducted independently. The design of facilities and infrastructure, feasibility studies, production of technical reports, and data collection and analysis were among the tasks for which consultants were engaged.

# Advertising and market research

A total of \$100,000 was paid to a range of organisations for media advertising. The principal reasons for media advertising were to publicise opportunities to comment on key planning documents, notification of special events or restrictions at particular reserves and advertising of vacant positions.

# Purchasing and assets management

Director of National Parks purchasing is carried out in accordance with the Director of National Parks' Chief Executive Instructions and the Director's policy on spending money. These requirements are consistent with the Commonwealth Procurement Guidelines.

Assets comprised the most significant part of the Director of National Parks' balance sheet. Replacement and maintenance of these assets continued to prove challenging. The asset base is complex and diverse. A capital infrastructure plan developed for the first time in 2003–04 indicates some significant maintenance and replacement issues in relation to the ageing infrastructure. Significant reprioritising of funding will also be needed to adequately maintain the assets.

# Ecologically sustainable development and environmental performance

Section 516A of the EPBC Act requires Australian Government organisations to include in their annual reports details of the environmental performance of the organisation and the organisation's contribution to ecologically sustainable development.

Section 516A aims to promote the development of a framework within which Australian Government organisations properly integrate environmental, economic and social considerations. Identifying, monitoring and reporting environmental issues within such a framework will help Australian Government organisations improve their environmental and ecologically sustainable development performance.

Section 516A also aims to encourage Australian Government agencies to adopt best practice in the public reporting of information relevant to their environmental performance and the promotion of ecologically sustainable development.

All of the Director's activities have an impact on ecologically sustainable development. Commonwealth reserves are managed to conserve and enhance their natural and cultural values for current and future generations. Only development activities that are consistent with the primary management objectives may be permitted.

The provisions of the EPBC Act ensure that management plans for Commonwealth reserves properly integrate environmental, economic and social considerations, and that appropriate environmental monitoring and reporting regimes are in place.

The effects of park management activities on the environment are discussed throughout the report, in particular in the Planning, Reporting and Performance section and the State of the Parks section.

# Commonwealth Disability Strategy

The Department of the Environment and Heritage has developed a *Disability Action Plan 2004–2006* to meet the needs of people with disabilities in accordance with the roles identified by the Commonwealth Disability Strategy. Further information on the strategy is contained in the Department of the Environment and Heritage annual report for 2005–06.

Provision of access to Commonwealth reserves for tourism and recreation is a significant part of the Director's responsibilities. As reserve managers, Parks Australia, the Marine Division and the Australian Antarctic Division come under the 'provider' role of the Commonwealth Disability Strategy.

Given the locations and nature of the terrain, access for people with a disability to the reserves varies. Some marine reserves are very remote and without facilities, whereas a number of the major tourist destinations in the three mainland national parks— Kakadu, Uluru–Kata Tjuta and Booderee—and the ANBG are accessible by wheelchair. Management plans developed through a consultative process address current and proposed levels of accessibility.

Information about access to reserves is available on the Department of the Environment and Heritage's website at www.deh.gov.au/parks/index.html.

# Freedom of information

No applications were received relating to the Director's statutory functions under the *Freedom of Information Act 1982*. The Director's statement under section 8 of the Act is at Appendix A.

# 8 Financial statements

Director of National Parks financial statements and audit report for the year ended 30 June 2006





#### INDEPENDENT AUDIT REPORT

#### To the Minister for the Environment and Heritage

#### Matters relating to the Electronic Presentation of the Audited Financial Statements

This audit report relates to the financial statements published in both the annual report and on the website of Department of the Environment and Heritage for the year ended 30 June 2006. The Director of National Parks is responsible for the integrity of both the annual report and the web site.

The audit report refers only to the financial statements, schedules and notes named below. It does not provide an opinion on any other information which may have been hyperlinked to/from the audited financial statements.

If the users of this report are concerned with the inherent risks arising from electronic data communications they are advised to refer to the hard copy of the audited financial statements in the Director of National Parks' annual report.

#### **Scope**

#### The financial statements and Director's responsibility

The financial statements comprise:

- Statement by the Director and Chief Financial Officer;
- Income Statement, Balance Sheet and Statement of Cash Flow;
- Statement of Changes in Equity;
- Schedules of Commitments and Contingencies; and
- Notes to and forming part of the Financial Statements

of the Director of National Parks for the year ended 30 June 2006.

The Director is responsible for preparing the financial statements that give a true and fair view of the financial position and performance of the Director of National Parks, and that comply with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*, Accounting Standards and mandatory financial reporting requirements in Australia. The Director is also responsible for the maintenance of adequate accounting records and internal controls that are designed to prevent and detect fraud and error, and for the accounting policies and accounting estimates inherent in the financial statements.

#### Audit Approach

I have conducted an independent audit of the financial statements in order to express an opinion on them to you. My audit has been conducted in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing and Assurance Standards, in order to provide reasonable assurance as to whether the financial statements are free of material misstatement. The nature of an audit is influenced by factors such as the use of professional judgement, selective testing, the inherent limitations of internal control, and the availability of persuasive, rather than conclusive, evidence. Therefore, an audit cannot guarantee that all material misstatements have been detected.

While the effectiveness of management's internal controls over financial reporting was considered when determining the nature and extent of audit procedures, the audit was not designed to provide assurance on internal controls.

I have performed procedures to assess whether, in all material respects, the financial statements present fairly, in accordance with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*, Accounting Standards and other mandatory financial reporting requirements in Australia, a view which is consistent with my understanding of the Director of National Parks' financial position, and of its financial performance and cash flows.

The audit opinion is formed on the basis of these procedures, which included:

- examining, on a test basis, information to provide evidence supporting the amounts and disclosures in the financial statements; and
- assessing the appropriateness of the accounting policies and disclosures used, and the reasonableness of significant accounting estimates made by the Director.

#### Independence

In conducting the audit, I have followed the independence requirements of the Australian National Audit Office, which incorporate the ethical requirements of the Australian accounting profession.

#### **Audit Opinion**

In my opinion, the financial statements of the Director of National Parks:

- (a) have been prepared in accordance with the Finance Minister's Orders made under the Commonwealth Authorities and Companies Act 1997; and
- (b) give a true and fair view of the Director of National Parks' financial position as at 30 June 2006 and of its performance and cash flows for the year then ended, in accordance with:
  - (i) the matters required by the Finance Minister's Orders; and
  - (ii) applicable Accounting Standards and other mandatory financial reporting requirements in Australia.

Australian National Audit Office

John Jones

**Executive Director** 

Delegate of the Auditor-General

Canberra

13 September 2006

## Director of National Parks Statement by the Director and Chief Financial Officer

8 Cerunto

In our opinion, the attached financial statements for the year ended 30 June 2006 are based on properly maintained financial records and give a true and fair view of the matters required by the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*.

In our opinion, at the date of this statement, there are reasonable grounds to believe that the Director of National Parks will be able to pay its debts as and when they fall due.

Signed Signed

Peter Cochrane Sam Ceravolo

Director Chief Financial Officer

11 September 2006 11 September 2006

## Director of National Parks Income Statement

For the year ended 30 June 2006

		2006	2005
	Notes	\$'000	\$'000
INCOME			
Revenue			
Revenues from Government	4A	41,962	40,085
Goods and services	4B	12,550	13,578
Interest		622	284
Other revenues		1,114	1,378
Total Revenues		56,248	55,325
Gains			
Net gains from disposal of assets	4C	106	400
Other gains	4D	2,800	2,800
Total gains	-	2,906	3,200
TOTAL INCOME	-	59,154	58,525
	_		
EXPENSES			
Employees	5A	21,178	20,509
Suppliers	5B	26,568	25,755
Depreciation and amortisation	5C	7,582	9,548
Write-down and impairment of assets	5D	1,345	2,527
Net losses from disposal of assets	5E	131	38
Other expenses	5F	176	314
TOTAL EXPENSES	_	56,980	58,691
OPERATING RESULT	-	2,174	(166)

## Director of National Parks Balance Sheet

as at 30 June 2006

	2006	2005
Notes	\$'000	\$'000
ASSETS		
Financial assets		
Cash 6A	19,759	9,905
Receivables 6B	1,584	550
Other 6C	91	45
Total financial assets	21,434	10,500
Non-financial assets		
Land and buildings 7A,C	66,803	68,228
Infrastructure, plant and equipment 7B,C	72,098	68,965
Intangibles 7D	3	4
Other non-financial assets 7E	369	338
Total non-financial assets	139,273	137,535
TOTAL ASSETS	160,707	148,035
LIABILITIES		
Payables		
Suppliers 8A	6,524	5,403
Other payables 8B	4,115	640
Total payables		
Total payables	10,639	6,043
Provisions		
Employees 9A	5,130	5,305
Other provisions	70	59
Total provisions	5,200	5,364
TOTAL LIABILITIES	15,839	11,407
NET ASSETS	144,868	136,628
FOURTY		
EQUITY  Contributed equity	15 021	0.755
Reserves	15,821 64,585	9,755 64,585
Retained surpluses/(accumulated deficits)	64,462	62,288
TOTAL EQUITY	144,868	136,628
Current assets	21,803	10,839
Non-current assets	138,904	137,196
Current liabilities	15,384	10,213
Non-current liabilities	455	1,194

## Director of National Parks Statement of Cash Flows

For the year ended 30 June 2006

		2006	2005
	Notes	\$'000	\$'000
OPERATING ACTIVITIES			
Cash received			
Goods and Services		15,859	13,975
Appropriations		41,962	40,085
Interest		605	260
Net GST received from ATO		1,371	1,239
Other		1,040	1,132
Total cash received		60,837	56,691
Cash used			
Employees		21,345	21,035
Suppliers		25,056	23,760
Other		164	332
Total cash used		46,565	45,127
Net Cash From Operating Activities	10	14,272	11,564
INVESTING ACTIVITIES			
Cash received			
Proceeds from sales of property, plant and equipment		545	1,209
Total cash received		545	1,209
Cash used			
Purchase of property, plant and equipment		11,029	5,682
Total cash used		11,029	5,682
Net Cash Used By Investing Activities		(10,484)	(4,473)
FINANCING ACTIVITIES			
Cash received			
Capital injections		6,066	-
Total cash received		6,066	-
Net Cash From Financing Activities		6,066	_
Net Increase in Cash Held		9,854	7,091
Cash at beginning of the reporting period	_	9,905	2,814
Cash at the End of the Reporting Period	6A	19,759	9,905

## Director of National Parks Statement of Changes in Equity

For the year ended 30 June 2006

	Accumulated Results		Asset Revaluation Reserve		Contributed equity/capital		Total Equity	
	2006	2005	2006	2005	2006	2005	2006	2005
Opening Balance	62,288	62,454	64,585	26,698	9,755	9,755	136,628	98,907
Adjustment for errors	-	-	-	-	-	-	-	-
Adjustment for changes in accounting policies	-	-	-	-	-	-	-	-
Adjusted Opening Balance	62,288	62,454	64,585	26,698	9,755	9,755	136,628	98,907
Income and Expense Revaluation Adjustment	-	-	-	37,887	-	-	-	37,887
Income and Expenses Recognised Directly in Equity	-	-	-	-	-	-	-	-
Subtotal income and expenses recognised	-	-	-	37,887	-	-	-	37,887
directly in equity								
Net Operating Result	2,174	(166)	-	-	-	-	2,174	(166)
Total income and expenses	2,174	(166)	-	37,887	-	-	2,174	37,721
Transactions with Owners:								
Distributions to owners								
Returns of Capital	-	-	-	-	-	-	-	-
Contributions by Owners								
Appropriation (equity injection) (refer Note 18)	-	-	-	-	6,066	-	6,066	-
Other	-	-	-	-	-	-	-	-
Sub-total Transactions with Owners	-	-	-	-	6,066	-	6,066	-
Transfers between equity components	-	-	-	-	-	-	-	-
Closing Balance at 30 June	64,462	62,288	64,585	64,585	15,821	9,755	144,868	136,628

## Director of National Parks Schedule of Commitments

as at 30 June 2006

	2006	2005
	\$′000	\$'000
BYTYPE	<b>\$ 000</b>	7 000
Capital Commitments		
Buildings; Infrastructure, plant and equipment <sup>1</sup>	1,712	3,584
Total Capital Commitments	1,712	3,584
Other Commitments		
Operating leases <sup>2</sup>	65,663	65,384
Other commitments <sup>3</sup>	2,938	2,392
Total Other Commitments	68,601	67,776
Commitments Receivable	(6,392)	(6,451)
Net Commitments by Type	63,921	64,909
BY MATURITY		
Capital Commitments		
One year or less	1,712	1,675
From one to five years	-	1,909
Over five years		
Total Capital Commitments	1,712	3,584
Operating Lease Commitments		
One year or less	923	898
From one to five years	3,456	3,329
Over five years	61,284	61,157
Total Operating Lease Commitments	65,663	65,384
Other Commitments		
One year or less	1,541	1,392
From one to five years	1,397	1,000
Over five years		
Total Other Commitments	2,938	2,392
Commitments Receivable	(6,392)	(6,451)
Net Commitments by Maturity	63,921	64,909

NB: Commitments are GST inclusive where relevant

 $<sup>^{1}\,</sup>$  Outstanding contractual payments for buildings and infrastructure under construction

<sup>&</sup>lt;sup>2</sup> Operating leases included are effectively non-cancellable

 $<sup>^{\</sup>rm 3}$  Other commitments comprise general consultancy services and utilities

## Director of National Parks Schedule of Commitments

as at 30 June 2006

Nature of Leases	General description of leasing Arrangements
Leases for office accommodation	Lease payments are subject to annual increase in accordance with upward movements in the Consumer Price Index. The initial periods of office accommodation leases are still current with no option to renew
Agreements for the provision of motor vehicles – senior executive officers	No contingent rentals exist. There are no renewal or purchase options available to the office
Leases for office equipment	No contingent rentals exist. There is an option to renew for 90 days
Leases for rental of National Parks from Traditional Owners	The Director of National Parks leases Kakadu National Park, Uluru-Kata Tjura National Park and Booderee National Park from the parks' Traditional Owners. Annual rent is payable in advance. Terms of leases vary up to a maximum of 99 years

## Director of National Parks Schedule of Contingencies

as at 30 June 2006

	Guarantees		Claims for damages/costs		Total	
	2006	2005	2006	2005	2006	2005
Contingent Liabilities	\$'000	\$'000	\$'000	\$′000	\$'000	\$'000
Balance from previous period	-	-	-	11,010	-	11,010
New	-	-	33	-	33	-
Re-measurement	-	-	-	(175)	-	(175)
Less: Liabilities crystallised 1	-	-	-	10,835	-	10,835
Obligations expired	-	-	-	-	-	-
Total Contingent Liabilities	-	-	33	-	33	-
Contingent Assets						
Balance from previous period	-	-	-	-	-	-
New	-	-	-	-	-	-
Re-measurement	-	-	-	-	-	-
Assets crystallised	-	-	-	-	-	-
Expired	-	-	-	-	-	-
Total Contingent Assets	-	-	-	-	-	-
Net Contingencies	-	-	33	-	33	-

#### Note 1:

During the 2004–05 Portfolio Additional Estimates, Administered funding of \$9.850m (GST exclusive) was provided for the settlement and legal costs associated with the acquisitions of leases, to the Department of the Environment and Heritage. The Director of National Parks disclosed this settlement (GST inclusive) in the 2003–04 financial statements. Subsequent to the balance date, the Department of the Environment and Heritage paid this amount.

Details of each class of contingent liabilities and assets, including those not included above because they cannot be quantified or are considered remote, are shown in Note: 11 Contingent Liabilities and Assets.

For the year ended 30 June 2006

Note	Description
14066	Description

- 1 Summary of Significant Accounting Policies
- 2 The impact of the transition to AEIFRS from previous AGAAP
- 3 Events Occurring After Reporting Date
- 4 Income
- 5 Operating Expenses
- 6 Financial Assets
- 7 Non-Financial Assets
- 8 Payables
- 9 Provisions
- 10 Cash Flow Reconciliation
- 11 Contingent Liabilities and Assets
- 12 Director Remuneration
- 13 Related Party Disclosures
- 14 Executive Remuneration
- 15 Remuneration of Auditors
- 16 Average Staffing Levels
- 17 Financial Instruments
- 18 Appropriations
- 19 Reporting Of Outcomes

8

#### **Note 1 Summary of Significant Accounting Policies**

#### 1.1 Basis of Accounting

The financial statements are required by clause 1(b) of Schedule 1 to the *Commonwealth Authorities and Companies Act 1997* and are a general purpose financial report.

The continued existence of the Director of National Parks in its present form and with its present programs is dependent on Government policy and on continuing appropriations by Parliament for the Director of National Parks' administration and programs.

The statements have been prepared in accordance with:

- Finance Minister's Orders [or FMOs, being the Financial Management and Accountability Orders (Financial Statements for reporting periods ending on or after 01 July 2005)];
- Australian Accounting Standards issued by the Australian Accounting Standards Board that apply for the reporting period; and
- Interpretations issued by the AASB and UIG that apply for the reporting period.

This is the first financial report to be prepared under Australian Equivalents to International Financial Reporting Standards (AEIFRS). The impacts of adopting AEIFRS are disclosed in Note 2.

The Income Statement, Balance Sheet and Statement of Changes in Equity have been prepared on an accrual basis and are in accordance with historical cost convention, except for certain assets and liabilities, which as noted, are at fair value. Except where stated, no allowance is made for the effect of changing prices on the results or the financial position.

The financial report is presented in Australian dollars and values are rounded to the nearest thousand dollars unless disclosure of the full amount is specifically required.

Unless alternative treatment is specifically required by an accounting standard, assets and liabilities are recognised in the Balance Sheet when and only when it is probable that future economic benefits will flow and the amounts of the assets or liabilities can be reliably measured. However, assets and liabilities arising under agreements equally proportionately unperformed are not recognised unless required by an Accounting Standard. Liabilities and assets that are unrecognised are reported in the Schedule of Commitments and the Schedule of Contingencies (other than unquantifiable or remote contingencies, which are reported at Note 11).

Unless alternative treatment is specifically required by an accounting standard, revenues and expenses are recognised in the Income Statement when and only when the flow or consumption or loss of economic benefits has occurred and can be reliably measured.

#### 1.2 Significant Accounting Judgements and Estimates

In the process of applying the accounting policies listed in this note, the Director of National Parks has not made any judgements that have a significant impact on the amounts recorded in the financial statements.

No accounting assumptions or estimates have been identified that have a significant risk of causing a material adjustment to carrying amounts of assets and liabilities within the next accounting period.

## Director of National Parks Notes to and forming part of the Financial Statements

#### 1.3 Statement of Compliance

The financial report complies with Australian Accounting Standards, which include Australian Equivalents to International Financial Reporting Standards (AEIFRS).

Australian Accounting Standards require the Director of National Parks to disclose Australian Accounting Standards that have not been applied, for standards that have been issued but are not yet effective.

The AASB has issued amendments to existing standards, these amendments are denoted by year and then number, for example 2005-1 indicates amendment 1 issued in 2005.

The following table illustrates standards and amendments that will become effective for the Director of National Parks in the future. The nature of the impending change within the table, has been out of necessity abbreviated and users should consult the full version available on the AASB's website to identify the full impact of the change. The expected impact on the financial report of adoption of these standards is based on the Director of National Parks' initial assessment at this date, but may change. The Director of National Parks intends to adopt all of standards upon their application date.

Title	Standard affected	Application date*	Nature of impending change	Impact expected on financial report
2005–1	AASB 139	1–Jan–06	Amends hedging requirements for foreign currency risk of a highly probable intragroup transaction.	No expected impact.
2005–4	AASB 139, AASB 132, AASB 1, AASB 1023 and AASB 1038	1–Jan–06	Amends AASB 139, AASB 1023 and AASB 1038 to restrict the option to fair value through profit or loss and makes consequential amendments to AASB 1 and AASB 132.	No expected impact.
2005–5	AASB 1 and AASB 139	1–Jan–06	Amends AASB 1 to allow an entity to determine whether an arrangement is, or contains, a lease.  Amends AASB 139 to scope out a contractual right to receive reimbursement (in accordance with AASB 137) in the form of cash.	No expected impact.
2005–6	AASB 3	1-Jan-06	Amends the scope to exclude business combinations involving entities or businesses under common control.	No expected impact.
2005–9	AASB 4, AASB 1023, AASB 139 and AASB 132	1-Jan-06	Amended standards in regards to financial guarantee contracts.	No expected impact.
2005–10	AASB 132, AASB 101, AASB 114, AASB 117, AASB 133, AASB 139, AASB 1, AASB 4, AASB 1023 and AASB 1038	1–Jan–07	Amended requirements subsequent to the issuing of AASB 7.	No expected impact.
2006–1	AASB 121	31-Dec-06	Changes in requirements for net investments in foreign subsidiaries depending on denominated currency.	No expected impact.
	AASB 7 Financial Instruments: Disclosures	1-Jan-07	Revise the disclosure requirements for financial instruments from AASB132 requirements.	No expected impact.

<sup>\*</sup> Application date is for annual reporting periods beginning on or after the date shown

#### 1.4 Revenue

Revenue from the sale of goods is recognised when:

- the risks and rewards of ownership have been transferred to the buyer;
- · the seller retains no managerial involvement nor effective control over the goods;
- the revenue and transaction costs incurred can be reliably measured; and
- it is probable that the economic benefits associated with the transaction will flow to the entity.

Revenue from rendering of services is recognised by reference to the stage of completion of contracts at the reporting date. The revenue is recognised when:

- the amount of revenue, stage of completion and transaction costs incurred can be reliably measured; and
- the probable economic benefits with the transaction will flow to the entity.

The stage of completion of contracts at the reporting date is determined by reference to the proportion that costs incurred to date bear to the estimated total costs of the transaction.

Receivables for goods and services, which have 30 day terms, are recognised at the nominal amounts due less any provision for bad and doubtful debts. Collectability of debts is reviewed at balance date. Provisions are made when collectability of the debt is no longer probable.

The revenues described in this Note are revenues relating to the core operating activities of the Director of National Parks.

Revenue from the sale of tickets, permits and goods are recognised at the time tickets/permits are issued or goods are delivered to customers.

Refunds for ticket sales are accounted for when they occur. An estimate for these refunds is not provided for. Interest revenue is recognised using the effective interest method as set out in AASB 139.

#### **Revenues from Government**

Amounts appropriated for Departmental outputs appropriations for the year (adjusted for any formal additions and reductions) are recognised as revenue, except for certain amounts that relate to activities that are reciprocal in nature, in which case revenue is recognised only when it has been earned.

Appropriations receivable are recognised at their nominal amounts.

#### Resources Received Free of Charge

Services received free of charge are recognised as revenue when and only when a fair value can be reliably determined and the services would have been purchased if they had not been donated. Use of those resources is recognised as an expense.

Contributions of assets at no cost of acquisition or for nominal consideration are recognised as revenue at their fair value when the asset qualifies for recognition.

The Department of the Environment and Heritage provides corporate services under a Service Level Agreement to the Director of National Parks.

#### 1.5 Transactions by the Government as Owner

#### **Equity injections**

Amounts appropriated which are designated as 'equity injections' for a year (less any formal reductions) are recognised directly in Contributed Equity in that year.

#### 1.6 Employee Benefits

The legal entity of the Director of National Parks has only one employee, being the Director himself. However, under an arrangement with the Department of the Environment and Heritage, the Director of National Parks has a number of employees of the Department of the Environment and Heritage that are assigned to assist the Director. For the purpose of these financial statements, such employees are treated as employees of the Director of National Parks.

As required by the Finance Minister's Orders, the Director of National Parks, has early adopted AASB 119 Employee Benefits as issued in December 2004.

Liabilities for services rendered by employees are recognised at the reporting date to the extent that they have not been settled.

Liabilities for 'short-term employee benefits' (as defined in AASB 119) and termination benefits due within twelve months are measured at their nominal amounts.

The nominal amount is calculated with regard to the rates expected to be paid on settlement of the liability.

All other employee benefit liabilities are measured as the present value of the estimated future cash outflows to be made in respect of services provided by employees up to the reporting date.

#### Leave

The liability for employee benefits includes provision for annual leave and long service leave. No provision has been made for sick leave as all sick leave is non-vesting and the average sick leave taken in future years by employees of the Director of National Parks is estimated to be less than the annual entitlement for sick leave.

The leave liabilities are calculated on the basis of employees' remuneration, including the Director of National Parks employer superannuation contribution rates to the extent that the leave is likely to be taken during service rather than paid out on termination.

The liability for annual leave and long service leave has been determined using the short-hand method per Finance Minister's Orders 2005-06.

#### Separation and Redundancy

Provision is made for separation and redundancy benefit payments. The Director of National Parks has developed a detailed formal plan for the terminations and has informed those employees affected that it will carry out the terminations.

#### Superannuation

Employees of the Director of National Parks are members of the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS) or the PSS accumulation plan (PSSap).

The CSS and PSS are defined benefits schemes for the Commonwealth. The PSSap is a defined contribution scheme.

The liability for defined benefits is recognised in the financial statements of the Australian Government and is settled by the Australian Government in due course.

Director of National Parks makes employer contributions to the Australian Government at rates determined by an actuary to be sufficient to meet the cost to the Government of the superannuation entitlements of the Director National Parks' employees.

The liability for superannuation recognised as at 30 June represents outstanding contributions for the final fortnight of the year.

#### 1.7 Leases

A distinction is made between finance leases and operating leases. Finance leases effectively transfer from the lessor to the lessee substantially all the risks and benefits incidental to ownership of leased non-current assets. An operating lease is a lease that is not a finance lease. In operating leases, the lessor effectively retains substantially all such risks and benefits.

The discount rate used is the interest rate implicit in the lease. Leased assets are amortised over the period of the lease. Lease payments are allocated between the principal component and the interest expense.

Operating lease payments are expensed on a straight line basis which is representative of the pattern of benefits derived from the leased assets.

The majority of operating lease payments relate to arrangements with traditional owners over Kakadu, Uluru Kata-Tjuta and Booderee National Parks.

#### 1.8 Borrowing Costs

All borrowing costs are expensed as incurred.

#### 1.9 Cash

Cash means notes and coins held and any deposits held at call with a bank or financial institution. Cash is recognised at its nominal amount.

#### 1.10 Financial Risk Management

The Director of National Parks' activities expose it to normal commercial financial risk. As a result of the nature of the Director of National Parks' business and internal and Australian Government policies, dealing with the management of financial risk, the Director of National Parks' exposure to market, credit, liquidity and cash flow and fair value interest rate risk is considered to be low.

#### 1.11 Investments

Investments are initially measured at their fair value.

After initial recognition, financial assets are to be measured at their fair values except for:

- a) loans and receivable which are measured at amortised cost using the effective interest method;
- b) held-to-maturity investments which are measured at amortised cost using the effective interest method; and
- c) investments in equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured and derivatives that are linked to and must be settled by delivery of such unquoted equity instruments, which shall be measured at cost.

#### 1.12 Derecognition of Financial Assets and Liabilities

As prescribed in the Finance Minister's Orders, the Director of National Parks has applied the option available under AASB 1 of adopting AASB 132 and 139 from 1 July 2005 rather than 1 July 2004.

Financial assets are derecognised when the contractual rights to the cash flows from the financial assets expire or the asset is transferred to another entity. In the case of a transfer to another entity, it is necessary that the risks and rewards of ownership are also transferred.

Financial liabilities are derecognised when the obligation under the contract is discharged or cancelled or expires.

For the comparative year, financial assets were derecognised when the contractual right to receive cash no longer existed. Financial liabilities were derecognised when the contractual obligation to pay cash no longer existed.

#### 1.13 Impairment of Financial Assets

As prescribed in the Finance Minister's Orders, the Director of National Parks has applied the option available under AASB 1 of adopting AASB 132 and 139 from 1 July 2005 rather than 1 July 2004.

Financial assets are assessed for impairment at each balance date.

#### Financial Assets held at Cost

If there is objective evidence that an impairment loss has been incurred on an unquoted equity instrument that is not carried at fair value because it cannot be reliably measured, or a derivative asset that is linked to and must be settled by delivery of such an unquoted equity instrument, the amount of the impairment loss is the difference between the carrying amount of the asset and the present value of the estimated future cash flows discounted at the current market rate for similar assets.

#### **Comparative Year**

The above policies were not applied for the comparative year. For receivables, amounts were recognised and carried at original invoice amount less a provision for doubtful debts based on an estimate made when collection of the full amount was no longer probable. Bad debts were written off as incurred.

Other financial assets carried at cost which were not held to generate net cash inflows, were assessed for indicators of impairment. Where such indicators were found to exist, the recoverable amount of the assets was estimated and compared to the assets carrying amount and, if less, reduced to the carrying amount. The reduction was shown as an impairment loss.

#### 1.14 Interest Bearing Loans and Borrowings

Government loans are carried at the balance yet to be repaid. Interest is expensed as it accrues.

#### 1.15 Trade Creditors

Trade creditors and accruals are recognised at their nominal amounts, being the amounts at which the liabilities will be settled. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

#### **1.16 Contingent Liabilities and Contingent Assets**

Contingent Liabilities and Assets are not recognised in the Balance Sheet but are discussed in the relevant schedules and notes. They may arise from uncertainty as to the existence of a liability or asset, or represent an existing liability or asset in respect of which settlement is not probable or the amount cannot be reliably measured. Remote contingencies are part of this disclosure. Where settlement becomes probable, a liability or asset is recognised when its existence is confirmed by a future event, settlement becomes probable (virtually certain for assets) or reliable measurement becomes possible.

#### **1.17 Acquisition of Assets**

Assets are recorded at cost on acquisition except as stated below. The cost of acquisition includes the fair value of assets transferred in exchange and liabilities undertaken. Financial assets are initially measured at their fair value plus transaction costs where appropriate.

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and revenues at their fair value at the date of acquisition, unless acquired as a consequence of restructuring of administrative arrangements. In the latter case, assets are initially recognised as contributions by owners at the amounts at which they were recognised in the transferor authority's accounts immediately prior to the restructuring.

#### 1.18 Property, Plant and Equipment (PP&E)

#### **Asset Recognition Threshold**

Purchases of property, plant and equipment are recognised initially at cost in the Balance Sheet, except for purchases costing less than \$5,000, which are expensed in the year of acquisition (other than where they form part of a group of similar items which are significant in total).

The initial cost of an asset includes an estimate of the cost of dismantling and removing the item and restoring the site on which it is located.

#### Revaluations

Basis

Land, buildings, plant and equipment are carried at fair value, being revalued with sufficient frequency such that the carrying amount of each asset is not materially different, at reporting date, from its fair value. Valuations undertaken in each year are as at 30 June.

Fair values for each class of asset are determined as shown below:

Asset class	Fair value measured at:
Land	Market selling price
Buildings	Market selling price
Leasehold improvements	Depreciated replacement cost
Plant & equipment	Market Selling Price

Following initial recognition at cost, valuations are conducted with sufficient frequency to ensure that the carrying amounts of assets do not materially differ with the assets' fair values as at the reporting date. The regularity of independent valuations depends upon the volatility of movements in market values for the relevant assets.

Revaluation adjustments are made on a class basis. Any revaluation increment is credited to equity under the heading of asset revaluation reserve except to the extent that it reverses a previous revaluation decrement of the same asset class that was previously recognised through profit and loss. Revaluation decrements for a class of assets are recognised directly through profit and loss except to the extent that they reverse a previous revaluation increment for that class.

Any accumulated depreciation as at the revaluation date is eliminated against the gross carrying amount of the asset and the asset restated to the revalued amount.

## Director of National Parks Notes to and forming part of the Financial Statements

#### Depreciation

Depreciable property, plant and equipment assets are written-off to their estimated residual values over their estimated useful lives to the Director of National Parks using, in all cases, the straight-line method of depreciation. Leasehold improvements are depreciated on a straight-line basis over the lesser of the estimated useful life of the improvements or the unexpired period of the lease.

Depreciation rates (useful lives), residual values and methods are reviewed at each reporting date and necessary adjustments are recognised in the current, or current and future reporting periods, as appropriate.

Depreciation rates applying to each class of depreciable asset are based on the following useful lives:

	2006	2005
Buildings	5 to 85 years	25 years
Infrastructure	7 to 73 years	2 to 10 years
Plant and equipment	2 to 50 years	3 to 10 years
Computer software	4 to 5 years	5 years

#### **Impairment**

All assets were assessed for impairment at 30 June 2006. Where indications of impairment exist, the asset's recoverable amount is estimated and an impairment adjustment made if the asset's recoverable amount is less than its carrying amount.

The recoverable amount of an asset is the higher of its fair value less costs to sell and its value in use. Value in use is the present value of the future cash flows expected to be derived from the asset. Where the future economic benefit of an asset is not primarily dependent on the asset's ability to generate future cash flows, and the asset would be replaced if the Director of National Parks were deprived of the asset, its value in use is taken to be its depreciated replacement cost.

No indicators of impairment were found for assets at fair value.

#### 1.19 Intangibles

The Director of National Parks' intangibles comprise internally developed software for internal use. These assets are carried at cost.

Software is amortised on a straight-line basis over its anticipated useful life. The useful lives of the Director of National Parks' software is 4 to 5 years (2004-05: 5 years).

All software assets were assessed for indications of impairment as at 30 June 2006.

#### 1.20 Taxation

The Director of National Parks is exempt from all forms of taxation except fringe benefits tax and the goods and services tax (GST).

Revenues, expenses and assets are recognised net of GST:

- · except where the amount of GST incurred is not recoverable from the Australian Taxation Office; and
- · except for receivables and payables.

#### NOTE 2 The impact of the transition to AEIFRS from previous AGAAP

	2005	2004
	\$'000	\$'000
Reconciliation of total equity as presented under previous AGAAP to that under AEIFRS		
Total equity under previous AGAAP	136,587	98,907
Adjustments to retained earnings:		
Leave and Other Entitlements <sup>1</sup>	41	
Adjustments to other reserves:		
Total equity translated to AEIFRS	136,628	98,907
Reconciliation of profit or loss as presented under previous AGAAP to AEIFRS		
Prior year profit as previously reported	(207)	
Adjustments:		
Leave and Other Entitlements 1	41	
Prior year profit translated to AEIFRS	(166)	

The cash flow statement presented under previous AGAAP is equivalent to that prepared under AEIFRS <sup>1</sup>AEIFRS requires the discounting of non-current leave liabilities. The non-current portion of recreation leave has been discounted with an effect of derecognising \$41,140.

Director of National Parks has not restated comparatives for financial instruments. The adjustments between AEIFRS and the previous AGAAP have been taken up at 1 July 2005. The only adjustment necessary was a decrease in Provisions for employees of \$41,140 reflecting the discounting of non-current recreation leave.

#### **NOTE 3** Events after the Balance Sheet Date

There were no material events that occurred after the balance sheet date that could impact on the financial statements.

2005

#### 8

## Director of National Parks Notes to and forming part of the Financial Statements

**NOTE 4 Income** 

NOTE 4 III COINE	2000	2005
	\$'000	\$'000
Note 4A - Revenues from Government Agencies		
Appropriations for outputs*	41,962	40,085
Total revenues from government	41,962	40,085
*The Director of National Parks received no direct appropriation from the Gov appropriated directly to the Department of the Environment and Heritage and of National Parks.		
Note 4B - Goods and Services		
Goods	52	68
Services	12,498	13,510
Total sales of goods and services	12,550	13,578
Provision of goods to:		
External entities	52	68
Total sales of goods	52	68
Total sales of goods	=======================================	
Rendering of services to:		
Related entities	2,751	2,189
External entities	9,747	11,321
Total rendering of services	12,498	13,510
Note 4C - Net Gain from Sales of Assets		
Infrastructure, plant & equipment		
Proceeds from disposal	245	545
Net book value of assets disposed	(139)	(145)
Net gain from disposal of infrastructure, plant & equipment	106	400
Note 4D - Other Gains		
Resources received free of charge	2 900	2 000
Total other revenues	2,800	2,800
Total other revenues		2,800

NOTE 5 Operating Expenses	2006	2,005
	\$'000	\$'000
Note 5A - Employee Expenses		
Wages & Salaries	14,709	13,753
Superannuation	2,259	2,476
Leave & other entitlements	1,723	1,634
Separation and redundancies	26	229
Employee Allowances	2,319	2,147
Other employee expenses	142	270
Total employee expenses	21,178	20,509
Note 5B - Supplier Expenses		
Provision of goods - external entities	3,400	2,989
Provision of services - related entities	5,365	5,160
Provision of services - external parties	13,490	13,268
Operating lease rentals	4,313	4,338
Total supplier expenses	26,568	25,755
Note 5C - Depreciation and Amortisation		
Depreciation		
Buildings	2,514	2,478
Other infrastructure, plant and equipment	5,067	6,898
Total Depreciation	7,581	9,376
Amortisation		
Assets held under finance lease	-	169
Intangibles - Computer Software	1	3
Total Amortisation	1	172
Total depreciation and amortisation	7,582	9,548
The aggregate amounts of depreciation or amortisation expensed during the reporting year for each class of depreciable asset are as follows:		
Buildings on freehold land	2,514	2,478
Plant and equipment	5,067	7,067
Intangibles	1	3
Total depreciation and amortisation	7,582	9,548
Note 5D - Write Down of Assets and Impairment of Assets		
Financial assets		
Bad and doubtful debts expense	108	5
Non-financial assets		
Land - Revaluation Decrement	-	1,178
Buildings	1,036	482
Infrastructure, Plant & Equipment	201	862
Total write-down of assets	1,345	2,527

## Director of National Parks Notes to and forming part of the Financial Statements

	2006	2005
	\$'000	\$'000
Note 5E - Net Losses from Disposal of Assets		
Infrastructure, plant & equipment		
Proceeds from disposal	283	(125)
Net book value of assets disposed  Net loss from disposal of infrastructure, plant & equipment	<u>(414)</u> (131)	(125)
		(36)
Note 5F - Other Expenses		
Grants-Local Government-NT	-	100
Other Expenses	<u>176</u> 176	214 314
NOTE 6 Financial Assets		
Note 6A - Cash and Cash Equivalents		
Cash at Bank	19,732	9,814
Cash on Hand	27	91
Total cash and cash equivalents	19,759	9,905
Note 6B - Receivables		
Goods and services	280	127
Less: Provision for doubtful debts	(111)	(11)
Net GST receivable from ATO	169 839	116 289
Other receivables	576	145
Total receivables (net)	1,584	550
All receivable are current assets		
Receivables (gross) are aged as follows:		
Not overdue	1,510	433
Overdue by:		
Less than 30 days	120	72
30 to 60 days	3	9
More than 90 days	62	47
Total va saivables (avess)	185	128
Total receivables (gross)	1,695	561
The provision for doubtful debts is aged as follows:		
Not overdue	95	-
Overdue by:  More than 90 days	16	11
Total provision for doubtful debts	111	11
Note 6C - Other Accrued Revenue	91	15
Accided neveride	91	45 45
	=======================================	43

#### R

## Director of National Parks Notes to and forming part of the Financial Statements

NOTE 7 Non-Financial Assets	2006	2005
	\$'000	\$'000
Note 7A - Land and Buildings		
Land		
Land - at 30 June 2005 valuation (fair value)	6,581	6,581
Total land	6,581	6,581
Buildings		
Buildings - at 30 June 2005 valuation (fair value)	61,919	59,611
Accumulated depreciation	(2,495)	
	59,424	59,611
Buildings under construction	798	2,036
Total buildings	60,222	61,647
Total Land and Buildings (non-current)	66,803	68,228
Note 7B - Infrastructure, Plant & Equipment		
Infrastructure, plant and equipment		
Infrastructure, plant & equipment - at 30 June 2005 valuation (fair value)	71,754	66,521
Accumulated depreciation	(4,805)	_
	66,949	66,521
Plant and equipment under construction	5,149	2,444
Total Infrastructure, plant and equipment (non-current)	72,098	68,965

The revaluations were in accordance with the revaluation policy stated at Note 1 and were completed by an independent valuer, Herron Todd White (HTW) in June 2005.

#### Note 7C - Analysis of Property, Plant and Equipment

Table A - Reconciliation of the opening and closing balances of property, plant and equipment

Item	Land	Buildings	Land & Buildings Total	IP&E	Total
	\$'000	\$′000	\$'000	\$'000	\$'000
As at 1 July 2005					
Gross book value	6,581	61,647	68,228	68,965	137,193
Accumulated depreciation / amortisation	-	-	-	-	-
Opening Net book value	6,581	61,647	68,228	68,965	137,193
Additions					
By purchase	-	1,864	1,864	9,165	11,029
By recognition	-	-	-	50	50
Depreciation / amortisation expense	-	(2,514)	(2,514)	(5,067)	(7,581)
Disposals					
By sale	-	-	-	(553)	(553)
Write Offs		(1,036)	(1,036)	(201)	(1,237)
Transfers	-	261	261	(261)	-
As at 30 June 2006					
Gross Book Value	6,581	62,717	69,298	76,903	146,201
Accumulated depreciation / amortisation	-	(2,495)	(2,495)	(4,805)	(7,300)
Closing Net book value	6,581	60,222	66,803	72,098	138,901

#### Table B - Assets held under finance lease

The Director of National Parks does not hold any assets under a finance lease.

Table C - Property, Plant and Equipment under construction

Item	Buildings	IP&E	Total
	\$'000	\$'000	\$'000
Carrying amount as at 30 June 2006	798	5,149	5,947
Carrying amount as at 30 June 2005	2,036	2,444	4,480

2006	2005
\$'000	\$'000
8	13
(5)	(9)
3	4
	\$'000 8 (5)

### TABLE A - Reconciliation of opening and closing balances of intangibles

Item	Computer Software Purchased
	\$′000
As at 1 July 2005	
Gross book value	13
Accumulated depreciation/ amortisation	(9)
Opening Net book value	4
Additions	
By purchase	-
By recognition	-
Amortisation expense	(1)
Disposals	
By sale	-
Write Offs	-
Transfers	-
As at 30 June 2006	
Gross book value	8
Accumulated amortisation	(5)
Closing Net book value	3

## Director of National Parks Notes to and forming part of the Financial Statements

\$'000         \$'000           Note 7E - Other Non-Financial Assets         369         338           Total other non-financial assets         369         338           Other non-financial assets are current assets.           NOTE 8 Payables           Note 8A - Suppliers           Trade creditors         5,692         4,643           Operating lease payments         832         760           Total supplier payables         5,524         5,403           Trade creditors         5         5,692         4,643           Settlement is usually made net 30 days         832         760           Note 8B - Other Payables         4,115         640           Unearned Revenue         4,115         640           Total other payables are current         NOTE 9 Provisions         4,115         640           Note 9A - Employee Provisions         96         60           Leave         4,986         5,182           Superantuation         23         360           Separation & redundancies         -         5           Other         25         22           Total employee provisions are categorised as follows:         5,130         5,305 <tr< th=""><th></th><th>2006</th><th>2005</th></tr<>		2006	2005
Prepayments         369         338           Total other non-financial assets         369         338           Other non-financial assets are current assets.           NOTE 8 Payables           Note 8A - Suppliers           Trade creditors         5,692         4,643           Operating lease payments         832         760           Total supplier payables         6,524         5,403           Trade creditors           Settlement is usually made net 30 days           Note 8B - Other Payables           Unearned Revenue         4,115         640           Total other payables are current         4,115         640           NOTE 9 Provisions         5         6           Note 9A - Employee Provisions         96         60           Leave         4,986         5,182           Superannuation         23         36           Separation & redundancies         -         5           Other         25         22           Total employee provisions are categorised as follows:         5,130         5,305           Employee provisions are categorised as follows:         4,675         4,111           Non-current		\$'000	\$'000
Total other non-financial assets         369         338           Other non-financial assets are current assets.         369         338           NOTE 8 Payables         369         4,643           Note 8A - Suppliers         5,692         4,643           Operating lease payments         832         760           Total supplier payables         5,692         5,403           Trade creditors           Settlement is usually made net 30 days           Note 8B - Other Payables           Unearned Revenue         4,115         640           Total other payables are current         4,115         640           NOTE 9 Provisions         4,115         640           NOTE 9P rovisions         96         60           Leave         4,986         5,182           Superantuation         23         36           Separation & redundancies         -         5           Other         25         22           Total employee provisions are categorised as follows:         5,130         5,305           Employee provisions are categorised as follows:         4,675         4,111           Non-current         4,675         4,111	Note 7E - Other Non-Financial Assets		
Other non-financial assets are current assets.           NOTE 8 Payables           Note 8A - Suppliers           Trade creditors         5,692         4,643           Operating lease payments         832         760           Total supplier payables         6,524         5,403           Trade creditors           Settlement is usually made net 30 days           Note 8B - Other Payables           Unearned Revenue         4,115         640           Total other payables are current         4,115         640           NOTE 9 Provisions         Value of the payables are current         Value of the payables are current         Value of the payables are current           NOTE 9 Provisions         96         60           Leave         4,986         5,182           Superannuation         23         36           Separation & redundancies         -         5           Other         25         22           Total employee provisions are categorised as follows:         5,130         5,305           Employee provisions are categorised as follows:         4,675         4,111           Non-current         4,675         4,111	Prepayments	369	338
NOTE 8 Payables         Note 8A - Suppliers         Trade creditors       5,692       4,643         Operating lease payments       832       760         Total supplier payables       5,403       5,403         Trade creditors         Settlement is usually made net 30 days         Note 8B - Other Payables         Unearned Revenue       4,115       640         Total other payables are current       4,115       640         NOTE 9 Provisions       Note 9A - Employee Provisions       5       60         Leave       4,986       5,182         Superantuation       23       36         Separation & redundancies       -       5         Other       25       22         Total employee provisions       5,130       5,305         Employee provisions are categorised as follows:       Current       4,675       4,111         Non-current       455       1,194	Total other non-financial assets	369	338
Note 8A - Suppliers           Trade creditors         5,692         4,643           Operating lease payments         832         760           Total supplier payables         6,524         5,403           Trade creditors           Settlement is usually made net 30 days           Note 8B - Other Payables           Unearned Revenue         4,115         640           Total other payables are current         4,115         640           NOTE 9 Provisions         Value of the payables are current         Value of the payables of	Other non-financial assets are current assets.		
Note 8A - Suppliers           Trade creditors         5,692         4,643           Operating lease payments         832         760           Total supplier payables         6,524         5,403           Trade creditors           Settlement is usually made net 30 days           Note 8B - Other Payables           Unearned Revenue         4,115         640           Total other payables are current         4,115         640           NOTE 9 Provisions         Value of the payables are current         Value of the payables of			
Trade creditors         5,692         4,643           Operating lease payments         832         760           Total supplier payables         6,524         5,403           Trade creditors           Settlement is usually made net 30 days           Note 8B - Other Payables           Unearned Revenue         4,115         640           Total other payables are current           NOTE 9 Provisions           Salaries and wages         96         60           Leave         4,986         5,182           Superannuation         23         36           Separation & redundancies         -         5           Other         25         22           Total employee provisions         5,130         5,305           Employee provisions are categorised as follows:         Current         4,675         4,111           Non-current         455         1,194	NOTE 8 Payables		
Operating lease payments         832         760           Total supplier payables         6,524         5,403           Trade creditors           Settlement is usually made net 30 days           Note 8B - Other Payables           Unearned Revenue         4,115         640           Total other payables are current           NOTE 9 Provisions         Variable of the payables are current           Note 9A - Employee Provisions           Salaries and wages         96         60           Leave         4,986         5,182           Superannuation         23         36           Separation & redundancies         -         5           Other         25         22           Total employee provisions         5,130         5,305           Employee provisions are categorised as follows:         Current         4,675         4,111           Non-current         455         1,194	Note 8A - Suppliers		
Total supplier payables         6,524         5,403           Trade creditors           Settlement is usually made net 30 days           Note 8B - Other Payables           Unearned Revenue         4,115         640           Total other payables         4,115         640           All other payables are current         NOTE 9 Provisions           Note 9A - Employee Provisions         Salaries and wages         96         60           Leave         4,986         5,182           Superannuation         23         36           Separation & redundancies         -         5           Other         25         22           Total employee provisions         5,130         5,305           Employee provisions are categorised as follows:         Current         4,675         4,111           Non-current         455         1,194	Trade creditors	5,692	4,643
Trade creditors         Settlement is usually made net 30 days         Note 8B - Other Payables         Unearned Revenue       4,115       640         Total other payables       4,115       640         All other payables are current         NOTE 9 Provisions         Salaries and wages       96       60         Leave       4,986       5,182         Superannuation       23       36         Separation & redundancies       -       5         Other       25       22         Total employee provisions       5,130       5,305         Employee provisions are categorised as follows:       Current       4,675       4,111         Non-current       455       1,194	Operating lease payments	832	760
Settlement is usually made net 30 days         Note 8B - Other Payables         Unearned Revenue       4,115       640         Total other payables       4,115       640         All other payables are current       NOTE 9 Provisions         Note 9A - Employee Provisions       Salaries and wages       96       60         Leave       4,986       5,182         Superannuation       23       36         Separation & redundancies       -       5         Other       25       22         Total employee provisions       5,130       5,305         Employee provisions are categorised as follows:       Current       4,675       4,111         Non-current       455       1,194	Total supplier payables	6,524	5,403
Settlement is usually made net 30 days         Note 8B - Other Payables         Unearned Revenue       4,115       640         Total other payables       4,115       640         All other payables are current       NOTE 9 Provisions         Note 9A - Employee Provisions       Salaries and wages       96       60         Leave       4,986       5,182         Superannuation       23       36         Separation & redundancies       -       5         Other       25       22         Total employee provisions       5,130       5,305         Employee provisions are categorised as follows:       Current       4,675       4,111         Non-current       455       1,194	Trada craditors		
Note 8B - Other Payables         Unearned Revenue       4,115       640         Total other payables       4,115       640         All other payables are current       NOTE 9 Provisions         Note 9A - Employee Provisions         Salaries and wages       96       60         Leave       4,986       5,182         Superannuation       23       36         Separation & redundancies       -       5         Other       25       22         Total employee provisions       5,130       5,305         Employee provisions are categorised as follows:       Current       4,675       4,111         Non-current       455       1,194			
Unearned Revenue         4,115         640           Total other payables         4,115         640           All other payables are current           NOTE 9 Provisions           Note 9A - Employee Provisions           Salaries and wages         96         60           Leave         4,986         5,182           Superannuation         23         36           Separation & redundancies         -         5           Other         25         22           Total employee provisions         5,130         5,305           Employee provisions are categorised as follows:         Current         4,675         4,111           Non-current         455         1,194	Settlement is usually made net 50 days		
Total other payables         4,115         640           All other payables are current         NOTE 9 Provisions           Note 9A - Employee Provisions         Salaries and wages         96         60           Leave         4,986         5,182           Superannuation         23         36           Separation & redundancies         -         5           Other         25         22           Total employee provisions         5,130         5,305           Employee provisions are categorised as follows:         Current         4,675         4,111           Non-current         455         1,194	Note 8B - Other Payables		
All other payables are current  NOTE 9 Provisions  Note 9A - Employee Provisions  Salaries and wages 96 60  Leave 4,986 5,182  Superannuation 23 36  Separation & redundancies - 5  Other 25 22  Total employee provisions are categorised as follows:  Current 4,675 4,111  Non-current 455 1,194	Unearned Revenue	4,115	640
NOTE 9 Provisions         Note 9A - Employee Provisions         Salaries and wages       96       60         Leave       4,986       5,182         Superannuation       23       36         Separation & redundancies       -       5         Other       25       22         Total employee provisions       5,130       5,305         Employee provisions are categorised as follows:       4,675       4,111         Non-current       455       1,194	Total other payables	4,115	640
Note 9A - Employee Provisions         Salaries and wages       96       60         Leave       4,986       5,182         Superannuation       23       36         Separation & redundancies       -       5         Other       25       22         Total employee provisions       5,130       5,305         Employee provisions are categorised as follows:       4,675       4,111         Non-current       455       1,194	All other payables are current		
Salaries and wages       96       60         Leave       4,986       5,182         Superannuation       23       36         Separation & redundancies       -       5         Other       25       22         Total employee provisions       5,130       5,305         Employee provisions are categorised as follows:       4,675       4,111         Non-current       455       1,194	NOTE 9 Provisions		
Leave       4,986       5,182         Superannuation       23       36         Separation & redundancies       -       5         Other       25       22         Total employee provisions       5,130       5,305         Employee provisions are categorised as follows:       4,675       4,111         Non-current       455       1,194	Note 9A - Employee Provisions		
Superannuation       23       36         Separation & redundancies       -       5         Other       25       22         Total employee provisions       5,130       5,305         Employee provisions are categorised as follows:       -       4,675       4,111         Non-current       455       1,194	Salaries and wages	96	60
Separation & redundancies         -         5           Other         25         22           Total employee provisions         5,130         5,305           Employee provisions are categorised as follows:         4,675         4,111           Non-current         455         1,194	Leave	4,986	5,182
Other         25         22           Total employee provisions         5,130         5,305           Employee provisions are categorised as follows:         4,675         4,111           Current         455         1,194	Superannuation	23	36
Total employee provisions5,1305,305Employee provisions are categorised as follows:Current4,6754,111Non-current4551,194	Separation & redundancies	-	5
Employee provisions are categorised as follows:  Current  Non-current  4,675 4,111 1,194	Other	25	22
Current       4,675       4,111         Non-current       455       1,194	Total employee provisions	5,130	5,305
Current       4,675       4,111         Non-current       455       1,194	Employee provisions are categorised as follows:		
	- · · · · · · · · · · · · · · · · · · ·	4,675	4,111
Total employee provisions 5,305	Non-current	455	1,194
	Total employee provisions	5,130	5,305

#### \_

## Director of National Parks Notes to and forming part of the Financial Statements

NOTE 10 Cash Flow Reconciliation	2006 \$'000	2005 \$'000
	·	·
Reconciliation of cash per Income Statement to Statement of Cash Flows		
Cash at year end per Statement of Cash flows	19,759	9,905
Balance Sheet items comprising above cash:	19,759	9,905
'Financial assets - Cash'		
Reconciliation of operating result to net cash from operating activities:		
Operating result	2,174	(166)
Non-cash items		
Depreciation/amortisation	7,582	9,548
Take up of Assets for first time	(50)	(246)
Write down of non-financial assets	1,237	2,522
Net Gain on disposal of non-current assets	(106)	(400)
Net Loss on disposal of non-current assets	131	38
Changes in Assets and Liabilities		
(Increase)/decrease in receivables	(502)	294
(Increase)/decrease in GST receivables	(550)	54
(Increase)/decrease in prepayments	(31)	(32)
(Increase)/decrease in accrued revenue	(46)	31
Increase/(decrease) in unearned revenue	3,476	74
Increase/(decrease) in employee liabilities	(175)	(526)
Increase/(decrease) in supplier liabilities	1,121	390
Increase/(decrease) in other provisions	11	(17)
Net cash from operating activities	14,272	11,564

## Director of National Parks Notes to and forming part of the Financial Statements

#### **NOTE 11 Contingent Liabilities and Assets**

#### **Quantifiable Contingencies**

The Schedule of Contingenices in the financial statements reports a contingent liability as at 30 June 2006 in respect of claims for back-payment of overtime to staff whilst on Restriction Allowances. The amount represents an estimate of the Director of National Parks' liability based on advice from the People Management Branch of the Department of the Environment and Heritage. The Department of the Environment and Heritage is verifying the claims before any payment is made.

#### **Unquantifiable Contingencies**

At 30 June 2006, the Director of National Parks had a number of outstanding legal claims for which it has denied liability and is defending the claims. It is not possible to estimate the amounts of any eventual payments which may be required in relation to these claims.

#### **NOTE 12 Director Remuneration**

The number of directors of the Director of National Parks included in these figures are shown below in the relevant remuneration bands:

	2006	2005
\$240,000 to \$254,999	1	-
\$255,000 to \$269,999		1
Total number of directors of Director of National Parks	1	1
	\$	\$
Total remuneration received or due and receivable by the Director of National Parks:	244,408	258,309

#### **NOTE 13 Related Party Disclosures**

Director of National Parks

The Director of the National Parks during the year was Mr Peter Cochrane. The aggregate remuneration of the Director is disclosed in Note 12.

Loans to Director and Director related entities

There were no loans made to either the Director or entities related to the Director during 2005-06 (2004-05: Nil).

Other Transactions with Director or Director related entities

There were no other transactions with either the Director or entities related to the Director during 2005-06 (2004-05: Nil).

#### **NOTE 14 Executive Remuneration**

The number of officers who received or were due to receive total remuneration of \$130,000 or more:

	2006	2005
\$130,000 - \$144,999	-	1
\$160,000 - \$174,999	-	1
\$190,000 - \$204,999	2	1
\$220,000 - \$234,999	1	
	3	3
	2006	2005
	\$	\$
The aggregate amount of total remuneration of officers shown above	635,259	509,244

Separation and Redundancy benefits paid on termination of 1 officer above was \$142,822.

The officer remuneration includes all officers concerned with or taking part in the management of the National Parks during 2005-06 except the Director of National Parks. Details in relation to the Director of National Parks have been incorporated into Note 12 Director Remuneration.

#### **NOTE 15 Remuneration of Auditors**

	2006	2005
	\$	\$
The cost of financial statement audit services provided to the Director of National	74,000	65,000
Parks was:		

No other services were provided by the Auditor-General during the reporting period.

#### **NOTE 16 Average Staffing Levels**

	2006	2005
The average staffing levels for the Director of National Parks during the year were:	275	263

Financial	Notes		Floating		Fixed In	Fixed Interest Rate Maturing in	ate Matu	uring in		Non-Interest	terest	Total	le	Weighted Average	Average
instrument		Intere	Interest Rate	1 Year	1 Year or less	1 to 5 Years	Years	> 5 Years	ears	Bearing	ing			Effective Interest Rate	Interest te
		2006	2005		2005	<b>2006</b> 2005 <b>2006</b> 2005 <b>\$'000 \$'000 \$'000</b>	2005	<b>2006</b> 2005 <b>\$'000</b> \$'000	2005	\$'000	2005	\$'000	2005	2006	2005
Financial Assets															
Cash at bank	6A	19,732	9,814	•	1	•	1	•	1	•	ı	<b>19,732</b> 9,814	9,814	4.80	4.73
Cash on hand	6A	'	1	•	1	'	1	•	1	27	91	27	91	n/a	n/a
Receivables for	6B	'	1	•	1	'	1	•	1	280	127	280	127	n/a	n/a
goods and services															
Other receivables	6B	'	1	'	1	'	1	•	1	576	145	576	145	n/a	n/a
Total		19,732	9,814							883	363	<b>20,615</b> 10,177	10,177		
Total Assets												<b>160,707</b> 148,034	148,034		

NOTE 17 Financial Instruments

Note 17A - Interest Rate Risk

instrument         Interest Rate         1 Year or less         1 to 5 Years         > 5 Years         Bearing         Fefective Interest Rate           2006         2005         2006         2006         2005         2006         2005         2006         2006         2005         2006 <th>Financial</th> <th>Notes</th> <th>Floating</th> <th>ting</th> <th></th> <th>Fixed Ir</th> <th>Fixed Interest Rate Maturing in</th> <th>ate Matu</th> <th>ıring in</th> <th></th> <th>Non-Interest</th> <th>terest</th> <th>Total</th> <th>al</th> <th>Weighted Average</th> <th>Average</th>	Financial	Notes	Floating	ting		Fixed Ir	Fixed Interest Rate Maturing in	ate Matu	ıring in		Non-Interest	terest	Total	al	Weighted Average	Average
ties         8A         2006         2005         2006         2005         2006         2005         2006         2005         2006         2005         2006         2005         2006         2005         2006         2	instrument		Intere	st Rate	1 Year	or less		Years	> 5 Y	ears	Bear	ing			Effective Ra	Interest te
ties			2006		2006	2005	2006	2005	2006	2005	2006	2005	2006		2006	2005
ties       8A       -       -       -       -       -       -       6,524       5,403       6,524       5,403       n/a         8B       -       -       -       -       -       -       4,115       640       4,115       640       n/a         1       -       -       -       -       -       -       10,639       6,043       10,639       6,043         1       15,839       11,407       15,839       11,407       10,639       10,639       1,407       1,4			\$,000		\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000	\$,000		%	%
8A         -         -         -         -         -         6,524         5,403         6,524         5,403         n/a           8B         -         -         -         -         -         4,115         640         4,115         640         n/a           10,639         6,043         10,639         6,043         10,639         6,043         10,407         15,839         11,407	Financial Liabilities															
8B         -         -         -         -         -         -         4,115         640         4,115         640         4,115         640         m/a           10,639         6,043         10,639         6,043         10,639         6,043         10,639         1,407	Trade Creditors	8A	'	1	'	1	1	1	1	1	6,524	5,403	6,524	5,403	n/a	n/a
8B         -         -         -         -         -         4,115         640         4,115         640         n/a           n/a         -         -         -         -         -         -         10,639         6,043         10,639         6,043           n/a         -         -         -         -         -         -         -         10,639         6,043         10,639         6,043	and accruals															
10,639 6,043	Other payables	8B	•	1	•	1	•	ı	•	1	4,115	640	4,115		n/a	n/a
	Total		•	1	•	-	-	1	-	1	10,639	6,043	10,639	6,043		
	<b>Total Liabilities</b>												15,839	11,407		

#### Note 17B - Fair Values of Financial Assets and Liabilities

Financial Assets

The net fair values of the cash and non-interest-bearing monetary financial assets approximate their carrying amounts.

Financial Liabilities

The net fair values for trade creditors are approximated by their carrying amounts.

#### Note 17C - Credit Risk Exposure

The Director of National Parks maximum exposures to credit risk at reporting date in relation to each class of recognised financial assets is the carrying amount of those assets as indicated in the Balance Sheet.

The Director of National Parks has no significant exposures to any concentrations of credit risk.

All figures for credit risk referred to do not take into account the value of any collateral or other security.

#### **NOTE 18 Appropriations**

The Director of National Parks received no direct appropriation from the Government for Departmental outputs. Funds are appropriated directly to the Department of the Environment and Heritage and transferred to the Director of National Parks. The Director of National Parks was however appropriated an equity injection of \$6.066 million (Appropriation Act No. 6 of 2005–06) for tourism infrastructure at Kakadu and Uluru-Kata Tjura National Parks.

When received by the Director of National Parks, the payments made are legally the money of the Director of National Parks and do not represent any balance remaining in the Consolidated Revenue Fund.

#### **NOTE 19 Reporting of Outcomes**

#### **Note 19A - Outcomes of the Director of National Parks**

The Director of National Parks is structured to contribute to the following output:

#### Outcome 1

The Director of National Parks only has one outcome – *The environment, especially those aspects that are matters of national environmental significance, is protected and conserved.* 

#### Output 1

The Director of National Parks only has one output – *Conservation and appreciation of Commonwealth reserves*.

## Director of National Parks Notes to and forming part of the Financial Statements

**Note 19B - Net Cost of Outcome Delivery** 

	Outco	me 1	To	tal
	2006	2005	2006	2005
	\$'000	\$′000	\$′000	\$'000
Departmental Expenses	56,980	58,691	56,980	58,691
Total expenses	56,980	58,691	56,980	58,691
Costs recovered from provision of goods and services to the non-government sector				
Departmental	9,799	11,389	9,799	11,389
Total costs recovered	9,799	11,389	9,799	11,389
Other external revenues				
Departmental				
Sales of goods and services - to related entities	2,751	2,189	2,751	2,189
Interest	622	284	622	284
Net gains from disposal of assets	106	400	106	400
Other gains	2,800	2,800	2,800	2,800
Total Departmental	6,279	5,673	6,279	5,673
Total Other external revenues	6,279	5,673	6,279	5,673
Net cost / (contribution) of outcome	40,902	41,629	40,902	41,629

The net costs shown include intra-government costs that would be eliminated in calculating the actual Budget outcome.

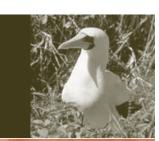
Note 19C - Departmental Revenue and Expenses by Output Groups and Outputs

	Outco	me 1	To	tal
	2006	2005	2006	2005
	\$'000	\$′000	\$'000	\$'000
Departmental expenses				
Employees	21,178	20,509	21,178	20,509
Suppliers	26,568	25,755	26,568	25,755
Depreciation	7,582	9,548	7,582	9,548
Write-down of assets	1,345	2,527	1,345	2,527
Net losses from disposal of assets	131	38	131	38
Other Expenses	176	314	176	314
Total departmental expenses	56,980	58,691	56,980	58,691
Funded by:				
Revenues from Government agencies	41,962	40,085	41,962	40,085
Sale of goods and services	12,550	13,578	12,550	13,578
Interest	622	284	622	284
Net gains from disposal of assets	106	400	106	400
Other non-taxation revenues	1,114	1,378	1,114	1,378
Other gains	2,800	2,800	2,800	2,800
Total departmental revenues	59,154	58,525	59,154	58,525

The Director of National Parks' outcomes and outputs are described at Note 19A.

The net costs shown include intra-government costs that would be eliminated in calculating the actual Budget outcome.

## Appendices



Appendix A: Freedom of information statement

Appendix B: Acronyms and shortened forms

Appendix C: Glossary of technical terms

Appendix D: Compliance index

# Appendix A: Freedom of information statement

The Director of National Parks received no applications pursuant to the *Freedom* of *Information Act 1982* (FOI Act). No applications were made to the Administrative Appeals Tribunal.

The FOI Act extends to the Australian community the right to obtain access to information in the possession of the Australian Government. Access is limited only by exemptions necessary for the protection of essential public interests and the private and business affairs of persons in respect of whom information is collected and held by departments and statutory authorities.

Section 8 of the FOI Act requires departments and statutory authorities to make available information about their functions, organisations and operations. This information is included in other parts of this annual report.

Details of the categories of documents each agency maintains, and the facilities for public access, are also required under section 8 of the FOI Act.

For information about the Director of National Parks' functions and the organisation structure, see Figure 4 on page 20 and the Corporate Overview section of this report.

## Arrangements for outside participation in decisions, policy and administration

Public participation in the management of Commonwealth reserves under the EPBC Act is facilitated through a number of consultative mechanisms, including making declaration proposals and management plans available for public comment.

For Commonwealth reserves on Aboriginal-owned land (Kakadu, Uluru–Kata Tjuta and Booderee National Parks), the EPBC Act provides for both consultation with, and involvement of, representatives of the Aboriginal landowners in management of the reserve. The consultative processes are outlined in the Management and Accountability section of this report.

## Categories of documents

Categories of documents are files relating to all aspects of the activities and functions of the Director; studies, reports and surveys; agenda papers and minutes of meetings; and procedures manuals.



Lists of available publications may be obtained by contacting the Department of the Environment and Heritage Community Information Unit on 1800 803 772, or visiting the website at www.deh.gov.au/parks/publications.

### Facilities for access

See the next section for details of access points at which members of the public may make enquiries on freedom of information, request freedom of information forms, submit formal freedom of information requests, or inspect documents to which access has been granted. The access points are open during business hours and staff are available to assist with enquiries and inspection of documents. Areas are set aside to enable members of the public to inspect documents.

Information about facilities for access by people with disabilities can be obtained from the Freedom of Information Coordinator.

# Freedom of information procedures and access points

Enquiries may be made in writing, by phone or in person at the various access points. Formal freedom of information requests should be addressed to:

Freedom of Information Coordinator Legal Section Department of the Environment and Heritage GPO Box 787 Canberra ACT 2601

Phone: (02) 6274 1578 Fax: (02) 6274 1587

Email: FOI\_Contact\_Officer@deh.gov.au

Special arrangements can be made in other states with regional offices of the National Archives of Australia in Sydney, Melbourne, Brisbane, Townsville, Perth, Adelaide and Hobart.

If difficulty arises in identifying the document or in providing access in the manner requested, an officer will contact the applicant with a view to resolving the difficulty. In consultation with applicants, documents will be made available by mail to the address specified by the applicant, at the official access point or at the information access office located within the regional office of the National Archives of Australia nearest to the applicant's normal place of residence.

The authorised decision-maker under the FOI Act who may refuse, defer or grant access is the relevant Assistant Secretary.

Ç

# Appendix B:Acronyms and shortened forms

AAD	Australian Antarctic Division
AEEZ	Australia's Exclusive Economic Zone
AIMS	Australian Institute of Marine Science
ANAO	Australian National Audit Office
ANBG	Australian National Botanic Gardens
APS	Australian Public Service
Migratory Species (Bonn) Convention	Convention on the Conservation of Migratory Species of Wild Animals (Bonn, 1979)
CAC Act	Commonwealth Authorities and Companies Act 1997
China–Australia Migratory Birds Agreement (CAMBA)	Agreement between the Government of Australia and the Government of the People's Republic of China for the Protection of Migratory Birds and their Environment
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DNP	Director of National Parks
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
FOI Act	Freedom of Information Act 1982
GIS	Geographic information system
IBRA	Interim Biogeographic Regionalisation for Australia
IMCRA	Interim Marine and Coastal Regionalisation for Australia
IUCN	World Conservation Union
Japan–Australia Migratory Birds Agreement (JAMBA)	Agreement between the Government of Australia and the Government of Japan for the Protection of Migratory Birds in Danger of Extinction and their Environment
KRA	Key result area
UNESCO	United Nations Educational, Scientific and Cultural Organization
WBACC	Wreck Bay Aboriginal Community Council
WBEL	Wreck Bay Enterprises Ltd
Wetlands (Ramsar) Convention	Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar, 1971)
World Heritage Convention	Convention Concerning the Protection of the World Cultural and Natural Heritage (Paris, 1972)

# Appendix C: Glossary of technical terms

Benthic	Marine organisms that live on, in or near the ocean floor
Cetaceans	Whales, porpoises and dolphins
Cryptogams	Plants that produces spores, not seeds, in their sexual reproductive cycle, eg. ferns, mosses, algae
Demersal	Species or activities that are closely associated with the ocean floor
Endemic	(Of a taxonomic group) confined to a given region
MoU Box area	An area within Australian waters covered by a Memorandum of Understanding with Indonesia that includes Ashmore Reef and Cartier Island and is open to traditional Indonesian fishers
Nektonic	Marine and freshwater organism that can swim freely and be generally independent of currents, ranging in size from microscopic organisms to whales
Pelagic	Species or activities that normally live or occur near the ocean surface or the water column
Riparian	Of, on, or relating to the banks of a natural course of water
Riverine	Relating to a river
Seamounts	Large cone-shaped remnants of extinct volcanoes rising from the ocean floor
Terrestrial	Relating to the land or land-dwelling



9

# Appendix D: Compliance index

This annual report has been prepared in accordance with the *Commonwealth Authorities and Companies (Report of Operations) Orders 2005*.

Requirement	Page
Certification	ii
Commonwealth Disability Strategy	210
Corporate governance	198
Director's details	29
Effects of Ministerial directions	198
Enabling legislation and responsible Minister	28
Financial statements	211
Indemnities and insurance premiums for officers	203
Judicial decisions and reviews by outside bodies	203
Outline of organisational structure	19
Report on performance	33
Review by Director	3
Review of operations and future prospects	3–210
Other statutory requirements	
Advertising and market research	208
Ecologically sustainable development and environmental performance	209
Freedom of information	210, 248
Occupational health and safety	205

# Index

### A

Abbott's booby (*Papasula abbotti*)
Christmas Island National Park, 6, 68
Aboriginal landowners
and management of reserves, 200–1,
248
Acacia D 19063 Graveside Gorge
Kakadu National Park, 80, 82
Activity Safety Analysis
Coringa–Herald National Nature
Reserve, 133
Lihou Reef National Nature Reserve,

administrative tribunals see judicial decisions and decisions of administrative tribunals advertising and market research, 208 Advisory committees, 200 Christmas Island National Park, 70, 73 Norfolk Island National Park and Botanic Garden, 95, 97 Pulu Keeling National Park, 102 Agreement on the Conservation of

Albatrosses and Petrels, 139 albatross in Macquarie Island Marine Park, 160

amberjack (*Seriola dumerilli*) Lord Howe Island Marine Park, 158 *Anangu*, 7, 26, 106, 108, 111, 113, 117 anemone

Solitary Islands Marine Reserve, 178 Argentine ant (*Linepithema humile*) Norfolk Island National Park and Botanic Garden, 95

Ashmore Reef National Nature Reserve, 120–4 illegal fishing at, 5, 122, 123, 124 management arrangements, 121, 124 see also under business management (KRA6)

Asian house gecko (Hemidactylus frenatus)
Norfolk Island National Park and Botanic Garden, 95

Assessments and Wildlife Division (Department of the Environment and Heritage), 71

assets management see purchasing and assets management

audit, 201–2

Heritage), i, 29

Reserve, 131-2

see also Independent Audit Report
Audit Committee, 201–2
Auditor-General's reports, 204
AusAID, 124, 128
Austland Services Pty Ltd, i, 191
Australian Antarctic Division
(Department of the Environment and

and Heard Island and McDonald Islands Marine Reserve, 147–8, 150 and Macquarie Island, 162

Australian Antarctic Programme, 147, 148 Australian Biological Resources Study, 30 Australian Bureau of Agriculture and Resource Economics (ABARE), 195

Australian Customs Service and Ashmore Reef National Nature Reserve, 121, 122, 123, 124 and Cartier Island Marine Reserve, 126, 127, 128

and Lord Howe Island Marine Park, 157
Australian Federal Police, 206
Australian Fisheries Management
Authority, 142, 151
Australian Greenhouse Office, 5
Australian Institute of Marine Science
and Coringa–Herald National Nature

T

C

and Elizabeth and Middleton Reefs Marine National Nature Reserve, 136 and Lihou Reef National Nature Reserve, 153-4 and Mermaid Reef Marine National Nature Reserve, 167, 168 and Ningaloo Marine Park, 172, 173, 175 and whale shark tagging research project, 177 Australian Landscape Trust, 191 Australian National Antarctic Research Expedition, 162 Australian National Botanic Gardens (ANBG), i, 8, 47-54 volunteers, 9 see also Centre for Plant Biodiversity Research Australian National Herbarium, 48–9 Australian National Parks Fund, 30 Australian National University—Centre for Resource and Environmental Studies, 6, 9, 57, 65 Australian Plant Census. 49 Australian Radiation Protection and Nuclear Safety Agency, 92 Australian sea-lion (Neophoca cinerea) Great Australian Bight Marine Park, 138, 140, 141, 144 Australia's Virtual Herbarium, 49-50 Ayers Rock Resort, 113



benthic flora and fauna
Coringa–Herald National Nature
Reserve, 129
Great Australian Bight Marine Park, 140
Heard Island and McDonald Islands
Marine Reserve, 148
Lihou Reef National Nature Reserve,
152

Ningaloo Marine Park, 170 Tasmanian Seamounts Marine Reserve, 182

benthic habitats

Heard Island and McDonald Islands Marine Reserve, 145 Lord Howe Island Marine Park, 156 Macquarie Island Marine Park, 160 Solitary Islands Marine Reserve, 180

**Benthic Protection Zone** 

Great Australian Bight Marine Park, 140 big-headed ants (*Pheidole megacephala*) Christmas Island National Park, 70 Kakadu National Park, 80, 82

biodiversity knowledge management (KRA7)

Australian National Botanic Gardens, 53

performance indicators, 41 Ulu<u>r</u>u–Kata Tju<u>t</u>a National Park, 115–16 biological surveys

Calperum and Taylorville Stations, 191 bitou bush (*Chrysanthemoides monilifera*) Booderee National Park, 57, 58

black cod (*Epinephelus daemelii*) Elizabeth and Middleton Reefs Marine National Nature Reserve, 134, 136, 137 Solitary Islands Marine Reserve, 178

black-eared miner (*Manorina melanotis*)
Calperum and Taylorville Stations, 189,
191

Bleekers devil fish (*Paraplesiops bleekeri*)
Solitary Islands Marine Reserve, 178
Boards of Management, 200
Booderee National Park, 23–4, 57
Kakadu National Park, 8, 23, 25, 79
Uluru–Kata Tjuta National Park, 23, 26, 108

boobook owl see morepork or boobook owl (*Ninox novaeseelandiae undulata*) Booderee Botanic Gardens, 55, 62



9

Kakadu National Park, 86–7

Ningaloo Marine Park, 175

Botanic Garden, 98

Lord Howe Island Marine Park, 159

Norfolk Island National Park and

National Nature Reserve, 135

Great Australian Bight Marine Park, 139

Heard Island and McDonald Islands

Booderee National Park, ii, 5–6, 7, 8, 55–67

bottlenose dolphins (*Turisops truncates*)
Elizabeth and Middleton Reefs Marine

Great Australian Bight Marine Park, 143

Heard Island and McDonald Islands

Marine Reserve, 151

Board of Management, 23-4, 57, 200

consultative mechanisms, 201



Ç

Marine Reserve, 147 Kakadu National Park, 78 Lihou Reef National Nature Reserve, 153 Macquarie Island Marine Park, 161 Mermaid Reef Marine National Nature Reserve, 166 Ningaloo Marine Park, 171 Norfolk Island National Park and Botanic Garden, 94 Pulu Keeling National Park, 102 Solitary Islands Marine Reserve, 179 Tasmanian Seamounts Marine Reserve, 183 Uluru–Kata Tjuta National Park, 107 Christinus quentheri Norfolk Island National Park and Botanic Garden, 93 Christmas Island Immigration Reception and Processing Centre, 70 Christmas Island National Park, 6, 68–76 Advisory Committee, 70, 73, 200 Christmas Island Rainforest Rehabilitation Programme, 70 Christmas Island Tourism Association, 72 Clerk Reef, 165 climate change Australian National Botanic Gardens, 49 Booderee National Park, 66–7 and protected areas, 5 climatic disturbances and Mermaid Reef Marine National Nature Reserve, 167 clownfish (*Amphiprion latezonatus*) Solitary Islands Marine Reserve, 178 Coastwatch and Ashmore Reef National Nature Reserve, 121 and Coringa-Herald National Nature

Reserve, 130, 132 and Elizabeth and Middleton Reefs Marine National Nature Reserve, 135, 137 and Great Australian Bight Marine Park, 142 and Lihou Reef National Nature Reserve, 154, 155 and Lord Howe Island Marine Park, 157, 158 and Macquarie Island Marine Park, 163 and Mermaid Reef Marine National Nature Reserve, 166, 168 and Ningaloo Marine Park, 174 and Solitary Islands Marine Reserve, 180 and Tasmanian Seamounts Marine Reserve, 184 Cocos buff-banded rail (Gallirallus philippensis andrewsi) Pulu Keeling National Park, 101, 103 Cocos (Keeling) Islands, 8, 101 Cocos (Keeling) Islands Shire Council, 102 cod (Ephinephelus) species Lord Howe Island Marine Park, 158 Cod Grounds (off NSW coast).6 Collaborative Australian Protected Areas Database, 44 Comcover and risk management, 11, 202 commercial shipping and Ningaloo Marine Park, 172, 173, 175



and Cartier Island Marine Reserve, 127

common noddies (Anous stolidus) Ashmore Reef National Nature Reserve, 120 Commonwealth Authorities and Companies Act 1997 (CAC Act), ii, 29, 198, 201 Commonwealth Disability Strategy, 210 Commonwealth Fraud Control

Commonwealth Procurement Guidelines, 209	and marine protected areas, 187 and Solitary Islands Marine Reserve,
Commonwealth reserves see reserves	180
compliance and enforcement under EPBC Act, 206–8	and whale shark tagging research project, 177
conservation and appreciation of	CSIRO baseline biodiversity surveys
Commonwealth reserves sub-	Ningaloo Marine Park, 170, 172, 173
outcome, 34, 37–8	CSIRO Marine Research, 184
Conservation Volunteers Australia, 9, 62,	CSIRO Plant Industry, 48, 51
114	Cultural Heritage and Scientific
consultancy services, 208	Consultative Committee
consultative mechanisms, 200–1, 248	Uluru–Kata Tjuta National Park, 113,
control arrangements, 201–2	114
Convention on Biological Diversity, 47	Cultural Heritage Management Action
coral reefs, 6	Plan
Ashmore Reef National Nature	Ulu <u>r</u> u–Kata Tju <u>t</u> a National Park, 111
Reserve, 122, 123	cultural heritage management (KRA2), 7
Coringa–Herald National Nature	Australian National Botanic Gardens,
Reserve, 131–2	50
Elizabeth and Middleton Reefs Marine	Booderee National park, 59–60
National Nature Reserve, 136	Calperum and Taylorville Stations, 193
Mermaid Reef Marine National Nature	Elizabeth and Middleton Reefs Marine
Reserve, 165, 167	National Nature Reserve, 137
Coral Sea Islands Territory, 129	Heard Island and McDonald Islands
Coringa Packet wreck, 129	Marine Reserve, 149
Coringa-Herald National Nature Reserve,	Kakadu National Park, 7, 82–3
129–33	performance indicators, 39
management arrangements, 130	Pulu Keeling National Park, 104
see also under business management	Ulu <u>r</u> u–Kata Tju <u>t</u> a National Park, 7, 111
(KRA6)	Cultural Sites Management System
volunteers, 130	Uluru–Kata Tjuta National Park, 7, 111
Coronation Hill see Guratba (Coronation	Cyclone Monica
Hill)	effect of on Kakadu National Park, ii, 11,
Coronation Hill Joint Venturers, 5	90–1, 202
corporate governance, 198–203	D
corporate overview, 27–31	D
crabs	Department of Agriculture, Fisheries and
Christmas Island National Park, 68, 71, 72	Forestry, 128
crocodiles (Crocodylus porosus)	Department of Defence, 62, 127, 132, 155
Kakadu National Park, 80	Department of Finance and

**CSIRO** 

Guidelines, 203, 206

Administration, 70 Department of Territories and Regional Services, 155 Department of the Environment and Heritage and Director of National Parks, 198, 204 and Parks Australia, i strategic plan and corporate plan, 34 and whale shark tagging research project, 177 see also Assessments and Wildlife Division (Department of the Environment and Heritage); Australian Antarctic Division (Department of the Environment and Heritage); Marine Division (Department of the Environment and Heritage) Department of Transport and Regional Services, 132 diamond python (*Morelia spilota spilota*) Booderee National Park, 67 Director of National Parks, 29 compliance and enforcement under EPBC Act, 206-8 corporate governance, 198–203 and Department of the Environment and Heritage, 198, 204 Director's review, 4-12 financial statements, 211–46 functions and responsibilities of, i, 29-30 funding, 198-9 highlights for 2005-06, ii human resource management, 204-6 organisational snapshot, i and Parks Australia, 198 and Uhrig review, 5 Director of National Parks Chief Executive

dolphins
Solitary Islands Marine Reserve, 178
drought
Booderee National Park, 66–7
dugong (*Dugong dugon*)
Ashmore Reef National Nature
Reserve, 120

#### E

eastern bristlebirds (Dasyornis brachypterus) Booderee National Park, 6, 57, 59, 67 eastern chestnut mouse (Pseudomys gracilicaudatus) Booderee National Park, 67 ecologically sustainable development, 189, 191, 194, 209-10 Elizabeth and Middleton Reefs Marine National Nature Reserve, 134–7 management arrangements, 135 SMS Emden wreck, 104 endangered flora species (Norfolk Island), 93, 95, 99, 100 endangered species see Abbott's booby (Papasula abbotti); black-eared miner (Manorina melanotis); Cocos buffbanded rail (Gallirallus philippensis andrewsi); eastern bristlebird (Dasyornis brachypterus); endangered flora species (Norfolk Island); grey nurse shark (Carcharius taurus); Round Island petrel (Pterodroma arminjoniana); rufous hare-wallaby or mala (Lagorchestes hirsutus); southern right whale (Eubalaena australis) Energy Resources of Australia, 86 enforcement matters heard in courts, 207

matters heard in courts, 207 see also compliance and enforcement under EPBC Act

Instructions, 201

Disability Action Plan (Department of the

Environment and Heritage), 210

Tasmanian Seamounts Marine Reserve,

Uluru-Kata Tjuta National Park, 107

**Environment Protection and Biodiversity** 

**Conservation Regulations 2000** 

environmental performance, 209–10

and Uluru climb, 118

environmentally sustainable

fire ants (Solenopsis geminata)

**Environment Protection and Biodiversity** 

Ashmore Reef National Nature

44

48

Reserve, 121

Conservation Act 1999 (EPBC Act), ii, 29,

Australian National Botanic Gardens,

and Boards of Management, 200

Christmas Island National Park, 70 fishing charter vessels Lord Howe Island Marine Park, 158 illegal see under Ashmore Reef National Nature Reserve; Cartier Island Marine Reserve: Mermaid Reef Marine National Nature Reserve Memorandum of Understanding with Indonesia re, 5, 122, 124, 127, 128 flat back turtles (Natator depressus) Kakadu National Park, 80, 82 flora see endangered flora species (Norfolk Island); vulnerable flora species (Norfolk Island); weed control forest rehabilitation strategy Norfolk Island National Park and Botanic Garden, 99-100 fox control Booderee National Park, 6, 57, 58, 59, 62,67 Calperum and Taylorville Stations, 191 fraud control, 203 see also Commonwealth Fraud Control Guidelines freedom of information, 210 statement, 248-9 Freedom of Information Act 1982 (FOI Act), 210,248 Friends of the Australian National Botanic Gardens, 9, 49, 51–2 Friends of the Park Group (Uluru–Kata Tjuta National Park), 114 Director of National Parks, 198–9 Kakadu National Park, 4, 199 Uluru-Kata Tjuta National Park, 4, 199 future challenges Ashmore Reef National Nature

Australian National Botanic Gardens, Booredee National Park, 58 Calperum and Taylorville Stations, 191 Cartier Island Marine Reserve, 126 Christmas Island National Park, 70 Coringa–Herald National Nature Reserve, 131 Great Australian Bight Marine Park, 141 Heard Island and McDonald Islands Marine Reserve, 148-9 Kakadu National Park, 80-1 Lihou Reef National Nature Reserve, 154 Lord Howe Island Marine Park, 158 Macquarie Island Marine Park, 163 Mermaid Reef Marine National Nature Reserve, 167 Ningaloo Marine Park, 172 Norfolk Island National Park and Botanic Garden, 95-6 Pulu Keeling National Park, 103 Tasmanian Seamounts Marine Reserve, 184 Uluru-Kata Tjuta National Park, 109

## G

Galapagos sharks (*Carcharhinus galapagensis*)
Elizabeth and Middleton Reefs Marine National Nature Reserve, 136
gamba grass (*Andropogon gayanus*)
Kakadu National Park, 80, 81, 88
geographic information system (GIS)
Booderee National Park, 59
Norfolk Island National Park and
Botanic Garden, 98
Uluru–Kata Tjuta National Park, 116
Geoscience Australia, 187
giant burrowing frog (*Heleioporus australiacus*)

Reserve, 122

Booderee National Park, 57
ginger ants (Solenopsis geminata)
Kakadu National Park, 80, 82
global positioning system (GPS)
Norfolk Island National Park and
Botanic Garden, 98
Uluru–Kata Tjuta National Park, 116
goannas
Kakadu National Park, 80, 81
Government Property Ownership
Framework policy, 198
Great Australian Bight Marine Park
(Commonwealth Waters), 138–44
management arrangements, 140
see also under business management
(KRA6)
great desert skink see tjaku <u>r</u> a or great
desert skink ( <i>Egernia kintorei</i> )
green and golden bell frog (Litoria aurea
Booderee National Park, 57, 67
Green Corps project
Calperum and Taylorville Stations, 192
Ulu <u>r</u> u–Kata Tju <u>t</u> a National Park, 114
green parrot ( <i>Cyanoramphus</i>
novaezelandiae cookii)
Norfolk Island National Park and
Botanic Garden, 93, 95, 96
green turtle ( <i>Chelonia mydas</i> )
Ashmore Reef National Nature
Reserve, 120
Coringa–Herald National Nature
Reserve, 129
Elizabeth and Middleton Reefs Marine
National Nature Reserve, 134
Lihou Reef National Nature Reserve, 152
Ningaloo Marine Park, 170
Pulu Keeling National Park, 101, 103
grey headed albatross ( <i>Diomedea</i>
chrysostoma)
Macquarie Island Marine Park, 160

grey nurse shark (*Carcharius taurus*), 6
Solitary Islands Marine Reserve, 178, 180
Guratba (Coronation Hill), 5, 7

H
hawksbill turtles (*Eretmochelys imbricata*)
Ashmore Reef National Nature
Reserve, 120
Pulu Keeling National Park, 101, 103

Marine Reserve, 29, 145–51
management arrangements, 147
see also under business management
(KRA6)
management plan, 35
Heard Island cormorant (*Phalacrocorax* 

Heard Island and McDonald Islands

atriceps)
Heard Island and McDonald Islands
Marine Reserve, 145

Heard Island sheathbill (*Chionis minor nasicornis*)

Heard Island and McDonald Islands Marine Reserve, 145

Hubbs-SeaWorld Research Institute and whale shark tagging research project, 177

human resource management, 204–6 humpback whales (*Megaptera novaengliae*) Solitary Islands Marine Reserve, 178

# Ι

Imperieuse Reef, 165
indemnities and insurance, 203
Independent Audit Report, 212–14
Indigenous employment, 11, 64, 83, 111
Indigenous Protected Areas Programme, 30
Indigenous tourism ventures
Kakadu National Park, ii, 8, 85

Indigenous trainees and cadets, 204 Indonesia Memorandum of Understanding with re fishing, 5, 222, 224, 227, 228 insect pests Coringa-Herald National Nature Reserve, 130, 131 see also big-headed ants (Pheidole megacephala); fire ants (Solenopsis geminata); ginger ants (Solenopsis *geminata*); yellow crazy ants (Anoplolepis gracilipes) insurance see indemnities and insurance Interim Biogeographic Regionalisation for Australia, 44 Interim Marine and Coastal Regionalisation for Australia, 44 internal audit, 201 international conventions and agreements Ashmore Reef National Nature Reserve, 121 Australian National Botanic Gardens, 48 Booredee National Park, 56 Calperum and Taylorville Stations, 190 Cartier Island Marine Reserve, 126 Christmas Island National Park, 69 Coringa-Herald National Nature Reserve, 130 Elizabeth and Middleton Reefs Marine National Nature Reserve, 135 Great Australian Bight Marine Park, 139 Heard Island and McDonald Islands Marine Reserve, 146–7 Kakadu National Park, 78 Lihou Reef National Nature Reserve, 153 Lord Howe Island Marine Park, 157 Macquarie Island Marine Park, 161 Mermaid Reef Marine National Nature

Reserve, 166
Ningaloo Marine Park, 171
Norfolk Island National Park and
Botanic Garden, 94
Pulu Keeling National Park, 102
Solitary Islands Marine Reserve, 179
Tasmanian Seamounts Marine Reserve, 183
Uluru–Kata Tjura National Park, 107
Investors in People policy, 63
IUCN see World Conservation Union

J

Jabiru Area School, 9, 85 Jabiru Region Sustainability Project, 86 Jabiru Town Council, 86 James Cook University, 135, 136 Japan–Australia Migratory Birds Agreement (JAMBA) Ashmore Reef National Nature Reserve, 121 Booredee National Park, 56 Calperum and Taylorville Stations, 190 Christmas Island National Park, 69 Coringa–Herald National Nature Reserve, 130 Elizabeth and Middleton Reefs Marine National Nature Reserve, 135 Great Australian Bight Marine Park, 139 Heard Island and McDonald Islands Marine Reserve, 147 Kakadu National Park, 78 Lihou Reef National Nature Reserve, Lord Howe Island Marine Park, 157 Macquarie Island Marine Park, 161 Mermaid Reef Marine National Nature Reserve, 166 Ningaloo Marine Park, 171 Norfolk Island National Park and Botanic Garden, 94

Pulu Keeling National Park, 102
Solitary Islands Marine Reserve, 179
Tasmanian Seamounts Marine Reserve,
183
Uluru–Kata Tjuta National Park, 107
Jervis Bay, 55
Jervis Bay Marine Park, 62
joint management (KRA3), 7–8
Booderee National Park, 7, 8, 60
Kakadu National Park, 83–4
performance indicators, 39
Uluru–Kata Tjuta National Park, 8,
111–12
see also Office of Joint Management
Joint Management Partnership Team
Uluru–Kata Tjuta National Park, 112,
114
joint training strategy
Booderee National Park, 64
judicial decisions and decisions of
administrative tribunals, 203–204

# K

Kakadu National Park, ii, 6, 7, 8, 9, 77–92 Board of Management, 8, 23, 25, 79, 200 consultative mechanisms, 201 draft fifth Management Plan, 8, 25, 35, funding, 4, 199 internal audit, 201 Morse Report, 4-5 Shared Tourism Vision for, ii, 4, 80 and Tri-Nations Wetlands Agreement, 10,85 see also Newcrest Mining (Western Australia) Limited and BHP Minerals Limited v Commonwealth of Australia and the Director of National Parks: Yellow Water wetlands

Kakadu Tourism Consultative Committee, 86

Kata Tjuta
safety incidents at, 118, 119

Kata Tjuta Valley of the Winds walking track, 109, 112, 113, 117

key result areas (KRAs), 35
see also biodiversity knowledge management (KRA7); business management (KRA6); cultural heritage management (KRA2); joint management (KRA3); natural heritage management (KRA1); performance indicators; stakeholders

(KRA4)
kikuyu grass (*Pennisetum clandestinum*)
Booderee National Park, 58, 59
king penguin (*Aptenodytes patagonicus*)
Heard Island and McDonald Islands
Marine Reserve, 148

and partnerships (KRA5); visitor management and park/reserve use

#### L

Leptinella plumosa Heard Island and McDonald Islands Marine Reserve, 148 Lihou Reef National Nature Reserve, 152 - 5management arrangements, 153 Lindenmayer, David, 6, 65 little penguin (*Eudyptula minor*) Booderee National Park, 57, 58 Solitary Islands Marine Reserve, 178 location of Commonwealth parks and reserves, i loggerhead turtles (Caretta caretta) Ashmore Reef National Nature Reserve, 120 long-nosed bandicoots (Perameles nasuta)

157, 159 M

Booderee National Park, 6, 57, 59, 67
Lord Howe Island Marine Park
(Commonwealth Waters), 156–9
Advisory Committee, 157, 159
management arrangements, 157
see also under business management
(KRA6)
Lord Howe Island Steering Committee,

McCormick Centre for the Environment, 194, 195 Macquarie Island Marine Park, 160–4 management arrangements, 162 magpie goose (*Anseranas semipalmata*) Kakadu National Park, 80, 82 mala *see* rufous hare-wallaby or mala (*Lagorchestes hirsutus*)

malleefowl (*Leipoa ocellata*)
Calperum and Taylorville Stations, 189,
191

Man and the Biosphere Programme see UNESCO Man and the Biosphere Programme

management plans, 35
Heard Island and McDonald Islands
Marine Reserve, 35
implementation schedules, 36
Kakadu National Park, 8, 25, 35, 80
Mermaid Reef Marine National Nature
Reserve, 166, 167, 169
Norfolk Island National Park and
Botanic Garden, 35
prescriptions not to be implemented,
36

Uluru–Kata Tjuta National Park, 35
Marine and Terrestrial Introduced Species
Prevention and Management Strategy
(2004), 123
marine biodiversity

Booderee National Park, 6, 57 Marine Bioregional Plans, 186 marine debris and Macquarie Island Marine Park, 162, 164

Marine Division (Department of the Environment and Heritage), i marine pests

Macquarie Island Marine Park, 163

Booderee National Park, 66

marine protected areas
natural heritage management, 6
network of, 186
in South-east Marine Region, 5, 187–8
new, 4, 6

marine reserves location of, i

market research see advertising and market research Mermaid Reef, 165

Mermaid Reef Marine National Nature Reserve, 165–9 illegal fishing, 167, 168 management arrangements, 166

management arrangements, 166 management plan, 166, 167, 169 Migratory Species (Bonn) Convention

Ashmore Reef National Nature Reserve, 121 Booredee National Park, 56 Calperum and Taylorville Stations, 190

Cartier Island Marine Reserve, 126 Christmas Island National Park, 69 Coringa–Herald National Nature Reserve, 130 Elizabeth and Middleton Reefs Marine

National Nature Reserve, 135 Great Australian Bight Marine Park, 139 Heard Island and McDonald Islands Marine Reserve, 146 Kakadu National Park, 78

Lihou Reef National Nature Reserve, 153
Lord Howe Island Marine Park, 157
Macquarie Island Marine Park, 161
Mermaid Reef Marine National Nature
Reserve, 166
Ningaloo Marine Park, 171
Norfolk Island National Park and
Botanic Garden, 94
Pulu Keeling National Park, 102
Solitary Islands Marine Reserve, 179
Tasmanian Seamounts Marine Reserve,
183
Ulu <u>r</u> u–Kata Tju <u>t</u> a National Park, 107
mimosa ( <i>Mimosa pigra</i> )
Yellow Water wetlands, 80, 81, 88
Minister for the Environment and
Heritage
and Parliamentary Secretary, 28
Ministerial directions, 198
mission grass (Pennisetum polystachion)
Yellow Water wetlands, 80, 81, 88
monitoring
Ashmore Reef National Nature
Reserve, 122
Australian National Botanic Gardens, 49
Booredee National Park, 57–8
Calperum and Taylorville Stations, 191
Cartier Island Marine Reserve, 126
Christmas Island National Park, 70
Coringa–Herald National Nature
Reserve, 130
Elizabeth and Middleton Reefs Marine
National Nature Reserve, 136
Great Australian Bight Marine Park, 140
Heard Island and McDonald Islands
Marine Reserve, 147–8
Kakadu National Park, 80
Lihou Reef National Nature Reserve.

153 - 4

Lord Howe Island Marine Park, 158 Macquarie Island Marine Park, 162163 Mermaid Reef Marine National Nature Reserve, 167 Ningaloo Marine Park, 172 Norfolk Island National Park and Botanic Garden, 95 Pulu Keeling National Park, 103 Solitary Islands Marine Reserve, 180 Tasmanian Seamounts Marine Reserve, 184 Uluru-Kata Tjuta National Park, 108-9 morepork or boobook owl (Ninox novaeseelandiae undulata) Norfolk Island National Park and Botanic Garden, 93, 95 Morse Report, 4–5 mulgara (Dasycercus cristicauda) Uluru-Kata Tjuta National Park, 108-9, 110, 115 Murray River snail (Notopala sublineata hanleyi) Calperum and Taylorville Stations, 192 Mutitjulu art, 109 Mutitjulu community, 8, 112, 114, 115, 117 Mutitjulu Community Aboriginal Corporation, 8, 112 Mutitjulu Council, 113, 114

### N

National Archives of Australia and oral histories, 7, 83 National Capital Attractions Association, 9 National Capital Education Tourism Project (Australian National Botanic Gardens), 9 national parks location of, i

Solitary Islands Marine Reserve, 178

muttonbird (Puffinus) species

National Parks and Wildlife Conservation

Act 1975, 203 National Reserve System Programme, 30 native title Booderee National Park, 8 Coronation Hill, 7 Uluru–Kata Tjuta National Park, 8 natural heritage management (KRA1), 5-6 Ashmore Reef National Nature Reserve, 122–3 Australian National Botanic Gardens, 50 Booderee National Park, 58-9 Calperum and Taylorville Stations, 191 - 3Cartier Island Marine Reserve, 127 Christmas Island National Park, 6 Coringa-Herald National Nature Reserve, 131–2 Elizabeth and Middleton Reefs Marine National Nature Reserve, 136–7 Great Australian Bight Marine Park, 141 Heard Island and McDonald Islands Marine Reserve, 149 Kakadu National Park, 6, 81–2 Lihou Reef National Nature Reserve, 154 Lord Howe Island Marine Park, 158 and Macquarie Island Marine Park, 163 - 4Mermaid Reef Marine National Nature Reserve, 168 Ningaloo Marine Park, 173 Norfolk Island National Park and Botanic Garden, 6, 96 performance indicators, 39 Pulu Keeling National Park, 6, 103-4 Solitary Islands Marine Reserve, 180 Tasmanian Seamounts Marine Reserve,

Uluru-Kata Tjuta National Park, 5-6, 109 Natural Heritage Trust, 30, 163, 191, 194 Natural Heritage Trust of Australia Act 1997,30 Nature Watch Inc., Japan, 73 New Apprenticeship Scheme Kakadu National Park, 84 New South Wales Fisheries, 62 New South Wales Marine Parks Authority and Lord Howe Island Marine Park, 157, 158, 159 and Solitary Islands Marine Reserve, 179, 180, 181 New South Wales Parks and Wildlife Service, 9, 62 New South Wales Water Police, 157 New Zealand Department of Conservation, 9 Newcrest Mining (Western Australia) Limited and BHP Minerals Limited v Commonwealth of Australia and the Director of National Parks, 203 Ningaloo Marine Park (Commonwealth Waters), 170–7 management arrangements, 172 see also under business management (KRA6) Ningaloo Reef, 170 Norfolk Island, 8 Norfolk Island Government, 97 Norfolk Island National Park and Botanic Garden, 6, 93-100 Advisory Committee, 95, 97, 200 draft new management plan, 35 North Keeling Island, 101, 103

Northern Land Council, 80, 84, 86, 92

northern quolls (*Dasyurus hallucatus*)

Northern Territory Bushfires Council, 9, 82

Kakadu National Park, 80

184

organisational chart, 20

values and approaches, 31

Parks Australia Risk Watch List, 58

Northern Territory Parks and Wildlife	Parksafe, 58, 87, 205
Service, 6, 9	Parliamentary Secretary to the Minister
	for the Environment and Heritage, 28,
O	198
occupational health and safety, 11, 87,	partnerships and stakeholders see
131, 133, 155, 205–6	stakeholders and partnerships (KRA5)
Occupational Health and Safety	pasture grasses
Committee (Department of the	Kakadu National Park, 6
Environment and Heritage), 205	penguins in Macquarie Island Marine
Occupational Health and Safety	Park, 160
(Commonwealth Employment) Act 1991,	performance indicators, 36, 39-41
205, 206	see also key result areas (KRAs)
Office of Joint Management	pest species see insect pests; marine
review, 111, 112	pests; plant pests; terrestrial vertebrate
Office of the Supervising Scientist, 92	pest species; weed control
olive hymenachne ( <i>Hymenachne</i>	Phillip Island
amplexicaulis)	Norfolk Island National Park and
Yellow Water, 80, 81, 88	Botanic Garden, 93, 95, 99
oral histories	Pimpernel Rock, 178, 180
Kakadu National Park, 7, 83	Pisonia grandis forest ecosystem
Uluru–Kata Tjuta National Park, 7	Coringa-Herald National Nature
organisational structure, 20–6	Reserve, 129, 130, 131
Output 1.1: Parks and reserves, 34	planning, reporting and performance,
outputs	33–41
price, i	planning documents, 199
,	plant pests
P	Ashmore Reef National Nature
Parkcare, 62	Reserve, 122
parks	see also bitou bush (Chrysanthemoides
location of, i	monilifera); buffel grass (Cenchrus
Parks Australia	ciliaris); gamba grass (Andropogon
and Department of the Environment	gayanus); kikuyu grass (Pennisetum
and Heritage, i	clandestinum); mimosa (Mimosa
and Director of National Parks, 29, 198	pigra); mission grass (Pennisetum
Divisional Plan, 35	polystachion); olive hymenachne
see also performance indicators	(Hymenachne amplexicaulis); salvinia
Executive group, 199–200	(Salvinia molesta)
occupational health and safety, 205	Polistes chinensis
· [- · · · · · · · · · · · · · · · · · ·	

Northern Territory Government, ii, 80, 85,

Northern Territory Herbarium, 122

86, 92, 201

Ç

Norfolk Island National Park and Botanic Garden, 95 Portfolio Budget Statements, 34, 199 predator control, 5 Booderee National Park, 6, 57, 58, 59 Christmas Island National Park, 73 price of outputs, i Pseudemoia lichenigera Norfolk Island National Park and Botanic Garden, 93 Pulu Keeling National Park, 6, 101–5 Management Committee, 102, 200 purchasing and assets management, 209 purple swamphen (Porphyrio porphyrio) Norfolk Island National Park and Botanic Garden, 95

#### R

rainfall data Calperum and Taylorville Stations, 191 Ranunculus crassipes Heard Island and McDonald Islands Marine Reserve, 148 rat control Norfolk Island National Park and Botanic Garden, 95 red crabs (Gecarcoidea natalis) Christmas Island National Park, 68, 75 red-footed booby (Sula sula) Pulu Keeling National Park, 101, 103 Register of the National Estate Solitary Islands Marine Reserve, 178 research, 6, 9 see also biodiversity knowledge management (KRA7); monitoring Research and Monitoring Strategy for Subantarctic Marine Protected Areas, 148, 162, 163, 164 research and training partnership at Booderee, 65 reserves, 29

location of, i see also marine reserves; terrestrial reserves ring-tailed possum (Pseudocheirus peregrinus) Booderee National Park, 67 risk management, 11, 202 see also Uluru risk management and incident analysis **Riverland Biosphere Community** Committee, 195 Riverland (formerly Bookmark) Biosphere Reserve, 189 rock art maintenance Kakadu National Park, 83 Uluru-Kata Tjuta National Park, 7, 109 rosy jobfish (*Pristipomoides filamentosus*) Lord Howe Island Marine Park, 158 Round Island petrel (Pterodroma arminjoniana) Pulu Keeling National Park, 101 Rowley Shoals, 165, 166, 168 Rowley Shoals Marine Park, 165 Rowley Shoals Steering Committee, 169 rufous hare-wallaby or mala (*Lagorchestes* hirsutus) Uluru-Kata Tjuta National Park, 6, 109, 110

#### S

safety incidents, 205–6
at Kata Tjuta, 118, 119
salvinia (*Salvinia molesta*)
Yellow Water, 6, 80, 81, 82, 88
sea snakes
Ashmore Reef National Nature
Reserve, 120, 122, 123
Sea-lion *see* Australian sea-lion
sea turtles
Coringa–Herald National Nature
Reserve, 131



Pulu Keeling National Park, 103	management arrangements, 179–80
seabirds, 6	see also under business management
Ashmore Reef National Nature	(KRA6)
Reserve, 120	sooty oystercatcher (Haemotopus
Coringa–Herald National Nature	fuliginosus)
Reserve, 130–1	Booderee National Park, 57, 58
Macquarie Island Marine Park, 160, 162	sooty terns (Sterna fuscata)
Norfolk Island National Park and	Ashmore Reef National Nature
Botanic Garden, 93, 95	Reserve, 120
Pulu Keeling National Park, 101, 103,	South Alligator River, 77
104	South Australian Department for
Solitary Islands Marine Reserve, 178	Environment and Heritage, 144
seals in Macquarie Island Marine Park,	South Australian Department of Primary
160	Industries and Resources, 142
Senate inquiry into national parks,	South Australian Government, 140, 142
conservation reserves and marine	South Australian Research and
protected areas, 4	Development Institute, 144
senior management team, 22	South Coast Region Tourism
sharks	Organisation, 9
Mermaid Reef Marine National Nature	South-east Marine Region
Reserve, 167	candidate marine protected areas in,
shearwater	187–8
Booderee National Park, 58	South-east Regional Marine Plan, 186
Shire of Christmas Island, 70, 73	southern and northern giant-petrel
Shoalhaven District Bushfire	Macquarie Island Marine Park, 163
Management Committee (Booderee),	southern right whale (Eubalaena
9	australis)
short-finned pilot whales (Globecephala	Great Australian Bight Marine Park,
macrochynchus)	138, 140, 141
Elizabeth and Middleton Reefs Marine	staff, i, 4
National Nature Reserve, 134	movement of, 10
skills development, 204	profile, 204–5
see also training	recognition of, 10
Smith Point project	and regional committees, 9
Christmas Island National Park, 73	see also Indigenous employment
Solitary Islands Marine Park Advisory	stakeholders and partnerships (KRA5),
Committee, 179–80, 181	9–10
Solitary Islands Marine Park Steering	Ashmore Reef National Nature
Committee, 179, 181	Reserve, 124
Solitary Islands Marine Reserve	Australian National Botanic Gardens,
(Commonwealth Waters), 178–81	51_2

Booderee National Park, 62 Calperum and Taylorville Stations, 194-5 Cartier Island Marine Reserve, 128 Christmas Island National Park, 73 Coringa-Herald National Nature Reserve, 132 Elizabeth and Middleton Reefs Marine National Nature Reserve, 137 Great Australian Bight Marine Park, 142 Heard Island and McDonald Islands Marine Reserve, 150-1 Kakadu National Park, 9, 85-6 Lihou Reef National Nature Reserve, 155 Lord Howe Island Marine Park, 159 Macquarie Island Marine Park, 164 Mermaid Reef Marine National Nature Reserve, 169 Ningaloo Marine Park, 174 Norfolk Island National Park and Botanic Garden, 97-8 performance indicators, 40 Pulu Keeling National Park, 105 Solitary Islands Marine Reserve, 181 Uluru–Kata Tjuta National Park, 112–13 'Stepping Stones for Tourism' workshops, stone curlews (Burhinus grallarius) Calperum and Taylorville Stations, 191 strategic planning and performance framework, 34-41 Subantarctic Marine Protected Areas, 148 Sustainable Tourism workshops Pulu Keeling National Park, 105 system-wide summary (financial), 17–18 see also financial summary

T

tardigrade (*Hypsibius herdensis*)
Heard Island and McDonald Islands

Marine Reserve, 148
Tasmanian Department of Primary
Industries, Water and Environment, 163
Tasmanian Department of Tourism, parks,
heritage and the Arts, 163
Tasmanian Government, 162, 163, 164,
183
Tasmanian Parks and Wildlife Service, 162
Tasmanian Seamounts Marine Reserve,
182–5
management arrangements, 183

management arrangements, 183 terrestrial reserves location of, i

terrestrial vertebrate pest species Booderee National Park, 57 see also feral animal control; fox control; predator control

threatened species, 44 see also Acacia D 19063 Graveside Gorge; albatross in Macquarie Island Marine Park; dugong (*Dugong dugon*); eastern bristlebirds (Dasyornis brachypterus); giant burrowing frog (Heleioporus australiacus); green and golden bell frog (*Litoria aurea*); green turtle (Chelonia mydas); hawksbill turtles (Eretmochelys imbricata); little penguin (*Eudyptula minor*); loggerhead turtles (Caretta caretta); mulgara (Dasycercus cristicauda); penguins in Macquarie Island Marine Park; seals in Macquarie Island Marine Park; sooty oystercatcher (*Haemotopus* fuliginosus); tjakura or great desert skink (*Egernia kintorei*)

tjakura or great desert skink (*Egernia* kintorei)
Uluru–Kata Tjuta National Park, 6, 108, 110

Tjikatu, Barbara, 8

Tjukurpa (traditional law and culture of	Twin Falls, 25, 83
A <u>n</u> angu), 106, 117	$\mathbf{U}$
tourism	O
Australian National Botanic Gardens,	Uhrig review
49	and Director of National Parks, 5
consultation with industry, 201 Kakadu National Park, ii, 4, 80	Ulu <u>r</u> u risk management and incident
see also Kakadu Tourism Consultative	analysis, 118–19
Committee	Ulu <u>r</u> u–Kata Tju <u>t</u> a Aboriginal Land Trust, 106
Ulu <u>r</u> u–Kata Tju <u>t</u> a National Park, ii, 4, 109	Uluru–Kata Tjuta National Park, ii, 5–6, 7, 8, 106–19
see also Uluru-Kata Tjuta Tourism	Board of Management, 23, 26, 108, 200
Consultative Committee	consultative mechanisms, 201
see also indigenous tourism ventures;	draft new management plan, 35
'Stepping Stones for Tourism'	funding, 4, 199
workshops; Sustainable Tourism	sunrise project, ii, 4, 109, 112
workshops; visitor management and	volunteers, 9
park/reserve use (KRA4)	Uluru–Kata Tjuta Tourism Consultative
Tourism Australia, 7, 9	Committee, 113, 114, 117
Tourism NT, 7	UNESCO Man and the Biosphere
Tourism Vision Statement (Kakadu), 25	Programme, 189, 194, 195
training, 204–5	United States National Oceanic and
see also joint training strategy	Atmospheric Administration
trepang	and whale shark tagging research
Ashmore Reef National Nature	project, 177
Reserve, 122, 123	University of Western Sydney, 9
Cartier Island Marine Reserve, 126, 127	uranium mining sites
trevally ( <i>Pseudocaranx</i> ) species	rehabilitation of
Lord Howe Island Marine Park, 158	Kakadu National Park, ii, 5, 7, 92
Tri-National Wetlands Agreement, 10, 85, 86	$\mathbf{V}$
trochus shell	Valley of the Winds walking track see
Ashmore Reef National Nature	Kata Tjuta Valley of the Winds walking
Reserve, 122, 123	track
Cartier Island Marine Reserve, 126, 127	values and approaches of Parks Australia,
Mermaid Reef Marine National Nature	31
Reserve, 167	vehicle monitoring systems, 8
Tropical Savannas Cooperative Research	visitor management and park/reserve
Centre, 9	use (KRA4), 8
Turtle Watch project	Ashmore Reef National Nature
Christmas Island National Park, 73	Reserve, 123

Reserve, 123

Australian National Botanic Gardens, 8, 51

Readers National Bark 8, 61

Booderee National Park, 8, 61 Calperum and Taylorville Stations, 193–4

Cartier Island Marine Reserve, 127 Christmas Island National Park, 72 Coringa–Herald National Nature Reserve, 132

Great Australian Bight Marine Park, 141–2

Heard Island and McDonald Islands Marine Reserve, 150 Kakadu National Park, 8, 84–5 Lihou Reef National Nature Reserve, 154

Mermaid Reef Marine National Nature Reserve, 168

Ningaloo Marine Park, 173–4
Norfolk Island National Park and
Botanic Garden, 96–7
performance indicators, 40
Pulu Keeling National Park, 104
Solitary Islands Marine Reserve, 181
Tasmanian Seamounts Marine Reserve, 185

Uluru–Kata Tjuta National Park, 8, 112–13

volunteers, 9, 40, 193, 194, 195 overseas, 73 and seabird monitoring, 95, 130 see also Conservation Volunteers of Australia

vulnerable flora species (Norfolk Island), 100

vulnerable species see Australian sealion (Neophoca cinerea); green turtle (Chelonia mydas); hawksbill turtles (Eretmochelys imbricata); malleefowl (Leipoa ocellata); vulnerable flora species (Norfolk Island); whale shark (*Rhincodon typus*)

# W

wahoo (Acanthocybium solandri)
Lord Howe Island Marine Park, 158
wandering albatross (Diomedea exulans)
Macquarie Island Marine Park, 160
water resource management
Australian National Botanic Gardens,
49,54

weed control, 5, 11
Ashmore Reef National Nature
Reserve, 122, 123
Booderee National Park, 57–8
Christmas Island National Park, 70, 71
Kakadu National Park, 80, 81, 82, 88–9
Norfolk Island National Park and
Botanic Garden, 95, 96, 99–100
Uluru–Kata Tjuta National Park, 109,
110

Western Australian Department of Conservation and Land Management, 166, 168, 169, 172, 174, 175 and whale shark tagging research project, 177

Western Australian Department of Fisheries, 166, 167, 172, 174, 175

see also plant pests

Wetlands (Ramsar) Convention
Ashmore Reef National Nature
Reserve, 121
Australian National Botanic Gardens,

Australian National Botanic Gardens, 48

Booredee National Park, 56 Calperum and Taylorville Stations, 190 Christmas Island National Park, 69 Coringa–Herald National Nature Reserve, 130 Elizabeth and Middleton Reefs Marine

Elizabeth and Middleton Reefs Marine National Nature Reserve, 135

Heard Island and McDonald Islands Marine Reserve, 146, 149 Kakadu National Park, 78 Lihou Reef National Nature Reserve, 153 Pulu Keeling National Park, 102 whale shark (Rhincodon typus) Christmas Island National Park, 68 Ningaloo Marine Park, 170, 172, 173, 175, 176-7 whales Ningaloo Marine Park, 170 white-footed dunnart (Sminthopsis *leucopus*) Booderee National Park, 6, 59, 67 wildfires, 66 Wollongong University, 62 Woodside Australia and whale shark tagging research project, 177 World Conservation Union (IUCN) protected areas management categories, 44 World Heritage Convention Australian National Botanic Gardens, Heard Island and McDonald Islands Marine Reserve, 146 Kakadu National Park, 78 Lord Howe Island Marine Park, 157 Macquarie Island Marine Park, 161 Uluru-Kata Tjuta National Park, 106, 107 World Heritage List islands in Heard Island and McDonald Islands Marine Reserve, 145 Kakadu National Park, 77

Macquarie Island Marine Park, 160

World Summit on Sustainable Development (2002), 186

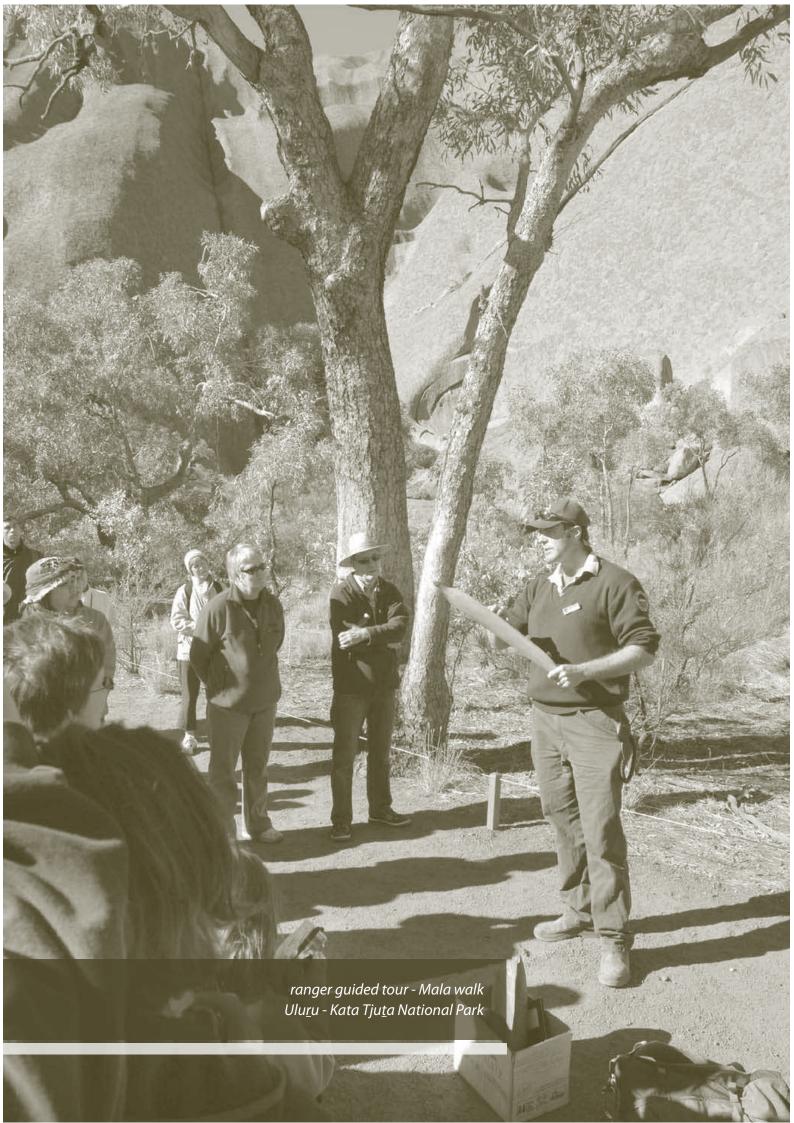
Wreck Bay Aboriginal community, 55, 58, 60 Wreck Bay Aboriginal Community Council, 7, 24, 64, 65 Wreck Bay Enterprises Ltd (WBEL), 7, 24, 58, 60, 64

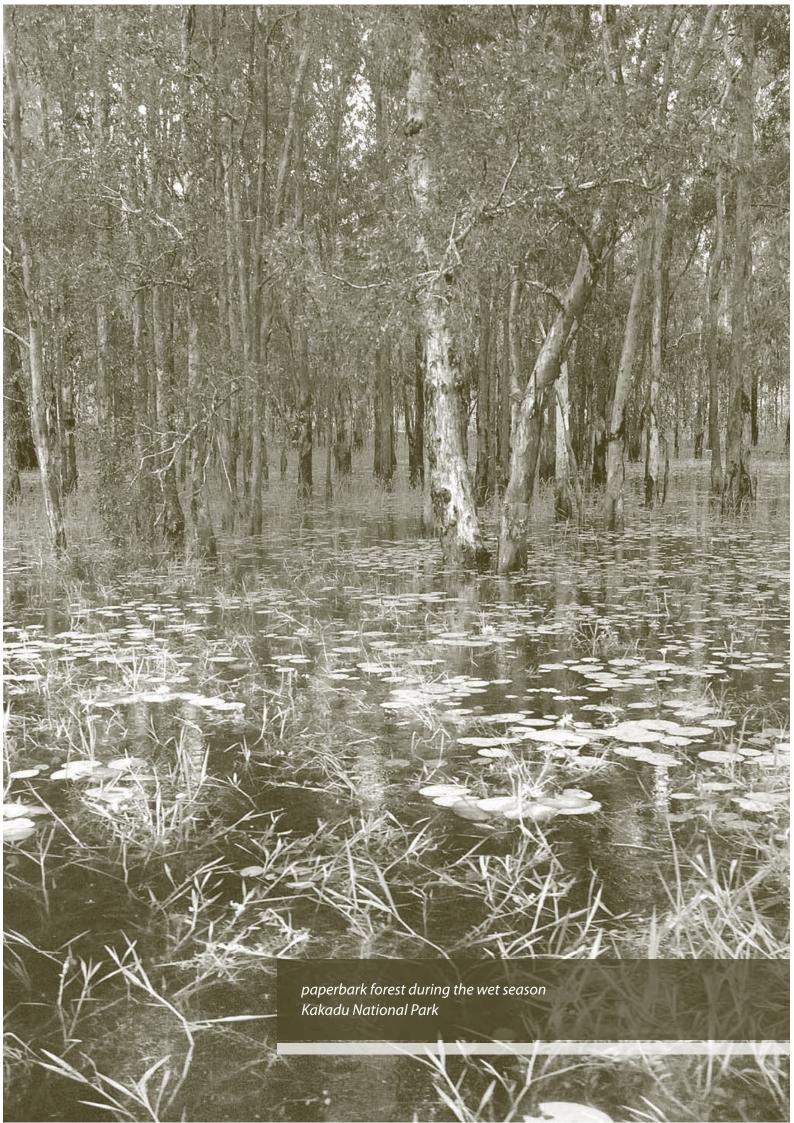
# Y

Yalata community, 142

Yalata Land Management, 142
yellow crazy ants (*Anoplolepis gracilipes*)
Christmas Island National Park, 6, 70, 71, 75–6
Yellow Water wetlands
monitoring of introduced plants in, 80 natural heritage management, 6
yellowfin tuna (*Thunnus albacares*)
Lord Howe Island Marine Park, 158
yellowtail kingfish (*Seriola lalandi*)
Lord Howe Island Marine Park, 158
Youth Environment Council of South
Australia, 195







#### © Director of National Parks 2006

ISSN 1443-1238

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process, re-used or redistributed without prior written permission from the Director of National Parks. Any permitted reproduction must acknowledge the source of any such material reproduced and include a copy of the original copyright notice. Requests and enquiries concerning reproduction and copyright should be addressed to: The Director of National Parks, GPO Box 787, Canberra ACT 2601.

Director of National Parks Australian business number: 13051 694 963

#### **Photography credits:**

#### Front cover

Controlled burning – Andrew Longmire
Tiger anemone – © Leander Wiseman
Lotus seed pod – Michael Nelson
Grey fantail – Michael Nelson
Mountain devil – Michael Nelson
Kantju Gorge – Michael Nelson

Xanthorrhea – Michael Nelson

#### **Chapter pages**

Reef fish – Robert Thorn
Nudibranch - © Leander Wiseman
Waratah – Michael Nelson
Skink in burrow – Dan Hanisch
Lotus flower – Michael Nelson
Thorny devil – Michael Nelson
Weedy seadragon - © Leander Wiseman
Masked booby – Michael Nelson

#### Other images

Booderee coastline – Michael Nelson
Uluru sunrise site – Steve Strike
Comcover award presentation – © Comcover
Mala release – Andrew Longmire
Weed monitoring team on airboat – © David
Hancock/SkyScans

Kata Tjuta – Michael Nelson Weather station - ANBG WBEL employee and trainee – Michael Nelson Darren Brown and snake – Christopher MacGregor White-footed dunnart – Christopher MacGregor Crazy ant and scale – Peter Green Salvinia infestation - © David Hancock/SkyScans Cyclone Monica clean-up – Matt McLean El Sherana camp – Parks Australia Norfolk Island forest - Michael Nelson Valley of the Winds trail – Rohan Carboon Australian sea-lion - © AIMS Whale shark - © AIMS Thredbo Parks Forum - Parks Australia Booderee trainees - Graeme Beech Weedy seadragon – © Leander Wiseman Mala ranger-guided tour - Michael Nelson Paperbark forest - Michael Nelson

Maps – Environmental Resources Information Network

Designer - Design Direction

Editor - Elizabeth Hutchings Editing

Indexer – Barry Howarth

Printed by Goanna Print on 55% recycled (25% post consumer content) coated stock

Street address

John Gorton Building King Edward Terrace Parkes ACT 2600 Postal address

GPO Box 787 Canberra ACT 2601 **Enquiries** 

Phone: (02) 6274 2220 Fax: (02) 6274 2349

www.deh.gov.au/parks/index.html