Australian Government
Director of National Parks

Director of National Parks | Annual Report 2006–07

Managing the Australian Government's protected areas

Our mission

To assist the Minister and the Department of the Environment and Water Resources in the conservation and appreciation of Australia's biological diversity and associated cultural heritage, through leadership and cooperation in the management of the Australian Government's protected areas.

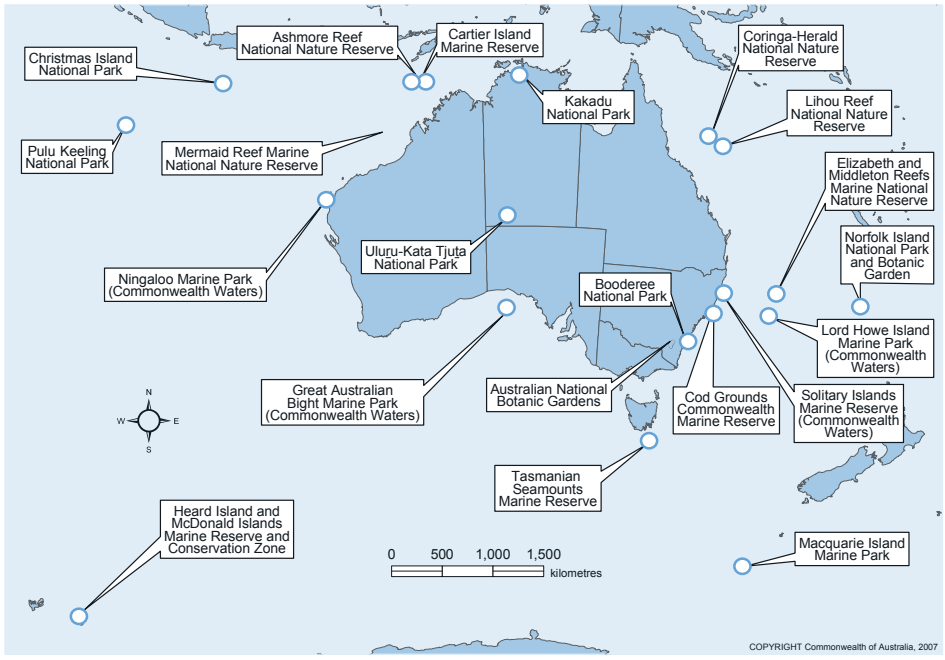
An organisational snapshot

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 Water Resources, 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 2006–07, 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 Water Resources, managed 14 marine reserves
- managed Calperum and Taylorville Stations via a contract with Austland Services Pty Ltd
- employed 270.6 full-time equivalent staff around Australia
- recorded a total price of outputs of $59.292 million.

Figure 1: Locations of Commonwealth parks and reserves managed by the Director of National Parks in 2006–07



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.

Managing the Australian Government's protected areas

Highlights for 2006–07

- Proclamation of 14 new marine protected areas almost doubling the area of Australia's Commonwealth marine reserve system
- Major funding increase for control of yellow crazy ants, new visitor infrastructure in Uluṟu, and dedicated Customs vessel for monitoring Ashmore and Cartier reserves
- Four year project commenced to rehabilitate old uranium mining leases in Kakadu and these leases incorporated into the park
- Significantly increased visitor spending in Kakadu and Uluṟu regions following cooperative global marketing campaign
- Booderee National Park recognised by WWF as one of the top 10 Australian protected areas
- Escalating price of water at the Australian National Botanic Gardens triggers new approaches to water use and supply
- Professional and dedicated staff valued and recognised
- Accelerating operational and asset management cost pressures forecast to exceed income

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.

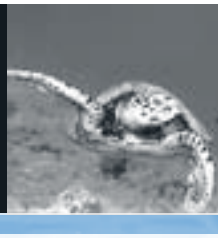
Peter Cochrane
Director of National Parks
21 September 2007

The land crab Cardisoma hirtipes occurs in its blue form only on Christmas Island

Contents

Jim Jim Falls in Kakadu can only be viewed in full flow from the air during the wet season. During the dry season water flow ceases and visitors can attempt a challenging walk to the top of the escarpment, to be rewarded with spectacular views across the park

1 Director's review



The year in review

Managing the natural heritage of our reserves

Managing the cultural heritage of our reserves

Working with traditional owners

Welcoming our visitors

Working with partners and stakeholders

Managing our business and people

Looking ahead

The year in review

This year has been one of significant achievements and continuing challenges for the agency and our staff. Our successes in protecting and presenting park values to visitors were offset to some extent by escalating cost pressures and the impacts of weather-related events. On balance, the natural and cultural values of the Australian Government's protected areas are conserved and well presented to visitors, though there are growing risks in several areas.

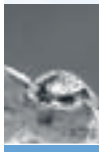
The Government announced enhanced funding for new visitor facilities and measures to accelerate action on pressing management issues. In May 2007 the Minister for the Environment and Water Resources, the Hon Malcolm Turnbull MP, announced an additional $15 million for the completion of a major new visitor facility at Uluṟu–Kata Tjuṯa National Park, the sunrise viewing area to the south-east of Uluṟu. This world-class facility will provide a range of new visitor experiences as well as the prospect of new business opportunities for the tourism industry and Aboriginal people. The old sunrise viewing area will be closed and rehabilitated, removing a major visitor safety risk in the park.

The Government also announced provision of $31.7 million to the Australian Customs Service over the next four years to increase patrols to protect the natural values of Ashmore Reef National Nature Reserve and Cartier Island Marine Reserve which are threatened by illegal foreign fishing. The purchase of a dedicated vessel based at Ashmore will allow increased surveillance and protection of these remote reserves. The Government also provided $4 million for the first phase of a new 10-year strategy to control the invasive yellow crazy ants on Christmas Island, building on our earlier success in reducing the threat the ants pose to the island's famous red crabs.

The appointment of the Hon Malcolm Turnbull MP as Minister for the Environment and Water Resources and the Hon John Cobb MP as Assistant Minister in January 2007 saw a change in portfolio for Parliamentary Secretary Greg Hunt. Mr Hunt was responsible for several important protected area initiatives during his time with the portfolio and took a very energetic and active interest in parks and Indigenous issues. I wish him well in his new role as Parliamentary Secretary to the Minister for Foreign Affairs and Trade.

In April 2007 the report of a year-long parliamentary investigation into protected areas was tabled in the Senate. The report praised the management of Commonwealth reserves and called for more resources for Australia's protected area system while raising important issues about wildfire management and the impacts of climate change. The assistance of Parks Australia staff was appreciated and acknowledged by the Senate committee. The Government is considering the report's recommendations.

We commissioned a major consultancy to examine the impacts and management implications of climate change on the Australian Government's protected area estate. The report, to be released in late 2007, will identify gaps in the existing knowledge base and provide an assessment of the likely implications of climate change for each



reserve. Its findings will play an important role in addressing and adapting to climate change in Commonwealth reserves.

Last year's announcement of a network of marine protected areas in the south-east marine region was realised in late June 2007 with the proclamation of 13 new reserves covering 226,000 square kilometres of waters off New South Wales, South Australia, Victoria and Tasmania. When the reserves come into effect in September 2007 they will represent the first such network of marine reserves at this scale in the world. Interim management arrangements have been developed for the new reserves.

The establishment of the Cod Grounds Commonwealth Marine Reserve in May 2007 in Commonwealth waters off New South Wales was also significant. This new reserve protects an area of underwater pinnacles which is an important aggregation site for the critically endangered east coast population of the grey nurse shark.

Stage 3 of Kakadu National Park was re-proclaimed to include former mining leases in the park, including those covering Guratba (Coronation Hill), thereby concluding a long and contentious saga over mining in this region.

A series of intense weather events placed added pressure on some Commonwealth reserves. On the evening of 27 February 2007 a ferocious hailstorm hit parts of Canberra, causing millions of dollars damage to houses, businesses and institutions including the Australian National Botanic Gardens, with glasshouses and the plant nursery badly affected. In early March, Cyclone George produced huge rains and record flooding in Kakadu, as well as a destructive tornado that passed within a few hundred metres of the Mary River ranger station. A massive road repair programme was required but Kakadu's emergency response worked well and no injuries resulted. Only days later, Christmas Island was placed on high alert with the approach of Cyclone Jacob. Fortunately the cyclone changed course and missed the island; however high winds and flooding rain uprooted trees and closed the national park for five days while roads and tracks were cleared.

Notwithstanding delays due to the significant floods in Kakadu, it is pleasing to report good progress with the first year of rehabilitation works on old uranium mining sites in the southern part of the park. Contracts for the first stages of tailings containment design and removal of asbestos have been awarded. Funding for the four-year rehabilitation programme was a highlight of last year's report.

Managing the natural heritage of our reserves

The natural heritage values of our terrestrial and marine reserves face constant pressures and we regularly monitor and adjust our management actions to meet these challenges.

- There have been some significant successes with weed and feral animal control, but additional resources are required to adequately address existing and emerging issues in the long term

- There has been a reduction in heavy infestations of bitou bush in Booderee National Park due to a sustained control effort over the past three years. New infestations continue to be treated
- Booderee's endangered fauna populations continue to recover well from the 2003 fires, supported by a major fox control effort
- Fauna species at Uluṟu are in good shape, with increased populations of key threatened species and a growing population of the recently reintroduced mala (rufous hare-wallaby)
- Seabird populations and coral reefs in remote marine reserves are generally healthy
- Biodiversity on Christmas Island continues to decline due to yellow crazy ants and weeds, with significant efforts being made to monitor and protect the remaining pipistrelle bat population
- Weed incursions represent a major threat to Norfolk Island National Park and Botanic Garden and to Christmas Island National Park, and are an increasing problem for Kakadu
- The increasing cost of water and the prospect of harsher water restrictions have created a major challenge for the long-term future of the living collection at the Australian National Botanic Gardens

Managing the cultural heritage of our reserves

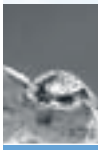
The cultural heritage values and landscapes that we protect include Indigenous living culture as well as sites of historic significance.

- Collection of oral histories from traditional owners at Kakadu and Uluṟu continued. A partnership agreement with the National Archives of Australia was finalised to ensure the proper long-term storage and protection of irreplaceable audio and video materials
- Traditional owners from Uluṟu visited the Museum of South Australia and the National Museum of Australia to inspect their holdings and to repatriate certain ceremonial items
- The DVD developed last year to assist media representatives understand the natural and cultural context of Uluṟu was used extensively and received a national multimedia award
- Kakadu Culture Camp became the first wholly Indigenous-owned business to be accredited as a Savannah Guides site

Working with traditional owners

Our close relationship with traditional owners in managing the three mainland national parks is one of the most rewarding aspects of our work.

- The fifth management plan for Kakadu was completed and came into effect, representing more than three years work by the Kakadu National Park Board of Management and numerous detailed consultations with traditional owners and stakeholders



- Work on a new Uluṟu–Kata Tjuṯa National Park management plan is well advanced and a draft is expected to be available for public comment late in 2007
- Relations with the Muṯitjulu community in Uluṟu–Kata Tjuṯa National Park were challenging but constructive. One of the challenges for that relationship included the appointment of an Administrator to the Muṯitjulu Community Aboriginal Corporation as well as the Government's proposed emergency intervention into the affairs of Indigenous communities in the Northern Territory. This new approach, including welfare reform, will have significant impacts on the community and its residents
- While relations between the Wreck Bay community and staff at Booderee are strong, the board of management was unable to meet for a considerable period due to community issues
- Traditional owners and staff from all three jointly managed parks participated in a Pacific Islands World Heritage meeting in New Zealand in February 2007
- Four Bininj students were among seven Kakadu rangers who became the first to win formal qualifications in a new workplace land management course developed by Kakadu and Charles Darwin University that evaluates and accredits practical skills in the field
- In December 2006 Booderee ranger Darren Brown was the inaugural winner of the Rick Farley scholarship for Indigenous people working in conservation. The award, by the conservation organisation Bush Heritage Australia, is supporting Darren to complete his traineeship in conservation and land management while working as part of the Australian National University's ground breaking project examining the effects of fire on Booderee's ecology
- Booderee National Park received a WWF award as one of the nation's 10 most outstanding protected areas for the decade 1992–2002

Greg Bourne, CEO from WWF Australia, Julie Moore, Chair of the Wreck Bay Aboriginal Community Council, and Senator the Hon Ian Campbell attending a presentation for Booderee National Park ranking as one of the top 10 outstanding protected areas in Australia

Welcoming our visitors

This year we saw the results of several long-planned projects to enhance visitors' experience.

- An estimated 1.4 million people visited Commonwealth reserves in 2006–07, with increased numbers at Booderee, Kakadu and the Australian National Botanic Gardens

- The cessation of visitor survey data collection for the Northern Territory parks in 2005–06 triggered development of new survey arrangements to measure visitor satisfaction which will commence in 2007–08
- A series of track markers and major new interpretive displays were installed at key visitor sites around the Uluṟu base walk. The solar powered displays combine motion sensing voice recordings with text panels providing cultural interpretations and stories
- The new sunrise viewing facility being developed at Uluṟu is on track for completion next year
- Visitor facilities at Norfolk Island have been progressively upgraded including reconstruction of the Duncombe Bay Road which leads to the popular Captain Cook Monument lookout
- The new Kakadu branding strategy is nearing completion. Developed from the Shared Tourism Vision, it will help map the future of cultural and natural tourism to the park and wider region. This has been a major collaborative effort with the board of management, park staff, Tourism NT, Tourism Australia and other agencies to develop the first-ever destination branding for an Australian national park
- The partnership with Tourism NT in refocusing and enhancing a major campaign marketing Kakadu and Uluṟu to domestic and international markets resulted in significant increases in visitor expenditure in both regions. Expenditure by international visitors to Kakadu more than doubled in 2006

Working with partners and stakeholders

Our many partner organisations include tourism interests, scientific organisations and other government agencies. In the parks, we greatly value the knowledge and energy of volunteers from all walks of life.

- We worked in partnership with Tourism Australia on the National Landscapes initiative. In December the Red Centre was announced as the first 'national landscape', to be developed and promoted for nature-based tourism. The major industry lobby group, the Tourism and Transport Forum, is strongly endorsing and supporting the National Landscapes initiative
- Partnerships with research organisations continued, including the five-year fire and biodiversity study at Booderee with the Australian National University (through an Australian Research Council linkage grant) and work with scientists in the Northern Territory Parks and Wildlife Service, CSIRO, the Australian Institute of Marine Science, James Cook University, Charles Darwin University and the University of Queensland
- In April 2007 Kakadu hosted a symposium on landscape change in the park involving over 80 scientists, park staff and traditional owners
- Work with volunteers continued, providing valuable support for reserve

management especially through the Friends of the Australian National Botanic Gardens and the Conservation Volunteers Australia teams on weed control at Uluṟu

Prince Willem-Alexander, Prince of Orange, and Princess Máxima of the Netherlands learn a little about Tjukurpa and Aṉangu rock art from ranger Mick Starkey near Muṯitjulu Waterhole, Uluṟu

- We hosted a range of distinguished visitors during the year, including the Governor-General and Mrs Jeffery who visited Kakadu and Christmas Island. President Tarja Halonen of the Republic of Finland and her husband, and the Danish Prince and Princess of Orange, visited Uluṟu
- In December 2006 Kakadu hosted six villagers from Tonda Wildlife Management Area in Papua New Guinea to share experiences and knowledge on wetlands management. Under the Tri-National Wetlands Agreement, Kakadu partners with Tonda and Indonesia's Wasur National Park in Irian Jaya
- A whole-of-government partnership approach to managing marine reserves has seen a stronger engagement with the Australian Customs Service, other Australian Government agencies and a range of state government agencies

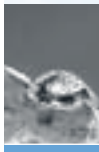
Managing our business and people

We continued to review and improve our business and people management practices and to aim for the highest standards. Our staff continued to be our outstanding resource and willing to take on new challenges as they arise.

- The organisational review of staffing arrangements at Kakadu was endorsed by the Minister and has now been successfully implemented without major disruption to ongoing park management activities
- The financial outcome for the year was pleasing with a small surplus achieved, due in large part to delays in capital and rehabilitation works arising from adverse weather. Surplus and deferred funds will be used to continue those works in 2007–08
- The Government's assessment of statutory authorities following the Uhrig review continued, with the implications for the status of the Director of National Parks and the future of the statutory corporation unclear
- As an agency the Director of National Parks continued to benchmark its performance on reporting and on risk management. The agency won our third silver award at the Australasian Reporting Awards for last year's annual report, and

improved our Comcover risk benchmarking score, placing us in the 'advanced' category

- A vehicle rollover in Kakadu and serious injury to a staff member led to a Comcover improvement notice which prompted systematic training throughout the agency on use of 4WD vehicles. A major effort was also made during the year to improve occupational health and safety outcomes generally, including completion of over 70 new job safety analyses
- There were a number of staffing changes among park and section managers. Gae Mackay took over as Director, Policy, Services and Support in the Darwin office and Anne Duncan joined Parks Australia as Director of the Australian National Botanic Gardens. Wendy Murray departed the Cocos (Keeling) Islands after almost 10 years for the Supervising Scientist Division and Julian Barry changed career, becoming a solicitor and barrister after his many years at Uluru and in the Darwin office. Glenn Meade returned to the NSW National Parks and Wildlife Service after a very successful secondment as park manager at Kakadu
- Many staff occupied senior positions in a temporary capacity. I would like to particularly acknowledge Martin Fortescue (Booderee) and David Phillips (Canberra) for work above and beyond the normal call of duty
- A number of staff were recognised during the year via awards. Robin Nielsen (former Director of the Australian National Botanic Gardens) received a Minister's award for sustained excellence in managing the ANBG and Meryl Triggs received a Minister's award for sustained and dedicated fostering of Parks Australia's relationship with the tourism industry, especially in the Northern Territory. Australia Day awards were made to Marjorie Gant (Booderee) for establishment of sound administrative systems at the park and excellence in managing visitor services; and to the Norfolk Island National Park weed team, recognising their crucial role in progress towards restoring the island's natural ecosystems
- Staff of the Marine Protected Area Management Teams within the Marine and Biodiversity Division managed a vast marine reserve estate on behalf of the Director of National Parks through the implementation of 11 management plans for Commonwealth marine reserves. In 2006–07 significant marine research and monitoring projects across the marine reserve estate have been undertaken to help us better understand the importance and status of the biodiversity within our reserves. Compliance and enforcement capabilities have substantially increased
- In August 2006 the Marine Protected Area Development Section was awarded the Minister's Achievement Award for outstanding contributions towards the development and finalisation of the South-east Marine Protected Area network
- With the completion of the major south-east additions to the estate, the responsibilities of the Marine Protected Area Management Section had grown to the point that it was split into two new sections, with responsibilities respectively for managing marine protected areas in the northern and southern waters of Australia



Looking ahead

The pressures on the natural values of our reserves are ever present and increasing. In many areas we are making progress but invasive weeds and introduced animals continue to challenge us, especially in the island parks. Provision of training and employment opportunities for traditional owners of our three large parks must be improved, especially in light of the Government's emergency intervention in the affairs of Indigenous communities in the Northern Territory. Improving visitor facilities and enhancing partnerships with the tourism industry remain high priorities. We will need to urgently address the findings of the soon-to-be-released climate change report and adapt our management activities accordingly. An adequate, cost-effective secure supply of water to maintain the living collection at the ANBG is our most pressing issue for resolution in 2007–08, and is triggering a fundamental rethink of the ANBG's role. Improving and diversifying our revenue base will be fundamental to being able to meet these and future challenges.

Meeting stakeholders' expectations and achieving our goals is only possible through the work of our dedicated staff. I acknowledge and applaud their sustained and excellent effort over the past year and with their ongoing support I am confident we will continue to deliver our responsibilities effectively and efficiently in 2007–08.

Peter Cochrane

Director of National Parks

Pulu Keeling National Park is a breeding habitat for thousands of red-footed boobies each year

2 Financial and Commonwealth reserves system summaries

Financial summary

Table 1: Analysis of variance against budget

Table 2: Overview of financial results

Figure 2: Income and expenditure 2006 – 07

Commonwealth reserves system summary

Table 3: Overview of terrestrial and marine Commonwealth reserves

Table 4: Overview of individual reserves in 2006 – 07

Financial summary

A surplus result was achieved for 2006–07 due largely to delays in some of the Kakadu mine site rehabilitation works as a result of flooding, lower depreciation expenditure than expected due to delay in some major capital works and a contribution by the Department of Industry, Tourism and Resources for completion of the Uluru sunrise visitor facility capital works.

Overall, income for 2006–07 was up by 5 per cent against budget and expenditure was slightly down by 0.9 per cent against budget. The cash available from the surplus will be used to meet future budget pressures including continuation of mining rehabilitation and capital works not completed in 2006–07. An analysis of the variance is in Table 1.

Table 2 and Figure 2 summarise income and expenses information for the Director of National Parks. Audited financial statements are at Chapter 8.

Management of marine protected areas is undertaken by the Marine and Biodiversity Division under delegation from the Director and is excluded from this financial summary.

Table 1: Analysis of variance against budget

Business area	Income	Expenses
Jointly managed parks	Up $1.6 million primarily due to insurance recoveries relating to damage caused by Cyclone Monica and flooding in Kakadu; a contribution by the Department of Industry, Tourism and Resources to the Uluru sunrise visitor facility capital works; and a revised estimate of resources received free of charge from the Department	Down $0.5 million due to delays in some Kakadu mine site rehabilitation works as a result of flooding in Kakadu; reduced depreciation expenditure being less than expected due to delay in some major capital works offset by additional expenditure relating to damage caused by Cyclone Monica and flooding in Kakadu; and an increased estimate of resources received free of charge from the Department
Other parks and reserves	Up $1.2 million primarily due to additional project-related funding and a revised estimate of resources received free of charge from the Department	Up $0.7 million due to expenditure related to extra project-related funding and an increased estimate of resources received free of charge from the Department, offset by depreciation expenditure being less than expected due to delay in some major capital works

Business area	Income	Expenses
Governance, corporate services and Executive	Up $0.3 million due to greater than expected interest revenue as a result of delayed operating expenditure and capital works; additional project-related funding; and a revised estimate of resources received free of charge from the Department, offset by a reduction in revenues from government required to fund Departmental cost pressures	Down $0.8 million resulting from an increased estimate of resources received free of charge from the Department, offset by savings required to be made as a result of a reduction in revenues from government

Table 2: Overview of financial results

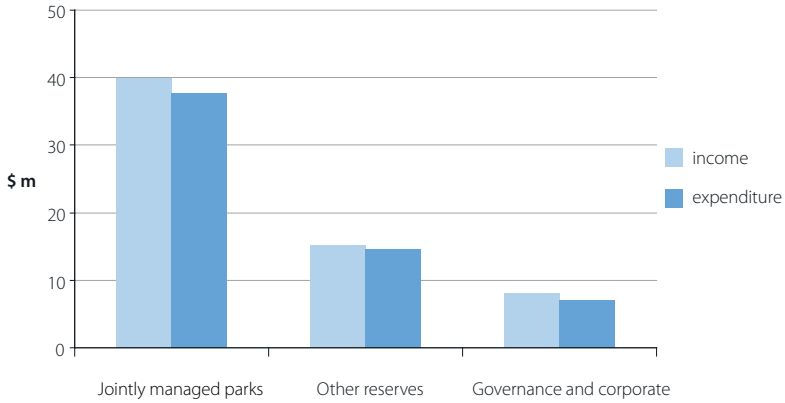
		2006 Actuals $000s	2007 Actuals $000s	2007 Budget $000s	2007 Variance $000s
Jointly managed parks[a]	Revenue	37,762	39,768	38,125	1,643
	Expenses	(36,760)	(37,647)	(38,125)	478
	Surplus/(Deficit)	1,002	2,121	0	2,121
Other terrestrial parks and reserves[b]	Revenue	14,273	15,092	13,894	1,198
	Expenses	(13,884)	(14,642)	(13,894)	(748)
	Surplus/(Deficit)	389	450	0	450
Total terrestrial parks and reserves	**Revenue**	**52,035**	**54,860**	**52,019**	**2,841**
	Expenses	**(50,644)**	**(52,289)**	**(52,019)**	**(270)**
	Surplus/(Deficit)[a]	**1,391**	**2,571**	**0**	**2,571**
Contribution to Australia's Virtual Herbarium	Revenue	400			
	Expenses	(425)			
	Surplus/(Deficit)	(25)			
Governance, corporate services and executive[c]	Revenue	6,588	8,133	7,806	327
	Expenses	(5,780)	(7,003)	(7,806)	803
	Surplus/(Deficit)	808	1,130	0	1,130
Total Director of National Parks	**Revenue**	**59,023**	**62,993**	**59,825**	**3,168**
	Expenses	**(56,849)**	**(59,292)**	**(59,825)**	**533**
	Surplus/(Deficit)	**2,174**	**3,701**	**0**	**3,701**

(a) Kakadu, Uluru–Kata Tjuta and Booderee National Parks

(b) Includes Calperum and Taylorville Stations which are not formal reserves

(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

Figure 2: Income and expenditure 2006–07



Commonwealth reserves system summary

The Commonwealth protected area estate as declared under the *Environment Protection and Biodiversity Conservation Act 1999* comprised, at 30 June 2007, seven terrestrial reserves (national parks, botanic gardens) and 14 marine reserves (marine parks, marine reserves, nature reserves).

The terrestrial reserves are managed by Parks Australia which assists the Director in carrying out the Director's responsibilities. Of the 14 marine reserves, 13 are managed by the Marine and Biodiversity Division of the Department under delegation from the Director while management of the Heard Island and McDonald Islands Marine Reserve is delegated to the Australian Antarctic Division.

Table 3 provides a summary of financial, staffing and area information for Commonwealth terrestrial and marine reserves and Table 4 provides an overview of individual reserves for 2006–07.

Table 3: Overview of terrestrial and marine Commonwealth reserves

Year ending 30 June	2003	2004	2005	2006	2007
Terrestrial reserves					
Expenses ($000s) [a]	54,650	57,545	58,691	56,849	59,292
Income ($000s) [b]	62,947	53,022	58,525	59,023	62,993
Number of staff	280.5	287.8	263.8	274.5	2706
Number of reserves	7	7	7	7	7
Area protected (ha) [c]	2,131,407	2,131,407	2,131,407	2,131,407	2,131,407
Marine reserves					
Expenses ($000s)	2,126	1,981	2,531	3,582	5,530
Income ($000s) [b]	2,126	1,981	2,531	3,582	5,530
Number of staff	13	12	12.6	15.25	17.5
Number of reserves	13	13	13	13	14
Area protected (ha) [c]	27,219,458	27,245,378	27,245,378	27,245,378	27,245,678

(a) Also includes governance, corporate services, executive and the management contract for Calperum and Taylorville Stations which are not formal reserves

(b) Includes revenue from all sources including appropriations and externally raised revenue

(c) Figures for 2003 to 2006 vary slightly from those appearing in previous reports to reflect the latest data available from the Collaborative Australian Protected Areas Database and to correct minor errors

Table 4: Overview of individual reserves in 2006–07

Area name	Area (ha)	IUCN Category [a]	2006–07 operating cost ($000s)	2006–07 capital expenditure ($000s)	2006–07 external revenue ($000s)	2006–07 payment to traditional owners ($000s)
Jointly managed parks						
Booderee National Park (p 57)	6,379	II	6,124	1,023	1,137	490
Kakadu National Park (p 77)	1,980,400	II	17,260	3,339	1,476	1,499
Uluṟu–Kata Tjuṯa National Park (p 105)	132,566	II	10,244	1,997	8,482	2,030
Other terrestrial parks and reserves						
Australian National Botanic Gardens (p 47)	85	IV	9,169	782	661	
Christmas Island National Park (p 70)	8,719	II	3,198	212	1,676	
Norfolk Island National Park and Botanic Garden (p 92)	656	II	965	392	24	
Pulu Keeling National Park (p 99)	2,602	II	742	66	33	
Marine reserves [b]						
Ashmore Reef National Nature Reserve (p 119)	58,337	Ia	66	0	0	
Cartier Island Marine Reserve (p 126)	17,237	Ia	0	0	0	
Cod Grounds Commonwealth Marine Reserve (p 130)	300	Ia	1,209 [c]	0	0	
Coringa–Herald National Nature Reserve (p 134)	885,250	Ia	213	0	0	
Elizabeth and Middleton Reefs Marine National Nature Reserve (p 138)	187,726	Ia	30	0	0	
Great Australian Bight Marine Park (Commonwealth Waters) (p 143)	1,937,162	VI	117	0	0	
Heard Island and McDonald Islands Marine Reserve (p 148)	6,457,815	Ia	73	0	0	
Lihou Reef National Nature Reserve (p 156)	843,670	Ia	0	0	0	
Lord Howe Island Marine Park (Commonwealth Waters) (p 160)	300,063	IV	20	0	0	
Macquarie Island Marine Park (p 164)	16,205,928	IV	139	0	0	
Mermaid Reef Marine National Nature Reserve (p 169)	53,987	Ia	220	0	0	
Ningaloo Marine Park (Commonwealth Waters) (p 174)	243,559	II	271	0	0	
Solitary Islands Marine Reserve (Commonwealth Waters) (p 179)	15,747	VI	84	0	0	
Tasmanian Seamounts Marine Reserve (p 183)	38,897	Ia	3	0	0	

(a) The IUCN Protected Area classification system comprises seven management categories, not all of which have been applied to reserves declared under the *Environment Protection and Biodiversity Conservation Act 1999*. Parts of some reserves are zoned a different IUCN category from the reserve as a whole

(b) In addition to the operating costs for each reserve, $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodiversity Division on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities. Another $869,711 was spent on activities for the identification of new marine protected areas

(c) $1,164,283 of this amount was spent on a structural adjustment process for affected commercial fishing businesses under the Australian Government's Marine Protected Areas and Displaced Fishing Policy

3 Organisational structure

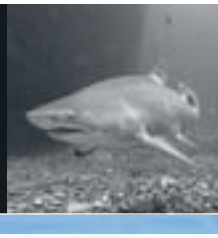
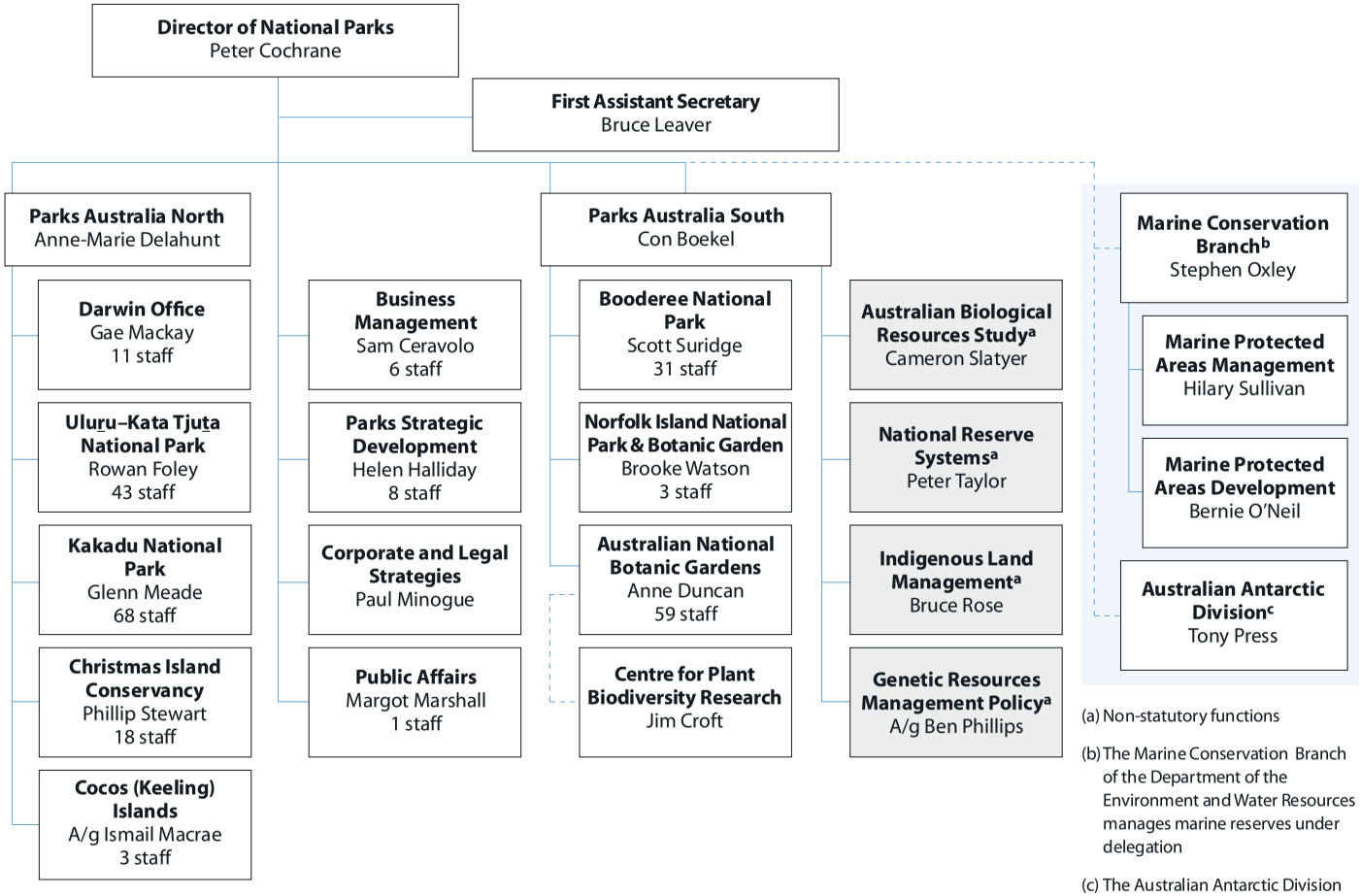


Figure 3: Parks Australia organisation chart as at 30 June 2007



(a) Non-statutory functions

(b) The Marine Conservation Branch of the Department of the Environment and Water Resources manages marine reserves under delegation

(c) The Australian Antarctic Division manages the Heard Island and McDonald Islands Marine Reserve 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. Priorities have been building relationships with traditional owners of jointly managed parks and other stakeholders, and improving agency performance, corporate governance, accountability, transparency and risk management.

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.

Peter has a Masters degree in Public Policy and a Bachelor of Science. He has a background in field ecology and eco-physiology of native plants.

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 Conservation, Heritage and Indigenous Partnerships Reef Advisory Committee and the Tourism and Recreation Reef Advisory Committee for the Great Barrier Reef Marine Park Authority and on 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 of the Environment and Water Resources, working primarily on forest conservation and wildlife issues.

Anne-Marie previously worked for non-government organisations. Over the past few years she 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.

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 contributed to delivery 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 Water Resources 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, working on primary industry issues, 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 worked in the National Press Gallery.

Stephen holds tertiary qualifications in agriculture.

Senior management team

Weekly meetings between the executive team and senior staff address strategic directions and current issues. The Assistant Secretary, Parks Australia North, and her staff take part via video link. Marine Conservation Branch staff also participate in meetings, advising the Director on marine issues.

Boards of management membership

Boards of management have been established under the *Environment Protection and Biodiversity Conservation Act 1999* for Uluṟu–Kata Tjuṯa, Kakadu and Booderee National Parks. Tables 5, 6 and 7 show members of each board for 2006–07.

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

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. Craig has been chair of the Booderee National Park Board of Management since 2005. He previously occupied executive positions on the board of the Wreck Bay Aboriginal Community Council and Dharawal Aboriginal Corporation Community Association and was chief executive officer of South Coast Medical Service Aboriginal Corporation.

During Craig's term as chair of the Booderee board, capital works following the 2003 Windermere fire have been completed and a Junior Ranger programme has been established in local schools. Service agreements are in place with Wreck Bay Enterprises Ltd, the business arm of the Wreck Bay Aboriginal Community Council, for many park functions. Business opportunities and entry and camping fees have been reviewed.

Table 5: Booderee National Park Board of Management

Craig Ardler (Chair)	Traditional owner nominee
Ted Brown	Traditional owner nominee
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 Mark Sander	Department of Defence
Wayne Jeffs	Department of Transport and Regional Services

Jacob Nayinggul
Chair, Kakadu National Park Board of Management

Jacob Nayinggul has been chair of the Kakadu National Park Board of Management since 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 development of the fifth management plan for Kakadu, advised on the development of Twin Falls, helped develop a shared vision for tourism and provided guidance to park management.

Table 6: Kakadu National Park Board of Management

Jacob Nayinggul (Chair)	Traditional owner nominee
Jessie Alderson	Traditional owner nominee
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
Peter Cochrane	Director of National Parks
Anne-Marie Delahunt	Parks Australia
Rick Murray	Tourism industry expertise
Marilynne Paspaley	Northern Territory Government nominee
Vacant	Traditional owner nominee
Vacant	Nature conservation expertise

Donald Fraser
Chair, Uluṟu–Kata Tjuṯa National Park Board of Management

Donald Fraser has been a member of the Uluṟu–Kata Tjuṯa National Park Board of Management since 1 January 2002 and chair since 2003. Donald is a senior law man dedicated to maintaining and teaching *Tjukurpa* (traditional Aboriginal law in the western desert region) and leading *Aṉangu* (western desert Aboriginal people) and other staff and visitors. Donald provides strong leadership and direction on *Aṉangu* issues and ensures that *Tjukurpa* values are preserved and continued.

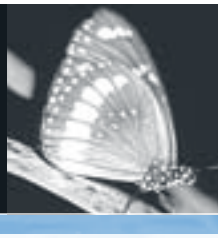
Since his appointment as chair Donald has ensured that the board is focused on the major strategic issues in the park. He is leading the development of a new 10-year management plan for the park and is overseeing the effective implementation of the new joint management partnership arrangements in the park. He has placed a very high priority on training and employment for young *Aṉangu* and is championing the active engagement of senior men and women in looking after the park and its natural and cultural values.

Table 7: Uluṟu–Kata Tjuṯa 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 (until March 2007)
Peter Cochrane	Director of National Parks
Vicki Gillick	Northern Territory Government nominee
Robert Kennedy	Minister for Tourism nominee
Vacant	Minister for Environment and Water Resources nominee

Spectacular Kantju Gorge at Uluṟu transforms through a range of colours each evening as the sun begins to set

4 Corporate overview



The Minister and Assistant Minister

The Director of National Parks

Functions

Other responsibilities

The Minister and Assistant Minister

Ministerial responsibility for Commonwealth protected areas transferred from Senator the Hon Ian Campbell to the Hon Malcolm Turnbull MP on 30 January 2007. The Hon John Cobb MP was appointed Assistant Minister for the Environment and Water Resources on 30 January 2007.

Mr Cobb has ministerial responsibility on behalf of Mr Turnbull for overseeing portfolio activities for the seven land based Commonwealth reserves managed by the Director of National Parks.

The Hon Malcolm Turnbull MP, Minister for the Environment and Water Resources (left) and Assistant Minister the Hon John Cobb MP

Ministerial responsibilities in relation to the Director include approval of management plans for Commonwealth reserves, establishment and appointment of members of boards of management for Commonwealth reserves jointly managed with Aboriginal owners, resolution of disputes between the Director and boards of management and approval of Commonwealth reserve use fees and other charges.

Mr Turnbull retains responsibility for Commonwealth marine reserves and overall responsibility for the appointment, remuneration and performance aspects of the position of Director of National Parks.

In this report reference to the Minister includes the Assistant Minister.

The Director of National Parks

The Director of National Parks is a corporation sole under the *Environment Protection and Biodiversity Conservation Act 1999* (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 Government policies 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 Water Resources. In 2006–07, under delegation from the Director, staff of the Australian Antarctic Division of the Department managed the Heard Island and McDonald Islands Marine Reserve while staff of the Marine and Biodiversity Division managed 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
- to protect, conserve and manage biodiversity and heritage in Commonwealth reserves and conservation zones
- to contribute to the protection, conservation and management of biodiversity and heritage in areas outside 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 current Director has been delegated functions and powers by the Minister for the Environment and Water Resources and the Secretary of the Department of the Environment and Water Resources for programmes that complement the Director's statutory functions. Parks Australia staff administer these programmes.

Under these delegations, the Director administers the National Reserve System Programme, a Natural Heritage Trust programme 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 Water Resources. 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.

5 Planning, reporting and performance

Director of National Parks strategic planning and performance assessment framework

Portfolio Budget Statements

Department of the Environment and Water Resources strategic plan and corporate plan

Parks Australia Divisional Plan

Management plans

Management plan implementation

Management plan prescriptions not to be implemented

Performance indicators

Table 8: Portfolio Budget Statements sub-outcome: Conservation and appreciation of Commonwealth reserves

Director of National Parks strategic planning and performance assessment framework

This annual report is one element in the Director of National Parks strategic planning and performance assessment framework. Other framework elements are described in this chapter.

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 outcomes and outputs for the year under review. The Director of National Parks is included in the Portfolio Budget Statements for the Environment and Water Resources 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 8 reports against performance information for Output 1.1 identified in the Portfolio Budget Statements.

Detailed performance information for individual Commonwealth reserves is included in the State of the Parks chapter of this report.

Department of the Environment and Water Resources strategic plan and corporate plan

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

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, applies only to the three jointly managed reserves–Uluṟu–Kata Tjuṯa, Kakadu and Booderee National Parks. The State of the Parks chapter of this report provides performance information only on the key result areas that apply to individual reserves.

Strategies to achieve the outcomes in the Department's strategic and corporate plans are detailed 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 2007, the Director was responsible for the management of 21 Commonwealth reserves, 17 of which had management plans in place. New plans are being prepared for Uluṟu–Kata Tjuṯa National Park and Norfolk Island National Park and Botanic Garden. The management plan for Mermaid Reef Marine National Nature Reserve expired on 16 May 2007. A new draft plan is being prepared and will be released for public comment in 2007–08. The Cod Grounds Commonwealth Marine Reserve was declared on 10 May 2007 and work has commenced on the management plan.

Management plan implementation

Implementation schedules are part of the planning and performance assessment framework for terrestrial reserves. The schedules contain all the prescriptions (policy and action) identified in a management plan. Each action based prescription can be broken down in the schedule into projects and tasks and given a timeframe. These projects and tasks can be assigned to staff and incorporated into individual performance agreements.

A database has been developed to support the implementation schedules. The database is already in use at Booderee National Park and is being introduced in Kakadu National Park following completion of the new management plan. The database will be used in the other terrestrial parks when new management plans come into effect.

During 2006–07 the performance and risk database for Commonwealth marine reserves was improved. It will be used to track and report on the implementation of marine reserve management plans.

Management plan prescriptions not to be implemented

During the life of a management plan some prescriptions may not be implemented because, for example, they have become redundant, impractical or there is a lack of resources. No such prescriptions were identified in 2006–07.

Performance indicators

Use of performance indicators by the Director of National Parks continues to evolve. An initial set of performance indicators first used in 2005–06 was further developed. This year, the indicators have been used in reporting against outcomes for terrestrial reserves (see Table 8). Specific indicators for marine reserves are being developed.

The outcomes and performance indicators in Table 8 are derived from a wider set of outcomes contained in the Portfolio Budget Statements and reflected in the Parks Australia Divisional Plan.

Table 8: Portfolio Budget Statements sub-outcome: Conservation and appreciation of Commonwealth reserves

KRA1: Natural heritage management

Outcomes

1.1 Natural values for which Commonwealth reserves were declared and/or recognised have been maintained

1.2 The impacts of threats to natural values have been minimised

KRA1 Performance indicators

- Regular targeted monitoring of key values and threats undertaken
- 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

Results for 2006–07

- 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
- Management plans for reserves continue to be developed and implemented in line with the EPBC Act requirements
- Fire, weed and feral animal plans were reviewed and implemented as part of routine reserve management activities
- Regionally focused recovery plans are being prepared for Norfolk Island National Park and Botanic Garden and Christmas Island National Park
- Regular targeted monitoring of key values and threats was undertaken. Inventories of species recorded in the terrestrial and marine reserves, including those listed under the EPBC Act, continued to be updated (see species information in the State of the Parks report)
- Flora and fauna surveys included:
  - the 15th Uluṟu fauna survey which indicated that fauna species at Uluṟu are in good shape, with increased populations of key threatened species and a growing population of the recently reintroduced mala (rufous hare-wallaby)
  - a new aerial survey technique for bitou bush trialled at Booderee; the results indicate a reduction in heavy infestations of bitou bush due to a sustained control effort over the past three years
  - detailed biodiversity surveys on Christmas Island and at Booderee National Park
- The ANBG grows 6,673 out of an estimated 20,000 plants that comprise the potential taxonomic, ecological and horticultural themes

KRA2: Cultural heritage management

Outcomes

2.1 Cultural heritage values, both Indigenous and non-Indigenous, for which parks were declared or are recognised have been protected and conserved

2.2 Living cultural traditions are being maintained

2.3 The impacts of threats to cultural values have been minimised

2.4 Wide awareness and appreciation that parks are managed and presented as living cultural landscapes and seascapes has been achieved

KRA2 Performance indicators

- Adequacy and currency of inventories of cultural sites
- Level and nature of support provided by park management to maintain and promote traditional cultural values
- Histories, prehistories and knowledge recorded (oral, written and pictorial) where culturally appropriate

Results for 2006–07

- A heritage strategy for Commonwealth heritage (including cultural heritage) for which the Director is responsible was prepared in line with EPBC Act requirements and accepted by the Australian Heritage Council
- At Uluṟu, oral history programmes continued, rock art inspections were conducted, a specialist conservator made conservation assessments of all public sites and produced site management plans and work continued on the Cultural Sites Management System and *Ara Irititja* databases
- At Kakadu, oral history recordings, the development of a cultural heritage sites register and rock art maintenance at public sites continued with the support and involvement of traditional owners and relevant Aboriginal people

KRA3: Joint management

Outcomes

3.1 Joint management has been practised through:
- implementation of lease provisions and prescriptions contained in management plans
- implementation of relevant decisions made by boards of management
- growing capacity and increasing participation of traditional owners in park management
- positive, harmonious relationships

KRA3 Performance indicators

- Number of traditional owners and relevant Aboriginal people employed directly and indirectly
- Training provided for and undertaken by traditional owners and relevant Aboriginal people (staff, contractors and community people)
- Contribution of Aboriginal enterprises operating in parks
- Proportion of board of management actions addressed within agreed timelines

Results for 2006–07

- 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
- The fifth Kakadu management plan was completed and came into effect after more than three years work by the Kakadu National Park Board of Management and numerous detailed consultations with traditional owners and stakeholders. Work commenced on the new plan for Uluṟu
- Across the three jointly managed parks 54 Indigenous staff were employed in ongoing and non-ongoing positions. In addition the parks employed Indigenous people as casual staff, through contractors and Indigenous enterprises that provide services to the parks. For example:
  - At Booderee, Wreck Bay Enterprises Ltd provided jobs for up to 30 permanent and 12 casual Indigenous workers
- A wide range of employment opportunities were filled in jointly managed parks, through contracts to Indigenous business enterprises, and in full-time, part-time and casual positions in the parks
- A wide range of on-the-job and formal training was provided for and undertaken by traditional owners and relevant Indigenous people including staff, contractors and community people
- 15 Indigenous enterprises are now operating in the jointly managed parks

KRA4: Visitor management and park use

Outcomes

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

KRA4 Performance indicators

- 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

Results for 2006–07

- An estimated 1.4 million people visited Commonwealth reserves with increased numbers at Booderee and Kakadu National Parks and the Australian National Botanic Gardens
- Booderee National Park and Norfolk Island National Park and Botanic Garden visitor surveys identified a high level of visitor satisfaction
- The cessation of visitor survey data collection for the Northern Territory parks in 2005–06 triggered development of new survey arrangements to measure visitor satisfaction which will commence in 2007–08

KRA5: Stakeholders and partnerships

Outcomes

5.1 Volunteers contribute to area management based on clearly defined roles

5.2 Stakeholders, e.g. 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

KRA5 Performance indicators

- Annual contribution to active partnership effort
- Consultation with stakeholders and partners
- Level of satisfaction of the Minister and the Assistant Minister

Results for 2006–07

- Effective engagement and consultation with stakeholders, including national and regional tourism organisations, industry groups, universities, park agencies, non-government organisations and community groups
- The National Landscapes partnership with Tourism Australia was formally launched and six candidate areas nominated for the programme
- Partnerships with research organisations continued, including scientists in the Northern Territory Parks and Wildlife Service, CSIRO, the Australian Institute of Marine Science, James Cook University, the Australian National University, Charles Darwin University and the University of Queensland
- Constructive partnerships continued with relevant state agencies and the Australian Customs Service in managing marine reserves

KRA6: Business management

Outcomes

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

KRA6 Performance indicators

- 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

Results for 2006–07

- The divisional plan was reviewed and updated
- Risk watch lists for each park or business unit were regularly reviewed in accordance with the Director's Risk Management Policy
- Management plans for reserves continue to be developed and implemented in line with EPBC Act requirements
- Recorded injuries to visitors were significantly down (18.6%) on 2005–06. Total recorded incidents were down (13%) compared with the previous two years
- The Auditor-General issued an unqualified audit report for the 2006–07 financial statements of the Director of National Parks
- Two 'B' findings from the ANAO report in 2005–06 were resolved
- The Director and Parks Australia continued to strive to meet best practice standards in the management of Commonwealth reserves
- Expenditure did not exceed income
- The business continuity plan was reviewed and updated and successfully tested during extraordinary weather events in Canberra and the Northern Territory

KRA7: Biodiversity knowledge management

Outcomes

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

7.2 Taxonomic, biogeographic and conservation biology research and biological collections management capacity in relevant sections of the Australian community are enhanced

KRA7 Performance indicators

- The number of biodiversity information publications and resources provided

Results for 2006–07

- Information is available in hard copy and electronically about each reserve
- Highlights for the year included:
  - the publication of a pictorial essay on Pulu Keeling
  - upgraded interpretive signage around the base of Uluṟu
  - the Parks Australia website received a daily average of almost 100,000 hits with Kakadu and Uluṟu being the primary entry points into the Department's website
  - the ANBG website received a daily average of 45,000 hits in addition to the above
  - Australia's Virtual Herbarium project met its milestones. Management will be transferred from Parks Australia to the Council of Heads of Australasian Herbaria in 2007–08

Lotus flowers provide brilliant hues of pink to the otherwise lush green wetlands of Kakadu National Park

6 State of the Parks report

Guide to the State of the Parks report

Chapter index

Individual reports for Commonwealth reserves

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:

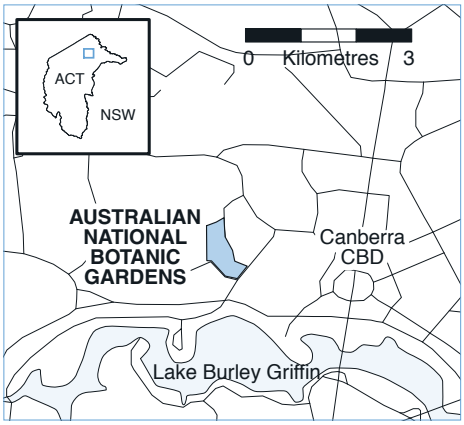
- **Area and locational information** derived from the Collaborative Australian Protected Areas Database is provided.
- The World Conservation Union **(IUCN) protected area management category** is identified for each reserve, and where parts of the reserve come under different categories this is indicated. 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 (Integrated Marine and Coastal Regionalisation of 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 non-threatened 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 2006–07.

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

Chapter index

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 a nation's native 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 native 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	$9.169 million
	Capital	$0.782 million
	Revenue	$0.661 million

Visitors	509,325 to site 122,762 to visitors centre
Living plants	Planted in 2006–07: 12,478 Total number of taxa in the living collection: 6,673 Total number of registered plants in the living collection: 90,506
Herbarium specimens	Specimens added to database in 2006–07: 37,380 Total number of specimens in collection: ~1.2 million
Australian Plant Image Index	Added in 2006–07: 1,885 Total number of photographs in collection: 35,617
Permits	4 commercial activity permits; 58 wedding or wedding photography licences; 101 licences to publish 640 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 delivering information on Australia's aquatic plants through its website
Other agreements	Collaborates with international organisations including: · International Association of Botanic Gardens · International Association of Plant Taxonomists · International Plant Propagators Society · International Union of Biological Sciences Taxonomic Databases Working Group · International Plant Name Index (Kew Botanic Gardens and Harvard University) · Global Biodiversity Information Facility · International Organisation for Plant Information World Vascular Plant Checklist Project · Species 2000

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, the living plants in the gardens and the photographs in the Australian Plant Image Index.

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

A new computerised irrigation management system installed in 2006 is being used to monitor and manage irrigation more efficiently and reduce water use.

Future challenges

Major challenges are:

- water management in light of the continuing drought and sharp increases in unit water costs in Canberra. With further restrictions expected to come into force in 2007–08, actions will be needed to reduce nursery activities to maintenance of the 'permanent pot collection', reduce new propagation to a minimum, possibly sacrifice replaceable areas like lawns and expedite the long-term aim to establish a non-potable water source to water plants
- studying the impact of climate change. This will be a major focus for the ANBG as it seeks to understand and adapt to climate change, and to develop and communicate sound climate change messages about Australia's biodiversity and horticultural practices to visitors and clients
- placing a monetary value on the living, herbarium and photograph collections. Valuation is necessary to ensure the collections are adequately resourced
- maintaining the ANBG's role as a tourist attraction in the face of water restrictions. Visitor attractions like the Friends of the ANBG's summer concerts and guided tours will continue to be important
- continuing work 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 Australian National Herbarium and the project is due for completion in 2008 (see case study on page 55)
- implementing the next phase of Australia's Virtual Herbarium. Funding for the first phase ended in 2006 and the ANBG is working with state and territory herbaria and museums to build on the project through new national infrastructure proposals.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Water management infrastructure
- Plant records and census of living plant collection
- Introduction of GIS to living collection management

Actions

- Increase water use efficiency
- Stocktake the living collection
- Use GIS to map the living collection

Performance results 2006–07

- Increased water use compared to 2005–06 due to hot and dry weather conditions. The ANBG more than met its own target of replacing 50 per cent of net evaporation per year; however this still fell short by 21 per cent of ACTEW's target allocation of water to the ANBG
- Developed a strategy to undertake a complete living plant census in 12 months (instead of three years as previously) via deployment of nursery staff
- Implemented the first phase of the ANBG's GIS

KRA2: Cultural heritage management

Major issues

- Displaying the flora of Australia
- Education

Actions

- Display the flora of Australia in a horticultural setting
- Provide cultural interpretation and education programmes relevant to the Australian flora

Performance results 2006–07

- The ANBG displays about one-third of the plant species thought to occur naturally in Australia in a managed horticultural setting. Water restrictions put much of the collection under stress and resulted in some losses
- Promoted the cultural values of Australian native plants with exhibitions in the visitor centre and elsewhere in the ANBG: 'Flora Tasmanica', 'Bare Winter', 'A Tree in the Palm of your Hand Bonsai Exhibition', 'Snakes Alive!', 'Blooming Threads' and 'Caring for Land'
- 16,897 children attended the ANBG education programmes

- Distributed approximately 500 copies of the education unit's poster on the floral emblems of Australia to schools and educators on demand

KRA4: Visitor management and reserve use

Major issues

- Visitor management
- Visitor safety

Actions

- Conduct visitor surveys
- Initiate a marketing plan
- Conduct an eastern brown snake survey

Performance results 2006–07

- Completed a major visitor survey in conjunction with the umbrella organisation Botanic Gardens of Australia and New Zealand and commenced a visitor survey with the National Capital Attractions Association
- Drafted a marketing strategy
- Completed an eastern brown snake survey. An interim snake management policy was drafted and approved

KRA5: Stakeholders and partnerships

Major issues

- Friends of the ANBG
- Greening Australia
- Centre for Plant Biodiversity Research
- Botanical forums: the Council of Heads of Australasian Herbaria, Council of Heads of Australian Botanic Gardens, Global Biodiversity Information Facility and Taxonomic Databases Working Group
- Commonwealth Environment Research Facilities Taxonomy Hub
- ACTEW Corporation

Actions

- Strengthen the partnership between the ANBG and the Friends of the ANBG
- Continue hosting the Greening Australia Community Seedbank on the ANBG site
- Continue to participate in the joint ANBG–CSIRO Centre for Plant Biodiversity Research
- Continue the Australian National Herbarium's leadership role in the Council of Heads of Australasian Herbaria

- Continue the Australian National Herbarium's participation in the Council of Heads of Australian Botanic Gardens, Global Biodiversity Information Facility and Taxonomic Databases Working Group
- Continue the Australian National Herbarium's participation in the Commonwealth Environment Research Facilities Taxonomy Hub in association with CSIRO biological collections and major universities
- Liaise with ACTEW Corporation which is the sole supplier of water to the ANBG and administers the ACT Government's water restrictions

Performance results 2006–07

- 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; opened the Friends Cascade, a new water feature; opened the Friends Shelter, the first project of the Friends' Public Fund; and supported the ANBG's annual summer concerts in January–February 2007
- 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
- Continued ANBG staff's management, research and technical support roles in the Centre for Plant Biodiversity Research and the Australian National Herbarium
- The Council of Heads of Australasian Herbaria's Australia's Virtual Herbarium project tendered for and won a government contract to prepare weed profiles for the Department's Species Profile and Threats Database.
- Continued membership of technical working groups under the Global Biodiversity Information Facility and Taxonomic Databases Working Group
- Undertook a project to database and manage digital images of historical specimens from the Royal Botanic Gardens, Kew's herbarium collection. The project is funded by the Global Biodiversity Information Facility
- Ran a workshop on life science identifiers for Australian herbaria and participated in a workshop on database standards, both under the auspices of the Taxonomic Databases Working Group
- Took a leadership role within the Council of Heads of Australian Botanic Gardens in developing a national climate change adaptation response for botanic gardens
- Received support through the Commonwealth Environment Research Facilities' Taxonomy Hub project and began recruitment to key positions
- Maintained a positive working relationship with ACTEW which administers the ACT Government's water restrictions. The ANBG received a water use exemption to maintain the living collection

KRA6: Business management

Major issues

- Budget management
- Staff management
- Risk management

Actions

- Ensure business continuity and service delivery
- Manage staff resources efficiently
- Continue ongoing risk assessment

Performance results 2006–07

- Significant increases in the unit cost of water have reduced the ANBG's ability to deliver on other key functions
- Attempting to ensure business continuity and delivery of existing services with declining resources is impacting on staff dedicated to the high standards of a national botanic garden
- The effects of an ageing workforce are starting to be felt, especially among horticultural staff managing the living collection
- Maintained and improved staff consultation, involvement and capacity building formally (through training, the occupational health and safety committee, staff planning days) and informally (through opportunities for higher duties, informal consultation)
- Damage to buildings and nursery polyhouses from the February 2007 hail-storm and failure of the herbarium building's air-conditioning system in summer highlighted the importance of risk monitoring through riskwatch lists, and identifying appropriate action. Drought is the most significant ongoing direct risk to the living collection

KRA7: Biodiversity knowledge management

Major issues

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

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 define and 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
- Enhance the extensive collection of photos and illustrations of plants and further develop access to the collection using innovative technology
- Promote and provide information about Australian native plants via the internet
- Position the ANBG as a leader in *ex situ* responses to climate change

Performance results 2006–07

- Curated and databased 37,380 specimens which contributed to 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
- Born-digital images started to contribute significantly to the Australian Plant Image Index which was previously based on 35 millimetre slides; 2,315 additional images were made available via the web
- Continued to develop the website as the premier online resource for information about Australian plants. The website recorded an average of 45,000 hits each day, an increase of 10,000 per day from 2005–06
- Developed a botanic gardens climate change website
- Initiated a seed collecting project in the vulnerable alpine areas

Making Australian plants count

Terminalia bursarina – This tree, widespread across northern Australia, has been known by different names by different authors. It has been treated as a distinct species (especially by botanists in the NT) or included within the related species T. canescens *(especially by Queensland botanists). Recommended nomenclature through the Australian Plant Census is to treat both taxa as distinct species*

Compiling a list of all naturally occurring and naturalised Australian plants is a major undertaking only attempted twice before.

For a plant census to be truly useful, it must include all names, including synonyms, and provide information on the taxonomic concept of the plant to which each name or names are applied. In the past, different botanists and state herbaria used different concepts when applying names to their flora, with plants apparently 'changing names across borders'. The need for a unified Australian Plant Census became more urgent as the Australian Government tried to align new legislative schedules with state government legislation.

In 2004 the Council of Heads of Australasian Herbaria, including representatives of all the state, territory and Australian Government herbaria, agreed to produce this much needed list with funding from the Natural Heritage Trust. The aim is a 'consensus census' which presents the majority view, in some cases a compromise between conflicting scientific opinions, on the current state of Australia's taxonomic plant knowledge.

The census project is coordinated by the Australian National Herbarium and builds on the foundation of the Australian Plant Name Index which is managed by the herbarium on behalf of the Australian botanical community. The index lists every published use of every plant name for the Australian flora, including introduced naturalised species. The census tells users which of those names are currently recognised and which are regarded as synonyms, along with basic state-level distribution. Decisions are made with extensive input from botanists in all major Australian herbaria, making the census a truly national, collaborative project.

The process so far has involved working through the flowering plants family by

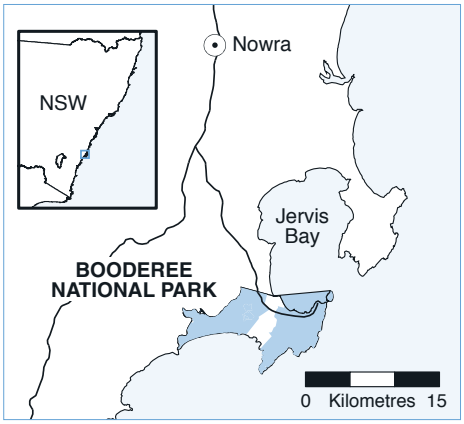
family. The list is refined by consensus with a working group of botanists in each herbarium. By mid-2007, 205 families had been treated covering about 50 per cent of Australia's flowering plants. Some large groups such as the Proteaceae, Chenopodiaceae and Mimosaceae have been completed but many major groups remain to be tackled, including the Poaceae, Myrtaceae and Asteraceae.

Unlike previous plant lists the census is a dynamic database, constantly updated as new information is published. In that sense it will never be 'finished' but the first pass at a consensus census for all Australian flowering plants is expected by late 2008. In the meantime, the census is accessible to scientists and the public for those families treated so far.

See the results so far at http://www.anbg.gov.au/chah/apc/index.html.

Booderee National Park

http://www.environment.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. Staff work cooperatively with the adjoining NSW Jervis Bay National Park to protect much of the biodiversity of the Jervis Bay region.

Booderee National 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 and servicing 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 NSW 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.

Location	Latitude 35° 09′ South, Longitude 150°39′ East
Area	6,379 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 Wreck Bay Aboriginal Community Council and Wreck Bay Enterprises Ltd; Cultural Heritage Strategy in preparation

Financial	Operating	$6.124 million
	Capital	$1.023 million
	Revenue	$1.137 million
	Paid to traditional owners	$0.490 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 (*Megaptera novaeangliae*); southern right whale (*Eubalaena australis*); albatross (*Diomeda* spp. and *Thalassarche* spp.) and giant petrels (*Macronectes* spp.); marine turtles; grey nurse shark (*Carcharius taurus*) 5 in preparation: grey-headed flying-fox (*Pteropus poliocephalus*); Gould's petrel (*Pterodroma leucoptera*); eastern bristlebird (*Dasyornis brachypterus*); green and golden bell frog (*Litoria aurea*); giant burrowing frog (*Heleioporus australiacus*)
Listed flora	Species	1 vulnerable
	Recovery plans	1 in preparation: magenta lilly-pilly (*Syzygium paniculatum*)[a]
Heritage	On Commonwealth Heritage List (part of several listings)	

(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)	308 (1)	625 (1)

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

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. The current plan expires in 2009 and the board will commence preparation in 2007–08 for the second management plan.

Monitoring

Species are being 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.

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*). A full time PhD student began a study on amphibians in the park in March 2007 and the data will provide a valuable baseline for examining climate change impacts.

Wildlife monitoring also continued to focus on the effectiveness of regular fox baiting and long-term impacts of the 2003 Windermere fires, particularly on long-nosed bandicoots (*Perameles nasuta*) and eastern bristlebirds.

A new aerial survey technique for the highly invasive ecological weed bitou bush (*Chrysanthemoides monilifera*) was trialled and the results indicate some decrease in density of the main infestation behind Bherwerre Beach, and some increase in the number and density of satellite infestations (see case study on page 66). Bitou remains the major environmental risk to the park. New integrated management approaches involving ultra low volume aerial spraying followed by high intensity fire were partially successful, with a sprayed large block successfully burnt. Monitoring sites were established in the block before treatment, so that the ecological consequences of treatments can be determined.

Effort was increased to monitor compliance with the park's marine zoning scheme and catch limits, and the effectiveness of brochures and face-to-face education.

Future challenges

Major challenges are:

- continuing to improve control measures for key threats particularly introduced kikuyu grass (*Pennisetum clandestinum*) on Bowen Island, bitou bush and foxes throughout the park

- addressing the park's isolation from adjacent natural areas due to development pressures in the region
- progressing the cultural centre
- identifying ways of replacing critical ageing assets (notably the visitor information centre)
- completing the cultural heritage strategy with the Wreck Bay Aboriginal community and implementing the strategy's recommendations
- implementing the training strategy
- progressing service level agreements and contracting opportunities with the community to an agreed timetable
- identifying 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 foxes are the greatest threat
- Bitou bush is the most significant weed in Booderee
- Protection of seabird nesting habitat (little penguin, three species of shearwater, sooty oystercatcher) from kikuyu grass and other weeds
- Fire-prone vegetation communities require active management in an increasingly risky climate
- The role of climate change and its impacts on the park
- Rapid residential development in surrounding areas isolating the park from adjacent natural areas, possibly threatening a range of species

Actions

- Manage the feral animal control programme with emphasis on regional fox control, control of resilient individual foxes and introduction of alternative fox control methods
- Develop safer integrated management techniques (aerial spraying and fire) for bitou control. Refine integrated control measures (fire, spraying, rehabilitation) and monitor ecological impacts of these control measures
- Control the spread of kikuyu on Bowen Island, and increase community involvement
- Continue to implement an ecologically appropriate and safe fire management programme and upgrade training and monitoring to cope with larger, more intense fires

- Continue to consult with agencies on the regional value of the park, the importance of maintaining habitat corridors and links with other natural areas, and possible impacts of development
- Work with researchers to better understand potential impacts of climate change on the park

Performance results 2006–07

- The exceptional natural recovery after the intense wildfires of 2003–04 continued. Biodiversity monitoring continues to indicate a healthy environment with indicator species stable or increasing. However, for the second year running, the threatened green and golden bell frog was not recorded in the park
- High numbers of key indicator species (long-nosed bandicoot and eastern bristlebird) suggest 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 a wildfire
- Focused on maintaining native plantings and re-establishing penguin nesting habitat on Bowen Island
- Trained five new crew leaders and updated fire training standards with a new fire officer

KRA2: Cultural heritage management

Major issues

- Maintaining the cultural values of the park
- Addressing aspects of cultural heritage management through a cultural heritage strategy
- Developing and delivering a well-accepted cultural heritage education programme in partnership with the Wreck Bay Aboriginal Community Council

Actions

- Maintain the register of cultural sites on GIS and database, determine protection measures, and examine the merits of a more sophisticated GIS
- Offer school holiday summer, spring and autumn interpretation programmes with an increased focus on cultural interpretation
- Develop Koori cultural themes to promote understanding of Aboriginal plant use
- Continue planning for a staged approach to a new visitor/cultural centre by progressing concept design and business case development
- Develop a cultural heritage strategy for the park
- Continue the Junior Ranger programme with an integrated approach to education about natural and cultural park values

Performance results 2006–07

- Conducted a cultural interpretation holiday programme during the spring, summer and autumn school holidays, involving 159 sessions and 4,459 attendees
- Maintained the cultural heritage GIS held by the Wreck Bay Aboriginal community
- Began construction of new signage, and walking trails at Booderee Botanic Gardens
- Commenced a cultural heritage consultancy
- Continued the Junior Ranger programme at Jervis Bay School (see case study on page 68)

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 an agreed timetable
- Management plan is fully implemented

Actions

- Continue to 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 an integrated training strategy agreed by the Wreck Bay Aboriginal community, the park and Wreck Bay Enterprises Ltd
- Prepare an annual management plan implementation schedule and report progress to the board of management

Performance results 2006–07

- Supported ongoing service level agreements for road and fire trail maintenance and entry station services
- Finalised and implemented a service level agreement for cleaning park and staff facilities
- Wreck Bay Enterprises Ltd contractors undertook capital works in the park
- Park and Wreck Bay boards of management endorsed the integrated training strategy agreed by the park, the community and Wreck Bay Enterprises Ltd. The strategy is consistent with park lease obligations, and a substantial amount of training was conducted
- Upgraded and refined the management plan implementation database
- Received a World Wildlife Fund Australia award for the most outstanding Commonwealth protected area for the decade 1992–2002

- A community member advanced through the training programme to a management level position

KRA4: Visitor management and reserve use

Major issues

- Increasing visitors' awareness of the park's natural and cultural values
- Provision of infrastructure to facilitate appropriate and safe use of the park while protecting conservation values
- Poor condition of the visitor centre due to its age

Actions

- Include conservation and cultural themes in interpretation programmes
- Maintain campgrounds and public facilities and infrastructure to a high standard
- Educate visitors about fish catch limits and the zoning plan and enforce legislation where appropriate
- Monitor visitor numbers and experiences
- Renovate the visitor centre and plan for its replacement
- Manage risk through a risk watch list and ParkSafe

Performance results 2006–07

- Delivered interpretation programmes focusing on Aboriginal cultural values and conservation themes in the park and at schools, and during school holidays
- Completed repairs to visitor infrastructure damaged by the Windermere fire of Christmas 2003. Finalised repairs and insurance payments in November 2006
- Upgraded visitor facilities including the Green Patch nature trail, Booderee Botanic Gardens walking trails, visitor information signs, and roads and management trails. Began work on two new public shelters
- Recorded generally high levels of compliance with marine zoning scheme and catch limits (there are few repeat offenders) but there is a serious problem with a small number of fishers taking commercial quantities of squid. Commenced prosecution actions for repeat offenders
- Enhanced visitor data analysis software and hardware
- Carried out two visitor satisfaction surveys, with 96 per cent of those surveyed in January 2007 responding as 'satisfied to completely satisfied' and 93 per cent in the June 2007 survey
- Completed some minor refurbishment of the visitor centre. Concept design and business case development are under way for eventual replacement or major refurbishment, with capacity to include a cultural centre
- Completed job safety analyses on a range of higher risk functions

KRA5: Stakeholders and partnerships

Major issues

- Cooperative arrangements between the park, the NSW National Parks and Wildlife Service, the Jervis Bay Marine Park and the Department of Defence
- Strong cooperative arrangements with universities
- 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, Conservation Volunteers Australia, Community Development Employment Projects)

Performance results 2006–07

- 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 lead regional fox management
- Issued nine research permits in postgraduate conservation fields in accordance with the management plan. Cooperative undergraduate and postgraduate programmes operated with the University of Wollongong, the University of Canberra and the Australian National University
- Completed negotiations between the park and the Department of Defence on a Memorandum of Understanding covering day-to-day operations and relationships between the parties, for consideration by the board of management
- Commenced Community Development Employment Projects at Booderee Botanic Gardens involving Wreck Bay youth, and supported Vincentia High School's students at risk programme through work experience
- Supported youth at risk programmes with the NSW Police Force
- Conducted 18 Parkcare activities, including post-fire rehabilitation, weed removal and rehabilitating little penguin nesting habitat
- Supported three externally funded Conservation Volunteers Australia activities on Bowen Island
- Continued membership of and involvement with regional tourism organisations
- Participated in an accreditation process through the Caravan and Camping Industry Association NSW Gumnut Awards for commitment to environmental sustainability and socially responsible management. The park received a bronze award, and is working toward silver

KRA6: Business management

Major issues

- In accordance with Investors in People policy, staff have all the necessary skills to do their jobs
- Revenue review
- Management plan implementation
- Managing the budget to allow for rising salaries

Actions

- Increase emphasis on training identified in personal development plans
- Implement the approved pricing restructure for camping and entry fees
- Work to the annual implementation plan and report the results

Performance results 2006–07

- Offered training in line with personal development plans, with emphasis on contract and project management, fire preparedness/fighting and supervisory and management skills
- Implemented the restructured camping and entry fees with a 24.5 per cent increase in revenue
- Supported the pricing restructure implementation by increased vigilance in collecting entry and camping fees, including checking the car park and campgrounds, and randomly closing the bypass entry lane provided for local traffic
- Reviewed and updated the annual implementation plan as necessary
- Reviewed the performance framework and measures. The park is taking part in a trial of best practice performance management systems with the University of Queensland

Bitou battleground

The highly invasive bitou bush (*Chrysanthemoides monilifera* ssp. *rotundata*) has been present in Booderee National Park for over 30 years, after being introduced to the NSW south coast in 1969 for dune stabilisation. Bitou is listed as one of the top 20 weeds of national significance and is recognised in Booderee as the key threatening process affecting many ecological communities. The traditional owners, the Wreck Bay Aboriginal community, are very concerned about this threat.

A feature of the weed is its edible bright black fruit which is spread widely by birds, producing satellite infestations which are difficult to detect and treat on the ground.

With almost 1,500 hectares of bitou bush in the park, management of the weed is no small task. Eradication efforts began in Booderee in the early 1970s focusing on manual removal. Control then switched to ground spraying until techniques for selective poisoning using ultra-low-volume aerial spraying of the herbicide Roundup were developed at Booderee in the 1990s. That technique has since been used to attack the main infestation spreading from the Bherwerre dune systems, supported by ground spraying of satellite infestations.

Aerial surveys in 2004 and again this year have allowed staff to quantify the area and density of the infestation and to assess how effective control operations have been over the intervening three years. The surveys involved flying parallel transects in a helicopter while two observers assessed the presence and density of bitou at set intervals and recorded the results via a global positioning system. These results are used to map the infestation in the park's GIS. The accompanying map shows areas of the park where bitou density has increased, decreased and remained unchanged during the past three years.

Overall, the distribution of bitou changed very little between surveys, with a slight increase of 4 per cent. However, the extent of different classes of bitou infestation changed quite dramatically. The heaviest infestation class (more than 50 per cent coverage), concentrated in a broad band through the middle of the western half of the park, declined by 69 per cent. This is where the most long-term environmental damage is being done and where control efforts have been concentrated. In contrast, the low density class (0–10 per cent coverage) increased by 73 per cent, largely representing formerly high density areas becoming low density following spraying.

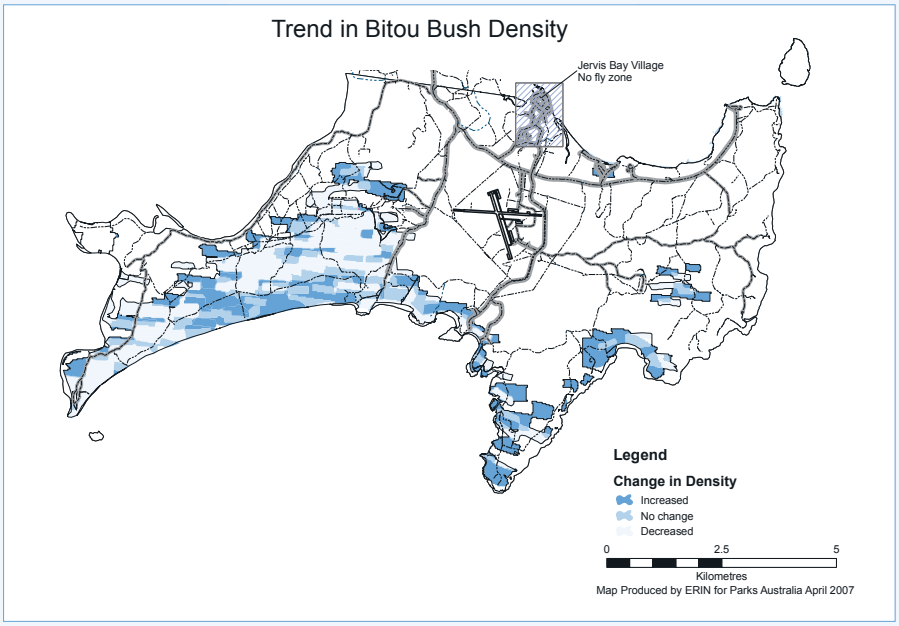
In the highest density areas a technique called spray-burn-spray is used to improve the level of control. This control technique was pioneered on the NSW south coast and involves spraying an infestation, and then burning the canes

once they have sufficiently dried. This burning stimulates a mass germination of bitou seed stored in the soil which is then sprayed again, effectively draining the soil of seed which can otherwise remain viable for up to eight years. Preliminary results suggest that not only does this treatment achieve the best control of bitou, it also results in the best recovery of native plants.

The eastern half of the park has received less attention due to the low level of bitou infestation and more inaccessible terrain; however the survey found that satellite infestations on the St Georges Peninsula and above Steamers Beach have expanded in the last three years. In June 2007 aerial spraying of those areas was conducted for the first time, and the number and extent of satellite infestations recorded in the 2007 map is expected to decrease.

Bitou bush research will continue in the park. The Australian National University is currently examining the impact of bitou on a range of terrestrial vertebrates while a future project will examine the interaction between fire, bitou regeneration, native plant regeneration and grazing by herbivores such as wallabies. While the long-term eradication of such a tenacious weed from Booderee is unlikely, the survey results suggest that a continued high level of control via aerial spraying should save much of the park from becoming an emerald green monoculture of bitou bush.

Figure 4: Changes in bitou bush density at Booderee National Park 2004 – 2007



Rangers of the future

Booderee Junior Rangers with Jervis Bay School teachers, park staff and research staff from the Australian National University's Centre for Resource and Environmental Studies

The Booderee National Park Junior Ranger programme started in 2006 at Jervis Bay School, cementing a long established connection between the school and the park in environmental and cultural education.

The school is located in the grounds of HMAS Creswell in Jervis Bay Territory and students come from the Wreck Bay Aboriginal community, Navy families and nearby villages. Many students have family members who work at the park or have connections with the park over many years.

The programme is based on the environment and work at Booderee, as well as the local Koori culture of Wreck Bay. Park employee and community member Julie Freeman worked with park staff and teachers to develop and deliver a regular programme of activities for students from pre-school to year 6, based around relevant syllabus areas. Students learn about the park's flora and fauna, fire management, visitor management, the botanic gardens, how to propagate plants, bush tucker and medicines, and Aboriginal tools and technology. The programme is delivered by community members, park staff and researchers, all with a wealth of knowledge to pass on to the next generation of park staff and community managers.

The 2006 programme culminated in an end-of-year performance at Jervis Bay School, celebrating the park's natural environment and Koori culture in a dance choreographed and taught by professional Koori dancers and coordinated by teaching staff and Julie. The large audience of family and friends were moved by the sight of children of all ages and different cultural backgrounds dancing together, concentrating hard on their part in the dance and obviously enjoying the occasion.

A review of the Junior Ranger programme identified many benefits, including:

- promoting joint management and interest in the park
- demonstrating and highlighting career paths in park management
- assisting in the Wreck Bay community's goal of sole management of the park

- building knowledge
- developing social and personal wellbeing
- respecting and appreciating different cultural backgrounds.

As well as continuing to work with Jervis Bay School, there is a growing demand for park-based interpretive activities from regional schools. A pilot project using formal lesson plans linked to NSW syllabus areas for years 5 and 6, based around the park, has been developed. The pilot demonstrates how the programme could be extended to deliver environmental and cultural education in the park to a wider range of students from visiting schools and to enhance the programme for Jervis Bay School students.

Christmas Island National Park

http://www.environment.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 50 million red crabs (*Gecarcoidea natalis*) march to the sea to spawn, and for the whale sharks (*Rhincodon typus*) that migrate to its inshore waters to feed.

Location	Latitude 10° 29′ South, Longitude 105°38′ East	
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; Management Plan Implementation Schedule; and Risk Assessment and Management Schedule	
Financial	Operating	$3.198 million
	Capital	$0.212 million
	Revenue	$1.676 million
Visitors	600 (estimated)	
Permits	5 commercial tour operators; 5 photography; 6 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 Biodiversity Conservation Act 1999		
Listed fauna	Species	2 extinct 1[a] critically endangered 3[a] endangered 9[b] vulnerable 63 migratory 92 marine
	Recovery plans	10 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*); Christmas Island gecko (*Lepidodactylus listeri*); pink blind snake (*Ramphotyphlops exocoeti*) 2 awaiting preparation: emerald dove (*Chalcophaps indica natalis*); Christmas Island thrush (*Turdus poliocephalus erythropleurus*). These species will be included in a multi-species recovery plan for the island, preparation to begin in 2006–07
Listed flora	Species	2 critically endangered 1[c] endangered
	Recovery plans	2 being partially implemented: *Asplenium listeri*, *Tectaria devexa* var. *minor* 1 awaiting preparation *Pneumatopteris truncata* 3 species being assessed for nomination: *Asystasis alba*, *Amaracarpus pubescens*, *Cycas rumphii*. These species will be included in a multi-species recovery plan for the island, preparation of which began in 2006–07
Heritage	On Commonwealth Heritage List (as part of a wider listing of the island's natural areas)	

(a) One species, *Pipistrellus murrayi*, was transferred from endangered to critically endangered in 2006

(b) Increased from 8 reported in 2005–06 due to an earlier reporting error

(c) One endangered plant species was erroneously not reported in 2005–06

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 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 April 2007 a three-year biodiversity monitoring programme was completed. The programme was funded by the Department of Finance and Administration to monitor the impacts of the Christmas Island Immigration Reception and Processing Centre's construction. The programme has increased knowledge of the island's unique biodiversity and demonstrates the importance of this aspect of park management.

An ongoing monitoring programme using infrared cameras and ultrasonic bat detectors is in place for the Christmas Island pipistrelle (*Pipistrellus murrayi*) as part of the recovery plan for this critically endangered species (see case study on page 76).

Future challenges

Major challenges are:

- containing yellow crazy ants (*Anoplolepis gracilipes*) at a manageable level. Management programmes have dramatically reduced the density of yellow crazy ant colonies 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
- developing an alternative yellow crazy ant bait with fewer impacts on non-target species. Extra funding of $4 million over the next four years provided in the May 2007 Budget will accelerate bait development, fund annual aerial bait application and fund research into biocontrol agents of scale insects (a major food source for crazy ants)
- containing other ants including fire ants (*Solenopsis geminata*) and big-headed ants (*Pheidole megacephala*). Many potentially invasive ant species are present on the island and are being monitored for signs of spread

- continuing the Christmas Island Rainforest Rehabilitation Programme. The original three-year Memorandum of Understanding with the Department of Transport and Regional Services concluded this year. Independent consultants reviewed the programme and a further three-year Memorandum of Understanding was signed
- controlling woody weeds. Although the control effort for woody weeds has increased substantially over the past two years sustained resources are required to bring major weed species under long-term control.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Potential impacts of proposed new mine leases on the island
- Insufficient funding for yellow crazy ant management
- Continuing management of high priority weed species
- Adoption and funding of all relevant recovery plans
- Crab mortality from traffic

Actions

- Provide advice to the Department's Approvals and Wildlife Division on the environmental and biodiversity consequences of the proposed new mine leases
- Bait yellow crazy ants
- Prepare 22 hectares of mine site for rehabilitation
- Hand spray 28 of the most invasive weed species
- Implement as possible approved recovery plans for 12 species
- Design and test improved over-road crab crossings
- Prepare the final report on the biodiversity monitoring programme that started in December 2003
- Supply landscape plants to the immigration reception and processing centre

Performance results 2006–07

- Submitted detailed advice on environmental and biodiversity aspects of new mine lease proposals to the Approvals and Wildlife Division
- Treated 250 hectares of yellow crazy ant super-colonies
- Received ministerial approval for the 10-year yellow crazy ant strategy and received $545,000 of Natural Heritage Trust funds for ant control
- Completed earthworks and planted 40,000 trees on 22 hectares of former phosphate mine located in the park
- Treated 110 hectares of 28 invasive woody weed species

- On average implemented 38 per cent of actions in existing recovery plans
- Completed the three-year biodiversity monitoring programme
- Met all targets in the immigration reception and processing centre plant supply contract

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 interpretive material and signage
- Support film crews and journalists

Performance results 2006–07

- Maintained approximately 60 kilometres of murram or unsurfaced roads and tracks. Improved and re-marked the Winifred Beach and West White Beach tracks
- Produced seven new interpretive brochures
- Assisted several film crews (Australian and international) and journalists 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 with research opportunities
- Progress of the feral cat eradication programme with the Shire of Christmas Island

Actions

- Support visiting scientists
- Maintain and service the Christmas Island National Park Advisory Committee
- Implement the Memorandum of Understanding on feral cats with the mining company and Shire of Christmas Island signed in 2003–04

Performance results 2006–07

- Supported two visiting scientists doing collaborative research projects
- The cat eradication programme remains on hold awaiting implementation of cat control legislation by the Shire of Christmas Island

KRA6: Business management

Major issues

- Delivering quality management services within a limited budget

Actions

- Maintain park management services within budget

Performance results 2006–07

- Managed operational and capital budgets with approved parameters

Declining biodiversity on Christmas Island—the case of the pipistrelle

Christmas Island Pipistrelle – Pipistrellus murrayi

Christmas Island's biodiversity has been in decline for a number of years. A monitoring programme between December 2003 and April 2007 studied the impacts of the immigration reception and processing centre's construction on a number of the island's species. The programme established baseline data and monitored trends in fauna populations to determine what mitigating actions, if any, will be required to reverse declines in species or ecological processes.

The endemic Christmas Island pipistrelle (*Pipistrellus murrayi*) is just one species of concern. This tiny insectivorous bat was once widespread on the island. Since the 1990s the population has been in decline and its range has contracted. In September 2006 its status was changed from 'endangered' to 'critically endangered' and it may soon be extinct if present trends continue. The cause of the decline is not well understood but a number of factors are thought to contribute including habitat loss, climatic conditions and introduced predators. The invasive yellow crazy ant (*Anoplolepis gracilipes*) which threatens crab and other fauna populations may be implicated.

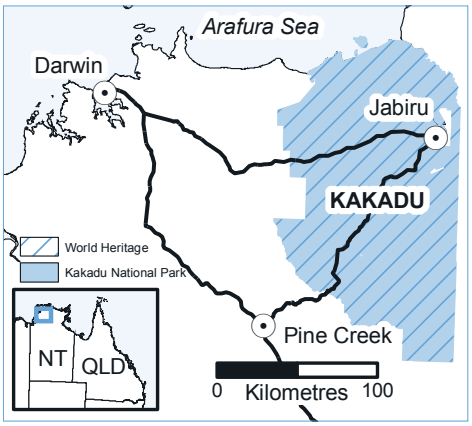
A national recovery plan for the pipistrelle is currently being implemented. Researchers from the Arthur Rylah Institute in Victoria recently completed investigations into threats to the bat and identified protecting and supplementing known maternity roosting sites as urgent recovery measures. Parks Australia staff have installed roosting boxes and placed guards around known roost sites to restrict access by predatory rats and giant centipedes. An ongoing monitoring programme using infrared cameras and ultrasonic bat detectors is in place. Discussions with the phosphate mining company are also proceeding to minimise possible impacts on roost sites.

The decline in Christmas Island's biodiversity can be expected to continue along similar lines into the future. Key threatening processes implicated in the decline are habitat degradation and invasive fauna and flora species.

In the May 2007 Budget Parks Australia received an additional $4 million over four years to manage and control the yellow crazy ant and further reduce its impact on crab populations. The funding is a tremendous boost that will kick start a 10-year management strategy to control this invasive invertebrate, building on previous control efforts. Time will tell whether increased control of the yellow crazy ant also benefits the Christmas Island pipistrelle.

Kakadu National Park

http://www.environment.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. 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	5 April 1979, 28 February 1984, 12 June 1987, 22 November 1989, 24 June 1991 and 26 May 2007	
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	Fifth plan expires 1 January 2014	
Other significant management documents	Shared Vision for Tourism; district fire management plans; Crocodile Management Strategy, feral species management plans; Gunlom Mine Sites Rehabilitation Strategy	
Financial	Operating	$17.260 million
	Capital	$3.339 million
	Revenue	$1.476 million
	Paid to traditional owners	$1.499 million

Visitors	209,000 (estimated April 2005–March 2007)[a]
Permits	77 film/photography; 90 commercial tour operators; 20 research; 427 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	1,375,940 hectares of wetlands are listed[a] (683,000 hectares in stage 1 and components of stage 3 plus 692,940 hectares in stage 2)
Migratory Species (Bonn) Convention	87 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)

(a) Stage 2 area was erroneously omitted from previous reports

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	2 critically endangered 8 endangered 11 vulnerable 108 migratory 114 marine
	Recovery plans	3 being implemented: golden bandicoot (*Isoodon auratus*) and golden-backed tree rat (*Mesembriomys macrurus*); eastern partridge pigeon (*Geophaps smithii smithii*), crested shrike tit (*Falcunculus frontatus whitei*) and northern masked owl (*Tyto novaehollandiae kimberli*); marine turtles 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 flora	Species	1 critically endangered 2 vulnerable
	Recovery plans	1 in preparation: multi-species boronia
Heritage	On National Heritage List	

Numbers of native species recorded					
Mammals	Birds	Reptiles	Amphibians	Fish	Plants
68 (19)	292 (35)	134 (32)	26 (2)	~320[a] 276 marine and esturine, 44 freshwater (60)	2,022 (14)

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

(a) Increased from a total of 286 species reported in 2005–06 following a further marine inventory

Board of management

The Minister for the Environment and Water Resources appoints members to the Kakadu National Park Board of Management. The board has 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 are the Director of National Parks, the Assistant Secretary Parks Australia North, nominees with environmental and tourism expertise, and a nominee of the NT Government. During the year the nominee with environmental expertise resigned and nominations for his replacement are currently being sought. The current board has served two years of its five-year term.

Monitoring

Monitoring and control continued 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 invasive ants including big-headed ants (*Pheidole megacephala*) and ginger ants (*Solenopsis geminata*); and introduced terrestrial vertebrates.

Studies of estuarine crocodile (*Crocodylus porosus*) populations and nesting flatback turtles (*Natator depressus*) in coastal areas of the park continued. Following last year's compilation of information from marine turtle surveys, a review and report of crocodile survey data gathered over 10 years is being finalised.

Research into the movement of large crocodiles into upstream habitats and the impact of seasonal food source availability on magpie goose (*Anseranas semipalmata*) populations continued. Researchers completed an interim report on crocodile tracking by satellite (see case study on page 89) and finalised fieldwork for the magpie goose study.

Staff worked with NT Government agencies on genetic sampling and population counts of two inshore dolphin species, the Australian snubfin dolphin (*Orcaella heinsohni*) and the Indo-Pacific humpback dolphin (*Sousa chinensis*). This work will

help with developing management and conservation strategies in recognition of the potential sanctuary value of the park's coastal areas for these species.

Other collaborative research included ecological/epidemiological modelling of feral buffaloes in northern Australia and key baseline surveys of mangrove communities, to improve knowledge and provide baseline information to monitor the effect of climate change.

A formal description of one of a number of (endemic) Kakadu caridid shrimps was completed. The species was discovered in the plateau zone of the south arm of Magela Creek. Such work contributes to maintaining an up-to-date inventory of the park's conservation values, including endemic species of high conservation value.

Following a series of late season fires on the park's sandstone plateau, a fire management strategy was developed focusing on an appropriate fire regime for this identified high biodiversity area. A detailed vegetation map of the plateau's sandstone communities will support the strategy.

Oral history recordings and development of a cultural heritage sites register continued with the support and involvement of traditional owners.

Future challenges

Major challenges are:

- rebranding Kakadu and positioning the park as a tourism destination within the larger region and the Top End
- protecting park values while ensuring that the experiences sought by the park's target market are developed and delivered
- understanding the impacts of fire, ferals and climate change, coordinating research in these areas and adapting management accordingly
- controlling the spread of weeds and the impact of introduced animals
- implementing the fifth management plan, most importantly actions that support Indigenous business ventures and employment including capacity building, address caring for country challenges, support Kakadu's living cultural values and support its World Heritage values
- rehabilitating old uranium mine sites in the southern Gunlom area (a major project over the next three years). Rehabilitation works include removing buildings that once supported mining activities and appropriate containment of mine tailings
- developing systems and partnerships to make the best use of resources
- developing staff through formal and informal training programmes
- ensuring visitor and staff safety.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Future impact of climate change on Kakadu, particularly the freshwater wetlands
- Fire management, particularly in sandstone country
- Managing weeds and feral animals including cane toads
- *Salvinia molesta* infesting Yellow Water
- Ranger mine site rehabilitation
- Threatened species monitoring programmes
- Decline of small-mammal populations in the park
- Marine environments of the Kakadu coast are poorly studied
- Enhancing the recording, storage and display of species data
- The spread of introduced pasture grasses and subsequent increase in fire intensity
- Introduced pest species and their impacts
- Monitoring the impact of tour operations on natural values

Actions

- Identify gaps in knowledge about potential climate change impacts
- Develop appropriate fire regimes for the variety of habitats within the park, particularly an escarpment fire plan
- Finalise the feral animal strategy and have it peer reviewed
- Monitor threatened species in biodiversity hot spots
- Detect and treat invasive ant infestations
- Continue to control 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
- Improve knowledge of landscape change processes
- Continue monitoring native animals affected by cane toads
- Develop programmes to monitor the impact of visitor use on Kakadu's natural values
- Improve the use of GIS technology in recording weed locations and weed data
- Appoint a knowledge management officer to improve spatial data recording, storage, display and use
- Commission and support research that will improve management of the park's natural and cultural values

Performance results 2006–07

- Hosted the Landscape Change Symposium in April 2007. The symposium examined current knowledge, identified key knowledge gaps for management, key threats and management strategies for agents of landscape change
- Drafted an escarpment fire plan. A bushwalking burning programme commenced in the 2007 dry season: a staff member walked with local Aboriginal people on the Arnhem Plateau lighting early dry season fires to reduce the likelihood of destructive late dry season wildfires
- Submitted the feral animal strategy for peer review
- Signed a three-year contract with the NT Government to undertake collaborative threatened species monitoring
- Supported ongoing research and monitoring of frog calls. This is a benchmark study that will assist analysis of the cane toad impact on native frogs
- Appointed a knowledge management officer
- Continued ongoing monitoring of species affected by cane toads
- Supported research into magpie goose populations and habitat in conjunction with the NT Government and Charles Darwin University
- Continued to limit the extent and impact of salvinia through biological, mechanical and chemical means
- Applied findings from the 2004–05 landscape change study to strategic plans for fishing access and weed control, limiting boat access to upstream billabongs during the wet season
- Conducted aerial surveys for significant areas of weed infestation to support ground data. Ground and aerial data will be used to develop predictive models to direct weed control activities
- Continued invasive ant monitoring and control
- Continued to support Indigenous fire management
- Completed analysis of data collected from marine turtle nesting surveys
- Analysed data from the marine resource inventory of Kakadu's coastline
- Continued monitoring the impact of night-time tours on nocturnal wildlife
- Continued 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

Actions

- Ensure that Kakadu's living cultural status is recognised in tourism strategy development and decision-making
- Establish two-way learning strategies and programmes
- Review cultural heritage management programmes
- Continue rock art protection work
- Continue cataloguing and preserving cultural heritage materials
- Continue to collect oral histories
- Seek opportunities to transfer knowledge between generations
- Support traditional owner leadership in natural and cultural resource management activities

Performance results 2006–07

- Progressed the Shared Vision for Tourism to promote Kakadu's living cultural and natural values and guide the development of tourism in the park
- Increased staffing in the Natural and Cultural Programmes Unit
- Continued to develop a register of oral history audio and video material
- Progressed a partnership agreement between the National Archives of Australia and the Director for long-term storage and protection of audio and video materials currently held in the park
- Continued rock art maintenance at public visitation sites with the involvement of relevant Aboriginal people
- Held cultural camps at Deaf Adder Gorge incorporating fauna survey methods, 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
- Recorded oral histories with senior Indigenous women from Kakadu's southern clan groups

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

Actions

- Finalise the fifth management plan
- Ensure decision-making is consistent with the consultation guidelines
- Encourage increased Aboriginal engagement in work plans through recruitment and skills development programmes
- Support traditional land management projects
- Support the board of management
- Continue day-to-day consultations with traditional owners

Performance results 2006–07

- The Minister approved the fifth management plan and put it into effect on 1 January 2007
- Relevant Aboriginal staff continued certificate level studies, numeracy and literacy training. For example, two of four school-based apprentices completed Certificate II in Conservation and Land Management, one is continuing and one withdrew; 21 Bininj staff completed workplace English language and literacy training
- Continued programmes to re-engage young Aboriginal people in education
- Continued skill development and training for relevant Aboriginal staff via completion of a range of internal and external courses. For example, 38 Bininj staff completed 4WD operation and recovery courses and 19 completed senior first aid
- 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 mine site rehabilitation and sickness country protocols
- Continued supporting a Northern Land Council Kakadu Officer position under the Memorandum of Understanding with the Northern Land Council
- Held quarterly meetings of the 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
- The shared vision and strategic direction for increasing value from tourism

Actions

- Develop a brand strategy focusing on experiencing Kakadu's World Heritage values and develop a tourism masterplan
- Monitor the permitting system for tour operations and accreditation of tour guides
- Increase knowledge of visitor experiences and use patterns
- Regularly review safety of visitor areas
- Regularly inspect and maintain visitor facilities

Performance results 2006–07

- Kakadu Tourism Consultative Committee continued to advise the board of management on tourism related matters
- Continued to develop a Kakadu 'brand' to guide visitor experiences and promotion of the park to visitors seeking an experience in a World Heritage setting recognised for its natural and cultural values
- Continued to develop a tourism masterplan for Kakadu
- Continued reviews of tour operator permit conditions
- Online tour guide training and accreditation commenced (see case study on page 88)
- Refreshed directional signs and progressed the standardisation of interpretation materials for Kakadu
- Commenced a consultancy to develop a dedicated Kakadu website and develop concepts for the park's northern entrance on the Arnhem Highway
- Aboriginal board members participated in several tourism conferences
- Local Aboriginal people delivered seasonal interpretive ranger programmes incorporating natural and cultural content
- Provided more accurate and detailed visitor information for use in tourism

planning and resource allocation through improved monitoring methods and associated survey data

- Supported Aboriginal enterprise development and involvement in tourism ventures such as the Kakadu Culture Camp, Hawk Dreaming and Murdujul Art Centre, through the Kakadu Indigenous Tourism Development Fund plus financial support for relevant Aboriginal people to attend tourism industry events and in-kind assistance to produce collective promotional material
- The board approved one new Indigenous business proposal
- Removed crocodiles from plunge pools at visitor areas to reduce risk of interactions, installed more emergency call devices to assist search and rescue and developed a multi-agency response plan to deal with visitor injuries

KRA5: Stakeholders and partnerships

Major issues

- Relationships with the tourism industry, NT 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

Actions

- 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
- Establish and support links with managers of other World Heritage areas
- Implement work programmes under the tri-national wetlands agreement between Indonesia, Papua New Guinea and Australia
- Build a strategic alliance with the Jabiru Area School and Charles Darwin University to progress education to work programmes

Performance results 2006–07

- Continued the ongoing high-level relationship between the Australian and NT governments with joint funding and planning to advance tourism in the park and a partnership in employment and education focusing on youth training
- Undertook key staff and traditional owner exchanges under the 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
- Built relationships with regional World Heritage neighbours through attendance at the South Pacific World Heritage forum held in Tongariro, New Zealand
- Continued the school based Junior Ranger programme which forms part of the Year 6 curriculum at Jabiru Area School
- Supported community events celebrating Indigenous culture and community spirit
- Hosted participants in the UNESCO masters programme in World Heritage management

KRA6: Business management

Major issues

- Recognition of high levels of staff expertise and performance
- Resources 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
- Infrastructure maintenance and upgrade

Actions

- Implement outcomes from the organisational review of park operations
- Implement the Department's performance development scheme
- Fulfil the Department's financial management and reporting obligations
- Manage park assets and developments to relevant Australian Standards

Performance results 2006–07

- Continued ParkSafe, occupational health and safety training and incident reporting and assessment
- Implemented outcomes of the independent organisational review aimed at allocating and prioritising resources to meet the aims of the park lease and fifth management plan
- Implemented the performance development scheme for all staff focusing on key result areas and staff development
- Prioritised asset management and the work programme against risk considerations and maintenance schedules

E-learning for tour guides

Kakadu Knowledge for Tour Guides project team: Left to right: Ian Hutton (CDU), Meryl Triggs (Parks Australia), Joanne Ruscoe and Alicia Boyle (CDU), Natasha Smith (Parks Australia), Melanie Rickerman (Tourism NT)

One feature that most of the places managed by Parks Australia have in common is their remoteness from the big cities.

Ensuring that the natural and cultural values of all of the places managed by Parks Australia are presented well to park visitors is an important component of park management. This means tour guides need to be knowledgeable and well-trained. To help meet this need Parks Australia, in partnership with Charles Darwin University, has developed an entry-level online training course for tour guides, initially focused on Kakadu.

Kakadu Knowledge for Tour Guides is delivered through the university's Learnline, a flexible, online e-learning site. The course uses interactive tools—online discussions and audio and visual learning aids—as well as the direct participation of park staff and traditional Aboriginal owners. The course materials, including links to Learnline, are provided in CD ROM format but can also be in hard copy or delivered to groups face to face.

Parks Australia and Charles Darwin University received funding from the Australian Flexible Learning Framework to assist in developing the course. E-learning overcomes two key challenges faced by the nature-based tourism industry, namely the high turnover of tour guides and difficulty in accessing training from remote locations.

The entry-level training course covers the key areas of visitor safety; understanding the park's natural and cultural values and history; minimising environmental impacts; and legal compliance. Park staff, traditional owners and the tourism industry have all helped develop the course.

The Kakadu course was launched in December 2006 and it will be extended to Uluṟu–Kata Tjuṯa National Park in 2007. At Kakadu, the training will be voluntary until mid-2008 when it will become a requirement for tour guides leading tour groups in the park. At Uluṟu it will be a requirement by the end of 2009.

Finding out where the crocodiles go

Jim Jim fitted with a GPS tracking device shortly after release

Estuarine crocodiles (*Crocodylus porosus*) are a significant and potentially dangerous feature of Top End waterways. As crocodile populations continue to reclaim areas from which they disappeared before commercial hunting ceased in the Northern Territory in 1971, the movement of large 'salties' into upstream freshwater sites used for recreation creates a major challenge for wildlife managers.

Kakadu National Park's Crocodile Management Strategy aims to protect the natural abundance of crocodiles in the park while minimising the risks they pose to people. The strategy comprises a range of measures including research and education as well as removal (including relocation) of problem animals that pose a particular risk. In 2004, the high level of crocodile risk at plunge pools associated with the escarpment led Parks Australia to close popular Twin Falls Gorge to swimming and introduce a boat shuttle service to enable safe visitor access to the base of the falls.

A major constraint to managing crocodiles in recreational areas is the lack of biological information on their movement, dispersal and colonisation of upstream sites. While some individuals are known to move long distances upstream in the wet season (particularly mid-sized adult males, which are responsible for most attacks on people) there is little hard information as to what factors trigger movements, how quickly animals travel, whether 'resident' animals as well as vagrants move, and how or when individuals removed from upstream sites are replaced.

In late 2005 a consortium of the major agencies involved in crocodile research and management in the Top End embarked on a joint project which aims to shed more light on crocodile movements into upstream areas. Parks Australia is a participant, along with the Parks and Wildlife Service NT, Wildlife Management International, Tourism NT and Charles Darwin University.

Since the project began a total of 23 crocodiles have been fitted with tracking devices that allow recordings of their position to be collected via satellite. Fifteen of the animals were tagged in Kakadu and the remainder in the Mary River to the west and the Blyth River in Arnhem Land to the east. Although the project has concentrated on tracking mature males, several smaller males and one mature female were also tagged during relocation of problem animals.

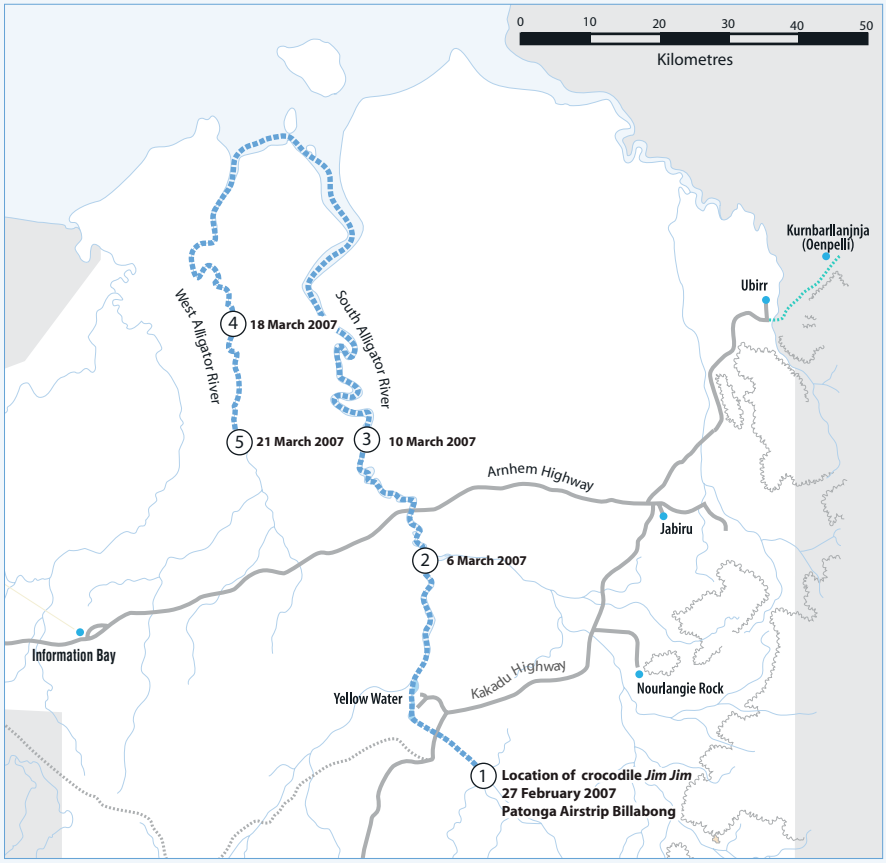
A detailed analysis of the movements of all the tracked individuals is required before any firm conclusions can be drawn from the project. Nevertheless, the preliminary findings suggest the picture is quite complex. Animals tagged and released back in the same upstream areas tended to exhibit less movement than those further downstream, suggesting a strong element of residency in the general area of capture, particularly for large 'boss' crocodiles. In contrast, animals that were relocated after tagging tended to move considerably (more than 800 kilometres and 1,500 kilometres during a single year in two cases) but not necessarily back towards the point of capture.

The case of a 3.8 metre mature male known as 'Jim Jim' demonstrates the complexities. For 18 months after being fitted with a tracking device in October 2005 Jim Jim rarely moved more than a few kilometres from the area where he was tagged and released, and was considered to be resident in a freshwater billabong in Kakadu. Then, at the start of March 2007, a sudden dramatic movement was recorded. In 10 days Jim Jim travelled more than 60 kilometres downstream and eight days later had left the South Alligator River system entirely and moved into the West Alligator River. On 21 March Jim Jim was more than 56 kilometres upstream, well past the tidal interface and back into fresh water. In three weeks, Jim Jim had travelled more than 170 kilometres from his usual home range, into a different river system.

Jim Jim is the first of the tracked 'resident' animals to show such dramatic movement. The precise reason is unknown but coincided with the onset of Cyclone George and record flooding. Jim Jim may have been displaced by another large crocodile brought to the area by the floods or perhaps human interference played a part.

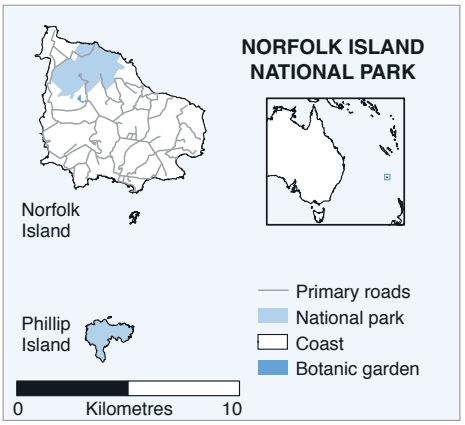
The first stage of this collaborative project has confirmed satellite telemetry as a cost-effective technique for monitoring crocodiles in the wild and has provided important information on crocodile movements in the Top End. Detailed analysis of the results will answer some specific questions about crocodile management in recreational areas and will help maximise public safety, a fundamental element of all crocodile management programmes in northern Australia.

Figure 5: Map showing movement of the crocodile Jim Jim — February to March 2007



Norfolk Island National Park and Botanic Garden

http://www.environment.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 a refuge for some 40 species found only on the island, including the entire populations of 13 of the 15 critically endangered flora species.

Of the 15 species and subspecies of birds once found only on Norfolk Island, 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	Plans expired 28 June 2007 (new plan covering both national park and botanic garden in preparation)

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; Risk Assessment and Management Schedule	
Financial	Operating	$0.965 million
	Capital	$0.392 million
	Revenue	$0.024 million
Visitors	25,000 (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	28 of 81 listed species
Japan–Australia Migratory Birds Agreement	33 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 plans being partially implemented: golden whistler (*Pachycephala pectoralis xanthoprocta)* and scarlet robin (*Petroica multicolor multicolor)*. These species will be included in a multi-species recovery plan for the island expected to be completed in 2007 1 exempted: Norfolk Island boobook owl (*Ninox novaeseelandiae 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 2007
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 self introduced and human introduced species with potential to impact on listed species include the Asian house gecko (*Hemidactylus frenatus*), Asian paperwasp (*Polistes chinensis)*, Argentine ant (*Linepithema humile*) purple swamphen (*Porphyrio porphyrio*) and feral fowl (*Gallus gallus*).

Recovery programmes for the Norfolk Island green parrot and morepork (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 regularly reviewed and monitored to ensure its effectiveness.

Rat populations are being monitored as part of a 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 are:

- raising community awareness of invasive species' potential impacts
- finding more efficient and practical ways to meet the requirements of endangered species programmes including through the multi-species recovery plan
- achieving a sustainable balance between conserving threatened species and supporting tourism in the park through enhanced visitor infrastructure (see case study on page 98)
- managing remnant endemic and important native species in the park's forestry zone.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Fauna and flora pest species management
- Endangered species management
- Building adequate knowledge upon which to base management decisions

Actions

- Continue to implement strategic weed control
- Continue to implement identified recovery actions for endangered species
- Continue vertebrate pest species programmes
- Continue to document existing knowledge and to expand the knowledge base

Performance results 2006–07

- Completed weed control and replanting in 10 of the 19 coups identified in the rehabilitation strategy for the park's forestry zone. Under the 10-year strategy coups are treated on a two-yearly cycle focusing on priority weed control to increase habitat opportunities for native and endemic species
- Banded 26 green parrot chicks and two owl chicks fledged in the wild breeding programme
- Initiated rehabilitation of 35 weed-infested hectares through weed removal and replanting with native species
- Trapped 23 wild cats under the feral cat control programme and desexed 58 cats in desexing clinics
- Continued the trial of an alternative rat control methodology
- Further expanded the spatial information system's capacity and upgraded staff skills to enable more accurate and effective data recording
- Progressed the multi-species recovery plan expected to be completed in 2007
- Reviewed and updated databases and knowledge bases for the herbarium, moss collection, butterfly collection, slide collection and historic photography collection
- Visiting seabird specialists prepared a report on management of seabird populations. Findings were considered in drafting the new management plan

KRA4: Visitor management and reserve use

Major issues

- Closure of Duncombe Bay Road to the Captain Cook Monument after heavy rain
- Growing visitor expectations of tourism infrastructure
- Some access tracks pose safety issues and are unsuitable for disabled visitors
- Need for high quality interpretive signs and pamphlets

Actions

- Reconstruct drainage and renew surface of Duncombe Bay Road
- Strategically review current access tracks, focusing on high visitation areas
- Establish requirements and allocate resources within existing priorities

Performance results 2006–07

- Resurfaced Duncombe Bay Road and finished rebuilding drainage which will prevent the road being washed away by heavy rain, a major problem in the past
- Completed the botanic garden boardwalk upgrade stage 6
- Upgraded sections of Bridle Track and Red Road including removing dense weeds, upgrading surfaces, installing safety rails, and major clearance of invasive trackside weeds with associated rehabilitation
- Completed an interim botanic garden interpretive display
- Refreshed and replaced botanic garden signs
- Resurfaced sections of upper Palm Glen Track
- Trialled a range of surfaces to improve walking conditions on steep tracks
- Undertook one visitor survey and one vehicle road use survey
- Completed a safety survey of all visitor infrastructure and addressed urgent items

KRA5: Stakeholders and partnerships

Major issues

- Need to work with the Norfolk Island Government and Administration, local tourism operators, environmentalists, concerned citizens and professional and amateur researchers

Actions

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

Performance results 2006–07

- Through networking and regular contact, maintained professional and cordial relationships with the following stakeholders and partners: other Department of the Environment and Water Resources 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 a permit system for 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* for persons who wish to be consulted about permit applications
- Provided an on-island departmental presence primarily as a referral point for wider environmental and heritage issues

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 2006–07

- Managed operational and capital budgets within allowed parameters

Improving visitor facilities on Norfolk Island

Rehabilitation of Duncombe Bay Road vegetation following reconstruction of the drainage system

Based on the results of a series of visitor surveys, Parks Australia has been steadily upgrading visitor facilities in the national park and botanic garden over the past seven years.

The most recent visitor survey was in January 2007. A total of 106 responses were received from the 749 departing visitors who were given the opportunity to complete the survey. The 50–59 age group recorded the most responses and the majority of visitors stayed on the island for seven days. Approximately 70 per cent of survey participants rated their visit as very satisfactory or higher.

Previous surveys had indicated that the Mount Pitt area of the park was a primary point of interest for visitors. The Australian Government invested more than $3 million between 1998 and 2003 to rebuild Mount Pitt Road and improve visitor and interpretive facilities at the summit. The January 2007 survey confirmed that Mount Pitt remains the most visited feature of the park.

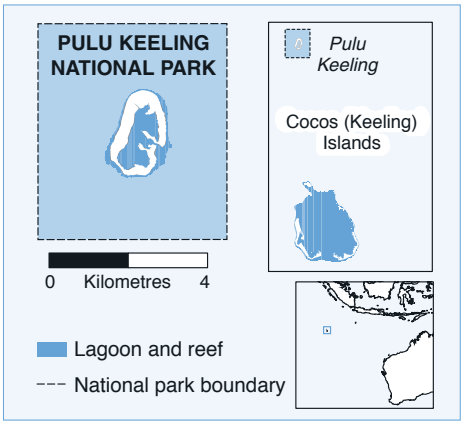
The Captain Cook Monument lookout and picnic area was rated the next most visited feature. During 2006–07 Parks Australia substantially rebuilt the park's section of the access road known as Duncombe Bay Road. The entire drainage system underneath the road was rebuilt and table drains were cut along the edge of the roadway. Finally, the road surface was reshaped and prepared for bitumen sealing.

Other works during the life of the most recent national park and botanic garden management plans (2000–2007) included construction of a lookout and facilities at the Captain Cook Monument; reconstruction of the summit-to-summit track and lookout between Mount Pitt and Mount Bates; and construction of toilet facilities and boardwalks in the botanic garden. Major upgrades were also made to other tracks which visitors rated as important. Local contractors undertook much of the work, providing a significant employment boost for the island.

More improvements to visitor facilities are scheduled during the life of the next management plan. The Duncombe Bay Road surface will be bitumen-sealed to complete that project and picnic, shelter, water and toilet facilities will be installed at Palm Glen.

Pulu Keeling National Park

http://www.environment.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 Plan Implementation Schedule; Risk Assessment and Management Schedule	
Financial	Operating	$0.742 million
	Capital	$0.066 million
	Revenue	$0.033 million

Visitors	102
Permits	3 commercial tour operators (1 each for diving, surfing and terrestrial tours) 14 marine access

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*); marine turtles
Listed flora	Species	None
Heritage	North Keeling Island 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 others 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.

With a current estimate of 1,000 individuals, the buff-banded rail population remains stable in the park and staff continue to monitor the population.

A consultant team funded under the Envirofund programme is working in partnership with the local community to prepare a proposal for restoration of habitat for the buff-banded rail. The proposal includes establishing a second viable population within the Cocos (Keeling) Islands group.

The eighth year of the sea turtle monitoring programme was completed, with 87 green turtles and 104 hawksbill turtles caught and measured. Over the eight year period a total of 1,217 turtles have been captured and released.

Annual coral reef health checks under the international Reefcheck programme include a site on North Keeling Island (see case study on page 104).

Future challenges

Major challenges are:

- preventing the introduction of pests and diseases to the park
- containing the impact of exotic species. 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 the park
- managing for global warming, which poses a particular challenge to the future management of low-lying atolls such as North Keeling.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Regular access to the park to perform routine tasks
- Illegal entry to the park
- Illegal wildlife harvesting
- Monitoring red-footed boobies

Actions

- Maintain a workable arrangement with the service provider (vessel contract)
- Maintain surveillance, boat patrols and education
- Continue the ongoing community education and interpretation programme
- Assist the community to prepare an application for a legal harvest of red-footed boobies
- Survey bird numbers regularly

Performance results 2006–07

- Progressed installation of remote surveillance equipment to provide more effective detection of illegal park entry and poaching
- Spent 133 staff days on patrols during the year. Patrols are believed to be effective at deterring poaching
- Carried out educational activities with the local school and the general community to encourage environmentally responsible behaviour
- Detected a number of incidents via patrols and information from the community. Five people were charged with wildlife or firearms offences
- Continued bird surveys; however inclement weather and limited availability of the ocean going vessel meant that only two surveys were possible

KRA2: Cultural heritage management

Major issues

- The SMS *Emden* shipwreck is becoming a popular diving site
- Visitors to Malay grave sites

Actions

- Ensure access to sites is managed appropriately

Performance results 2006–07

- Effectively managed cultural heritage sites
- Conducted guided tours of the grave sites and the *Emden* memorial site on the beach
- Cleaned grave sites
- Installed a new beach sign to inform visitors of the *Emden* wreck site's historic importance

KRA4: Visitor management and reserve use

Major issues

- Potential for introduction of exotic species by park visitors

Actions

- Implement quarantine procedures
- Prevent introduction of exotic species

Performance results 2006–07

- 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 a perceived lack of obvious benefits to the community

Actions

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

Performance results 2006–07

- Progressed the establishment of an office on Home Island, in addition to the existing office on West Island, to build Parks Australia's profile. The office would be staffed part time
- Maintained regular meetings and communication with stakeholders

KRA6: Business management

Major issues

- Isolation restricts training opportunities

Actions

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

Performance results 2006–07

- Managed operational and capital budgets within approved parameters
- Provided staff with local training in 4WD operation, advanced first aid and ParkSafe
- A ranger continued a lands, parks and wildlife correspondence course

10 years of Reefcheck surveys on the Cocos (Keeling) Islands

Wendy Murray surveying a reef at the Cocos (Keeling) Islands

The Cocos (Keeling) Islands is one of the longest running Reefcheck survey sites in the world. Parks Australia commenced surveys in 1997 as part of the International Year of the Reef. The initial strategy was adapted for long-term monitoring to examine and record the health status of the surrounding coral reefs.

Reefcheck is an international organisation that is assembling the world's largest international database on coral reef status. Data are collected using Reefcheck's standardised and internationally recognised underwater visual survey format. The format allows accurate comparison of global trends in reef status.

The good news is that surveys are finding that the coral reefs at Cocos remain healthy and stable, with minimal overall disturbance to coral communities and steady abundance of fish and invertebrates.

The Reefcheck programme on Cocos involves annual observation and collection of field data at 11 representative marine sites. Ten sites are on the South Keeling atoll and one (the Bunya coral site) is in Pulu Keeling National Park. To provide information on habitat, key indicators and level of collecting/use by the local community, the numbers of selected fish and invertebrate species are recorded. Species monitored include butterfly fish, barramundi cod, moray eels, giant clams, crown-of-thorns starfish and lobsters.

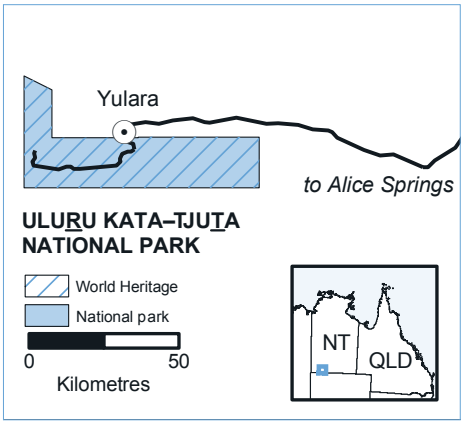
Researchers do underwater visual counts of fish and invertebrates using four permanent 20 x 5 metre belt transects at each site. Transects are surveyed at a depth of 10 metres for nine of the 11 sites and at 3 metres at two sites within the lagoon.

A data logger secured at each site measures water temperature every hour for 12 months. Monitoring water temperature assists early detection of rises which can lead to coral bleaching. On Cocos (Keeling) Islands the water temperature ranges from 24 degrees to 32 degrees but averages around 28 degrees.

This underwater survey work is contributing to international knowledge about the impacts of global warming and climate change on the health of coral reefs. The continued good health of the Cocos sites suggests they will continue to play an important part in the conservation of coral reefs globally.

Uluṟu–Kata Tjuṯa National Park

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



Special features

Uluṟu–Kata Tjuṯa 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 *Aṉangu* (western desert Aboriginal) owners, the iconic rock outcrops of Uluṟu and Kata Tjuṯa, outstanding examples of arid zone flora and fauna and outstanding scenic beauty.

Uluṟu–Kata Tjuṯa National Park is a place of great spiritual and cultural importance to *Aṉangu* men and women. For countless generations this ancient landscape has developed as a result of the activities of *Aṉangu* 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 *Aṉangu* 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 officially expired 28 June 2007. Board of management resolved in March 2007 that the park would be managed in accordance with the fourth plan until the fifth plan is finalised and approved in 2008	
Other significant management documents	Lease between the Uluṟu–Kata Tjuṯa Aboriginal Land Trust and the Director of National Parks; Visitor Infrastructure Master Plan; Uluṟu Climb Health and Safety Report; Uluṟu Ticketing Report; Species Reintroduction Plan; Invasive Flora Control Plan; Invasive Fauna Control Plan; Fire Management Procedures; Cultural Heritage Action Plan; Risk Assessment and Management Schedule; Women's Cultural Heritage Plan	
Financial	Operating	$10.244 million
	Capital	$1.997 million
	Revenue	$8.482 million
	Paid to traditional owners	$2.030 million

Visitors	An estimated 341,700 paying visitors (16 years and above) based on park tickets sold
Permits	199 film/photography; 95 tour operators; 3 research
Visitor satisfaction	No visitor surveys were conducted in 2006–07. Visitor survey planned for 2007–08

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 and Biodiversity Conservation Act 1999		
Listed fauna	Species	6 extinct 5 endangered 9 vulnerable 17 migratory 36 marine (birds)
	Recovery plans	5 being implemented: mala or rufous hare wallaby (*Lagorchestes hirsutus*); golden bandicoot (*Isoodon auratus*); Alice Springs mouse (*Pseudomys fieldi*); tjakura or great desert skink (*Egernia kintorei*); southern marsupial mole (*Notoryctes typhlops*) 8 in preparation: mulgara (*Dasycercus cristicauda*); bilby (*Macrotis lagotis*); red-tailed phascogale (*Phascogale calura*); sandhill dunnart (*Sminthopsis psammophila*); numbat (*Myrmecobius fasciatus*); black-flanked rock-wallaby (*Petrogale lateralis*); chuditch (*Dasyurus geoffroii*); central rock-rat (*Zyzomys pedunculatus*)
Listed flora	None	
Heritage	On National Heritage List and Commonwealth Heritage List	

Numbers of native species recorded					
Mammals	Birds	Reptiles	Fish	Amphibians	Plants
21 (14)	170 (2)	73 (3)	None	4[a] (1)	>400

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

(a) Increased from 1 reported in 2005-06 report due to an earlier reporting error

Board of management

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

Monitoring

The fifteenth Uluṟu fauna survey and vegetation monitoring at eight permanent sites was conducted during late October and November 2006. Based on the survey results, the overall health of the park's fauna appears to be good. Seventy-eight bird species, 17 mammal species, 67 reptile species and two frog species were detected during the survey.

The survey found low to moderate numbers of bird species and low to moderate numbers of each bird species. Only a few nomadic species were observed and in low numbers. In contrast, a record number of reptiles were found, with 67 of the 73 species ever documented in the park recorded. The small-mammal population has increased considerably since extensive wildfires in 2002, with increasing numbers of native rodents and the highest number of small dasyurids captured for many years. Unfortunately, the most significant mammal trend was a great increase in camels at survey sites and across the park generally. There was a low level of feral predators across the park, though with reasonable rainfall and an increasing small-mammal population, numbers are likely to grow in the near future.

The tenth annual tjakuṟa or great desert skink (*Egernia kintorei*) survey took place in February and March 2007. The survey recorded 147 active burrows, the highest number in 10 years, of which 65 were breeding burrows. The large area of spinifex burnt in the 2002 wildfires has created an open habitat structure suitable for tjakuṟa and moderate rainfall since then has kept predator numbers low, increasing the survival rate of juveniles and sub-adults. Maintaining low predator numbers will be crucial to ensure continued population growth.

The eighth annual mulgara (*Dasycercus cristicauda*) survey in November 2006 recorded the greatest presence of mulgara (evidenced by scats, tracks, burrows, captures) since 2001. However numbers remain low (three animals were trapped over three nights), most likely as a result of the greatly reduced area of mid- to mature-age spinifex (regarded as prime mulgara habitat) following the 2002 wildfires. With the current very open habitat structure, managing feral predators will be critical and the remaining small areas of mature spinifex will need to be protected from fire for at least the next three years.

The second and third census of the recently reintroduced mala (*Lagorchestes hirsutus*) took place in October 2006 and April 2007 in the predator-proof enclosure. Capture

rates were lower in April (14 animals were trapped compared to 26 in October) mainly due to new plant growth following rainfall just before the census and escape of some animals from traps; however animals trapped in both October and April were healthy and included females with pouch young.

Rabbits (*Oryctolagus cuniculus*) are monitored using counts of active holes and warrens to measure the success of the control programme in place since 1989. The number of warrens located throughout the survey area in March 2007 represented a significant decline since 2000 and the overall population is very low, with large parts of the park rabbit free.

Future challenges

Major challenges are:

- completing the new sunrise visitor facility. The new facility will cater for up to approximately 3,000 visitors per day and will include a viewing platform, viewing areas, walking tracks, wiltjas (shade areas), toilets, a car park, a bus park, a site for an Aboriginal enterprise, an area for concerts and 11 kilometres of roads. When completed in 2008, the new facility will provide an exciting new view and experience of Uluṟu and Kata Tjuṯa in a much safer and user friendly environment
- managing visitor safety, particularly for those who choose to climb Uluṟu (see case study on page 117)
- developing a long-term strategy for the provision of essential services (such as power and water) in the park. Currently, provision of services for both the park and the Muṯitjulu community is stretched to capacity and is limiting future development. Negotiations with the NT Government on alternative arrangements are progressing slowly. A review of service provision would also enable a strategy to be developed to reduce the park's current environmental footprint.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Spread of introduced buffel grass (*Cenchrus ciliaris*)
- Potential impact of sleeper weeds and new invasive species
- Impacts of vertebrate (fox, cat, camel, rabbit, feral dogs) and invertebrate pests
- Understanding and managing the impacts of fire
- Monitoring the status of threatened species and managing threatening processes
- Reintroducing locally extinct species
- Controlling erosion and repairing existing damage
- Surface and groundwater management

Actions

- Continue the buffel grass control programme
- Introduce a fox baiting programme in threatened species habitat, develop a camel management programme, maintain the rabbit control programme and undertake targeted cat control
- Continue to conduct fire planning workshops involving all stakeholders and to develop and implement annual burn plans
- Develop a fire and vegetation management strategy, fire operations manual and monitoring manual
- Monitor threatened and other significant species, and participate in research to improve understanding of these species' requirements
- Maintain the pest-free enclosure and complete infrastructure development
- Continue to develop a species reintroduction programme
- Provide native plants for amenity planting from the park's nursery
- Continue the erosion control programme
- Improve data and GIS management

Performance results 2006–07

- Established the Cultural Heritage and Scientific Consultative Committee to provide advice on natural and cultural issues
- Cleared approximately 30 hectares of buffel grass
- Developed detailed specifications for a weed management GIS. Palm computers with GPS cards were set up to improve weed data collection
- Identified an infestation of an invasive pest, the big-headed ant (*Pheidole megacephala*) at Yulara and assisted Ayers Rock Resort personnel to treat the infestation
- Held a workshop to discuss camel management options with park staff, *Anangu*, the Central Land Council and NT Parks and Wildlife Service
- Conducted a rabbit monitoring and fumigation programme. Located 23 active warrens in the survey area, a significant decline since 2000 when 67 active warrens were recorded. Rabbit numbers in the park overall remain low
- Continued preparations to trial fox-specific bait delivery stations in July 2007
- Continued fox baiting in core threatened species habitat
- Held a fire planning workshop with park staff, the Central Land Council, traditional owners and the NT Bushfires Council to develop annual burn plans
- Developed the Fire and Vegetation Management Strategy to final draft form

- Conducted mulgara, great desert skink and mala surveys and a major fauna survey (see Monitoring on page 107)
- Worked in partnership with the Central Land Council, and Parks and Wildlife Service NT and Greening Australia to assess the condition of waterholes in the park and surrounding areas, particularly in relation to camel impacts
- Discussed with the NT Department of Natural Resources, Environment, and the Arts the establishment of a water control area and water advisory board for the region surrounding the park and Yulara
- Prepared for erosion control work at Warayuki sacred site
- Conducted site visits with an NT soil conservation officer to discuss erosion issues for the north-east and Valley of the Winds walking tracks
- Completed environmental impact assessments for the sunrise visitor facility, north-east walking track, Valley of the Winds walking track upgrade, bore facilities upgrade, spinifex harvest, Mutitjulu rubbish tip expansion, Mutitjulu street lighting and proposed Kata Tjuta toilets
- Provided detailed advice on selecting and planting local species for the Police Post and new homes in Mutitjulu
- Provided logistical support and presentations to the Central Land Council Indigenous Ranger Camp held in the park

KRA2: Cultural heritage management

Major issues

- Supporting the continuation of *Anangu* living culture and knowledge
- Protecting historic and *Anangu* cultural information, sites and objects

Actions

- Continue to implement the Cultural Heritage Action Plan (2002) and Women's Cultural Heritage Plan (2005)
- Continue the rock art conservation, oral history and repatriation programmes
- Identify, catalogue and conserve cultural, historical and archaeological sites and objects
- Maintain the Cultural Sites Management System database as an information repository, planning and reporting tool
- Maintain the *Ara Irititja* (Stories from the Past) database, promote community access, and continue data entry. *Ara Irititja* is a multimedia database and associated project that enables *Anangu* to access archival material (film, photographs, sound recordings, documents, artefacts)
- Support staff and *Anangu* participation in the annual women's law and culture meeting

Performance results 2006–07

- Cleared buffel grass from the Pulari women's sacred site
- Continued to document the seasonal calendar by working with senior *Aṉangu* to record knowledge of changes to plants, animals and weather throughout the year
- Conducted rock art inspections throughout the year
- A specialist conservator made conservation assessments of all public sites and produced site management plans
- Continued the oral history recording project. Provided fireproof storage for oral history material
- Supported an *Aṉangu* delegation to the State Library of South Australia to view over 3,000 items from the Mountford Collection, collected in the 1930s, 40s and 50s. Scanned images from Uluṟu and began sorting them into public, restricted men's and restricted women's material for inclusion in the Cultural Sites Management System and *Ara Irititja* databases
- Supported an *Aṉangu* delegation to the National Museum of Australia in June 2007. Men's ceremonial items were repatriated to sacred sites at Uluṟu
- Conducted archaeological surveys, including test pits, as part of environmental impact assessments for the north-east walking track, Valley of the Winds walking track upgrade, erosion works at Warayuki sacred site and the Mala area (Kantju Gorge to base of climb)
- Undertook annual maintenance on the Cultural Site Management System database, trained seven more staff to use it, and produced a manual and training video
- Undertook twice-yearly maintenance on the *Ara Irititja* database. *Aṉangu* regularly accessed this popular database throughout the year. Staff worked with senior *Aṉangu* to enter information and stories on individual photographs and films in the database. A Pitjantjatjara speaking facilitator was engaged to assist
- Provided logistical support for *Aṉangu* attending women's law and culture meetings
- Assisted the Aboriginal Areas Protection Authority to locate and register sacred sites during three field trips to the park and surrounding area
- Made 10 trips to adjacent Aboriginal lands for natural and cultural resource management and cross-cultural activities

KRA3: Joint management

Major issues

- Developing agreed understanding of joint management principles
- Providing opportunities for Indigenous economic development on park
- Employment of the Community Liaison Officer by Parks Australia
- Ensuring traditional owners are appropriately involved in park projects and park management activities
- Supporting training and increased *Anangu* employment

Actions

- Work with joint management partnership members to maintain productive working relationships and effective communication between agencies
- Work with the Central Land Council to ensure effective traditional owner consultation in the development of the fifth management plan and significant park projects

Performance results 2006–07

- Board member Barbara Tjikatu was awarded the Order of Australia for services to the Mutitjulu community and Uluru–Kata Tjuta National Park
- Established a new Joint Management Partnership Team. Members are the Joint Management Officer (Central Land Council), Community Liaison Officer (Mutitjulu community), board of management secretary and park manager. The team provided advice to the board of management on park, community and traditional owner issues quarterly. The team also worked to resolve and advise on many contentious issues regarding film and photography, the Uluru climb, the new sunrise visitor facility, public events and community issues
- Reviewed the Community Liaison Officer position and appointed a new officer
- The Central Land Council consulted traditional owners on development of the fifth management plan and other significant projects
- Held four regular and two special meetings of the board of management plus 11 meetings of board subcommittees to develop draft sections of the new management plan

KRA4: Visitor management and reserve use

Major issues

- Detailed planning and approvals for the new sunrise visitor facility
- Park ticket system review
- Managing demands of international and Australian film crews and professional photographers
- Pressures on ageing infrastructure to effectively manage the expected increase in visitor numbers
- The Uluṟu climb health and safety review identified potential health and safety issues that need to be addressed
- Improving interpretation and visitor information

Actions

- Continue media briefings using the new DVD media package and electronic communications
- Review the ticketing system
- Review health and safety issues associated with the Uluṟu climb
- Develop new interpretive signs around Uluṟu and the cultural centre
- Continue work on realigning the Uluṟu north-eastern base walking track and upgrading the Valley of the Winds walking track
- Continue strategic visitor infrastructure maintenance and planning and project manage new developments
- Continue tour operator workshops and orientation programmes for the tourism industry
- Progress the online tour guide training programme with all tour guides to be accredited to operate in the park by the end of 2009
- Continue and improve Junior Ranger programmes

Performance results 2006–07

- Held 59 media briefings using the new media DVD, which won the Australian Teachers of Media national award
- Completed the ticket review
- Completed the Uluṟu climb health and safety review
- Progressed the sunrise visitor facility. The design was completed, road alignment completed and the project fully funded. Tenders were called for the first construction phase
- Installed new interpretive signs and track markers at the Uluṟu base walk, cultural centre and Liru walk
- Continued the Junior Ranger programme with Mutitjulu and Yulara primary schools

- Conducted tours for the King and Queen of Sweden and the President of Finland
- Upgraded displays in the cultural centre and *Tjukurpa* tunnel
- Maintained park infrastructure under a scheduled works programme including new road signs and line marking
- Conducted one tour operator workshop
- Completed park-specific content for the online tour guide course based on the Kakadu Knowledge for Tour Guides course (see case study on page 88)

KRA5: Stakeholders and partnerships

Major issues

- Providing opportunities for developing new Indigenous commercial enterprises
- Maintaining an effective working relationship with the Mutitjulu community during their period under administration
- Ongoing consultation with the tourism industry regarding the new sunrise visitor facility
- Maintaining good relationships with key stakeholders and investigating opportunities for further partnerships

Actions

- Hold meetings of formal park committees
- Participate in the Yulara Advisory Committee
- Communicate clearly with all parties about park developments and the Uluru climb
- Meet regularly with Mutitjulu community and Ayers Rock Resort representatives
- Continue supporting volunteer and community groups in protecting park values

Performance results 2006–07

- Formalised *Anangu* membership of the Tourism Consultative Committee
- Joined the Yulara Advisory Committee
- Held quarterly meetings of the Tourism Consultative Committee, the Film and Photography Consultative Committee and the Cultural Heritage and Scientific Consultative Committee
- Continued ongoing contact between park management, the Joint Management Partnership Team, traditional owners and relevant stakeholders during design and implementation of core programmes such as fire and pest management
- Hosted nine Conservation Volunteers Australia programmes representing 4,500 hours of weed control effort
- Attended Mutitjulu community meetings
- Engaged 91 *Anangu* through the two Memoranda of Understanding on day labour programmes with the Mutitjulu community

KRA6: Business management

Major issues

- Conducting and implementing the organisational review to ensure the most effective and efficient staffing structure
- Preparation of the new management plan
- Shortage of staff housing
- Providing essential services to the Mutitjulu community
- Developing a lease agreement for business enterprises at the cultural centre
- Improving corporate governance procedures
- Failure to meet revenue targets due to a shortfall in expected visitor numbers
- Maintenance of infrastructure and provision of essential services has been undertaken on a case-by-case basis in the absence of period contracts
- Staff training and development

Actions

- Undertake the organisational review
- Ensure that the park housing and training committees are functional and meet regularly
- Prepare papers on key issues and help draft the new management plan
- Continue to implement the staff training plan and update the training calendar
- Develop new period contracts
- Undertake an energy audit of park housing and implement energy efficiencies
- Undertake occupational health and safety audits of administration buildings and implement safe working procedures including job safety analyses
- Commence an audit of power supply arrangements and review arrangements for providing essential services

Performance results 2006–07

- Began developing the new management plan with the board of management, including two special meetings to discuss specific issues
- Commissioned an independent organisational review which involved consultation with staff and stakeholders; the review is expected to be finalised by August 2007. The Organisational Review Reference Committee met as required
- Developed a new staff orientation package
- Supported 65 training events ranging from informal information sessions to accredited training

- Established major training programmes: a language and communication programme including literacy, numeracy and Pitjantjatjara language; a leadership and management programme developing managers' and supervisors' people management skills; and a health and wellbeing programme assisting staff to maintain the high level of fitness required
- Appointed two *Anangu* trainee rangers who began a Certificate II in Conservation and Land Management
- Nine staff members began independent studies including Masters degrees and Certificate III in relevant fields
- The Occupational Health and Safety Committee met every two months
- Undertook analysis of power supply issues
- Established a ranger register and visitor service officer register to speed up recruitment actions

Who climbs Uluṟu and why?

Aṉangu *ranger Nyninku Jingo leading the Mala Walk. Free ranger guided walks are provided daily to visitors as an alternative to the climb*

Although climbing Uluṟu remains a popular activity for some park visitors, *Ngaraṟitja* (senior traditional owners) say that visitors should not climb. They consider that climbing is disrespectful of their culture and are concerned for the safety of visitors to their country, for whom under *Tjukurpa* (traditional law) they are responsible. Parks Australia discourages visitors from climbing through education and providing alternative activities that allow visitors to appreciate the wider values of the park.

Since 2003, researchers from the Australian National University have been investigating who climbs Uluṟu and why via detailed visitor surveys. For the most recent (2006) survey researchers Richard Baker and Hannah Hueneke conducted 540 interviews covering 2,175 people to provide a comprehensive dataset about climbing behaviour.

The 2006 survey found that 38 per cent of visitors interviewed chose to climb Uluṟu, a significant decrease since 1990 when park visitor surveys were first undertaken. Different nationalities varied widely in rates of climbing, with Japanese visitors by far the most likely to climb and those from the USA and Germany the least. There were also age and gender differences—more men climbed than women and those 18 years or under were the age group most likely to climb. Overall, 69 per cent of climbers were Australian, reflecting the fact that Australians formed two-thirds of all visitors.

Although the proportion of visitors who choose to climb has declined over the past 15 years, the total number of climbers has nonetheless increased, as visitor numbers to the park have approximately doubled over this period.

The surveys found the reasons why visitors make the climb are complex. The desire for views, challenge, a sense of personal or symbolic achievement and because children wished to climb were among the reasons cited. For those choosing not to climb, respect for Indigenous culture and heritage was generally mentioned. Almost all those surveyed were aware that traditional owners ask visitors not to climb.

The 2006 survey findings include some suggestions as to how park management can better present its message to visitors about the cultural and safety issues of the climb. Significantly, 97.8 per cent of those surveyed indicated that if the climb were closed they would still visit the park. The provision of alternative facilities such as guided walks around the base of Uluṟu and the new sunrise viewing facility (due for completion in 2008) will continue to be a management priority.

At the base of the climb, a message to visitors echoes the words of a respected *Aṉangu* elder:

"That's a really important sacred thing that you are climbing…

You shouldn't climb. It's not the real thing about this place.

The real thing is listening to everything. This is the thing that's right.

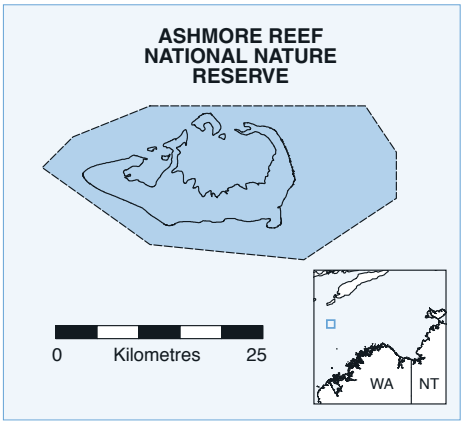
This is the proper way: no climbing."

© Kunmanara, Traditional Owner

Visitors to the park are encouraged to explore the cultural centre before they decide whether or not to climb. The centre educates visitors on the significance of Uluṟu in Aṉangu culture.

Ashmore Reef National Nature Reserve

http://www.environment.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, of which 43 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	IMCRA 4.0 provincial bioregion: Timor Province	
Management plan	Second plan expires 25 June 2009	
Other significant management documents	Memorandum of Understanding with Indonesia; service level agreement with the Australian Customs Service	
Financial	Operating	$65,582*
	Capital	Not applicable
	Revenue	Not applicable

Visitors	Not known, occasional yacht visits
Permits	1 commercial tour (bird watching)

* In addition, $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodivesity Division of the Department on behalf of the Director of National Parks on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

International conventions and agreements	
Wetlands (Ramsar) Convention	The entire reserve is listed
Migratory Species (Bonn) Convention	26 of 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	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	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 November 2006 to implement and assess reserve management activities.

Monitoring

A survey of target marine species was carried out in November 2006 (see case study on page 124) in addition to the twice-yearly marine surveys. The 2006 survey was in response to greatly increased levels of illegal fishing in the reserve in mid-2006 when there was no on-site management for several months. The survey focused on the species targeted by Indonesian fishermen (trochus shell, trepang and clam) with results compared to the last survey in 2005. The survey found that target species

were generally still in recovery from previous exploitation and that the trochus shell population, in particular, had been reduced in 2006. The next survey is due in late 2007.

Sea snake monitoring by Charles Darwin University indicates a decline in sea snake populations at Ashmore Reef (see case study on page 125). 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, including in comparison with other nearby reefs (Cartier and Hibernia). A follow-up survey in March 2007 (to take seasonal variation into account) confirmed this trend.

Future challenges

Major challenges are:

- improving operational arrangements and compliance and enforcement capacity. The Department is working with the Australian Customs Service to develop a stronger enforcement presence at Ashmore. This will be delivered by a dedicated enforcement vessel to be based permanently at Ashmore and staffed with Customs enforcement officers
- managing the potential impact of climate change, including coral bleaching events and loss of niche habitats and associated species. The Department will continue to monitor coral health and species abundance at Ashmore, with the aims of better understanding the impacts of climate change and developing appropriate management responses.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Illegal fishing
- Coral bleaching and species loss
- Introduction of pest species

Actions

- Enforce access and fishing restrictions
- Work with the Australian Customs Service to put a permanent enforcement vessel in place
- Cooperate with Indonesian officials to improve management of the 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)
- Monitor and remove weeds from the reserve
- Implement quarantine, bilge and ballast water protocols

Performance results 2006–07

- The Australian Customs Service provided on-site management at Ashmore Reef for most of the year
- 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
- Through a joint submission with the Australian Customs Service, new funding was secured for Customs to establish a permanent enforcement vessel to strengthen the protection of Ashmore and Cartier reserves
- Researched sea snakes and invertebrate species targeted by Indonesian fishermen
- Continued to collect and analyse marine debris

KRA4: Visitor management and park use

Major issues

- Anchor damage

Actions

- Maintain moorings
- Monitor visitors

Performance results 2006–07

- Australian Customs Service officers monitored visitors' use of moorings
- Distributed information about use of the moorings via a brochure

KRA5: Stakeholders and partnerships

Major issues

- Illegal foreign fishing

Actions

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

Performance results 2006–07

- Progressed the second phase of an alternative livelihood project in Indonesia using AusAID funds. The first phase provided alternative sources of income, such as seaweed farming and mariculture, for traditional fishers who currently target Australian waters. The second phase covers five new villages and is investigating further alternative income sources. This project is now being managed by AusAID

- 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 working and liaison arrangements with the management service provider, the Australian Customs Service

Actions

- Manage the relationship with the Australian Customs Service

Performance results 2006–07

- Held regular meetings and consultation with Customs
- Provided warden training for Customs officers
- Worked closely with Customs to acquire and establish a permanent enforcement vessel which will also provide enforcement coverage for Cartier reserve

Measuring the impact of illegal foreign fishing at Ashmore Reef

A small trochus shell which is used to make mother of pearl

Traditional Indonesian fishers have visited Ashmore Reef in the Timor Sea for hundreds of years to collect trepang (sea cucumbers), trochus shells and, to a lesser extent, giant clams.

The harvest of these benthic species (species that live on or near the ocean floor) is now prohibited in Ashmore Reef National Nature Reserve under the reserve's management plan. An agreement between Australia and Indonesia allows traditional Indonesian fishers to continue to access certain parts of the reserve to replenish fresh water supplies, catch fin fish for immediate consumption, seek shelter and visit grave sites on the island.

In mid-2006 increased illegal Indonesian fishing was detected in the reserve. In response, the Department engaged researchers to undertake a marine survey to assess the likely impacts on the target species. The survey was conducted in October 2006 and results compared to a previous marine survey in mid-2005.

The 2005 survey indicated that there had been some recovery of the benthic species, including trochus which were becoming more abundant. However, there had not been a full recovery of all species previously fished at Ashmore Reef and certain species of high commercial value remained at low numbers.

A comparison of the data from the 2005 and 2006 surveys showed that trepang and giant clam numbers were still low, but more importantly the abundance and size of trochus had decreased. This indicates that the illegal Indonesian fishing in mid-2006 did have a detrimental effect on the recovery of trochus at Ashmore Reef and suggests that even a short period of illegal fishing can have a significant negative impact.

Trochus density and size	**2005**	**2006**
Estimated trochus density—individuals/hectare (± standard error)	37.70 (± 6.7)	23.75 (± 5.5)
Average trochus size—basal shell width in mm (± standard error)	75.9 (± 2.1)	74.0 (± 1.0)

In response to this illegal Indonesian fishing, the Australian Government has committed over $30 million over the next four years to the Australian Customs Service for improved compliance and enforcement in the reserve. The funding will allow Customs to procure a vessel that will maintain a dedicated presence at Ashmore. This ongoing enforcement presence is recognised as an important part of ensuring that the unique features of the Ashmore Reef National Nature Reserve are protected.

Declining sea snake populations at Ashmore Reef

Sea snake survey at Ashmore Reef

The reputation of Ashmore Reef as a special place for sea snakes began as early as 1926 when a British Museum of Natural History voyage noted huge numbers of sea snakes of several species. Since then 17 different sea snake species have been recorded within this fringing coral reef and lagoon habitat, more than anywhere else in the world.

Concerns about declining sea snake numbers were first raised by sea snake expert Dr Michael Guinea of Charles Darwin University, who has been researching sea snakes at Ashmore since 1995. In 2003 Michael observed a major decrease in sea snake numbers—where surveys in 2000 and earlier had encountered one every minute, the 2003 survey came up with only one every hour. Surveys in 2006 and 2007 found even fewer animals, with certain species absent altogether. At the same time other reefs in the region, such as Cartier Island and Hibernia Reef, have maintained their numbers.

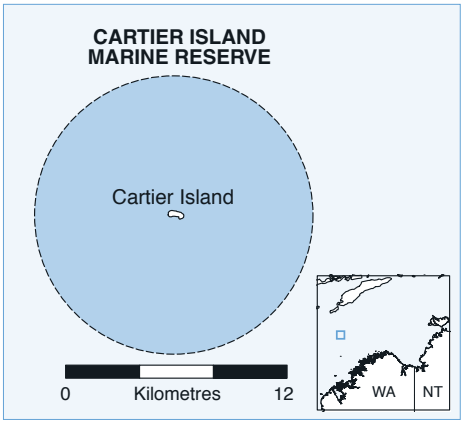
The concerns here are twofold: the significant and apparently sudden decrease in overall numbers and the absence of particular species, notably those endemic to the Ashmore region such as the enigmatic leaf-scaled sea snake (*Aipysurus foliosquama*).

Further surveys are planned and work continues to understand the dynamics of sea snake populations at Ashmore. An understanding of the possible causes of the decline is needed, and to do this a number of environmental parameters need to be assessed. A potential cause of the decline is rising sea temperatures associated with climate change. Widespread coral bleaching was observed in two marine surveys of Ashmore in 2003 and has been linked to a number of hot water events experienced during 2002–03. Those periods of elevated sea temperatures may have impacted on sea snake populations, either directly or indirectly (for example, through loss of habitat or food sources). A new project is under way to look more closely at available sea temperature information over the period of sea snake decline, using data logger records and remotely sensed data.

The sea snake story illustrates some of the challenges facing marine reserve managers. There are limited management responses to the impacts of climate change and, as with other coral reefs around the world suffering the effects of global warming, the approach at Ashmore Reef is to 'manage for resilience'. This means reducing direct impacts from human activities and so maintaining the ecosystem's resilience to natural stressors, such as increased temperatures or storms. Improved understanding of ecosystem function, combined with effective management strategies and enforcement capacity, is critical to managing for resilience.

Cartier Island Marine Reserve

http://www.environment.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 (*Dugong dugon*).

Location	Latitude 12°32′ South, Longitude 123°33′ East	
Area	17,237 hectares	
Proclamation date	21 June 2000	
IUCN category	Category Ia	
Biogeographic context	IMCRA 4.0 provincial bioregion: Timor Province	
Management plan	Current plan expires 25 June 2009	
Other significant management documents	Memorandum of Understanding with Indonesia; service level agreement with the Australian Customs Service	
Financial	Operating	$0*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	Not known	
Permits	1 commercial tour (bird watching)	

* A total of $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodiversity Division of the Department on behalf of the Director of National Parks on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

International conventions and agreements	
Migratory Species (Bonn) Convention	4 of 98 listed Australian species
China–Australia Migratory Birds Agreement	38 of 81 listed species

Japan–Australia Migratory Birds Agreement	38 of 76 listed 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	1 endangered 1 vulnerable 4 migratory 17 marine
	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

Cartier Island and Ashmore Reef are managed together being only 60 kilometres apart. The Australian Customs Service (based at Ashmore) carried out on-site management of the reserve and Coastwatch provided regular flights over Cartier Island. Departmental staff visited the reserve in November 2006 to implement and assess reserve management.

Monitoring

The last major marine survey was carried out in September 2005. This was part of a twice-yearly monitoring programme for Ashmore and Cartier. The next survey is due in late 2007.

Future challenges

A major challenge is to improve operational arrangements and the capacity for compliance and enforcement. The Department is working with the Australian Customs Service to develop a stronger enforcement presence at Ashmore and Cartier. This will be delivered by a dedicated enforcement vessel to be based permanently at Ashmore and staffed with Customs enforcement officers.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Illegal access

Actions

- Enforce access and fishing restrictions
- Work with the Australian Customs Service to put a permanent enforcement vessel in place
- Cooperate with Indonesian officials to improve management of the MoU Box fishery
- Encourage and facilitate reef research and monitoring

Performance results 2006–07

- The Australian Customs Service provided on-site management for most of the year
- 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
- Through a joint submission with the Australian Customs Service, new funding was secured for Customs to establish a permanent enforcement vessel to strengthen the protection of Ashmore and Cartier reserves
- Researched sea snakes and invertebrate species targeted by Indonesian fishermen
- Continued to collect and analyse marine debris

KRA4: Visitor management and park use

Major issues

- Safety is an issue due to the area's history as a Department of Defence practice area

Actions

- Enforce the closure of the reserve

Performance results 2006–07

- Coastwatch and the Australian Customs Service made regular patrols. Customs officers boarded fishing vessels in the area and advised of closure restrictions

KRA5: Stakeholders and partnerships

Major issues

- Illegal foreign fishing

Actions

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

Performance results 2006–07

- Progressed the second phase of an alternative livelihood project in Indonesia using AusAID funds. The first phase provided alternative sources of income, such as seaweed farming and mariculture, for traditional fishers who currently target Australian waters. The second phase covers five new villages and is investigating further alternative income sources. This project is now being managed by AusAID
- 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 working and liaison arrangements with the management service provider, the Australian Customs Service

Actions

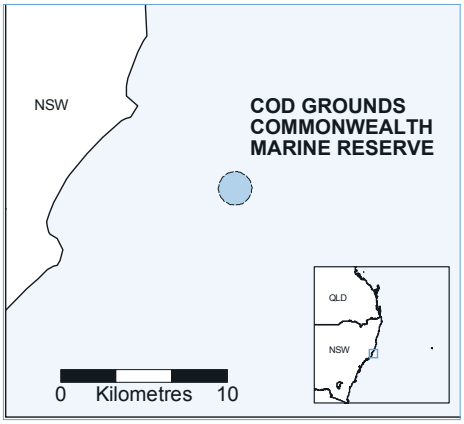
- Manage the relationship with the Australian Customs Service

Performance results 2006–07

- Held regular meetings and consultation with Customs
- Provided warden training for Customs officers
- Worked closely with Customs to acquire and establish a permanent enforcement vessel which will also provide enforcement coverage for Ashmore reserve

Cod Grounds Commonwealth Marine Reserve

http://www.environment.gov.au/coasts/mpa/cod-grounds



Special features

The Cod Grounds Commonwealth Marine Reserve was declared on 10 May 2007 to protect important habitat of the critically endangered grey nurse shark (*Carcharias taurus*) making the Cod Grounds the newest Commonwealth reserve. New management arrangements applied from 28 May 2007.

The east coast population of the grey nurse shark is listed as critically endangered and is at high risk of extinction due to its low reproduction rate and fishing-related mortality. The area known as the Cod Grounds is a series of underwater pinnacles and is a significant aggregation site for the sharks which are often observed in unusually large numbers in or near deep sandy-bottomed gutters between the pinnacles. The Cod Grounds support a large proportion of females compared to other aggregation sites surveyed off the New South Wales coast and are also habitat for preferred grey nurse shark prey species.

The grey nurse shark recovery plan recommends that the Cod Grounds be declared a sanctuary zone as it provides critical habitat for the grey nurse shark in terms of feeding and reproduction. Under the new management arrangements all fishing is prohibited in the reserve.

Declaration of the reserve follows two periods of public consultation and commitment to a structural adjustment process for commercial fishing businesses under the Australian Government's Marine Protected Areas and Displaced Fishing Policy.

Location	Latitude 31°40′52″ South, Longitude 152°54′37″ East. The reserve comprises a 1,000 metre radius from this point
Area	300 hectares
Proclamation date	10 May 2007
IUCN category	Category Ia
Biogeographic context	IMCRA 4.0 provincial bioregion: Central Eastern Shelf Transition

Management plan	Interim management arrangements are in place until a management plan is developed	
Other significant management documents	Service level agreement and subsidiary annual business agreement between the Australian and New South Wales governments	
Financial	Operating	$44,588 * #
	Capital	Not applicable
	Revenue	Not applicable
Visitors	None recorded	
Permits	1 commercial dive operator	

* In addition, $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodiversity Division of the Department on behalf of the Director of National Parks on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

A further $1,164,283 was spent on a structural adjustment process for affected commercial fishing businesses under the Australian Government's Marine Protected Areas and Displaced Fishing Policy.

Environment Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species	A full species list has not been compiled for the Cod Grounds although the critically endangered grey nurse shark is known to occur and the vulnerable humpback whale (*Megaptera novaeangliae*) is likely to pass through the reserve on its annual migration
	Recovery plans	Two being implemented: grey nurse shark (*Carcharias taurus*); humpback whale (*Megaptera novaeangliae*)
Listed flora	None	

Management arrangements

The Cod Grounds Commonwealth Marine Reserve has been assigned to IUCN Category Ia, strict nature reserve, which means that the reserve will be managed primarily for scientific research and environmental monitoring.

Under the new management arrangements all forms of fishing are prohibited in the reserve and vessels entering the reserve must have all fishing gear unrigged and stowed away. Management of the reserve will ensure that the habitats, ecosystems and native species necessary for the grey nurse shark's protection are preserved in as undisturbed a state as possible. The interim management arrangements are set out in Table 9.

Table 9: Interim management arrangements for Cod Grounds Commonwealth Marine Reserve

Activity	Arrangement
Accessing the reserve	Visitors may access the reserve providing all fishing gear[a] on board the vessel is unrigged and stowed away
Commercial fishing	All forms of commercial fishing are prohibited. Commercial fishing vessels are prohibited from entering or transiting the reserve[b]
Recreational fishing	All forms of recreational fishing (including spearfishing) are prohibited. Any vessels entering the reserve must have all fishing gear[a] unrigged and stowed away while in the reserve[b]
Commercial scuba diving	Allowed under an approval from the Director of National Parks
Recreational scuba diving	Permitted in accordance with the New South Wales code of conduct for diving with grey nurse sharks
Scientific activities	Allowed under an approval from the Director of National Parks
Mining operations	Prohibited
Other commercial activities	Assessed on a case-by-case basis and subject to approval from the Director of National Parks

(a) Rigged fishing gear means any equipment that is designed or can reasonably be expected to attract or take fish or other aquatic animals and is attached to a line, rod or pole

(b) Prohibited by Determinations made by the Director of National Parks

New South Wales Fisheries will undertake compliance and enforcement under an annual business agreement between the Australian and New South Wales governments.

Interim management arrangements will remain in force until a management plan for the reserve is approved. Development of the plan will include two periods of public consultation in which all stakeholders will have the opportunity to have their say about the plan. The first period of public consultation is expected to begin in early 2007–08.

Monitoring

Grey nurse shark numbers are being monitored at the Cod Grounds as part of a broader study into the distribution and population of the species along the east coast of Australia. Further monitoring priorities will be determined following a baseline survey planned for 2007–08.

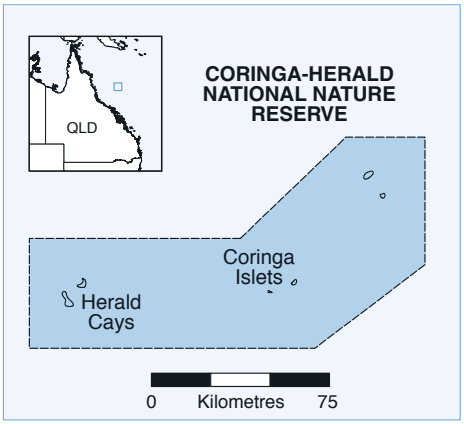
Future challenges

Major challenges are:

- managing public access to the reserve
- educating the public on the values of the reserve and why these management arrangements have been implemented
- developing and implementing an effective compliance and enforcement strategy
- developing the management plan for the reserve.

Coringa–Herald National Nature Reserve

http://www.environment.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	
IUCN category	Category Ia	
Biogeographic context	IMCRA 4.0 provincial bioregion: Northeast Province	
Management plan	Second plan expires 4 September 2008	
Financial	Operating	$212,777*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	40 visitor days recorded from commercial tours	
Permits	1 commercial tour, 1 research	

* In addition, $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodiversity Division of the Department on behalf of the Director of National Parks on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

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

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. Coastwatch provide aerial surveillance of the reserve.

Monitoring

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

Monitoring of insect pests, such as scale insects, continued leading to more targeted releases of beneficial insects. To date this biological control programme 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.

Research programmes are under way to improve understanding of the *Pisonia* forest ecosystem, the terrestrial invertebrate fauna, sea turtle population dynamics and behaviour, and marine biodiversity.

Subsurface sea temperature loggers were installed and exchanged as part of a large ongoing temperature monitoring programme. A pilot project trialled the use of satellite imagery to map and classify habitats, to produce and ground-truth bathymetric maps, and to detect changes in terrestrial and marine habitats over time.

Future challenges

Major challenges are:

- maintaining the health of the *Pisonia* forest ecosystem including controlling pest insects
- ensuring the health and safety of personnel. This continues to be effectively addressed by doing a rigorous safety analysis before each trip, including 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 and climate change on the *Pisonia* forest ecosystem
- Impact of coral bleaching and climate change on the marine ecosystem

Actions

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

Performance results 2006–07

- Detected no measurable permanent deforestation of *Pisonia* by insect pests. Departmental staff and a consulting botanist and entomologist visited the reserve to monitor defoliation and forest health. Insects beneficial to the control of scale insects and hawkmoth were released
- James Cook University did coral reef health assessments, reporting a continued low percentage of live coral cover
- The Australian Institute of Marine Science installed and exchanged data loggers which record sea temperatures
- Erected new signs and collected and removed marine debris
- Using satellite imagery CSIRO Land and Water produced vastly improved bathymetry maps, and terrestrial and marine ecosystem maps which enhance the capacity to detect and track ecosystem changes

KRA4: Visitor management and park use

Major issues

- Introduction of pest species by visitors to the reserve

Actions

- Distribute the information brochure

Performance results 2006–07

- Distributed reserve information brochure to key stakeholders. 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
- Distribute the reserve information brochure

Performance results 2006–07

- Liaised with Coastwatch, the Bureau of Meteorology, Department of Defence, Department of Transport 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 the reserve information brochure to key stakeholders. The brochure is also available on the Department's website

KRA6: Business management

Major issues

- Occupational health and safety risk to personnel associated with working in an isolated reserve

Actions

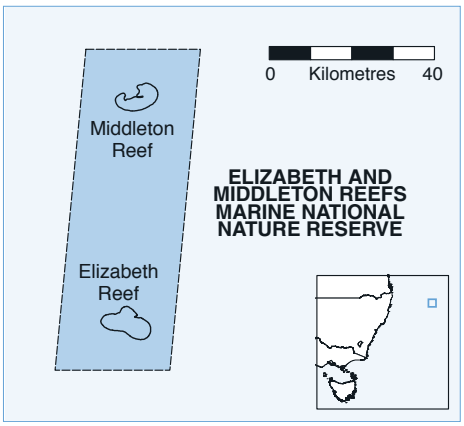
- Continue to refine and implement activity control measures as identified through the activity safety analysis

Performance results 2006–07

- Conducted a detailed activity safety analysis before each trip to the reserve. Successfully implemented risk control measures and contingency and communication plans developed during this process

Elizabeth and Middleton Reefs Marine National Nature Reserve

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



Special features

Elizabeth and Middleton Reefs Marine National Nature Reserve is located some 160 kilometres north of Lord Howe Island 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 (*Tursiops truncatus*) and short-finned pilot whales (*Globicephala macrochynchus*).

Location	Latitude 29°42′ South, Longitude 159°05′ East	
Area	187,726 hectares	
Proclamation date	23 December 1987	
IUCN category	Category Ia	
Biogeographic context	IMCRA 4.0 provincial bioregion: Lord Howe Province	
Management plan	Second plan expires 22 March 2013	
Financial	Operating	$29,634*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	Not recorded, numbers low	

Permits	11 recreational, 1 commercial tour, 1 research

* In addition, $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodiversity Division of the Department on behalf of the Director of National Parks on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

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 (*Carcharodon carcharias*); marine turtles
Listed flora	None	

Numbers of native species recorded					
Mammals	Birds	Reptiles	Fish	Invertebrates	Plants
6	31	2	407	558	19

Management arrangements

Coastwatch made surveillance flights and a departmental officer accompanied a research and compliance patrol on their survey of the reefs.

Monitoring

The reef systems at Elizabeth and Middleton Reefs have been surveyed regularly since 1987 with the last comprehensive survey in 2006 and a rapid survey in February 2007 (see case study on page 142). The 2007 survey included replacing data loggers installed in 2006, visually assessing the reefs' condition, and sampling black cod for genetic analysis. The data loggers record water temperature to help assess the effects of temperature on the reefs.

The reserve is generally in good health with little bleaching and very little evidence of crown-of-thorns starfish (*Acanthaster planci*) activity. The number of black cod appears to be stable. High numbers of Galapagos sharks (*Carcharhinus galapagensis*) were observed during the recent surveys, which suggests that the area is an important nursery for this species.

Future challenges

Major challenges are:

- implementing biological monitoring
- monitoring for possible illegal activities in the area.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Monitoring reef health and populations of large vertebrates (black cod, Galapagos shark)

Actions

- Enforce fishing restrictions
- Implement management plan prescriptions
- Undertake a reef biological monitoring programme

Performance results 2006–07

- Conducted a research and compliance patrol in February 2007
- Collected black cod samples for genetic analysis; prepared a report on stock structure along the New South Wales coast and at Elizabeth and Middleton Reefs
- Continued research on Galapagos shark genetics
- Replaced temperature data loggers installed in 2006

KRA2: Cultural heritage management

Major issues

- Possible interference with shipwrecks

Actions

- Enforce protection of shipwrecks
- Implement management plan prescriptions
- Inspect condition of shipwrecks

Performance results 2006–07

- Coastwatch flights and the February 2007 patrol detected no interference with shipwrecks

KRA4: Visitor management and reserve use

Major issues

- Managing visitor access and activities
- Keeping visitors informed of management arrangements
- Possible illegal fishing by visitors
- Pollution and marine debris

Actions

- Enforce fishing restrictions
- Issue permits for visitor access and recreational fishing
- Implement management plan prescriptions
- Undertake regular compliance and monitoring patrols
- Distribute brochures and information on the reserve

Performance results 2006–07

- Coastwatch flights detected no illegal fishing
- Detected no illegal activity and no pollution during the February 2007 patrol

KRA5: Stakeholders and partnerships

Major issues

- Maintaining good relationships with Coastwatch, researchers and the Lord Howe Island community

Actions

- Ensure relationships with partners are productive

Performance results 2006–07

- Liaised with Coastwatch, scientists, tour operators and the Lord Howe Island community

Patrolling Elizabeth and Middleton Reefs

*Redfin butterfly fish (*Chaetodon lunulatus*) in the lagoon at Elizabeth Reef*

Along with nearby Lord Howe Island, Elizabeth and Middleton Reefs Marine National Nature Reserve is home to the world's most southerly coral reefs. A combination of warm summer currents, cold winter currents and remote location has resulted in a unique assemblage of tropical and subtropical species, including a number of endemics.

The reefs' remoteness also means they are rarely visited and so are relatively pristine. This remoteness, however, makes compliance and enforcement challenging. Whilst it is not possible to maintain a permanent presence in the reserve, the Department ensures compliance with the reserve's management plan in a variety of ways.

The reserve has two zones, a sanctuary zone at Middleton Reef and a habitat protection zone at Elizabeth Reef. Fishing is not allowed in the sanctuary zone, although access for activities such as diving is permitted. Access to the habitat protection zone is controlled by a permitting system which allows recreational fishing under strict rules. This system ensures visitors to the reserve are registered with the Department and is a way of monitoring visitor numbers and the types of activities they undertake. Commercial fishing is not allowed in any part of the reserve.

The reserve's proximity to Lord Howe Island makes it a popular destination for island locals. The Department works cooperatively with the island community and values the stewardship role it undertakes to help protect the reserve's values.

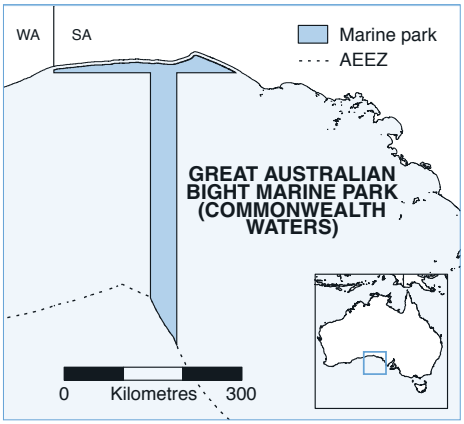
Coastwatch includes the area in its surveillance flights and has not detected any breaches of the reserve's management arrangements.

Departmental officers visit the reserve annually to conduct compliance and monitoring activities during summer, the busiest time of the year. The most recent patrol took place over six days in February 2007. As well as monitoring visitor numbers and providing an enforcement presence, officers made a rapid visual assessment of the reserve's condition and removed marine debris.

Valuable research was also conducted during the patrol by James Cook and Southern Cross universities. The researchers estimated the live coral cover was 49 per cent at Elizabeth Reef and 27 per cent at Middleton Reef which, although moderate, is expected due to the reefs' southerly location and isolation, along with past impacts of crown-of-thorns starfish. Overall, the current levels of coral cover and abundance of major fish and invertebrate species are consistent with the findings of previous surveys. These results are positive news and show that current management arrangements are working.

Great Australian Bight Marine Park (Commonwealth Waters)

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



Special features

The Great Australian Bight Marine Park (Commonwealth Waters) protects marine mammal habitat in Commonwealth waters adjacent to the South Australian marine 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 overall comprising: Marine Mammal Protection Zone Category VI (387,500 hectares) Benthic Protection Zone Category VI (1,608,500 hectares) (Overlap of these two zones = 56,000 hectares)
Biogeographic context	IMCRA 4.0 provincial bioregions: Great Australian Bight Shelf and Southern Province

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	
Financial	Operating	$116,926*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	None recorded	
Permits	30 commercial fishing, 1 research	

* In addition, $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodiversity Division of the Department on behalf of the Director of National Parks on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

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 (*Eubalaena australis*); great white shark (*Carcharodon carcharias*); marine turtles; albatross (*Diomeda* spp. and *Thalassarche* spp.) and giant petrels (*Macronectes* 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 under the joint management arrangements with South Australia.

Monitoring

The Benthic Protection Zone was surveyed in October 2006. Data analysis will show the numbers and range of benthic (seabed) species and compare them with data from the 2002 survey. The results will contribute to a 20-year performance assessment programme for the zone.

Information from the 2002 seabed survey is being used to produce a brochure 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 benthic communities' importance and understanding of the park's role 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 7–8 per cent per annum. Data collected over 16 years have provided a catalogue of 926 individual whales.

Coastline surveys of the Australian sea-lion have identified 10 breeding sites and 14 haul-out sites in the Great Australian Bight. Due to the coastline's inaccessibility the total population is not known. Australian sea-lion studies funded in 2006–07 were an ongoing satellite tracker project to study foraging range and behaviour to understand where and when these animals feed; and ongoing research into interactions with fishing vessels.

Future challenges

Major challenges are:

- consolidating past and ongoing research into a programme to assess the marine park's performance
- increasing compliance strategies' effectiveness, including improving the fishing industry's compliance reporting
- implementing the management plan.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Lack of baseline information
- Lack of information on the distribution and abundance of southern right whales and Australian sea-lions
- Lack of information on the effects of human interactions with Australian sea-lion populations

Actions

- Establish initial baselines

Performance results 2006–07 (in cooperation with the South Australian Government)

- Completed the second round of ongoing 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

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 2006–07 (in cooperation with the South Australian Government)

- Advertised annual closures
- Agencies undertook land, sea and aerial surveillance and operational patrols. No illegal activity was recorded
- Monitored permits for commercial fishers
- The Yalata community provided surveillance and beach clean-ups

KRA5: Stakeholders and partnerships

Major issues

- Maintain productive relationships with partners

Actions

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

Performance results 2006–07 (in cooperation with the South Australian Government)

- Renewed the annual business agreement covering research, operations, visitor management, education, and compliance and enforcement
- Continued to raise compliance issues with the Australian Fisheries Management Authority and industry sectors
- Liaised with stakeholders from all sectors through the steering committee and consultative committee

KRA6: Business management

Major issues

- Community understanding and appreciation of the park's values

Actions

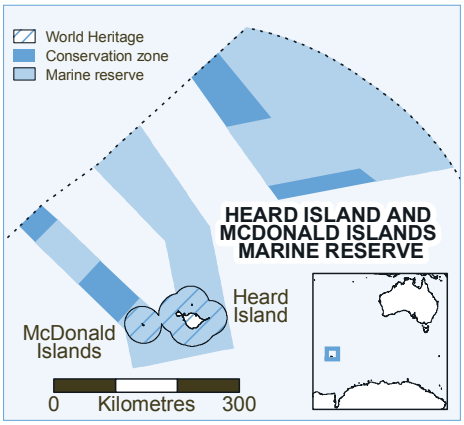
- Write and implement a communications plan
- Disseminate the management plan and interpretive material

Performance results 2006–07 (in cooperation with the South Australian Government)

- Progressed development of the communications plan
- Informed the media about park activities
- Progressed a Benthic Protection Zone brochure and published a southern right whale brochure
- Made the management plan and information on park values and uses available to the public, including via the Department's website

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

A conservation zone declared 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 Ia	
Biogeographic context	Subantarctic area IMCRA 4.0 provincial bioregion: 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	$73,000 [a]
	Capital	Not applicable
	Revenue	Not applicable
Visitors	None [b]	
Permits	None	

(a) No science or management expedition was conducted in 2006–07. 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 or tourist expeditions visited Heard Island during 2006–07. Fishing vessels and surveillance vessels may have passed through the marine areas of the reserve. Details of surveillance visits are classified and are not included in reported visitor numbers.

International conventions and agreements	
World Heritage Convention	Listed under natural criteria (i) and (ii), recognising its outstanding natural values
Wetlands (Ramsar) Convention	The entire Heard Island and McDonald Islands Territory is to be nominated for Ramsar listing
Migratory Species (Bonn) Convention	12 of 98 listed Australian species
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 Protection and Biodiversity Conservation Act 1999		
Listed fauna	Species[a]	1 endangered 10 vulnerable 14 migratory 51 marine
	Recovery plans	1 being implemented: albatross (*Diomeda* spp. and *Thalassarche* spp.) and giant petrels (*Macronectes* spp.)
Listed flora	None	
Heritage	On National Heritage List	

(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
7[a]	47[b]	0	34[c]	169[d]	262[e]

(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

(e) 12 vascular plants, 62 bryophytes, 71 lichens, 100 terrestrial algae, 17 marine macro-algae

Management arrangements

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

Monitoring

The Australian Antarctic Division mounts 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 2006–07 there was no expedition to Heard Island or McDonald Islands. A workshop was held to discuss ongoing analysis of data collected during the 2003–04 Heard Island Predator Prey Interaction and Ecosystem Study. Three scientific papers were published and over a dozen more are in preparation, providing information that will enhance understanding of how key predators based on Heard Island interact with prey, the ocean and benthic environment, and commercial fisheries. This information will improve knowledge of the reserve and may contribute to future performance assessment, including consideration of the adequacy of the reserve design.

Satellite images of portions of Heard Island were obtained, and scientists continued

to develop techniques to use such remotely sensed data to detect environmental change. In particular, thermal satellite imagery provided by the Hawai'i Institute of Geophysics and Planetology clearly indicates two hot spots near the summit of Mawson Peak on Heard Island (see case study on page 154).

The Australian Antarctic Division continued to analyse benthic samples and fishing data 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.

Future challenges

The management situation for the reserve has not varied substantially since 2005–06. Major challenges are:

- 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, as appropriate
- Undertake research and monitoring that facilitate performance assessment and reporting

Performance results 2006–07

- There were no research, commercial or private visits to the Heard Island and McDonald Islands Territory during 2006–07
- Obtained satellite images of portions of Heard Island, adding to a chronological

record of information that will help to detect environmental change as techniques to analyse such remotely sensed data are developed

- Continued analysis of data collected during the 2003–04 expedition
- Published three scientific papers that will enhance understanding of how key predators based on Heard Island interact with prey, the ocean and benthic environment, and commercial fisheries

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 2006–07

- There were no research, commercial or private visits to the Heard Island and McDonald Islands Territory during 2006–07

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 and 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 2006–07

- There were no research, commercial or private visits during 2006–07
- Maintained and updated the website which was well used, with more than 100,000 visits

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 2006–07

- Continued Australian Antarctic Division involvement in government initiatives to address illegal, unreported and unregulated fishing
- Consulted with relevant government agencies and the fishing industry as a routine part of the Australian Antarctic Division's role in management of the Heard Island and McDonald Islands fishery
- Gave a presentation about the reserve to the Director of the World Heritage Centre during his visit to Hobart
- Provided information about reserve and management provisions for a new edition of a regional nautical chart
- Consulted with Antarctic and subantarctic commercial tour operators. There are no current expressions of interest in visiting Heard Island and McDonald Islands
- Strengthened relationships with other subantarctic management authorities through participation in the first international forum on the subantarctic in Hobart, July 2006, and by co-authoring a paper entitled *Conservation Management at Southern Ocean Islands: Towards the Development of Best-practice Guidelines*, which was presented at the forum and published in an international peer-reviewed journal

KRA6: Business management

Major issues

- Ensuring compliance with and enforcement of reserve management requirements

Actions

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

Performance results 2006–07

- Maintained relationships with regional fisheries surveillance agencies, including providing training and information to fisheries surveillance personnel on reserve management requirements
- Consulted with relevant government agencies and the fishing industry as a routine part of the Australian Antarctic Division's role in management of the Heard Island and McDonald Islands fishery
- Published a management plan summary online and in hard copy as a first reference for potential visitors. The full management plan is also available online and in hard copy

Watching the hot action in the subantarctic

McDonald Islands taken in 2000 from the Akademik Shokalskiy

Real estate in the Heard Island and McDonald Islands Marine Reserve is expanding, not because of a building boom, but as a result of powerful natural processes.

Heard Island and McDonald Island boast the only active volcanoes in Australian territory and in the subantarctic latitudes, a special situation that was recognised in the islands' inscription on the World Heritage List in 1997.

The island group and the French Îles Kerguelen 400 kilometres to the north-west are the only two surface exposures of the Kerguelen Plateau, one of the world's largest submarine plateaus. The main part of Heard Island is dominated by Big Ben, a roughly circular volcanic cone with a base diameter of around 18–20 kilometres and a height of 2,745 metres, more than 500 metres higher than Mount Kosciuszko on the Australian mainland.

Geomorphological features such as volcanic cones, craters, lava tubes, and black sand beaches clearly demonstrate the volcanic origins of the islands. Numerous eruptions and other volcanic events have been observed during research visits to Heard Island, dating back to the first Australian National Antarctic Research Expedition in 1947. Participants in the most recent Australian Antarctic programme expedition in 2003–04 witnessed plumes of steam rising from a vent near the summit of Big Ben, and the volcanic rumblings are continuing.

But if there has not been an expedition to the islands for a few years, how do we know volcanic activity is still under way? While it takes a couple of weeks and a lot of money to get to the reserve by ship, there are satellites passing over head with some regularity, and those satellites occasionally take cloud-free images that provide glimpses of what is happening on the islands when the only residents are the local seals and seabirds.

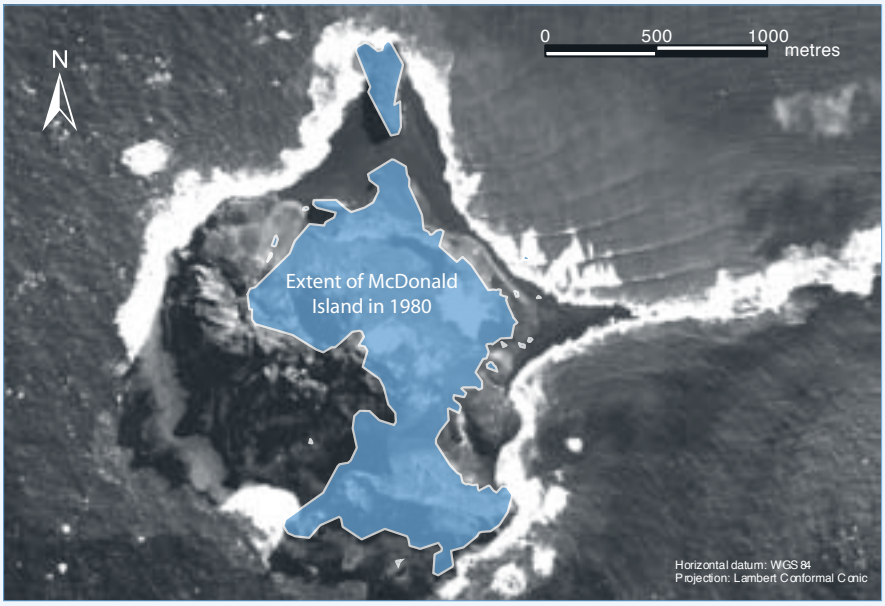
The image following illustrates the significant effect that volcanic activity during the 1990s had on McDonald Island, situated about 40 kilometres to the west of

Heard Island. By comparing two visual satellite images, it can be seen that a series of slowly oozing (rather than eruptive) lava flows resulted in the island doubling in extent from around 1 square kilometre in 1980 to around 2.5 square kilometres in 2004. Also, the previously separate Flat Island is now joined to McDonald Island by a low-lying isthmus.

A thermal satellite image taken in February 2007 revealed two hot spots near the summit of Mawson Peak on Heard Island. Previous images have suggested a single summit vent, so this recent image could either indicate the presence of a new second vent or a lava flow from the main vent.

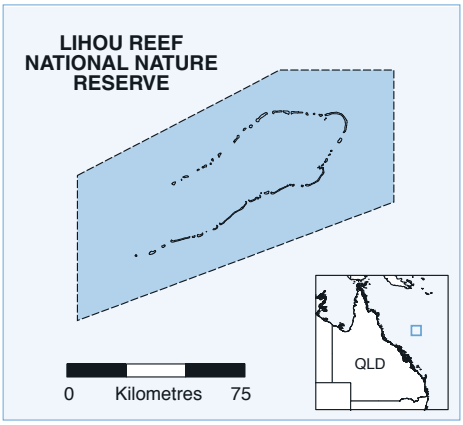
The islands may be expanding but they are still incredibly isolated, so the Australian Antarctic Division will be looking at further opportunities to use remote sensing to keep track of other key biogeographical characteristics such as vegetation cover and glacial retreat.

Figure 6: Satellite image of McDonald Island taken in 2004 overlaid with a shaded area indicating the island's extent in 1980



Lihou Reef National Nature Reserve

http://www.environment.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 (seabed) 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 Ia	
Biogeographic context	IMCRA 4.0 provincial bioregion: Northeast Province	
Management plan	Second plan expires 4 September 2008	
Other significant management documents	Management plan implementation and performance report, incorporating risk assessment	
Financial	Operating	$0*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	40 visitor days from commercial operators recorded	
Commercial permits	1 commercial tour, 1 research	

* A total of $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodiversity Division of the Department on behalf of the Director of National Parks on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

International conventions and agreements	
Wetlands (Ramsar) Convention	Entire reserve is listed
Migratory Species (Bonn) Convention)	6 of 98 listed Australian 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 (*Carcharodon carcharias*)
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.

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 and the Australian Institute of Marine Science. Institute personnel exchanged two data loggers in June 2007.

Future challenges

Major challenges are:

- logistics, costs and occupational health and safety issues associated with managing such an isolated reserve
- 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
- The reserve's isolation means ongoing monitoring remains logistically difficult

Actions

- Enforce fishing restrictions
- Continue the strategic reef monitoring programme
- Continue to promote and maintain partnerships with other agencies to assist with monitoring

Performance results 2006–07

- Coastwatch flights detected no illegal fishing
- The Bureau of Meteorology and the Australian Institute of Marine Science facilitated the exchange of sea temperature data loggers which measure trends in temperature over time

KRA4: Visitor management and park use

Major issues

- Introduction of pest species by visitors to the reserve

Actions

- Distribute the information brochure revised last year

Performance results 2006–07

- Distributed reserve information brochure to key stakeholders. 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
- Distribute the reserve information brochure

Performance results 2006–07

- Liaised with Coastwatch, the Bureau of Meteorology and the Department of Transport and Regional Services
- Met with partners to discuss issues and gave presentations on marine protected area operations and management prescriptions
- Distributed the reserve information brochure to stakeholders

KRA6: Business management

Major issues

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

Actions

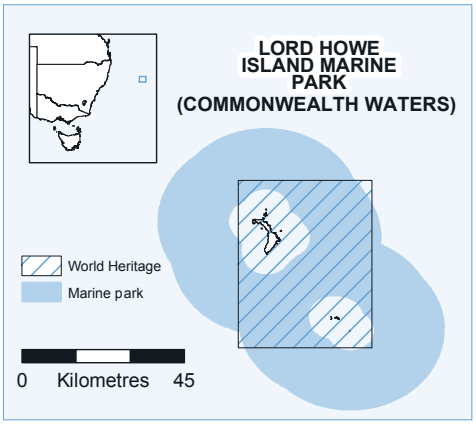
- Continue to refine and implement activity control measures identified through the activity safety analysis process

Performance results 2006–07

- 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.environment.gov.au/coasts/mpa/lordhowe



Special features

Lord Howe Island Marine Park (Commonwealth Waters) 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, Longitude 159°09′ East	
Area	300,063 hectares	
Proclamation date	21 June 2000	
IUCN category	Category IV overall comprising: Category Ia: 96,344 hectares Category IV: 214,782 hectares	
Biogeographic context	IMCRA 4.0 provincial bioregion: Lord Howe Province	
Management plan	Current plan expires 24 September 2009	
Other significant management documents	Service level agreement and subsidiary annual business agreements between Australian and New South Wales governments	
Financial	Operating	$20,000*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	Not known	
Permits	9 commercial	

* In addition, $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodiversity Division of the Department on behalf of the Director of National Parks on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

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 (*Diomeda* spp. and *Thalassarche* spp.) and giant petrels (*Macronectes* spp.); marine turtles
Listed flora	None	
Heritage	On National Heritage List	

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 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 enables stakeholder groups to provide advice on the management of both parks.

The Australian Customs Service periodically conducts Coastwatch flights over the Lord Howe Island area to report on vessel activity and surface surveillance is undertaken by the New South Wales Marine Parks Authority.

Monitoring

Data on the fish catch taken by charter fishing vessels operating under permit in the Lord Howe Island marine protected areas were analysed. During 2005, an estimated 22 tonnes of fish were caught of which approximately 75 per cent were yellowtail kingfish (*Seriola lalandi*). It is reasonable to assume that approximately half of the catch was caught in the Commonwealth reserve.

Future challenges

Major challenges are:

- implementing a strategic monitoring programme following baseline and fish catch data collection
- monitoring the area for possible illegal activities
- undertaking a study of the kingfish population in the Lord Howe Island marine protected areas to assess the sustainability of fishing allowed under permit.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Ensure compliance with the management plan

Actions

- Enforce fishing restrictions
- Train and authorise enforcement staff

Performance results 2006–07

- Shore-based and vessel-based surveillance and observations from the public revealed no illegal fishing activity
- The Lord Howe Island Marine Park (New South Wales) manager functioned as a warden under the *Environment Protection and Biodiversity Conservation Act 1999*

KRA5: Stakeholders and partnerships

Major issues

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

Actions

- Take an active role on the advisory committee and steering committee

Performance results 2006–07

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

KRA6: Business management

Major issues

- Maintain assistance from the New South Wales Marine Parks Authority

Actions

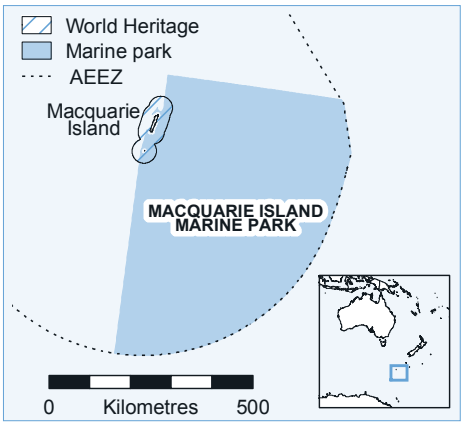
- Negotiate and implement the annual business agreement with the New South Wales Marine Parks Authority

Performance results 2006–07

- Successfully negotiated and implemented the annual business agreement for 2006–07

Macquarie Island Marine Park

http://www.environment.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 (*Diomedea exulans*).

Location	Latitude 55°54′ South, Longitude 161°38′ East
Area	16,205,928 hectares
Proclamation date	27 October 1999
IUCN category	Category IV overall comprising: Category IV: 10,492,287 hectares Category Ia: 5,713,641 hectares
Biogeographic context	IMCRA 4.0 provincial bioregion: Macquarie Island Province
Management plan	Current plan expires 25 September 2008. It is envisaged that future planning for Macquarie Island Marine Park will be done in conjunction with the management plan for the South-east Commonwealth Marine Reserve Network

Other significant management documents	Service level agreement and subsidiary annual business agreements between Australian and Tasmanian governments	
Financial	Operating	$139,363 *
	Capital	Not applicable
	Revenue	Not applicable
Visitors	A number of tourist ships transited the reserves. Most tourist ships visit Macquarie Island and anchor outside the Commonwealth marine park	
Permits	None	

* In addition, $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodiversity Division of the Department on behalf of the Director of National Parks on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

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	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	2 endangered 9 vulnerable 4 migratory 46 marine
	Recovery plans	4 implemented: albatross (*Diomeda* spp. and *Thalassarche* spp.) and giant petrels (*Macronectes* spp.); southern right whale (*Eubalaena australis*); subantarctic fur seal (*Arctocephalus tropicalis*) and southern elephant seal (*Mirounga leonina*); 10 seabird species
Listed flora	None	
Heritage	On National Heritage List	

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

Management arrangements

The Tasmanian Government manages Macquarie Island and its surrounding waters out to three nautical miles. The Marine and Biodiversity Division of the Department of the Environment and Water Resources manages the Commonwealth marine park on behalf of the Director of National Parks.

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

Monitoring

Monitoring on Macquarie Island has revealed significant increases in rodent and rabbit populations. By damaging the vegetation cover and increasing erosion these feral pest species may have a major impact on marine wildlife species that forage in the marine park and breed on the island. A feral pest eradication programme is continuing to be developed by the Tasmanian Government with funding assistance from the Australian Government.

There is a paucity of population data on numerous key seabird species in the marine park. The Department funded the Tasmanian Government to undertake population monitoring as part of an ongoing seabird monitoring project. Work to date has shown the negative impact of rodents and rabbits on burrowing petrel species, some of which are listed under the *Environment Protection and Biodiversity Conservation Act 1999*.

The aims of the seabird monitoring project are to:

- maintain long-term population monitoring of key threatened seabirds on Macquarie Island including tracking trends in population numbers, breeding effort and productivity, and response to the impacts of feral pests
- contribute to implementing the Commonwealth recovery plan and the Agreement on the Conservation of Albatrosses and Petrels.

The wildlife of Macquarie Island and the marine park are under threat from marine debris. The Department and the Tasmanian Parks and Wildlife Service have begun a marine debris survey and collection project. For the past two years, researchers and Tasmanian Parks rangers have 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.

The aims of the marine debris surveys and collection project are to:

- remove marine debris from the Macquarie Island shoreline and reduce the threat to marine wildlife that use both state and Commonwealth marine protected areas

- record and monitor the rate of marine debris accumulation and the changes in composition of the debris
- contribute to broader assessment of marine debris sources and impacts and the effectiveness of mitigation measures.

The Department funded the Tasmanian Government to undertake a project to determine the foraging patterns of 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

Major challenges are:

- monitoring possible illegal activities
- addressing the risks identified in the Bureau of Rural Sciences report on assessing risks of invasion by marine pests at Macquarie Island
- addressing the risks to native species (such as seabirds) posed by feral species (especially rodents and rabbits) 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

- Further understanding and protection of species and habitats
- Submit taskings to Coastwatch

Performance results 2006–07

- No surveillance was conducted due to higher Coastwatch priorities elsewhere
- The Natural Heritage Trust financial agreement with the Tasmanian Department of Tourism, Parks, Heritage and the Arts covers the management of the marine park. It includes marine debris survey and collection, determining the foraging patterns of southern and northern giant petrels and their ecological interactions with fisheries, and monitoring and collecting seabird population baseline data. Marine debris and seabird population baseline data projects will continue in 2007–08 under the agreement

KRA5: Stakeholders and partnerships

Major issues

- Need for effective working relationships with partners

Actions

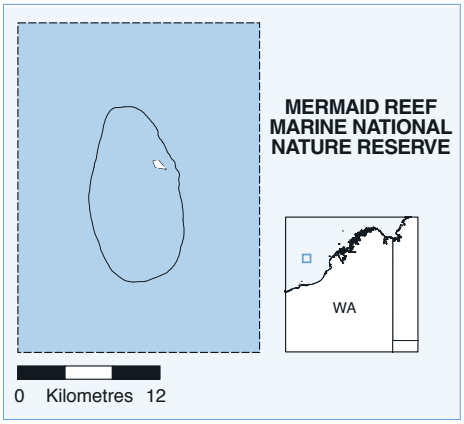
- Continue work under the service level agreement with the Tasmanian Government, focusing on the Macquarie Island marine protected area

Performance results 2006–07

- Continued the service level agreement with the Tasmanian Government in relation to the cooperative management of marine protected areas including Macquarie Island Marine Park
- Department staff met with Tasmanian Parks and Wildlife Service staff in April 2007 to discuss park management activities on Macquarie Island and strengthen ongoing cooperative arrangements

Mermaid Reef Marine National Nature Reserve

http://www.environment.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 256 coral species and 688 fish species 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 Ia	
Biogeographic context	IMCRA 4.0 provincial bioregion: Northwest Transition	
Management plan	First plan expired 16 May 2007, new plan under development	
Other significant management documents	1999 Memorandum of Understanding with Western Australian Department of Fisheries and Western Australian Department of Conservation and Land Management (now Department of Environment and Conservation); risk assessment report	
Financial	Operating	$220,465 *
	Capital	Not applicable
	Revenue	Not applicable

Visitors	100–200
Permits	9 commercial tour operator, 2 scientific, 1 journalism

* In addition, $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodiversity Division of the Department on behalf of the Director of National Parks on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

International conventions and agreements	
Migratory Species (Bonn) Convention	12 of 98 listed Australian 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 (*Carcharodon carcharias*); marine turtles; and humpback whale (*Megaptera novaeangliae*)
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	>592	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 Environment and Conservation 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 and Western Australian Fisheries provides surface patrols.

The current management plan expired on 16 May 2007. A new draft plan will be released for public comment in 2007–08. Until the new plan takes effect the reserve will be managed in a manner consistent with its IUCN Category Ia classification.

Monitoring

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.

A baseline survey of undisturbed trochus shell populations at Mermaid Reef by the Western Australian Department of Fisheries in March 2006 will 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.

A study in September 2006 by the Western Australian Museum identified 23 coral species that had hitherto not been recorded at Mermaid Reef and a total of 43 echinoderm species, 373 mollusc species and 153 crustacean species.

Commercial fishing has also been identified as a potential pressure on Mermaid Reef. On 27 April 2007 there was a successful prosecution for commercial fishing in contravention of the *Environment Protection and Biodiversity Conservation Act 1999* (see case study on page 173).

Future challenges

Major challenges are:

- installing moorings at Mermaid Reef (scheduled for August 2007)
- ensuring visitors understand the reserve's conservation values and management requirements.

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

- Install moorings
- Maintain surveillance

Performance results 2006–07

- Progressed the contract to install moorings
- 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 the appropriate scale and types of visitor use

Actions

- Progress work related to visitor access to the reserve

Performance results 2006–07

- Continued research and consultation on the appropriate vessel size, passenger limitations and issues related to seaplane access to the reserve

KRA5: Stakeholders and partnerships

Major issues

- New management plan to take effect in 2007–08
- Effective management of the reserve by the management service providers (Western Australian Department of Environment and Conservation and Western Australian Department of Fisheries)
- Industry stewardship of the reserve to support management

Actions

- Hold Rowley Shoals Steering Committee meeting
- Hold management issues workshop
- Progress the draft management plan

Performance results 2006–07

- Implemented the first annual business agreement setting out joint funding arrangements with the Western Australian partner agencies
- Licensed tour operators are developing an industry stewardship strategy for the Rowley Shoals to support reserve management efforts by governments
- Received 19 submissions from stakeholders in response to the initial invitation to comment on the proposal to develop a new management plan for Mermaid Reef
- Prepared the draft management plan for public comment (to be released for comment in 2007–08)

Worth the risk? A successful prosecution for illegally fishing at Mermaid Reef

Commercial fishing near Mermaid Reef is monitored by Coastwatch on behalf of the Director of National Parks

Mermaid Reef Marine National Nature Reserve, located approximately 300 kilometres to the north-west of Broome, is a unique and highly sensitive marine environment that supports a rich and diverse reef community. Clear waters, a broad range of depths and a near pristine environment support coral assemblages comparable to those found on the Great Barrier Reef.

Commercial fishing has been identified as a potential pressure on Mermaid Reef, where fish size, abundance and community structure would be altered if commercial fishing took place. Fishing of all kinds is prohibited inside the reserve.

On 27 January 2005 a Coastwatch surveillance flight detected an Australian fishing vessel inside the boundaries of the reserve.

An investigation revealed that the vessel had illegally trawled for the commercially sold crustacean known as 'scampi'. Fishing records from the vessel showed that more than 450 kilograms of scampi were taken during the time the vessel was observed in the area, with a value of $11,400.

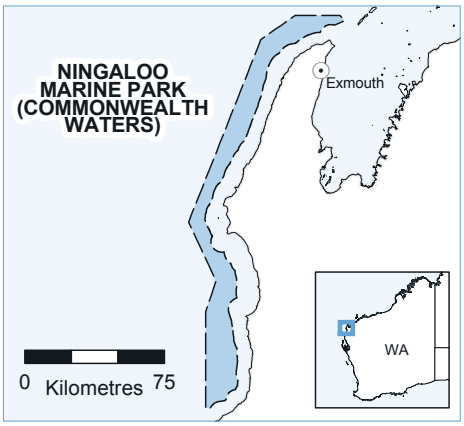
On 27 April 2007 the Federal Court of Australia ruled in favour of the Minister for the Environment and Water Resources, finding that the skipper had contravened the *Environment Protection and Biodiversity Conservation Act 1999* by conducting commercial fishing activities inside the reserve. Evidence before the court, including admissions, demonstrated that the skipper was responsible for conducting the fishing activities in contravention of the Act.

The court ordered the skipper to pay an agreed penalty of $25,000, and awarded costs of $27,500 to the Australian Government. This case represents the most significant penalty for a contravention of this nature issued under the Act to date.

Interagency cooperation on compliance and enforcement in Commonwealth marine reserves greatly improves the Director's ability to enforce legislation in remote and infrequently visited areas. The outcome of this case is a clear signal to other commercial fishers, and general users of marine protected areas, of the importance of complying with the legislation.

Ningaloo Marine Park (Commonwealth Waters)

http://www.environment.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 2004 pilot study by CSIRO of three locations in Ningaloo Marine Park found that commercially and recreationally important fish species occur 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	IMCRA 4.0 provincial bioregions: Northwest Province, Central Western Transition, Central Western Shelf and Northwest Shelf Province
Management plan	Second plan expires 2 July 2009

Other significant management documents	Service level agreement and Memorandum of Understanding with the Western Australian Department of Fisheries and Western Australian Department of Conservation and Land Management (now Department of Environment and Conservation); annual business agreements for management plan implementation	
Financial	Operating	$271,274*
	Capital	Not applicable
	Revenue	Not applicable
Visitors	Not available	
Permits	20 commercial tour, 1 scientific research	

* In addition, $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodiversity Division of the Department on behalf of the Director of National Parks on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

International conventions and agreements	
Migratory Species (Bonn) Convention	12 of 98 listed Australian species
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 [a]				
Mammals	Birds	Reptiles	Fish	Plants
At least 55	At least 52	22	At least 590	0

(a) Species numbers have been taken from a recent review of literature which inventoried all species that have been sighted in the Commonwealth and/or state component of the marine park. The inventory is new and is being progressively updated and refined

Management arrangements

The Western Australian Department of Environment and Conservation and Western Australian Department of Fisheries conduct on-site 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, extended 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.

CSIRO completed biodiversity surveys in the north of the park.

A study 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 challenges are:

- ensuring compliance with park management prescriptions
- mapping habitats adequately
- maintaining consistency between the Australian and state government planning processes.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Limited information about the Commonwealth waters of the park
- Lack of information on the distribution, migration, behaviour and abundance of key species including whale sharks
- Lack of information on the effects of human and commercial interactions on the park's key attributes

Actions

- Conduct a biodiversity survey in the Commonwealth waters of the park
- Conduct a whale shark survey in both Commonwealth and state waters
- Assess the vulnerability of key park values to commercial shipping traffic

Performance results 2006–07

- Prepared a biodiversity benthic survey report summarising work that was undertaken in the Ningaloo Marine Park as part of a broader CSIRO project
- Continued a study of the behaviour and migration habits of whale sharks travelling to Ningaloo Marine Park
- Completed a study 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 2006–07

- Liaised with industry and the Western Australian Department of Fisheries about reported gear loss and commercial fishing boat entry
- Continued engagement with state partners (Western Australian Department of Environment and Conservation and Western Australian Department of Fisheries) regarding roles and cooperative arrangements for compliance and enforcement activities
- Issued permits for commercial tour operators
- Western Australian partner agencies patrolled the reserve regularly as part of their standard surveillance operations
- Coastwatch conducted aerial surveillance

KRA5: Stakeholders and partnerships

Major issues

- Maintaining productive relationships with partners
- Negotiating complementary management regimes with partner agencies to best manage the adjoining Commonwealth and state reserves

Actions

- 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 2006–07

- The three agencies negotiated and implemented a work plan
- Productive working arrangements were maintained

KRA6: Business management

Major issues

- Need to effectively manage contracts with service providers

Actions

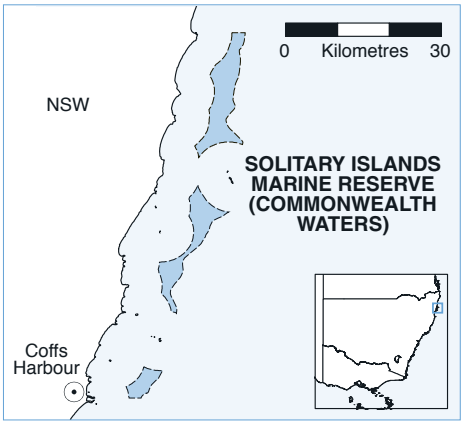
- Negotiate and implement an annual business agreement
- Manage contracts with service providers

Performance results 2006–07

- The three agencies negotiated and implemented an annual business agreement covering research, visitor management, education, and compliance and enforcement

Solitary Islands Marine Reserve (Commonwealth Waters)

http://www.environment.gov.au/coasts/mpa/solitary



Special features

The Solitary Islands Marine Reserve (Commonwealth Waters) and the adjacent state reserve are 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 several dolphin species, humpback whales (*Megaptera novaengliae*), grey nurse sharks (*Carcharias taurus*), black cod (*Epinephelus daemelii*), Bleekers devil fish (*Paraplesiops bleekeri*), and numerous seabird species. An area known as Pimpernel Rock forms part of the critical habitat for the grey nurse shark which aggregates there.

Location	Latitude 29°48′ South, Longitude 153°22′ East	
Area	15,747 hectares	
Proclamation date	3 March 1993	
IUCN category	Category VI overall comprising: Category Ia 79 hectares Category IV 3,744 hectares Category VI 11,924 hectares	
Biogeographic context	IMCRA 4.0 provincial bioregion: Central Eastern Shelf Transition	
Management plan	Current plan expires 3 April 2008	
Other significant management documents	Service level agreement and subsidiary annual business agreements between Australian and New South Wales governments	
Financial	Operating	$83,867*
	Capital	Not applicable
	Revenue	Not applicable

Visitors	Not known
Permits	10 commercial fishing, 10 commercial tour operator, 5 recreational diving

* In addition, $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodiversity Division of the Department on behalf of the Director of National Parks on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

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	Fish	Plants
25	42	7	20	0

Management arrangements

The New South Wales Marine Parks Authority conducts on-site 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 enables stakeholders to contribute to planning for the adjacent state park and the reserve. The Department is represented on both committees.

Monitoring

The New South Wales Marine Parks Authority and CSIRO continued to monitor grey nurse shark movements between aggregation sites, including Pimpernel Rock in the reserve. The New South Wales Marine Parks Authority continued to remove and monitor debris at Pimpernel Rock.

Future challenges

Major challenges are:

- reviewing the management plan for the reserve
- consulting with stakeholders and the New South Wales Marine Parks Authority on future management arrangements.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Detection of any illegal activity

Actions

- Enforce fishing restrictions

Performance results 2006–07

- 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 on the grey nurse shark of diving in the sanctuary zone and commercial fishing under permit in the habitat protection zone

Actions

- Conduct surface patrols and manage commercial fishing permits
- Communicate marine protected areas values and provide information to users

Performance results 2006–07

- New South Wales Marine Parks Authority provided surveillance support through regular surface patrols
- Produced a joint zoning summary and user guide for the state and Commonwealth waters (disseminated via New South Wales Marine Parks Authority)

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 2006–07

- Participated in advisory and steering committee meetings

KRA6: Business management

Major issues

- Need for continued assistance from the New South Wales Marine Parks Authority

Actions

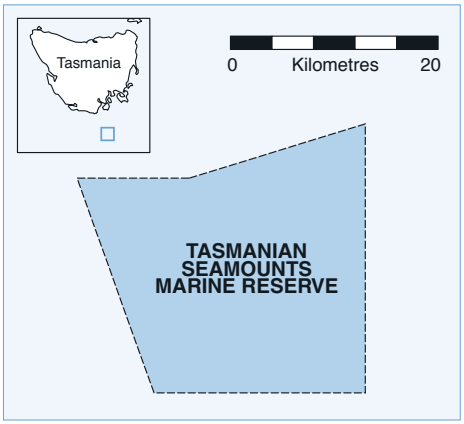
- Endorse and manage the annual business agreement with New South Wales Marine Parks Authority

Performance results 2006–07

- Successfully implemented the annual business agreement

Tasmanian Seamounts Marine Reserve

http://www.environment.gov.au/coasts/mpa/seamounts



Special features

The Tasmanian Seamounts Marine Reserve protects 25 of the approximately 100 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 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	
Revocation date	2 September 2007. The Tasmanian Seamounts will be incorporated into the Huon Commonwealth Marine Reserve	
IUCN category	Category Ia overall comprising: 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	IMCRA 4.0 provincial bioregion: Tasmanian Province	
Management plan	First plan expires 2 September 2007. The reserve will be incorporated into the new South-east Commonwealth Marine Reserve Network and will be included in the management planning process for the network in 2007–08	
Financial	Operating	$3,388 *
	Capital	Not applicable
	Revenue	Not applicable

Visitors	None
Permits	None

* In addition, $1,266,161 was spent across the 13 marine reserves managed by the Marine and Biodiversity Division of the Department on behalf of the Director of National Parks on professional services, permits and performance assessment systems, training, communications, workshops and conference attendance, surveillance and enforcement activities.

International conventions and agreements	
Migratory Species (Bonn) Convention	12 of 98 listed Australian species
Japan–Australia Migratory Birds Agreement	1 of 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 (*Diomeda* spp. and *Thalassarche* spp.) and giant petrels (*Macronectes* spp.); marine turtles; 10 seabird species; and southern right whale (*Eubalaena australis*)
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

Regular requests for Coastwatch aerial surveillance flights were submitted, however due to Coastwatch resource constraints, no surveillance flights of the reserve were undertaken.

Monitoring

The Department has funded CSIRO Marine Research to conduct surveys to establish baselines in many of the proposed marine protected areas throughout the south-east region, including resurveying sites in the Tasmanian Seamounts Marine Reserve. Surveys took place in November 2006 and April 2007. Numerous specimens and deep water images were collected and are currently being analysed by CSIRO. Initial reports suggest very high biodiversity values were found within the proposed Huon

Commonwealth Marine Reserve associated with unfished seamounts. When the new South-east Commonwealth Marine Reserve network comes into effect on 3 September 2007, the Huon Commonwealth Marine Reserve will incorporate the existing Tasmanian Seamounts Marine Reserve.

Future challenges

Major challenges are:

- to develop management arrangements for the new South-east Commonwealth Marine Reserve network with state agencies (Tasmania, Victoria and South Australia) to provide compliance and enforcement services
- to develop the network's management plan.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Improving understanding of the reserve's ecological processes

Actions

- Fund research in the reserve

Performance results 2006–07

- Results of research undertaken by CSIRO on many of the seamounts are being analysed, including species identifications and analysis of video footage

KRA4: Visitor management and park use

Major issues

- Monitoring possible illegal activities

Actions

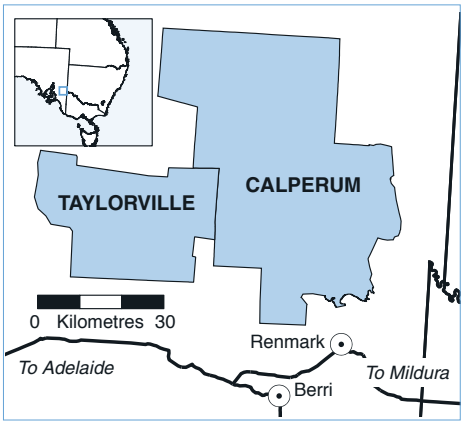
- Minimise the risk of accidental or deliberate encroachment on the reserve by trawling vessels

Performance results 2006–07

- Regular Coastwatch aerial surveillance was not provided due to Coastwatch resource constraints
- New arrangements with state agencies proposed following declaration of the new south-east reserve network and a more comprehensive compliance and enforcement plan should be able to more appropriately address this key result area

Calperum and Taylorville Stations

http://www.environment.gov.au/parks/biosphere/riverland



Special features

Calperum and Taylorville Stations are adjoining pastoral leases in the Riverland area of South Australia.

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 critical habitat for the endangered black-eared miner (*Manorina melanotis*) and are also important for the conservation of the nationally vulnerable malleefowl (*Leipoa ocellata*) and the regionally vulnerable bush stone-curlew (*Burhinus grallarius*).

The properties are key components of the Riverland (formerly Bookmark) Biosphere Reserve. While biodiversity conservation guides the management of both properties, and both actively rely on community participation in management activities, there are differences in the management objectives of the two properties. Taylorville is managed as an IUCN Category IV reserve, for habitat and species conservation. Calperum is managed for a broader, additional set of objectives, including environmentally sustainable development such as tourism.

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, held by the Australian Government through the Director of National Parks (Calperum acquired in 1993, Taylorville acquired in 2000)
IUCN category	Calperum: not assigned 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 (expires with current management contract in 2008)
Other significant management documents	Management contract with Austland Services Pty Ltd; Biosphere Reserves Seville Strategy and statutory framework

Financial	Operating*	$0.507 million
	Capital	$0.080 million
	Revenue	$0.022 million
Visitors	150 day visitors and 1,350 bed-nights in camping grounds, dormitories and other accommodation	

* This funding is 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 45 marine (birds)
	Recovery plans	2 being implemented: malleefowl (*Leipoa ocellata*); black-eared miner (*Manorina melanotis*)
Listed flora	Species	None
Heritage	On Commonwealth Heritage List	
Other	Taylorville and majority 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 additional support for management activities and community-based programmes.

Monitoring

Significant monitoring programmes track the physical and biological attributes of both stations. Annual biological surveys in 2006–07 included pitfall trapping of small vertebrates, vegetation photopoints, malleefowl mound activity monitoring, black-eared miners, stone-curlews, waterbirds, fish, possums, frogs, nestboxes and aquatic vegetation assessments. Feral animal monitoring focused on foxes, goats, pigs and rabbits.

Monthly rainfall data are collected from 25 rain gauges across the two stations, and a network of groundwater test wells has been developed to monitor groundwater hydrology and water salinity beneath the floodplain and wetlands of Calperum Station. Water quality in creeks and wetlands is also monitored.

Future challenges

Major challenges are:

- identifying and implementing environmentally sustainable industries on Calperum Station
- developing an appropriate management regime for Calperum Station's wetlands that can respond to changing conditions
- protecting the critical threatened species habitat provided by mature mallee on Taylorville and Calperum from fire and other potentially threatening impacts such as bird poaching
- developing cross-tenure approaches to managing the broader landscape for shared goals.

Report on performance by key result areas

KRA1: Natural heritage management

Major issues

- Rehabilitation and conservation of native vegetation and endemic fauna
- Feral animal and weed control
- Fauna conservation and management
- Floodplain management
- Fire management

Actions

- Rationalise watering points
- Maintain captive colonies of the 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
- Monitor native animal populations
- Contribute to recovery programmes for threatened birds

Performance results 2006–07

- Worked closely with the regional Country Fire Service. Supported and participated in Country Fire Service training and familiarisation exercises on Calperum and supported staff to join local units
- Reviewed fire management strategies including water storage needs and supply infrastructure on Calperum which led to decommissioning several non-essential water tanks. Selected water storage infrastructure was upgraded
- Reviewed the fire-track network on Calperum and maintained and upgraded tracks as required. Added a section to the network in the west of Calperum. Identified and initiated priority actions for the Taylorville fire-track network
- A series of fires started by lightning strikes amalgamated and burnt through a large proportion of Taylorville and a small section of Calperum in December 2006. Staff helped fight the fires and contributed to briefings held for the benefit of local people and media
- Reviewed management strategies immediately following the fire. Identified and addressed priority issues. Staff and volunteers also participated in post-fire reviews by agencies including the Country Fire Service
- Participated in additional post-fire monitoring and other actions in collaboration with the SA Department for Environment and Heritage and neighbouring Gluepot Station
- Monitored the impact of environmental watering of drought stressed riparian vegetation at Double Thookle Thookle Lagoon. Planned additional environmental watering activities were scaled down due to the extreme water supply situation
- Completed a wetting and drying cycle of Lake Merreti. The planned wetting and drying of Lake Woolpolool was deferred following consultation with SA Government officers
- Continued to install test wells and monitor groundwater in wetlands and floodplains. Monitored surface water quality (salinity, temperature, pH, dissolved oxygen and turbidity)
- Continued volunteer involvement in mapping and controlling significant weeds, including post-fire weed emergence in disturbed areas and an intensive assessment of earlier revegetation activities in one section of Calperum
- Conducted photopoint monitoring and floristic surveys of partially drip-irrigated and non-irrigated sections of revegetation exclosures
- Provided tube-stock and technical advice to local groups and individuals for revegetation activities
- Facilitated collection of seed for use in a regional revegetation project
- Identified and began development of out-station infrastructure on Taylorville to support fire-fighting and research and monitoring programmes

- Survey confirmed the vigour and growth of earlier trial plantings of *Eucalyptus* and *Melaleuca* species in salinised floodplain habitat
- Planted additional shrubs and trees in highly impacted floodplain areas
- Supported a formal (Ph D) study of the effects of salinity on floodplain invertebrate communities
- Initiated an investigation of the efficacy of various artificial habitats for housing Murray River snails for recolonising waterways
- Continued and expanded native species monitoring programmes, including monitoring invertebrates, small arboreal mammals, bats, frogs, waterbirds, stone-curlews and mallee bird species. Monitored the impacts of total grazing pressure, with particular attention to floodplain areas
- Supported the black-eared miner recovery programme. A planned translocation was curtailed due to unfavourable seasonal conditions
- Participated in developing recovery plans for other mallee species of conservation concern
- Continued and enhanced feral animal control programmes for pigs, goats, foxes, cats and rabbits
- Initiated discussions on developing a regionally coordinated fox baiting programme, including a demonstration trial of alternative bait delivery systems
- Participated with government, academic and other bodies in developing a bid under the Australian Ecological Observation Network project for installing research infrastructure in the Renmark–Mildura section of the lower Murray

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 2006–07

- Continued to monitor, protect and revegetate identified Indigenous heritage sites
- Participated in running a trial Indigenous ecotourism training programme for local Indigenous youth
- Continued to protect and maintain iconic structures recalling the previous pastoral industry, including the Yubalia ruins, the Cooper's Camp fisherman's hut and various items of pastoral-era infrastructure

KRA4: Visitor management and reserve use

Major issues

- Provision of quality visitor services that are compatible with conservation objectives, visitor safety and management requirements

- Communicating the values of Calperum and Taylorville
- 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 and the McCormick Centre for the Environment in Renmark (the construction of which was partly funded through the Natural Heritage Trust)
- 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 2006–07

- Upgraded the Calperum carpark and developed the (educational) Calperum Mallee Garden, including demonstration of solar lighting and high-efficiency water-use technology
- Re-sited camping areas, installed new dry composting toilets and began to revegetate impacted areas
- Developed new and additional signage incorporating interpretive materials
- Managed visitors satisfactorily, including through developing a formal working relationship with the Riverland Ecotourism Association, facilitating ecotourism in and around Calperum, and hosting meetings and activities at the McCormick Centre and at Calperum designed to improve regional tourism
- Conducted educational programmes for pre-primary, primary, secondary and tertiary students, including a school holiday programme at the McCormick Centre. Focus areas included wetland health and water quality, sustainable design and environmentally friendly architecture
- Hosted field trips and camps for TAFE SA (technical and further education), university and non-government study tour groups studying biology, ecology and environmental management. Sessions were held on floodplain management; communities' capacity to understand and respond to environmental issues involving the river; conduct of biological surveys; collecting and classifying native plants; and the aims and methods of management of Calperum

- In conjunction with TAFE SA, ran numerous courses for volunteers and the community in aspects of natural resource management, including plant and animal identification, biological survey techniques, native seed collection and plant propagation. In partnership with TAFE SA, the Riverland Development Corporation and local schools conducted a pilot course for Indigenous youth on developing Indigenous ecotourism. A water quality testing workshop for interested community members was delivered on Calperum by the SA Murray–Darling Basin Natural Resource Management Board as part of a broader initiative under the Australian Government's Community Stream Sampling project

KRA5: Stakeholders and partnerships

Major issues

- Promotion of the UNESCO 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 consistently recording volunteer hours
- Participate in the Riverland Biosphere Community Committee

Performance results 2006-07

- Continued to promote Calperum and the McCormick Centre as places available for research and monitoring, education, skill-sharing and public recreation. Encouraged volunteers to recognise these objectives at all suitable opportunities
- Continued providing various forms of support and encouragement to existing and potential volunteers. Maintained appropriate insurance for volunteers, and made sure that they were aware of and observed occupational health and safety procedures
- The McCormick Centre 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 included the Wetlands and Waders Festival and a weekend of activities to mark the fiftieth anniversary of the 1956 flood
- Attended the 2006 Riverland Biosphere Community Committee annual general meeting, at which a staff member joined the committee. Parks Australia representatives participated in two committee meetings
- Over 180 registered individual active volunteers, and numerous volunteer

groups and organisations, donated in excess of 8,500 hours of labour during the year. Approximately 58 per cent of volunteer effort was devoted to core land management activities such as feral animal control, weed control and infrastructure maintenance. Research and monitoring absorbed 38 per cent of volunteer effort; the remainder was devoted to purely educational and skill-sharing activities (noting that many activities have an educational component)

- Maintained a database to record and analyse volunteer contributions to management of the properties
- Hosted a weekend of activities for volunteers in recognition of their efforts. This included a cruise on the River Murray, a dinner in the Calperum Woolshed and demonstrations and training in a range of biological survey techniques
- Explained to a community meeting how fire preparations helped contain the 2006 wildfires
- Began a range of activities within a broad education and skill-sharing project funded by the Australian Landscape Trust. The project includes employing natural resource management trainees, promoting and subsidising accredited training for volunteers, and developing collaborative environmental education programmes with regional schools, using Calperum and the McCormick Centre as activity sites
- Participated in a review of issues affecting the use of community monitoring data in institutional planning and decision-making being undertaken by the SA Murray–Darling Basin Natural Resource Management Board
- As part of the Paddock Adoption Scheme, sought and found new 'paddock managers' for the Merreti and Calperum Lakes project areas
- Obtained funding to support purchase of a stereo microscope and accessories which allow microscope images to be displayed on audio-visual equipment. The microscope is now being used to support education on aquatic macroinvertebrates and other fauna at the McCormick Centre. Other equipment purchases were facilitated by donations from SA Rotary clubs
- Supported local Green Corps projects, including training in nursery practices and a range of land management activities
- A community-based study of the life histories of two poorly known native cockroach species began under the auspices of the University of Sydney
- Assisted three research students to conduct biological research on Calperum
- Explored potential economic uses of the horticulture site. While no robust business opportunity for its further development was identified, the potential to use infrastructure to supply material for regional revegetation projects on a non-commercial basis remains. Support for small-scale trials in developing marketable native plant products by local horticulturalists is also potentially possible. Active development of initiatives was hindered by the poor outlook and uncertainty surrounding irrigation water allocations

- Contributed to publication of case studies on the management of Calperum and the McCormick Centre as an exemplar of community empowerment and volunteer engagement

KRA6: Business management

Major issues

- Property maintenance
- Business management
- Environmentally sustainable management

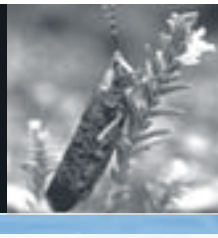
Actions

- Maintain infrastructure
- Manage professionally and accountably

Performance results 2006–07

- Continued producing quantities of seed for revegetation and occasional commercial sale
- Maintained the productive capacity of floriculture plantings but international market conditions remained unfavourable
- Maintained existing buildings, fencing, tracks and other infrastructure. A significant enhancement of the Oak Bore outstation has made it entirely self-sufficient for water
- Completed infrastructure enhancements including improvements to visitor infrastructure
- Produced policy statements on operations and workplace practices, and reviewed/updated employee and volunteer induction processes
- Investigated strengths and weaknesses of Calperum's horticulture site and options for its future use. This study reinforced (as a preferred option) the site's use in identification and early development of local species suitable for revegetation applications
- Investigated the development of woody perennial crops, especially the mallee sandalwood species *Santalum spicatum*, as species with potential for use in Calperum's floriculture site (as a future business opportunity)
- Followed up on safety, insurance and financial matters following the December 2006 wildfires (including assessing boundary fence damage, checking roads and tracks and clearing fallen timber). Gates and locks were replaced as required
- Complied with applicable legislation
- Maintained a recycling programme

7 Management and accountability



Corporate governance

The Director of National Parks 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 corporation is a Commonwealth authority and is subject to the *Commonwealth Authorities and Companies Act 1997* (CAC Act). The Director is a corporation sole constituted by the person who holds the office that is also named the Director of National Parks.

The Director is responsible to the Minister for the Environment and Water Resources, the Hon Malcolm Turnbull MP. Ministerial responsibilities in relation to the Director have been allocated to the Assistant Minister, the Hon John Cobb MP, with the exception of Commonwealth marine reserves and overall responsibility for the appointment, remuneration and performance aspects of the position of Director of National Parks which have been retained by Mr Turnbull.

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 2006–07 no Ministerial directions were issued and there were no directions continuing from previous years.

The Director is subject to directions given by the Minister for Finance and Administration in December 2004 under section 47A of the CAC Act in relation to the application of the Commonwealth Procurement Guidelines.

Funding

The EPBC Act makes provision for funding the Director of National Parks. The Department of the Environment and Water Resources 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 an arrangement to provide corporate services to the Director. The Department's Parks Australia Division supports the Director's work.

During 2006–07 the Department provided $43.0 million to the Director of National Parks under the purchaser-provider arrangement (see the audited financial statements at Chapter 8 of this annual report). This arrangement was effective, providing the resources that enabled the Director to meet the targets set in the Portfolio Budget Statements 2006–07 Environment and Heritage Portfolio.

Planning documents

For information about the strategic planning and performance assessment framework, see Chapter 5 of this report.

Executive management

The holder of the office of Director of National Parks and three senior executives provide leadership in Parks Australia (see Chapter 3 of this report). Weekly meetings of the executive team provide the primary management forum for developing and reviewing park policy and strategic and corporate goals.

In addition to the Parks Australia executive team, one senior executive in the Department's Marine and Biodiversity Division is responsible, under delegation from the Director of National Parks, for management of 13 Commonwealth marine reserves and the Director of the Australian Antarctic Division is responsible for management of one marine reserve.

Parks administration faces a number of specific challenges including widely distributed workplaces in remote areas, many in a cross-cultural environment. Coordination between area managers, Canberra-based managers and the executive team is vital.

Participants in the November 2006 Parks Australia Forum, held at Chowder Bay, Sydney NSW included representatives from the New Zealand Department of Conservation, NSW Department of Environment and Conservation and Parks Canada. The theme of the meeting was 'protected areas management in a time of change'

Key communication activities include regular phone link-ups and the regular Parks Australia 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, Uluṟu–Kata Tjuṯa and Booderee National Parks are managed jointly by the Director and the traditional Aboriginal 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 traditional owners of land in the park. Membership of the boards also includes the Director, nominees of the Northern Territory government (for Kakadu and Uluṟu–Kata Tjuṯa National Parks) and members representing special interest groups or with particular skills relevant to managing the park (see Chapter 3 of this report for board members).

The functions of a Commonwealth reserve 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 preparing management plans, monitoring 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

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 relation to management of the reserve. The Director must consult and have regard to the views of the chair 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 land council chair must be specifically invited to comment on the preparation of management plans.

Additional consultation with traditional Aboriginal owners of Kakadu, Uluṟu–Kata Tjuṯa 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 in relation to the performance of the Director's functions and the exercise of the Director's powers in relation to Kakadu and Uluṟu–Kata Tjuṯa 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 Uluṟu–Kata Tjuṯa Boards of Management and other ad hoc working groups.

Control arrangements

Director of National Parks Chief Executive Instructions

The Chief Executive Instructions guide Parks Australia staff in assisting the Director to carry out the Director's functions and meet the Director's statutory obligations. Policies and procedures sit under the Chief Executive Instructions and are subject to regular review.

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 four times and addressed corporate governance issues including risk management and financial management.

During 2006–07 internal audits were undertaken of the Christmas Island National Park operations, Memoranda of Understanding between the Director of National Parks and other parties, procurement and contract management and administration of leave and attendance.

The committee endorsed the process for preparation of the 2006–07 financial statements and the audit plan for 2007–08.

Members of the committee during 2006–07 were:

- Mr Gary Potts, independent member and Chair
- Ms Glenys Roper, independent member (until March 2007)
- Mr Brian Gilligan, independent member
- Mr Peter Hoefer, independent member (from June 2007)
- Mr Con Boekel, Assistant Secretary, Parks Australia South
- Ms Anne-Marie Delahunt, Assistant Secretary, Parks Australia North.

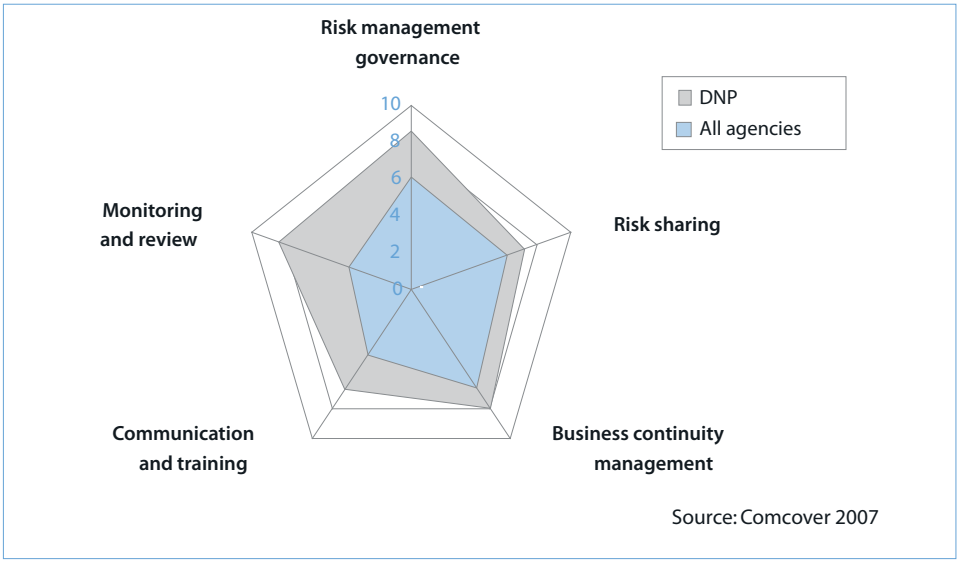
The Director of National Parks and the Director of the Business Management Section were also invited to attend committee meetings. Staff from the Australian National Audit Office, the Department's Finance Branch and the internal audit service provider also attended meetings as observers.

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 team.

The Director has participated in the Comcover Risk Management Benchmarking scheme since 2003. The Director's risk management system was rated average in 2003 and has risen consistently since then. In 2007 the Director scored 7.9 out of a possible 10; for the last two years the Director has consistently scored 2.4 above the average for similar-sized Australian Government agencies.

Figure 7: Risk management benchmarking scores for the Director of National Parks in 2006–07 compared to the average for 125 Australian Government agencies



Source: Comcover 2007

One element of risk management is a business continuity plan for all Parks Australia sites. The plan was successfully used several times, including following a severe hail storm at the ANBG in February 2007.

Indemnities and insurance

In 2006–07 the Director maintained comprehensive insurance cover under the Comcover scheme for his business operations, including professional indemnity and directors' and officers' insurance (covering the 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 in 2006 on Kakadu National Park and the Director's assets

in the township of Jabiru resulted in the largest insurance claim by the Director in recent years (estimated at $1 million). The impacts of storm damage to the Australian National Botanic Gardens in February 2007 and from Cyclone George in Kakadu in March 2007 has also resulted in significant insurance claims.

The Director also manages risk by requiring all commercial operators, contractors, and scientific researchers in Commonwealth reserves to indemnify the Director and the Commonwealth and maintain appropriate levels of insurance for their activities.

External review

Judicial decisions and decisions of administrative tribunals

There were no judicial decisions or decisions of administrative tribunals during the year that had, or may have, a significant impact on the operations of the Director.

Reports by the Auditor-General

The Auditor-General issued an unqualified audit report for the 2006–07 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. Detailed information on the management of human resources, employment conditions and remuneration is contained in the Department's annual report for 2006-07.

Staffing profile

The Director of National Parks employed an average of 271 staff during 2006–07. The majority of staff work in Booderee, Kakadu and Uluṟu–Kata Tjuṯa National Parks and the ANBG. 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.

Twelve graduate employees were engaged for three-month placements under the Department's graduate recruitment programme.

Six Indigenous trainees and cadets were employed across the parks. 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.

Table 10: Staffing profile for 2006–07

		Executive	Park managers/ section heads	Operational, policy and planning management	Technical and other field staff	Rangers	Total
Parks South	Male	1	2	13	41	4	61
	Female	0	1	9	27	1	38
	Total	**1**	**3**	**22**	**68**	**5**	**99**
Parks North	Male	0	4	16	24	46	90
	Female	1	1	27	13	17	59
	Total	**1**	**5**	**43**	**37**	**63**	**149**
Head Office	Male	2	2	7	0	0	11
	Female	0	1	11	0	0	12
	Total	**2**	**3**	**18**	**0**	**0**	**23**
Totals	Male	3	8	36	65	50	162
	Female	1	3	47	40	18	109
	Total	**4**	**11**	**83**	**105**	**68**	**271**

Four Bininj students were among seven Kakadu rangers who became the first to gain formal qualifications in a new workplace land management course. Developed by Kakadu and Charles Darwin University, this innovative course begins by evaluating and accrediting practical skills in the field. The onground testing identifies the

Uluṟu-Kata Tjuṯa National Park trainees Wayne Curtis and Phillip Driffen are currently completing formal traineeships in Conservation and Land Management as well as Certificates in Written and Spoken English. They are pictured here undertaking infrastructure maintenance and they also work with the park's Natural and Cultural Resources team as part of their training

knowledge gaps that rangers need to fill for each work level, such as numeracy, formal mapping training or computer skills. Three rangers are going on to further study, an inspiration to young Bininj and Mungguy people.

Occupational health and safety

This section is presented in accordance with the requirements of section 74 of the *Occupational Health and Safety 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'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 desktop equipment.

ParkSafe, Parks Australia's integrated occupational health and safety management system, is designed to provide a safe and healthy workplace for all employees and contractors working for Parks Australia. All relevant policy and procedural information is available electronically. ParkSafe has been in place since 2004, and this year a major revision of the system was undertaken including a review of hazards faced by field staff and an upgrade of all job safety analyses. ParkSafe is also used for field operations by other divisions of the Department.

This year ParkSafe training was presented to Cocos (Keeling) Islands and Christmas Island staff. In addition to ParkSafe training, almost all staff members have completed an online SafeTrac occupational health and safety course developed for the Department.

During 2006–07 Parks Australia recorded 207 occupational health and safety accidents or incidents (see Table 11). This was a reduction of 13 per cent in total recorded incidents compared with the previous two years.

Comcare issued an improvement notice under section 47 of the Act in November 2006 (relating to a vehicle incident in Kakadu National Park) and investigated this incident. There were no matters to report under sections 45 or 46 of the Act.

Table 11: Safety incident records for terrestrial reserves

	2004–05	2005–06	2006–07
Staff, volunteers and contractors			
Minor injury or near miss [a]	76	68	77
Moderate injury [b]	18	22	12
Major injury [c]	2	2	0
Total	**96**	**92**	**89**
Visitors, permit holders and residents			
Minor injury or near miss [a]	87	88	80
Moderate injury [b]	40	46	35
Major injury [c]	14	10	3
Deaths	1	1	0
Total	**142**	**145**	**118**

(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 / hospital
(c) Major injury includes significant hospitalisation (more than 2 days)

Compliance and enforcement under the EPBC Act

Wardens and rangers are appointed under the EPBC Act to exercise enforcement powers under the Act and its Regulations in relation to Commonwealth reserves (members of the Australian Federal Police and, from 19 February 2007, officers of the Australian Customs Service are ex officio wardens by force of the Act). All law enforcement 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).

A whole-of-government approach is taken to compliance and enforcement in Commonwealth marine reserves. Australian Federal Police and Customs officers are ex officio wardens. Officers from other agencies, including the Australian Fisheries Management Authority, state and territory police, and fisheries and conservation agencies, can be appointed wardens under the EPBC Act after the required training. These arrangements greatly improve the Director's ability to enforce the EPBC Act in remote and infrequently visited Commonwealth reserves.

The following enforcement matters were determined by courts during 2006–07:

- On 30 May 2007 a person was convicted of commercial fishing and other offences committed in Kakadu National Park on 5 November 2006 and was fined $1,500 for each of three charges relating to commercial fishing and $750 for each of four other EPBC Act offences.
- On 27 April 2007 the Federal Court ordered a person to pay a civil pecuniary penalty of $25,000 (plus legal costs of $27,500) for contravention of the EPBC Act arising from unauthorised commercial fishing in Mermaid Reef Marine National Nature Reserve on 26 and 27 January 2005.
- On 14 December 2006 two persons were convicted on two counts each for taking squid in Booderee National Park on 28 March 2006 in excess of the daily recreational limit. They were each fined $500 on each count.
- On 14 December 2006 another two persons were convicted of taking squid in Booderee National Park on 8 November 2006 in excess of the daily recreational limit and were each fined $750. These persons were previously convicted on 12 October 2006 on two counts each of taking squid in the Park on 6 December 2005 and 23 March 2006 in excess of the daily recreational limit. On the first count both were convicted and released on 12 months ($500) good behaviour bonds; on the second count both were fined $500.

Table 12: Compliance and enforcement in terrestrial reserves during 2006–07

	Members of the public	Tourism operators	Other commercial operators
EPBC Act incidents detected	350	16	6
Offenders unknown	35	3	3
Verbal cautions issued	256	7	2
Warning letters issued	15	6	1
Infringement notices issued	38	0	0
Continuing investigations	1	0	0
Permit suspensions	0	0	0
Court cases pending	4	0	0
Cases taken to court	17	0	0
Convictions	13	0	0

Ecologically sustainable development and environmental performance

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 Chapters 5 and 6 and in the Department's sustainability report for 2006–07.

Commonwealth Disability Strategy

The Department is currently reviewing its Disability Action Plan 2004–2006 to meet the needs of people with disabilities in accordance with the roles identified by the Commonwealth Disability Strategy. Information on the strategy is contained in the Department's annual report for 2006–07.

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 and Biodiversity Division and the Australian Antarctic Division come under the 'provider' role of the Commonwealth Disability Strategy.

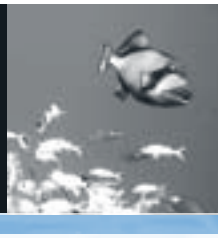
Given the locations and nature of the terrain, access for people with a disability to the reserves varies. Some marine reserves are very remote and without facilities, whereas a number of the major tourist destinations in the three mainland national parks—Kakadu, Uluṟu–Kata Tjuṯa and Booderee—and the 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's website at www.environment.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 2007

Australian National
Audit Office

INDEPENDENT AUDITOR'S REPORT

To the Minister for the Environment and Water Resources

Matters relating to the Electronic Presentation of the Audited Financial Statements

This auditor's report relates to the financial statements published on the website of the Director of National Parks for the year ended 30 June 2007. The Director is responsible for the integrity of the web site.

This auditor's report refers only to the primary 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

I have audited the accompanying financial statements of the Director of National Parks for the year ended 30 June 2007, which comprise: a statement by the Director and Chief Financial Officer; income statement; balance sheet; statement of changes in equity; cash flow statement; schedules of commitments, and contingencies; a summary of significant accounting policies and other explanatory notes.

The Responsibility of the Director for the Financial Statements

The Director is responsible for the preparation and fair presentation of the financial statements in accordance with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997* and the Australian Accounting Standards (including the Australian Accounting Interpretations). This responsibility includes establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

GPO Box 707 CANBERRA ACT 2601
19 National Circuit BARTON ACT 2600
Phone (02) 6203 7300 Fax (02) 6203 7777

Auditor's Responsibility

My responsibility is to express an opinion on the financial statements based on my audit. My audit has been conducted in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards. These Auditing Standards require that I comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Director of National Parks' preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Director of National Parks' internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Director, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for my audit opinion.

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.

Auditor's 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 the Australian Accounting Standards (including the Australian Accounting Interpretations); and

(b) give a true and fair view of the matters required by the Finance Minister's Orders including the Director of National Parks' financial position as at 30 June 2007 and of its financial performance and its cash flows for the year then ended.

Australian National Audit Office

John Jones
Executive Director

Delegate of the Auditor-General

Canberra
6 September 2007

Director of National Parks
Statement by the Director and Chief Financial Officer

In our opinion, the attached financial statements for the year ended 30 June 2007 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 when they become due and payable.

Signed

Peter Cochrane
Director

6 September 2007

Signed

Sam Ceravolo
Chief Financial Officer

6 September 2007

Director of National Parks
Income Statement
For the period ended 30 June 2007

	Notes	2007 $'000	2006 $'000
INCOME			
Revenue			
Revenues from Government	3A	**42,966**	41,962
Sale of Goods and rendering of services	3B	**12,991**	12,550
Interest		**910**	622
Other revenues		**2,089**	1,114
Total Revenues		**58,956**	56,248
Gains			
Sale of assets	3C	**137**	(25)
Other gains	3D	**3,900**	2,800
Total gains		**4,037**	2,775
Total Income		**62,993**	59,023
EXPENSES			
Employee benefits	4A	**23,010**	21,178
Suppliers	4B	**28,867**	26,568
Depreciation and amortisation	4C	**7,174**	7,582
Write-down and impairment of assets	4D	**93**	1,345
Other expenses		**148**	176
Total Expenses		**59,292**	56,849
Surplus		**3,701**	2,174

The above statement should be read in conjunction with the accompanying notes.

Director of National Parks Balance Sheet

as at 30 June 2007

	Notes	2007 $'000	2006 $'000
ASSETS			
Financial assets			
Cash and cash equivalents	5A	**17,818**	19,759
Trade and other receivables	5B	**1,214**	1,584
Other	5C	**84**	91
Total financial assets		**19,116**	21,434
Non-financial assets			
Land and buildings	6A,C	**65,281**	66,803
Infrastructure, plant and equipment	6B,C	**73,830**	72,098
Intangibles	6D	**2**	3
Other non-financial assets	6E	**390**	369
Total non-financial assets		**139,503**	139,273
Total Assets		**158,619**	160,707
LIABILITIES			
Payables			
Suppliers	7A	**2,375**	6,524
Other payables	7B	**2,024**	4,115
Total payables		**4,399**	10,639
Provisions			
Employee provisions	8A	**5,590**	5,130
Other provisions		**61**	70
Total provisions		**5,651**	5,200
Total Liabilities		**10,050**	15,839
Net Assets		**148,569**	144,868
EQUITY			
Contributed equity		**15,821**	15,821
Reserves		**64,585**	64,585
Retained surpluses		**68,163**	64,462
Total Equity		**148,569**	144,868
Current assets		**19,506**	21,803
Non-current assets		**139,113**	138,904
Current liabilities		**9,473**	15,384
Non-current liabilities		**577**	455

The above statement should be read in conjunction with the accompanying notes.

Director of National Parks
Statement of Changes in Equity
as at 30 June 2007

	Retained Surplus		Asset Revaluation Reserve		Contributed equity/capital		Total Equity	
	2007	2006	**2007**	2006	**2007**	2006	**2007**	2006
	$'000	$'000	**$'000**	$'000	**$'000**	$'000	**$'000**	$'000
Opening Balance								
Balance carried forward from previous period	**64,462**	62,288	**64,585**	64,585	**15,821**	9,755	**144,868**	136,628
Adjusted Opening Balance	**64,462**	62,288	**64,585**	64,585	**15,821**	9,755	**144,868**	136,628
Income and Expense								
Income and Expenses Recognised Directly in Equity	**-**	-	**-**	-	**-**	-	**-**	-
Subtotal income and expenses recognised directly in equity	**-**	-	**-**	-	**-**	-	**-**	-
Surplus for the period	**3,701**	2,174	**-**	-	**-**		**3,701**	2,174
Total income and expenses	**3,701**	2,174	**-**	-	**-**	-	**3,701**	2,174
Transactions with Owners:								
Distributions to owners								
Returns of Capital	**-**	-	**-**	-	**-**	-	**-**	-
Contributions by Owners								
Appropriation (equity injection) (refer Note 17)	**-**	-	**-**	-	**-**	6,066	**-**	6,066
Other	**-**	-	**-**	-	**-**	-	**-**	-
Sub-total Transactions with Owners	**-**	-	**-**	-	**-**	6,066	**-**	6,066
Closing Balance at 30 June	**68,163**	64,462	**64,585**	64,585	**15,821**	15,821	**148,569**	144,868

The above statement should be read in conjunction with the accompanying notes.

Director of National Parks
Cash Flow Statements
For the period ended 30 June 2007

	Notes	2007 $'000	2006 $'000
OPERATING ACTIVITIES			
Cash received			
Goods and Services		**12,054**	15,859
Appropriations		**42,966**	41,962
Interest		**889**	605
Net GST received		**1,961**	1,371
Other		**2,105**	1,040
Total cash received		**59,975**	60,837
Cash used			
Employees		**22,515**	21,345
Suppliers		**31,863**	25,056
Other		**157**	164
Total cash used		**54,535**	46,565
Net Cash from operating activities	9	**5,440**	14,272
INVESTING ACTIVITIES			
Cash received			
Proceeds from sales of property, plant and equipment		**500**	545
Total cash received		**500**	545
Cash used			
Purchase of property, plant and equipment		**7,881**	11,029
Total cash used		**7,881**	11,029
Net Cash used by investing activities		**(7,381)**	(10,484)
FINANCING ACTIVITIES			
Cash received			
Appropriations – contributed equity		**-**	6,066
Total cash received		**-**	6,066
Cash used			
Repayment of debt		**-**	-
Other		**-**	-
Total cash used		**-**	-
Net Cash From Financing Activities		**-**	6,066
Net increase / (decrease) in cash held		**(1,941)**	9,854
Cash at beginning of the reporting period		**19,759**	9,905
Cash at the End of the Reporting Period	5A	**17,818**	19,759

The above statement should be read in conjunction with the accompanying notes.

Director of National Parks
Schedule of Commitments
as at 30 June 2007

	2007 $'000	2006 $'000
BY TYPE		
Capital Commitments		
Buildings; Infrastructure, plant and equipment[1]	**1,902**	1,712
Total capital commitments	**1,902**	1,712
Other Commitments		
Operating leases[2]	**64,860**	65,663
Other commitments[3]	**1,455**	2,938
Total other commitments	**66,315**	68,601
Commitments Receivable	**(6,179)**	(6,392)
Net commitments by type	**62,038**	63,921
BY MATURITY		
Capital Commitments		
One year or less	**1,902**	1,712
Total capital commitments	**1,902**	1,712
Operating Lease Commitments		
One year or less	**969**	923
From one to five years	**3,436**	3,456
Over five years	**60,455**	61,284
Total operating lease commitments	**64,860**	65,663
Other Commitments		
One year or less	**886**	1,541
From one to five years	**569**	1,397
Over five years	**-**	-
Total Other Commitments	**1,455**	2,938
Commitments Receivable	**(6,179)**	(6,392)
Net Commitments by Maturity	**62,038**	63,921

NB: Commitments are GST inclusive where relevant

[1] Outstanding contractual payments for buildings and infrastructure under construction
[2] Operating leases included are effectively non-cancellable
[3] Other commitments comprise general consultancy services and utilities

Nature of Lease / General Description

Leases for office accommodation – Lease payments are subject to annual increase in accordance with upwards 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.

Leases for office equipment - No contingent rentals exist. There is an option to renew for 90 days.

Leases for rent of National Parks from Traditional Owners – The Director of National Parks leases Kakadu National Park, Uluṟu-Kata Tjuṯa 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.

The above schedule should be read in conjunction with the accompanying notes.

Director of National Parks
Schedule of Contingencies
as at 30 June 2007

Contingent Liabilities	Guarantees		Claims for damages or costs		Total	
	2007	2006	**2007**	2006	**2007**	2006
	$'000	$'000	**$'000**	$'000	**$'000**	$'000
Balance from previous period	**-**	-	**33**	-	**33**	-
New	**-**	-	**-**	33	**-**	33
Re-measurement	**-**	-	**-**	-	**-**	-
Liabilities crystallised	**-**	-	**33**	-	**33**	-
Obligations expired	**-**	-	**-**	-	**-**	-
Total Contingent Liabilities	**-**	-	**-**	33	**-**	33

No contingent assets exist for the Director of National Parks for the current or previous financial years.

Details of each class of contingent liabilities and contingent assets, including those not included above because they cannot be quantified, or are considered remote, are disclosed in Note 10: Contingent Liabilities and Contingent Assets.

The above schedule should be read in conjunction with the accompanying notes.

Director of National Parks
Notes to and forming part of the financial statements
For the year ended 30 June 2007

Director of National Parks
Notes to and forming part of the financial statements

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) for reporting periods ending on or after 1 July 2006; and
- Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board that apply for the reporting period.

The financial report has been prepared on an accrual basis and is in accordance with historical cost convention, except for certain assets 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 otherwise specified.

Unless an alternative treatment is specifically required by an Accounting Standard or the FMOs, 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 unrealised are reported in the Schedule of Commitments and the Schedule of Contingencies (other than unquantifiable or remote contingencies, which are reported at Note 10).

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, 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.

1.3 Statement of Compliance

Australian Accounting Standards require a statement of compliance with International Financial Reporting Standards (IFRSs) to be made where the financial report complies with these standards. Some Australian equivalents to IFRSs and other Australian Accounting Standards contain requirements specific to not-for-profit entities that are inconsistent with IFRS requirements. The Director of National Parks is a not-for-profit entity and has applied these requirements, so while this financial report complies with Australian Accounting Standards including Australian Equivalents to International Financial Reporting Standards (AEIFRSs) it cannot make this statement.

No accounting standard has been adopted earlier than the effective date in the current period.

Director of National Parks
Notes to and forming part of the financial statements

The following amendments or interpretations have become effective but have had no financial impact or do not apply to the operations of the Agency:

Amendments:

- 2004-3 Amendments to Australian Accounting Standards [AASB's 1, 101, 124]
- 2005-1 Amendments to Australian Accounting Standards [AASB 139]
- 2005-3 Amendments to Australian Accounting Standards [AASB 119]
- 2005-4 Amendments to Australian Accounting Standards [AASB's 1, 132, 139, 1023, 1038]
- 2005-5 Amendments to Australian Accounting Standards [AASB's 1, 139]
- 2005-6 Amendments to Australian Accounting Standards [AASB 3]
- 2005-9 Amendments to Australian Accounting Standards [AASB's 4, 132, 139, 1023]
- 2006-1 Amendments to Australian Accounting Standards [AASB 121]
- 2006-3 Amendments to Australian Accounting Standards [AASB 1045]
- 2006-4 Amendments to Australian Accounting Standards [AASB 134]
- 2007-2 Amendments to Australian Accounting Standards [AASB's 1, 117, 118, 120, 121, 127, 131, 139]
- New amendments to Australian Accounting Standards [AASB 1048]

Interpretations:

- UIG 4 Determining whether an Arrangement contains a Lease
- UIG 5 Rights to Interests arising from Decommissioning, Restoration and Environmental Rehabilitation Funds
- UIG 6 Liabilities arising from Participating in a Specific Market – Waste Electrical and Electronic Equipment
- UIG 7 Applying the Restatement Approach under AASB 129 Financial Reporting in Hyperinflationary Economies
- UIG 8 Scope of AASB 2 Share based payments
- UIG 9 Reassessment of Embedded Derivatives
- UIG 10 Interim Financial Reporting and Impairment

UIG 4 and UIG 9 might have impacts in future periods, subject to existing contracts being renegotiated.

Future Australian Accounting Standard requirements:

The following amendments to standards or interpretations have been issued by the Australian Accounting Standards Board but are effective for future reporting periods. It is estimated that the impact of adopting these pronouncements when effective will have no material financial impact on future reporting periods.

Amendments:

- 2005-10 Amendments to Australian Accounting Standards [AASB's 1, 4, 101, 114, 117, 132, 133, 139, 1023, 1038]
- 2007-1 Amendments to Australian Accounting Standards [AASB 2]
- 2007-2 Amendments to Australian Accounting Standards [AASB 1]
- 2007-3 Amendments to Australian Accounting Standards [AASB's 5, 6, 102, 107, 119, 127, 134, 136, 1023, 1038]
- 2007-4 Amendments to Australian Accounting Standards [AASB's 1-7, 102, 107, 108, 110, 112, 114, 116-121, 127-134, 136-139, 141, 1023, 1038]
- New amendments to Australian Accounting Standards [AASB 7, 8, 1049]

Interpretations:

- UIG 4 Determining whether an Arrangement contains a Lease
- UIG 11 AASB 2 – Group and Treasury Share Transactions
- UIG 12 Service Concession Arrangements
- UIG 129 Service Concession Arrangements: Disclosures

Director of National Parks
Notes to and forming part of the financial statements

AASB 7 Financial Instruments: Disclosures is effective for reporting periods beginning on or after 1 January 2007 and amends the disclosure requirements for financial instruments. These changes have no financial impact but will effect the disclosure presented in future financial reports.

1.4 Revenue

Resources Received Free of Charge

Resources 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.

The Department of the Environment and Water Resources provides corporate services under a Service Delivery Agreement to the Director of National Parks.

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.

The Director of National Parks received no direct appropriation from the Government. Funds are appropriated directly to the Department of the Environment and Water Resources and transferred to the Director of National Parks.

Other Types of 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 Director of National Parks.

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 Financial Instruments: Recognition and Measurement.

Director of National Parks
Notes to and forming part of the financial statements

1.5 Gains

Sale of Assets – gains from disposal of non-current assets is recognised when control of the asset has passed to the buyer.

1.6 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.

1.7 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 Water Resources, the Director of National Parks has a number of employees of the Department of the Environment and Water Resources 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.

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 Agency's 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 long service leave has been determined using the short-hand method per Finance Minister's Orders 2006-07.

Separation and Redundancy

Provision is made for separation and redundancy benefit payments. The Director of National Parks recognises a provision for termination when it 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
Notes to and forming part of the financial statements

The 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 of National Parks' employees.

The liability for superannuation recognised as at 30 June represents outstanding contributions for the final fortnight of the year.

1.8 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, Uluṟu-Kata Tjuṯa and Booderee National Parks.

1.9 Borrowing Costs

All borrowing costs are expensed as incurred.

1.10 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.

1.11 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.

1.12 Investments

After initial recognition, financial assets are to be measured at their fair values except for loans and receivables which are measured at amortised cost using the effective interest method.

1.13 Derecognition of Financial Assets and Liabilities

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.

Director of National Parks
Notes to and forming part of the financial statements

1.14 Impairment of Financial Assets

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.

1.15 Interest Bearing Loans and Borrowings

Government loans are carried at the balance yet to be repaid. Interest is expensed as it accrues.

1.16 Supplier and other payables

Supplier and other payables 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).

1.17 Contingent Liabilities and Contingent Assets

Contingent Liabilities and Contingent Assets are not recognised in the Balance Sheet but are reported 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. Contingent assets are reported when settlement is probable, and contingent liabilities are recognised when settlement is greater than remote.

1.18 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.

1.19 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.

Director of National Parks
Notes to and forming part of the financial statements

Revaluations

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, property, plant and equipment are carried at fair value less accumulated depreciation and accumulated impairment losses. 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 surplus and deficit. Revaluation decrements for a class of assets are recognised directly through surplus and deficit 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.

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:

	2007	2006
Buildings	**5 to 85 years**	5 to 85 years
Infrastructure	**7 to 73 years**	7 to 73 years
Plant and equipment	**2 to 50 years**	2 to 50 years
Computer software	**4 to 5 years**	4 to 5 years

Director of National Parks
Notes to and forming part of the financial statements

Impairment

All assets were assessed for impairment at 30 June 2007. 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.

1.20 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 are 4 to 5 years (2005-06: 4-5 years).

All software assets were assessed for indications of impairment as at 30 June 2007.

1.21 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, assets and liabilities 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: 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.

Director of National Parks
Notes to and forming part of the financial statements

	2007	2006
	$'000	$'000

Note 3: Income

Revenue

Note 3A – Revenue from Government

Appropriation for outputs*	**42,966**	41,962
Total revenues from government	**42,966**	41,962

* The Director of National Parks received no direct appropriation from the Government. Funds are appropriated directly to the Department of the Environment and Water Resources and transferred to the Director of National Parks.

Note 3B – Sale of goods and rendering of services

Provision of goods – external entities	**47**	52
Total sales of goods	**47**	52
Rendering of services – related entities	**3,176**	2,751
Rendering of services – external entities	**9,768**	9,747
Total rendering of services	**12,944**	12,498
Total sale of goods and rendering of services	**12,991**	12,550

Gains

Note 3C – Net Gain from Sales of Assets

Land and Buildings		
Proceeds from Sale	**-**	283
Carrying value of assets sold	**(3)**	(414)
Infrastructure, plant & equipment		
Proceeds from Sale	**500**	245
Carrying value of assets sold	**(360)**	(139)
Net gain / (loss) from disposal of infrastructure, plant & equipment	**137**	(25)

Note 3D – Other Gains

Resources received free of charge	**3,900**	2,800
Total other gains	**3,900**	2,800

Director of National Parks
Notes to and forming part of the financial statements

	2007	2,006
	$'000	$'000
Note 4: Expenses		
Note 4A – Employee Benefits		
Wages & Salaries	**14,527**	14,709
Superannuation	**2,931**	2,259
Leave & other entitlements	**2,126**	1,723
Separation and redundancies	**6**	26
Employee Allowances	**3,164**	2,319
Other employee expenses	**256**	142
Total employee expenses	**23,010**	21,178
Note 4B – Suppliers		
Provision of goods - related entities	**2**	-
Provision of goods - external entities	**3,305**	3,400
Rendering of services - related entities	**6,940**	5,365
Rendering of services - external entities	**14,299**	13,490
Operating lease rentals	**4,321**	4,313
Total supplier expenses	**28,867**	26,568
Note 4C – Depreciation and Amortisation		
Depreciation		
Buildings	**2,592**	2,514
infrastructure, plant and equipment	**4,581**	5,067
Total depreciation	**7,173**	7,581
Amortisation		
Intangibles - Computer Software	**1**	1
Total amortisation	**1**	1
Total depreciation and amortisation	**7,174**	7,582
Note 4D – Write-down and impairment of assets		
Financial assets		
Bad and doubtful debts expense	**(49)**	108
Non-financial assets		
Buildings	**61**	1,036
Infrastructure, plant & equipment	**81**	201
Total write-down and impairment of assets	**93**	1,345

Director of National Parks
Notes to and forming part of the financial statements

	2007	2006
	$'000	$'000
Note 5: Financial Assets		
Note 5A – Cash and Cash Equivalents		
Cash on deposit	**17,745**	19,732
Cash on hand	**73**	27
Total cash and cash equivalents	**17,818**	19,759
Note 5B – Receivables		
Goods and services	**384**	280
Less: Provision for doubtful debts	**(60)**	(111)
	324	169
Net GST receivable from ATO	**319**	839
Other receivables	**571**	576
Total receivables (net)	**1,214**	1,584
All receivable are current assets.		
Receivables (gross) are aged as follows:		
Not overdue	**1,153**	1,510
Overdue by:		
Less than 30 days	**5**	120
31 to 60 days	**6**	3
61 to 90 days	**3**	-
More than 90 days	**107**	62
	121	185
Total receivables (gross)	**1,274**	1,695
The provision for doubtful debts is aged as follows:		
Not overdue	**-**	95
Overdue by:		
More than 90 days	**60**	16
Total provision for doubtful debts	**60**	111
Note 5C – Other		
Accrued Revenue	**84**	91
Total other receivables	**84**	91

Director of National Parks
Notes to and forming part of the financial statements

	2007	2006
	$'000	$'000
Note 6: Non-Financial Assets		
Note 6A – Land and Buildings		
Land at fair value	**6,581**	6,581
Buildings on land		
- work in progress	**584**	706
- fair value	**62,974**	61,919
- accumulated depreciation	**(4,938)**	(2,495)
Total buildings on land	**65,201**	66,711
Leasehold Improvements		
- work in progress	**80**	92
Total leasehold improvements	**80**	92
Total land and buildings (non-current)	**65,281**	66,803

No indicators of impairment were found for land and buildings.

Note 6B – Infrastructure, Plant & Equipment		
Plant and equipment		
- work in progress	**7,011**	5,149
- fair value	**75,843**	71,754
- accumulated depreciation	**(9,024)**	(4,805)
Total infrastructure, plant and equipment	**73,830**	72,098

Revaluations were in accordance with the policy stated at Note 1 and were completed by independent valuer Herron Todd White in June 2005.

No indicators of impairment were found for infrastructure, plant and equipment.

The Director of National Parks has various Heritage and Cultural Items which have not been recorded as assets in the financial statements, due to the difficulties associated with the reliable measurement of these items. These items include gardens, historic buildings, ruins and cultural artworks. There was no significant acquisition or disposal activity in relation to these items in the reporting period.

Director of National Parks
Notes to and forming part of the financial statements

Note 6C – Analysis of property, plant and equipment

Table A – Reconciliation of the opening and closing balances of property, plant and equipment (2006-07)

	Land	Buildings	Total Land & Buildings	IP&E	Total
	$'000	$'000	$'000	$'000	$'000
As at 1 July 2006					
Gross book value	**6,581**	**62,717**	**69,298**	**76,903**	**146,201**
Accumulated depreciation / amortisation and impairment	**-**	**(2,495)**	**(2,495)**	**(4,805)**	**(7,300)**
Net book value 1 July 2006	**6,581**	**60,222**	**66,803**	**72,098**	**138,901**
Additions					
By purchase	**-**	**809**	**809**	**7,072**	**7,881**
By recognition	**-**	**-**	**-**	**7**	**7**
Depreciation / Amortisation Expense	**-**	**(2,592)**	**(2,592)**	**(4,581)**	**(7,173)**
Disposals – by sale	**-**	**(3)**	**(3)**	**(360)**	**(363)**
Write Offs	**-**	**(61)**	**(61)**	**(81)**	**(142)**
Transfers	**-**	**325**	**325**	**(325)**	**-**
Net book value 30 June 2007	**6,581**	**58,700**	**65,281**	**73,830**	**139,111**
Net book value as of 30 June 2007 represented by:					
Gross book value	**6,581**	**63,638**	**70,219**	**82,854**	**153,073**
Accumulated depreciation / amortisation and impairment	**-**	**(4,938)**	**(4,938)**	**(9,024)**	**(13,962)**
	6,581	**58,700**	**65,281**	**73,830**	**139,111**

Director of National Parks
Notes to and forming part of the financial statements

Table A – Reconciliation of the opening and closing balances of property, plant and equipment (2005-06)

	Land	Buildings	Total Land & Buildings	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 and impairment	-	-	-	-	-
Net book value 1 July 2005	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)	-
Net book value 30 June 2006	6,581	60,222	66,803	72,098	138,901
Net book value as of 30 June 2006 represented by:					
Gross book value	6,581	62,717	69,298	76,903	146,201
Accumulated depreciation / amortisation and impairment	-	(2,495)	(2,495)	(4,805)	(7,300)
	6,581	60,222	66,803	72,098	138,901

Director of National Parks
Notes to and forming part of the financial statements

Table B – Reconciliation of the opening and closing balances of intangibles (2006-07)

	Computer Software Purchased $'000
As at 1 July 2006	
Gross book value	**8**
Accumulated depreciation / amortisation and impairment	**(5)**
Net book value 1 July 2006	**3**
Additions	
By purchase	**-**
By recognition	**-**
Reclassification	
Amortisation Expense	**(1)**
Disposals – by sale	**-**
Write Offs	**-**
Transfers	**-**
Net book value 30 June 2007	**2**
Net book value as of 30 June 2007 represented by:	
Gross book value	**8**
Accumulated depreciation / amortisation and impairment	**(6)**
	2

Table B – Reconciliation of the opening and closing balances of intangibles (2005-06)

	Computer Software Purchased $'000
As at 1 July 2005	
Gross book value	13
Accumulated depreciation / amortisation and impairment	(9)
Net book value 1 July 2005	4
Additions	
By purchase	-
By recognition	-
Reclassification	
Amortisation Expense	(1)
Disposals – by sale	-
Write Offs	-
Transfers	-
Net book value 30 June 2006	3
Net book value as of 30 June 2007 represented by:	
Gross book value	8
Accumulated depreciation / amortisation and impairment	(6)
	2

Director of National Parks
Notes to and forming part of the financial statements

	2007 $'000	2006 $'000
Note 6D – Intangibles		
Computer software		
Internally developed – in use	**8**	8
Accumulated amortisation	**(6)**	(5)
Total intangibles (non-current)	**2**	3

No indicators of impairment were found for intangible assets.

Note 6E – Other Non-Financial Assets		
Prepayments	**390**	369
Total other non-financial assets	**390**	369

All other non-financial assets are current assets. No indicators of impairment were found for other non-financial assets.

Note 7: Payables

Note 7A – Suppliers		
Trade creditors	**1,526**	5,692
Operating lease payments	**849**	832
Total supplier payables	**2,375**	6,524

Trade creditors
Settlement is usually made net 30 days

Note 8B – Other Payables		
Unearned Revenue	**2,024**	4,115
Total other payables	**2,024**	4,115

All other payables are current

Note 8: Provisions

Note 8A – Employee Provisions		
Salaries and wages	**121**	96
Leave	**5,431**	4,986
Superannuation	**21**	23
Other	**17**	25
Total employee provisions	**5,590**	5,130

Employee provisions are categorised as follows:

Current	**5,013**	4,675
Non-current	**577**	455
Total employee provisions	**5,590**	5,130

The classification of current includes amounts for which there is not an unconditional right to defer settlement by one year, hence in the case of employee provisions the above classification does not represent the amount expected to be settled within one year of reporting date. Employee provisions expected to be settled in one year $1,841,000 (2006: $1,826,000), in excess of one year $3,749,000 (2006: $3,304,000).

Director of National Parks
Notes to and forming part of the financial statements

	2007 $'000	2006 $'000
Note 9: Cash Flow Reconciliation		
Reconciliation of cash per Income Statement to Statement of Cash Flows		
Cash at year end per Statement of Cash flows	**17,818**	19,759
Balance Sheet items comprising above cash:		
'Financial assets – Cash'	**17,818**	19,759
Reconciliation of operating result to net cash from operating activities:		
Operating result	**3,701**	2,174
Non-cash items		
Depreciation/amortisation	**7,174**	7,582
Take up of Assets for first time	**(7)**	(50)
Write down of non-financial assets	**142**	1,237
Gain on disposal of non-current assets	**(137)**	25
Changes in Assets and Liabilities		
(Increase)/decrease in receivables	**(150)**	(502)
(Increase)/decrease in GST receivables	**520**	(550)
(Increase)/decrease in prepayments	**(21)**	(31)
(Increase)/decrease in accrued revenue	**7**	(46)
Increase/(decrease) in unearned revenue	**(2,091)**	3,476
Increase/(decrease) in employee provisions	**460**	(175)
Increase/(decrease) in supplier liabilities	**(4,149)**	1,121
Increase/(decrease) in other provisions	**(9)**	11
Net cash from operating activities	**5,440**	14,272

Note 10: Contingent Liabilities and Contingent Assets

Quantifiable Contingencies

The Schedule of Contingencies in the financial statements reported a contingent liability as at 30 June 2006 in respect of claims for back-payment of overtime to staff whilst on Restriction Allowances. Early in the 2006/07 financial year the Department of the Environment and Water Resources verified these claims and made payments during August 2006.

Unquantifiable Contingencies

At 30 June 2007, 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 11: Directors Remuneration

The number of directors of the Director of National Parks included in these figures are shown below in the relevant remuneration bands:

	2007	2006
$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:	**266,671**	244,408

Director of National Parks
Notes to and forming part of the financial statements

Note 12: Related Party Disclosures

Director of National Parks

The Director of National Parks during the year was Mr Peter Cochrane. The aggregate remuneration of the Director is disclosed in Note 11.

Loans to Director and Director related entities

There were no loans made to either the Director or entities related to the Director during 2006-07 (2005-06: 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 2006-07 (2005-06: Nil).

Note 13: Executive Remuneration

The number of senior executives who received or were due to receive total remuneration of $130,000 or more:

	2007	2006
$190,000 - $204,999	**1**	2
$205,000 - $219,999	**-**	-
$220,000 - $234,999	**2**	1
	3	3
The aggregate amount of total remuneration of senior executives shown above	**646,475**	635,259

The senior executive remuneration includes all senior executives concerned with or taking part in the management of the National Parks during 2006-07 except the Director of National Parks. Details in relation to the Director of National Parks have been incorporated into Note 11 Directors Remuneration.

Note 14: Remuneration of Auditors

Financial Statement audit services are provided to Director of National Parks by the Auditor-General.

The fair value of the services provided was:	**68,000**	74,000

No other services were provided by the Auditor-General.

Note 15: Average Staffing Levels

The average staffing levels for the Director of National Parks during the year were:	**271**	275

Note 16: Financial Instruments

Note 16A – Interest Rate Risk

Financial instrument	Notes	Floating Interest Rate		Fixed Interest Rate Maturing in						Non-Interest Bearing		Total		Weighted Average Effective Interest Rate	
				1 Year or less		1 to 5 Years		> 5 Years							
		2007 $'000	2006 $'000	**2007 $'000**	2006 $'000	**2007 $'000**	2006 $'000	**2007 $'000**	2006 $'000	**2007 $'000**	2006 $'000	**2007 $'000**	2006 $'000	**2007 %**	2006 %
Financial Assets															
Cash at bank	5A	**17,745**	19,732	**-**	-	**-**	-	**-**	-	**-**	-	**17,745**	19,732	**6.00**	4.80
Cash on hand	5A	**-**	-	**-**	-	**-**	-	**-**	-	**73**	27	**73**	27	**n/a**	n/a
Receivables for goods and services	5B	**-**	-	**-**	-	**-**	-	**-**	-	**384**	280	**384**	280	**n/a**	n/a
Other receivables	5B	**-**	-	**-**	-	**-**	-	**-**	-	**571**	576	**571**	576	**n/a**	n/a
Total		**17,745**	19,732	**-**	-	**-**	-	**-**	-	**1,028**	883	**18,773**	20,615		
Total Assets												**158,619**	160,707		

Financial instrument	Notes	Floating Interest Rate		Fixed Interest Rate Maturing in						Non-Interest Bearing		Total		Weighted Average Effective Interest Rate	
				1 Year or less		1 to 5 Years		> 5 Years							
		2007 $'000	2006 $'000	**2007 $'000**	2006 $'000	**2007 $'000**	2006 $'000	**2007 $'000**	2006 $'000	**2007 $'000**	2006 $'000	**2007 $'000**	2006 $'000	**2007 %**	2006 %
Financial Liabilities															
Trade creditors and operating lease payments	7A	**-**	-	**-**	-	**-**	-	**-**	-	**2,375**	6,524	**2,375**	6,524	**n/a**	n/a
Other payables	7B	**-**	-	**-**	-	**-**	-	**-**	-	**2,024**	4,115	**2,024**	4,115	**n/a**	n/a
Total		**-**	-	**-**	-	**-**	-	**-**	-	**4,399**	10,639	**4,399**	10,639		
Total Liabilities												**10,050**	15,839		

Director of National Parks
Notes to and forming part of the financial statements

Note 17B – Fair Values of Financial Assets and Liabilities

		2007		2006	
		Total Carrying Amount	**Aggregate Fair Value**	Total Carrying Amount	Aggregate Fair Value
	Notes	**$'000**	**$'000**	$'000	$'000
Departmental Financial Assets					
Cash at Bank	5A	**17,818**	**17,818**	19,759	19,759
Receivables for goods and services (net)	5B	**324**	**324**	169	169
Total Financial Assets		**18,142**	**18,142**	19,928	19,928
Financial Liabilities (Recognised)					
Trade creditors	7A	**2,375**	**2,375**	6,524	6,524
Total Financial Liabilities (Recognised)		**2,375**	**2,375**	6,524	6,524

Note 16C – 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 no take into account the value of any collateral or other security.

Note 17: 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 Water Resources and transferred to the Director of 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 18: Reporting of Outcomes

Note 18A – Outcomes of the Director of National Parks

The Director of National Parks is structured to contribute to the following outcome and output:

Outcome 1

The Director of National Parks has only 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 18B – Net Cost of Outcome Delivery

	Outcome 1		Total	
	2007 $'000	2006 $'000	**2007 $'000**	2006 $'000
Expenses				
Departmental Expenses	**59,292**	56,849	**59,292**	56,849
Total expenses	**59,292**	56,849	**59,292**	56,849
Costs recovered from provision of goods and services to the non-government sector				
Departmental	**9,815**	9,799	**9,815**	9,799
Total costs recovered	**9,815**	9,799	**9,815**	9,799
Other external revenues				
Departmental				
Sales of goods and services – to related entities	**3,176**	2,751	**3,176**	2,751
Interest	**910**	622	**910**	622
Net gains from disposal of assets	**137**	(25)	**137**	(25)
Other gains	**3,900**	2,800	**3,900**	2,800
Other revenue	**2,089**	1,114	**2,089**	1,114
Total Departmental	**10,212**	7,262	**10,212**	7,262
Total Other external revenues	**10,212**	7,262	**10,212**	7,262
Net cost / (contribution) of outcome	**39,265**	39,788	**39,265**	39,788

The net costs shown include intra-government costs that would be eliminated in calculating the actual Budget outcome.

Director of National Parks
Notes to and forming part of the financial statements

Note 18C – Departmental Revenue and Expenses by Output Groups and Outputs

	Outcome 1		Total	
	2007 $'000	2006 $'000	**2007 $'000**	2006 $'000
Departmental expenses				
Employees	**23,010**	21,178	**23,010**	21,178
Suppliers	**28,867**	26,568	**28,867**	26,568
Depreciation and Amortisation	**7,174**	7,582	**7,174**	7,582
Write-down of assets	**93**	1,345	**93**	1,345
Other Expenses	**148**	176	**148**	176
Total departmental expenses	**59,292**	56,849	**59,292**	56,849
Funded by:				
Revenues from Government agencies	**42,966**	41,962	**42,966**	41,962
Sale of goods and services	**12,991**	12,550	**12,991**	12,550
Interest	**910**	622	**910**	622
Net Gain from Disposal of Asset	**137**	(25)	**137**	(25)
Other non-taxation revenues	**2,089**	1,114	**2,089**	1,114
Other gains	**3,900**	2,800	**3,900**	2,800
Total departmental revenues	**62,993**	59,023	**62,993**	59,023

The Director National Parks' outcomes and outputs are described at Note 18A.

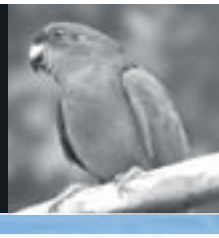
The net costs shown include intra-government costs that would be eliminated in calculating the actual Budget outcome.

Note 19: Compensation and Debt Relief

No payments of the following kind were made by the Director of National Parks during 2006-07 (2005-06: Nil): (1) waivers of amounts owing to the Australian Government; (2) compensation for detriment caused by defective administration; or (3) special circumstances payments relating to APS employment.

Visitors can obtain superb views over the Nardab floodplain from the Ubirr lookout in the north of Kakadu

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 3 and Chapter 4 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, Uluṟu–Kata Tjuṯa and Booderee National Parks), the EPBC Act provides for both consultation with, and involvement of, representatives of the Aboriginal landowners in relation to management of the reserve. The consultative processes are outlined in Chapter 7 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 Water Resources Community Information Unit on 1800 803 772, or visiting the website at www.environment.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 Water Resources
GPO Box 787
Canberra ACT 2601

Phone: (02) 6274 2721
Fax: (02) 6274 1587
Email: FOI_Contact_Officer@environment.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.

Appendix B: Acronyms and shortened forms

ACTEW	Australian Capital Territory Energy and Water Corporation
AEEZ	Australia's Exclusive Economic Zone
ANAO	Australian National Audit Office
ANBG	Australian National Botanic Gardens
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
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
FOI Act	*Freedom of Information Act 1982*
GIS	Geographic information system
GPS	Global positioning system
IBRA	Interim Biogeographic Regionalisation for Australia
IMCRA	Intergrated 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
Migratory Species (Bonn) Convention	Convention on the Conservation of Migratory Species of Wild Animals (Bonn, 1979)
UNESCO	United Nations Educational, Scientific and Cultural Organization
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

Anangu	Western Desert Aboriginal person or people (generally those Aboriginal people with traditional affiliations to the Uluru–Kata Tjuta National Park
Benthic	Marine organisms that live on, in or near the ocean floor
Bininj	Traditional owners of Aboriginal land and traditional owners of other land in Kakadu National Park, and other Aboriginals entitled to enter upon or use or occupy the park in accordance with Aboriginal tradition governing the rights of that Aboriginal or group of Aboriginals with respect to the park
Cetaceans	Whales, porpoises and dolphins
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
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

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	1
Commonwealth Disability Strategy	206
Corporate governance	196
Director's details	23, 30
Effects of Ministerial directions	196
Enabling legislation and responsible Minister	30
Financial statements	207
Indemnities and insurance premiums for officers	200
Judicial decisions and reviews by outside bodies	201
Outline of organisational structure	22
Report on performance	33
Review by Director	5
Review of operations and future prospects	6–206
Other statutory requirements	
Ecologically sustainable development and environmental performance	206
Freedom of information	206, 242
Occupational health and safety	203

Index

A

B

C

D

E

F

G

H

I

J

K

L

M

P

Q

R

S

V

W

Y

As part of our monitoring efforts, Parks Australia staff collect regular information on the health of coral reefs around the Cocos (Keeling) Islands

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www.environment.gov.au/parks/publications/annual/06-07/index.html

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